University Corporation for Atmospheric Research

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Oral History Project

Interview of: Henry Van De Boogaard
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Interviewers: Chester Newton and Herbert Riehl

Newton: This is an interview with Henry Van De Boogaard. The date is July 26, 1990. We are interviewing at Henry and Maureen's home in Broomfield, Colorado. I am Chester Newton and Herbert Riehl is joining us in the interview.

I know that you were born at The Hague in the Netherlands in 1923 but I don't know anything else about your family. Who were your parents? What did they do?

Boogaard: I had a father and a mother and my father was a bricklayer working in The Hague. I had two brothers who also followed the same trade and I had one sister two years younger than I was. We all lived in The Hague from the year that I was born, at least, in 1923 and in 1938 gradually all the members of the family left for South Africa. Myself, my sister and my mother were the last ones to leave on the 17th of May 1938 from Rotterdam to Cape Town. As you may well remember two years later Rotterdam was flattened by the German _____. So, I basically grew up in South Africa. My father sent me to English religious school, the Christian Brother's of Ireland, where I learned my English. I am articulated and at the University of _____ for the bachelor's degree. I got a bachelor's degree and then a few years later, it was just after the war, joined the South African Weather Service. They were just changing over from military to civilian. A year after that I went out…there was a panic at that time politically with the taking of _____ Islands. You may remember that this happened with Chile and Argentina and the British Islands that were taken over by Chile and Argentina. The international world court decided that if you want to lay claim to land like that you must actively administer it. Britain had two islands known as the Prince Edward Islands consisting of two islands, Marian Island and Prince Edward. Marian was the biggest.

Newton: It was a long distance from anywhere I believe.

Boogaard: The distance from Cape Town was 1500 miles. What the British government did; they passed it on to his majesty's South African government and now they had to do something with it. It was decided then to take over these islands and give them to the ministry of transport in South Africa who was going to establish them a meteorological station. This was done under the secrecy because at that time the Russian waiting fleet was already going around there and so they didn't want to know what was going on. So, the South African navy went off one Christmas and occupied the islands.

The first contingent that occupied that island was lead by somebody from _____. But during the six months a terrible storm took the island and what they had done was they had just dumped all the goods and everything and whatnot on the rocky beach since they had no time, they wanted to get away and of course the result was that most of the supplies were destroyed. So, they hastily set another contingent and I was asked to volunteer to go. So, I went to the Marian Island, the second in command and spent a total of eight months on a tour of duty.

Newton: Now was this in connection with your military duty or civilian?

Boogaard: No. No military duty, entirely civilian. I had been 12 days in military duty for the Dutch then the Queen let me go because my brother's ship got torpedoed. I was the third son to go and what happened then was the South African government and Dutch government got together and they naturalized my father as South African and since I was under 18 I automatically became a South African. I didn't need to serve because at that time any Dutchman that lived in South Africa had to go to England.

As I say, I served my eight months on that island, second in command, to set up the weather station. I had contact with Australia to the east. I probably even played chess with them. So, I came back and started my rounds of forecasting duties and I got engaged, that was one. But then I was doing relief duty out in those stations and low and behold within three months I was asked to go back to Marian Island for special duty, specially asked by the Secretary for _____. As you know I wasn't very keen and the first message that came through was asking for volunteers to go the island and I ignored it. The second message came asking for volunteers for the island, but please remember no pressure whatsoever is exercised upon you. Now I knew what was going on, they wanted me.

So, I took a military flight to _____ and sure enough they wanted me and I said, "Ok, I want more money", which I got. So I went back again to

Marian Island to do the special task and then I came back and got married about a month later to Maureen. About nine months later I was on consignment to _____. The British were in a problem because the airlines wanted to open up a 24-hour airline service and _____ didn't have to forecast us. They mostly had from the REF. So, I went with another one to _____ and helped them establish a 24-hour forecasting service. We mainly had to serve Nairobi to Cairo. It was an interesting assignment where you had 6,000,000 miles of land and only one radio sound station on _____ itself. It also had _____ but it was a very intriguing time at that time because they were trying out the new aircraft; what do you call them, these jet type things.

Newton: The places and contacts, that was in 1951 I believe.

Boogaard: Yes.

Boogaard (Maureen): That's correct. We spent our fifth wedding anniversary on the banks of the Nile.

Newton: How romantic.

Boogaard: That's right. To add to it, she even became pregnant on the banks of the Nile.

Newton: You were saying about the British trying out new aircraft.

Boogaard: Yes. They were now running a new aircraft they wanted to use on the route from London to Nairobi.

Newton: That was the Comet?

Boogaard: The Comet, yes. It became almost as a new type of forecasting because now we were sitting at 40,000 feet _____ and things like that. So, it was quite an interesting time that we had was these Comet's. I stayed nine months in _____, came back, to set ____ this was now 1952 I would say, and I had a quiet time until 1957 when I had the opportunity to go to Stockholm. That became a new era for me.

Newton: How did you happen to go to Stockholm? How did the opportunity arise?

Boogaard: The first thing was that Elwin Berger was there you see.

Newton: A theoretician.

Boogaard: Yes, a very difficult man to replace. But Elwin and then my director had asked Dr. Rosby to take somebody else. So, I offered myself and that's how I went to Stockholm. However I never met Dr. Rosby. Of course he died a few weeks before I left. The question still was whether the school would still go on in Stockholm. Burt assured us that everything would be normal and would carry on.

Newton: That's Burt Boline you're referring to.

Boogaard: Burt Boline, yes, sorry. Burt Boline assured us that everything would carry on to normal and so I went. But instead of staying…I was supposed to stay one year but the one-year became five years. In the end I did not want to go back to South Africa or at least I did not want to take my children permanently back to South Africa. So, it was Burt that got the opportunity to go on there and then find something else from there. Now it was during that time in Stockholm that I, of course, got to know NCAR because I think in about '59 Phil Thompson was assigned to Stockholm.

Newton: May I interrupt you and take that up later on? Could you tell us something about your work in Stockholm?

Boogaard: Yes.

Newton: And the people that you worked with?

Boogaard: Yes. My work was mainly concerned with tropical research to try and get to understand the circulation of the tropics. At that time that was very difficult because communications were not so good and observations in the tropics were almost zero. But we went along and tried to see if we could make a package. The first result…the thing was that time also we had the international observational year or so.

Newton: International geophysical year.

Boogaard: Geophysical year. I was then asked to join _____ in plotting and analyzing ten days of charts from the Northern Hemisphere and then the tropics. That also proved to be a very heavy task even for Fritz. But then suddenly Fritz left and by the way in think he got a job. He got a professorship in Kiel. That's how that thing slowed down.

Newton: The nature of the work you did then, I believe, was to produce a very detailed picture for those ten days that you spoke of.

Boogaard: Absolutely correct, yes. One that would run into the other.

Newton: Of the tropical circulation.

Boogaard: Yes, right around the tropics. So, that was the objective but then somebody died in Washington who was really supporting me. When he died my support stopped.

Newton: That was the office of Naval Research?

Boogaard: Yes. He was in the Weather Bureau; that I know. His name started with a "W", I remember that too. But he suddenly died and all the support that he had been giving stopped.

Newton: Was it Harry Wexler?

Boogaard: That's him. That was Wexler, yes. So, now things came to an end really and I did my exam. Then I had quite a number of opportunities to go. I could stay in Stockholm. Newberry said I can stay here, I don't need to go away but Maureen did not like Stockholm.

Newton: How could you?

Boogaard: So then I got an offer for Australia, an offer for…what's that university in the East? Something in Williams. Williams in Mary. That came via Rex.

Newton: Dan Rex from the Navy.

Boogaard: Yes. He wanted to put me in there. Then I got an offer from the Air Force to go to Saint Louis and I was keen on that but the trouble was that since I was a foreigner there was a whole lot to be done before I could get that sensitive _____ you see. I was in a hurry to leave. Then I got an offer, a professorship, at Salt Lake City. So, I accepted Salt Lake City. As I came to Salt Lake City a letter reached me via Boulder from Phil Thompson inviting me to join NCAR. I accepted the post at Salt Lake City so I decided to stay there and do that and then a year later go back to NCAR, which indeed happened. Then I have been at NCAR…

Newton: That was in 1963?

Boogaard: That was exactly July 1963 I entered in Boulder. I finally made it although I had been several times before there but that was the final step. In '64, February…No not that because I got Maureen already in '63 went with a car to New York to pick her up and the children from the ship.

Newton: Coming from Sweden?

Boogaard: No. I was already in Salt Lake City but Maureen was coming from South Africa.

Boogaard:
(Maureen) When we lived in Stockholm Henry went directly to Salt Lake City and I went _____ to South Africa. I spent two months in South Africa with my family and then came back via England again to the states. So, I came to the states on the 19th of February in 1963.

Boogaard: Just to let you know how much I knew about American cars, I bought a car in Salt Lake City and my name was good because through _____ _____ he knew the senator of Utah who owned a Ford business so I had no trouble getting a car on much for nothing. But I didn't know much about cars. So, I got the car, got in and drove my way to New York; that was fine. But coming back I came to a halt in Washington, West Virginia and found out that my transmission had dried out. What did I know about the transmission; I never heard of the thing. So, I had to spend three days there to get the transmission rebuilt and then carried on to Saint Louis and from there to Boulder. In Saint Louis of course I stopped by Earl Kindle where we spent the night. That brought me to…

Newton: You had known Earl in the project in Stockholm.

Boogaard: So now I was in Boulder and sort of settled down. Chester I think had not arrived yet because I was told that you still were coming.

Newton: I arrived soon after that in June.

Boogaard: The part in Stockholm was also interesting because as I told you Phil was assigned to Stockholm. There were always two Air Force men and one from the Navy. At that time Phil Thompson was the one from the Air Force. Phil was really good. He always gave very good lectures. He is an absolute, I don't know what, but he knows his _____ notations so well. I really loved that. But then at one stage Phil was called back to Washington and when he came back he said that he had been appointed co-director of NCAR. He didn't want to call it assistant director; he said it was co-director. He gave us a lively description of the surroundings of Boulder and NCAR where it was going to be built and so on. That was about the first time that I learned a lot about NCAR. The nucleus of NCAR became Phil and Margaret Johnston.

Newton: Margaret Johnston, the famous Margaret Johnston.

Boogaard: Yes. Margaret Johnston was hanging around there. She was not allowed to do anymore than do babysitting, you see. Margaret did a lot of babysitting for us. But when Phil came back and he had to start some…he had to have a typist and things like that, then Margaret could work again under the American Embassy. So, that was the first nucleus of NCAR in

Sweden, Phil and Margaret. All the typing was being done. I still remember there was a big basin in the room and most of the typing landed in the basin, but that was all right. Then Phil gradually filled us in about what was going to happen and so on. He was very enthusiastic about it and he said certain things, which I don't know if he meant them or not but he said that, "In this institute the administrator will not get a hold of the scientist." That was the absolute thing. As you know, that didn't work out very well.

Newton: Did you feel that was so in the early days of NCAR?

Boogaard: Yes. These were the early days of NCAR.

Newton: That the administrative had…

Boogaard: NCAR was used to a series of pipes lying in top there on the hill because Phil and I often walked around there. There was no NCAR yet but that was…the nucleus was that way. Phil was almost quite adamant about that and I think it had its repercussions later on, I'm not sure, I'm just thinking on my own. Later on you will ask me a question and that is where it comes out. So, Phil could not leave the service. He had, I think, seven months to go and the Air Force would not let him go. He had to serve out his Air Force contract at NCAR, at Boulder. It was not the case with Dan Rex, the other co-director. The Navy let him go and then he could just work at NCAR and do nothing else anymore. So, that was the difference between them. Also, in the meantime, Phil made full colonel so I don't know if the Air Force was still trying to keep him or whatever but he was made full colonel in the last few months. So, then this was now about 1961-62 I would say and Phil went back and took over his duties there as co-director.

Newton: With Walt Roberts at that time.

Boogaard: With Walter Roberts I never saw…Phil would talk about him but never anymore. Walter never came to Stockholm and he stayed out in the other areas. I never saw Walter until in 1962 when I came to Stockholm that I officially met him.

Boogaard: (Maureen) You're a little confused there. You said in Stockholm in 1962 you met Walter Roberts?

Boogaard: No, I didn't say that.

Boogaard: (Maureen) That's what it sounded like. Never mind.

Boogaard: No, I didn't say that. No, I never saw Walter Roberts. The only person I ever saw that had anything to do with NCAR was Phil Thompson.

Boogaard: (Maureen) When did you meet Walter Roberts?

Boogaard: When I came to Boulder.

Boogaard: (Maureen) In 1963?

Boogaard: Yes, when I came to Boulder. I went to Axel Van Neilson. He took me to lunch at the Harvest House where a whole table was set aside and there I met Walter Roberts. That was the first time. As a European you are always bewildered by this ____ fellow will met type of thing. We are not used to it. But Walter was just all over me with…he was the first one who said, "May I call you Humphrey?" Yes, go ahead. So Walter has always called me Humphrey, nothing else.

Newton: Humphrey Bogart.

Boogaard: Yes, Humphrey Bogart. He liked that and so he did. So, then we…that was NCAR now I was now in with them. There were a few things that went on. At that time NCAR or Phil Thompson was very interested in arranging meetings. His secretary was Ann Day. Phil would come to me and he said, "Well we are going to have a meeting on this and this subject. You go out and invite people." Gee wiz, I didn't even know the people. I never had that sort of thing. But I had to do it. So, I did the inviting and we had several meetings. I think these were right about the last ones on actual, what do you call it, basic meteorology, worldwide and regionally. I mean _____ was always there and our friend from Norway.

Newton: _____ _____?

Boogaard: Yes. So, it was quite good meetings. But then…

Newton: This was planning…was that planning any particular thing of the future? Was that planning ____?

Boogaard: Yes. It was sort of a…I remember that the last meeting I called together I called quo vadis, where goes though. Where do we go from here to where and I left it to _____ _____ and Jacob, he was from Norway.

Newton: You mean Jacque Biercus?

Boogaard: Yes, the stately gentleman from Norway.

Newton: Jacque Biercus.

Boogaard: Jacque, yes. Because he even complemented me on pronouncing his name so properly. But they all contributed to this thing what I thought it was. But then the satellite came into being and Vern Sumi started waving around with his satellite picture everywhere. That made a turn in the trend of research in meteorology. Vern was always…that was in 1960 in Helsinki when Vern came up with his pictures for the satellite.

Newton: The very first ones.

Boogaard: Yes. From then on Vern was all over the place and in the next few years from that came the Line Island experiment. Vern wanted to have a network in the middle of the Pacific Ocean and have satellite pictures taken and also have a good service network. In the end Vern said if necessary he was going to sit on top of a pole with a camera and take pictures. A good thing that I didn't do because he did try that as a matter of fact, he dropped the camera. But from there that we did in the Line Islands was born in 1967.

But I wanted to take you a little bit back because you would say, how did Will Kellogg come in? It was a bit of a puzzle to me too but I understood it in the end because I don't think that Phil liked the direction in which his department was taking. That was it was being taken over by what he didn't want, I told you that from the beginning because he wanted the scientists…

Newton: The administration because too strong.

Boogaard: The administrations were taking over. So, my thought was Walter Roberts interviews just Will Kellogg at a meeting and said that he was now the new co-director of the laboratory for atmospheric sciences. He even…I don't know if he meant it or not but he made some remarks about Will's beard. He apparently didn't like Will's beard but he tolerated it.

Riehl: It's interesting. There was quite an argument when NCAR came into existence of whether it should have ___ in it or be purely a _____ facility. The original impetus was that it was supposed to be a large facility, which individual universities could not maintain in competition with government experiments. So, NCAR was created to be the national facility for all sorts of large experiments and observations on the part of universities and I think the appointment of Kellogg fits in there someplace. _____ _____ NCAR and the general assistance of universities and _____.

Boogaard: Correct because…(tape end)

Newton: Henry Van De Boogaard.

You mentioned that if it weren't for the Navy the Line Islands experiment would not have floated. What did they furnish? Was it ships, aircraft, radio service?

Boogaard: That's my personal opinion, yes, transportation. Transportation, food, material, everything, they got everything. They did just build an _____ it was just all over the place to get things to go because we had that _____ _____ we called the Leaky Teaky.

Newton: That was a PBY aircraft.

Boogaard: Yes. It was a flying boat. Whenever we got a message on the Line Islands that the flying boat had left we had a pool on to see what time it would get in, which could be anything from one hour to three hours difference. So, it was a…yes I think the Navy under Bill Ladderman did a lot of work and then Rex of course was behind it because otherwise I don't know what would have happened. But they secured the transportation lines and the food and everything. It was just really well laid on.

Newton: Was Ladderman working for NCAR at that time or…

Boogaard: Yes.

Newton: But he had all these Navy _____

Boogaard: No, I think he was working for NCAR.

Newton: But he had his Navy connections to draw on.

Boogaard: He had his Navy connections to draw on. The same with Dick…Captain…because he was the one…you see I was stationed at Honolulu. I was the connection in Honolulu and _____ was in on the Line Islands. A month later _____ and I exchanged places. Do you know…you see we left Honolulu and we always landed at Christmas Island first and stayed the night then went to the other island. Do you know…

Riehl: _____ Island?

Boogaard: No, _____. Do you know that for the first time in my life I was threatened with my life?

Newton: How so?

Boogaard: It started in…you have the _____.

Riehl: What was accomplished there while you were in charge of the experiment?

Boogaard: That also is a big question. I got my orders from Honolulu. There I was supposed to be in charge. _____ was spouting his orders from Honolulu to the island, what I should do with the aircraft and things like that.

Newton: The picture there is that they all the facilities for looking at things in Honolulu but not in…

Boogaard: Yes.

Newton: So the forecasting and flight planning was done from a place where data were available.

Boogaard: Yes. When _____ was on the island he did all the planning. I was in Honolulu either flying with the Air Force on these flights and seeing that all other things were looked after.

Riehl: I think Chester is asking whether all the advice on what to do came from Honolulu or if there was a local weather service.

Newton: Did you have satellite, for example, down on _____ or Christmas Island?

Boogaard: No. I had nothing much to say. Ed would come in early in the morning and say lets do that and that and that and that's it. I had no…they didn't give me any chance to deploy ships or aircraft or whatnot.

Newton: On what basis was the deployment and planning of flights done? Was it mainly guided by satellite pictures?

Boogaard: By who?

Newton: By satellite pictures? Were they heavily used in the…

Boogaard: No, I think they used the worst possible satellite picture. They would work on that you see and say, well this picture there seems to be an interesting area, let's concentrate on that. That was the basis of it. But most of the time the aircraft equipment wouldn't work or something like that. It was always something disappointing.

Riehl: Not in our experiments.

Boogaard: Yes. The _____ were fine. We had three _____ that worked regularly four times a day. They were fine. But we had a ship; I don't think it was much use because it only could take ordinary _____ observations. That was not much use either. Then I think the results have shown it that we have collected a lot of data but basically nothing much has come out of the Line Island experiment, at least as far as I can see.

Riehl: Perhaps that's best ____. I think a lot of the early understanding of Mezzo scale systems came from there.

Boogaard: That's correct. That is absolutely correct. Then we had what's his name shouting around. Who was that new director we got from England? He was always shouting, "Where's the breakthrough. Where's the breakthrough." Should have had a breakthrough by now. _____ was with me in Coral Gables with our two pictures hanging up there in the secretary's office. He was always shouting, "Where's the breakthrough", which in the global experiment there was no breakthrough either. We expect too much out of these experiments.

Newton: What was expected of the Line Islands experiment?

Boogaard: According to Sumi it was to get correlation with the satellite pictures and the data at the surface of the earth. That was basically what it was. Then see if we could see the rain showers and development of these things in connection with that. We had some beautiful arranged falls, _____ we looked at. Ed, I think, wrote something about _____. That was the idea.

Newton: But your saying that that largely was not realized.

Boogaard: That was one of them, yes. Then we tried with the islands and the ships to compute diverges and converges, things like that. But that also was a failure because the ship _____ no property _____.

Riehl: I think that _____ very strong _____ _____ _____ _____.

Boogaard: That's right.

Riehl: _____ your observations and novelties.

Boogaard: The thing is that we did not regionalize the basic circulation _____ _____.

Riehl: Was this much later when you did your _____ _____ we've come to that after a while I think.

Boogaard: That's right.

Riehl: Where the rest of this came from and so on but that was the first observation _____.

Boogaard: That's correct.

Riehl: First one of the _____ _____ _____ _____. The whole relation to the _____ _____ and what makes a _____ and so on.

Boogaard: That's right. I didn't see that at the beginning but later on, of course, it became more clear to me.

Riehl: Your transport was by ship ___ ____ you said by aircraft _____

Boogaard: Yes. We had military aircraft. The C-130.

Riehl: They could fly that far.

Boogaard: It was a Navy one, the C-130, that used to bring in the food and then we had that flying boat who would fly when it wanted to and didn't fly when it didn't want to. But the C-130 brought in all the supplies with no trouble. Otherwise I would never have managed it. It was the C-130 from the Navy that helped with the supplies. We got a lot from the Navy.

Newton: Did the Line Islands experiment serve as a prototype for later experiments?

Boogaard: As a what type?

Newton: Prototype. Was it useful in that respect?

Boogaard: I think a whole lot of jealousy was created by that Line Islands experiment particularly by its successful execution. NOAH didn't like it.

Newton: Who?

Boogaard: NOAH. They did not like it. Then, of course, we made enemies of our co-scientists who were depending on money for other things and not on experiments.

Riehl: Actually the Line Islands were the sort of thing that NCAR was originally expected to do was to sign _____ _____.

Boogaard: That's the strange thing about it, that after we did it we got so much opposition.

Riehl: It's very confusing.

Newton: That was because…you got an opposition because an organization such as NOAH felt that NCAR was stepping into their _____?

Boogaard: That is definite yes because after that NOAH did its experiment in the Caribbean. They wanted to do that.

Riehl: You don't mean Barbados '69?

Boogaard: Yes.

Newton: That's Bomax?

Boogaard: Yes, Bomax. That almost follows direct on top of our issues. We had no time yet to even look at data and we were already preparing for Bomax; I know that.

Riehl: The Barbados experiment is three years, was in 1969. It was an international experiment wasn't it?

Boogaard: That's right and we were in '67.

Newton: What Henry mentioned before is that this Bomax followed on the tail of the Line Islands _____. Do you think that was perhaps partly responsible for at least diminishing the analysis of the data and it might have been more successful if it had to go immediately into another program?

Boogaard: Bomax had to travel…what's his name died and Kurt now had to take over. These two experiments were so right on top of each other that I just couldn't grasp it.

Riehl: What Chester was suggesting was that one experiment triggered the next one and then the next one, clearly the whole series of experiments.

Newton: But you didn't have time to work on the data in between.

Boogaard: That's right. After all you must first look at the stuff before you plan another experiment. This one just hasn't entered anything into the Bomax experiment.

Riehl: That was before the full computer age.

Boogaard: That's right.

Newton: It has changed so you couldn't do the analysis in a great big rush.

Boogaard: No, you couldn't draw on anything that you had learned from the Line Islands.

Newton: Maybe that was one of the lessons that was learned; not to rush into the next experiment too fast.

Boogaard: That is a good lesson. I think every five years it is good because you have to cope with new experiments, new equipment and things like that. Time doesn't stand still but you also have to catch up with the new things. That was my great disappointment with Bomax.

Riehl: Did you and NCAR play a role in Bomax? I was down there but I don't really remember. What was your recollection?

Boogaard: Yes, I was in there at Bomax. I even flew to the East someplace.

Riehl: In Brazil.

Boogaard: Yes. You were flying around there in the _____ Indian interior there. That's how I got to know you.

Riehl: What did you do specifically from NCAR in the Bomax?

Boogaard: I was in the group with _____. We were doing just Mezzo scale measurements there with the ships. I flew a lot. I flew most of my time on the Navy one and the Air Force taking observations. Going across the…clear zone.

Riehl: Following the five ships in the distance between them.

Boogaard: That's right. We spent time looking for the _____.

Riehl: Oh yes. The _____ that's correct.

Boogaard: That _____ got lost.

Riehl: The _____ was coming across the Atlantic Ocean at that time and it was first sighted by one of the first ships.

Boogaard: They were great days.

Riehl: What came out of it for you, out of the experiment?

Boogaard: That's my trouble; I never had much rest in between things. In the end my health got me.

Riehl: That was _____ later so.

Boogaard: It was on its way. It was on its way.

Riehl: Your next experiment, I think, you came through with _____ experiment in '72. But weren't you in the novices program before that in Costa Rica on the _____ _____ _____.

Boogaard: Yes, that one. That was another one that I…

Riehl: It was an interesting thing.

Boogaard: I'm quite fed up about it. I did an awful lot of work there in Costa Rica.

Riehl: That was in '72?

Boogaard: Yes, '72.

Riehl: Before you came to Venezuela.

Boogaard: I did an awful lot of work there. I worked 18 hours a day because the guys had given me expert…they were supposed to be expert streamline analysts. I had one from Portugal and one from somewhere else and they didn't know a thing. Here I was sitting with all those maps piled on me.

Riehl: There was a _____ cause for this watching of _____ _____ _____.

Boogaard: That's right. Costa Rica couldn't supply anything. Nobody could supply anything. If they did it was a few weeks. I was sitting with that Argentinean who was quite helpful but also didn't know streamline analysis.

Riehl: _____ _____.

Boogaard: No, his name starts with a "J." So, I worked hard for a year and a half and then I just jumped a whole project.

Riehl: A year and a half you say, operation?

Boogaard: Yes, it was a year and a half. I went to Costa Rica for three weeks then I could come back for a week, in three weeks back again to Costa Rica and so it went on and on.

Riehl: A long time. With different groups of students?

Boogaard: I had no students.

Riehl: It was an instruction course I thought.

Boogaard: I had no students, nothing. On _____ I was left almost alone.

Riehl: But it was a WMO.

Boogaard: Yes I know that _____ came over then after. But no, I had no support. I sat there for 18 hours a day and from NCAR I got nothing. Do you know what they said? "We had nobody to check on you and what sort of work you did." Isn't that something? Here I'm sent as an expert.

Newton: Is this an example of a large international organization setting a task in a place where they simply didn't have the intellectual capital to carry it out.

Boogaard: Yes.

Newton: That's the lesson from that. They didn't have the people; they had the project but not the people to do it.

Riehl: Yes, I evidently misunderstood it because I was under the impression that it was a course lasting for several months but that is evidently not it.

Boogaard: That's what _____ told me one day when I came to, whatever you call it that give you points for a years work.

Newton: Evaluations.

Boogaard: Yes, evaluations. _____ said, "Yes, we can't do anything with what you did in Costa Rica because there was nobody there to see what you were doing." I said, "I went there as an expert!"

Riehl: But still we had a very good time right after that when you came to Malachi.

Boogaard: Yes, that was an interesting find in those patterns.

Newton: This was the _____? Tell us what that means.

Riehl: That was the Venezuela international meteorological experiment.

Newton: Meteorological and hydrological?

Riehl: And hydrological experiment yes. When I borrowed _____ today in meteorology I think was _____ _____ meteorologically.

Boogaard: Yes, but after that I gradually collapsed.

Riehl: But we had a very good time there.

Boogaard: Yes.

Riehl: _____ _____ _____ and what's the big argument going on _____ _____ _____?

Boogaard: Yes. That was…

Riehl: _____ _____ _____ meteorologists from Germany there with only one viewpoint and everybody else _____ another. But you did a special experiment there.

Boogaard: Yes, I flew down every station and took measurements.

Riehl: You took a thermometer with you.

Boogaard: Yes, and I proved that they were wrong.

Newton: You established the surface pressure by using an airplane? Is that what you are saying?

Boogaard: No, you take…

Newton: You took a record.

Boogaard: Yes.

Riehl: _____ _____ _____ and compare them with the _____ there. My recollection is that you _____ _____ _____ _____ to be correct.

Boogaard: What's that?

Riehl: My recollection is that you _____ _____ station radios as they are reported to be correct. So, the possible error was in the height of the station.

Boogaard: The height of the station, yes. There was nothing wrong with the barometers.

Riehl: That was a very nice experiment. That was one day or two days or how much?

Boogaard: It was about two weeks isn't it?

Riehl: No, your experiment.

Boogaard: Oh. Yes, two or three days.

Riehl: Two days, yes. _____ _____ _____.

Boogaard: Yes I stayed there in a place on the _____ River.

Riehl: _____.

Boogaard: That's right.

Riehl: So, that was a very interesting way of doing this. I think this is the first and the last time in the whole history of meteorology that a thing has been done this way in a very _____ and contusive manner.

Boogaard: On one flight it was really dark and I said, "What are you going to do? Are you going to land at _____?" "No, we're first going to drop you off." I said, "What! There is no light in sight." "You'll find something." They flew around and they found the airfield and they said, "Now well you can get off", and I got off and then got on again. These NCAR pilots were something too. They were good.

Riehl: Yes, they were very good.

Boogaard: Because flying those routes there along the _____ does _____. They were very good. I had my greatest trust in them.

Riehl: They had, I presume, after dropping you off they had to go back to at least some barometer to obtain gas again.

Boogaard: Yes.

Riehl: Those long distances almost to the border of Brazil.

Boogaard: That was our gas station. And then on Sunday afternoon we had some relaxation and looked at the bullfight.

Riehl: Yes. Tell us about that.

Boogaard: That was interesting.

Riehl: My wife keeps talking about it.

Boogaard: I took _____ with me to one of the bullfights. That's a lively affair, a lively and deadly affair. But I went to one bullfight where the bull one.

Riehl: Yes, that's it.

Boogaard: The governor said _____. That meant that the bull was ok and the bullfighter they could throw to the bulls.

Riehl: _____ when the bull won. The bull was then put out to pasture to produce more of the same.

Newton: The victor.

Boogaard: He stays forever. They can't kill him anymore. Later on I saw a bullfight in Barcelona, the big one. That's very gory.

Newton: That's one of the principle interests of the people down in Venezuela as it is in Spain; what they do for excitement?

Boogaard: Oh yes. It was an excitement.

Riehl: But the season is not very long. While you went to the bullfight in Barcelona and we went to the one south of Madrid. But the public will see a Spanish bullfight was that they had already had broken the neck of the bull before the fight ever started.

Boogaard: It's very cruel.

Riehl: The bull can't possible win.

Newton: On the whole Humphrey, have you found these expeditions exciting? You've had some misgivings about them but did you find them exciting while they were going on? Was it a satisfying experience?

Boogaard: No.

Newton: It was not.

Boogaard: No, nothing whatsoever.

Newton: More disappointment in the results?

Boogaard: Yes. The most interesting thing is the people who are there, you see. But, no you don't get any fun or any really excitement out of it.

Riehl: ____ _____ _____ Venezuela.

Boogaard: Oh yes. I did. I took a lot of pictures of it. But to show you…I've never shown them to anybody. Never shown them to anybody.

Riehl: Didn't you go afterwards on another mission project to India, flying out of India to East Africa?

Boogaard: Yes, I've done several of them. I was particularly attracted to the Indians in _____ and in _____.

Riehl: Was that your first visit there?

Boogaard: No, I had been there a long time ago when _____ was still hanging around there.

Riehl: In Hong Kong?

Boogaard: No, he was in Hong Kong but I met him he was in _____ for a while. But no, the Indians have always been my greatest friends, all of them. They have always welcomed me with great honor and whatnot and I could talk with them. They were very easy to talk to and to exchange information. In Nairobi although they knew I was an ex South African, they still like me. But they had not the knowledge of anything, you see. They wanted everything for me and that sort of thing.

Riehl: Pick your brains.

Boogaard: Yes. The last time I was in Nairobi I was at an unhappy stage that the East African weather service broke up.

Riehl: Broke up?

Boogaard: Yes. The _____ didn't want the others anymore in the office so they threw out those from the South and from the East from the rest.

Riehl: When was that?

Boogaard: That was perhaps in '72-'73 and that was a big business because the director who was from _____ _____ _____. He ran away and I was in communication with him so he fled. At that moment I had gotten a very

expensive piece of equipment from NASA to be used in Nairobi so they could read the satellite pictures.

Riehl: In India?

Boogaard: No in Nairobi. Somehow NASA addressed it to the director of the Nairobi weather. But he was already in Geneva. That was where he had taken his rescue.

Riehl: That's not _____?

Boogaard: No, not _____.

Riehl: He was at the university.

Boogaard: No it was not _____. But then when he got the papers he sent them back to Nairobi and I got them. I put that equipment installed it in Nairobi and they were able to read the satellite. That was from my intervention. Otherwise it was a big mess there, bad. The maps were bad. They had big buildings with nothing in it. It was really terrible.

Riehl: Did you go to the university?

Boogaard: No. That belongs to the government.

Riehl: The university was functioning very well with _____ happened to be there as a lecturer for some time.

Boogaard: Yes. Then there was that Englishman who wrote about the Gulf there.

Newton: Findlater.

Boogaard: Yes, Findlater. Findlater didn't want to have anything to do with anybody. He set such a mess here I just stay by myself, he said.

Newton: So he did a one man project with his airplane?

Boogaard: No, he didn't have that anymore. For the first time he did that. He flew with us. But Findlater was fed up with the whole business.

Newton: When you were making penetrations of the Somali _____ level jet?

Boogaard: Yes.

Riehl: Up and down, up and down.

Boogaard: No, we were flying East/West, Nairobi into the ocean and then back again and at different levels.

Riehl: Up and down.

Boogaard: Yes exactly and so on. Yes, we did that. That was proved to be interesting. We got pretty good cross sections of the jet stream.

Riehl: The low level jet stream.

Boogaard: Yes, the low level jet stream. One thing we learned was how to find out how the surface wind blows. All you do is find a heard of elephants, fly low over them and then watch the dust go. That's very effective; the whole cloud of dust going. That we learned. I have always though myself I should write down all of these little things.

Riehl: I have learned a great deal that is new today.

Boogaard: That's just me, you see. I don't let go very easily.

Riehl: Your latest project was ____ producing climatic atlas.

Boogaard: Yes, that one is just burning in my heart.

Riehl: You published one month; I think it was July.

Boogaard: July, yes. January is pretty well ready. I have got much better maps now than I had before. I've used _____ analysis, which is absolutely fascinating, very fascination. Now all of the sudden Mother Nature stops me. That's what I cry about.

Newton: But is there someone else who is going to carry that on?

Riehl: _____ working on it?

Boogaard: No, he's not. He writes some of the material that I have given him and he writes the papers and does that but that is all right. I have given him permission for that. But I don't think he works anything on himself. He used to phone me every Thursday, one Thursday in a month but now you see I am not much use to him at the moment. I suppose if I could get him here for a month I could straighten him out on things but he is not an analyst you see; none whatsoever.

Riehl: The difficulties in analysis, could you just turn in over to machine analysis? As things are you know you would make a better one but

wouldn't it be better to have the thing produced by a machine than not at all?

Boogaard: Yes, that's a thought. That's a thought. They are simple lines you know.

Newton: Yes, but it is also long.

Boogaard: Streamline analysis is extremely difficult to do that but in ____ _____ that is a much simpler process. I must see what I have done from then on I think I can almost run it through my brains. I think there are about usually about 50 maps _____, which is a lot of work. I would like it to be finished. It is still worthwhile for everybody _____ to the machine. _____ analysis is really fascinating. I never thought it could be so fascinating, that is on the climatological scale. Everything fits so well together. Only one place I have difficulty and that is northeast of Australia.

Riehl: Northeast? (tape end)

Newton: All right here we go.

Riehl: The challenge is always to understand it _____ understand it.

Newton: This is side one of tape #2 of an interview with Henry Van De Boogaard. The date is 9 August 1990 and we are interviewing in the very pleasant patio in front of Henry's home in Broomfield, Colorado. I am Chester Newton and…

Riehl: Herbert Riehl.

Newton: Herbert Riehl. Earlier you spoke about the Line Islands experiment, Humphrey, and I believe you have something further to relate on this experience and the people involved.

Boogaard: Yes. The first story I want to tell you about the _____ of the island. I don't think many people at NCAR saw her because all the business was done through Leslie for certain reasons. Mrs. _____ did not like the Americans and that will come clear later. She was a very regal lady. I met her quite by coincidence but I became her favorite boy so to say because she never wanted to meet the others. I came frankly with Leslie when I was stationed at Honolulu and while we were talking…

Newton: Leslie is her son, did you say?

Boogaard: Her son Leslie, yes. He did all the business you see. She never interfered with the business with NCAR; it was all Leslie. So, Leslie and I talked

and so he asked me where I was from. I said I was basically from Holland and I'm Dutchman but I've lived 18 years in South Africa. He said, "What? My mother is from South Africa, she was born there." I said, "Well, that's interesting." So the next day Leslie came back and said, "My mother wants you to come for supper tonight." I said, "Well that's alright, I'm very pleased." He said, "Yes, she is so happy to finally find somebody that could speak _____." So, he gave me her address. She lived in southwest Waikiki. So, I went there at the appointed time of about 6:30, and rang the bell, and the door opened, and a very statuesque regal lady stood in front of me. She was really statuesque and very regal. But immediately she said, "You must be Henry." And I said, "Yes." She immediately switched into _____ and invited me in into her house. Her house was very unique. It was full of trophies and apparently she had been either a coach or a member of the Olympic swimming teams in the 1900's. So, we simply talked _____ all the time and we had supper and so on and we really got on very well. After supper she said, "Do you play chess?" I said, "Well, yes I play chess."

Riehl: Interesting.

Boogaard: So, we played the game of chess and started talking. Then she talked to me about her life, which was very interesting. She was born in an area in South Africa called the Karoo. It is an area about I'd say 100 miles northeast of Cape Town. It is just north of the rich grape area of the Cape and where she lived already the semi desert started.

At that time she was 18 years old when she started her story and there she met an Australia, Leslie _____ who was roaming around the country. The two of them fell in love with each other and they married. Then _____ took her around. He was a bit of a globetrotter. He was Australian but he was a globetrotter. So, she went with him and somehow or another I think they landed in Hawaii, bought a boat and started to go across the Pacific, let's live the life on the boat. On one of these trips they landed on Palmyra Island. They liked the island very much and then they found a big notice that said that the island belonged to Judge Cooper of Honolulu. At that time, of course, I think the island was still under King _____, I think under British protection. I don't know much about the Hawaiian Islands in history but I think that was what it was. So, they deliberated and they said let us go to Honolulu and see this Judge Cooper and see if he wants to sell that island. So, they sailed to Honolulu, found Judge Cooper and found him willing to sell the island and so they bought the island.

Newton: The whole works?

Boogaard: No, just Palmyra.

Newton: Well, I mean one island is enough.

Boogaard: They bought Palmyra. So they happily went back. They had now their island. They settled basically in Honolulu. _____ must have had a lot of money because he bought a whole of Waikiki, who at that time was ____ _____ _____ bulk but he bought it. _____ died, I don't know exactly when and when the war broke out the Navy came and wanted to build a landing strip on Palmyra Island. So, Mrs. _____ and the Navy deliberated and so Mrs. _____ said all right for one-dollar a year rent you can built a landing strip. That was agreed upon. But years went by but the one-dollar never came. So, they wrote about it and then they were told that they were not the owners of the island. From then on ensued a bitter legal battle in the courts. First was through the California courts and it ended up in the Supreme Court in Washington. In order to keep their lawyers going they had to sell a lot of their property. They sold millions of their property just to keep their lawyers going. But in the end they won.

Riehl: Who was disputing it?

Boogaard: I think it was the Navy with the U.S. government.

Newton: You mean they were claiming it?

Boogaard: Yes, they said it was U.S. property.

Newton: After she generously gave permission to build an airstrip.

Boogaard: For one-dollar a year. So as I say, the legal battle took eight years and Mrs. _____ of course was very bitter about that. She never wanted to become a U.S. citizen and she never wanted to negotiate with any Americans. She kept herself completely aloof and left her business to her son. So, what happened is, and it was costly to NCAR, because now they took every penny they could out of renting the island to NCAR because…

Newton: Otherwise it would have gone gratis.

Boogaard: That's right.

Boogaard: (Maureen) They had big plans for the island in this article that said how they had really wanted to keep up this island as a paradise on earth and they had big plans to turn in into a vacation resort and it never materialized.

Boogaard: That's a bitter paradise.

Boogaard:
(Maureen) Bitter paradise, yes.

Newton: That's a remarkable story.

Riehl: There must have been some vegetation on the island because it was not part of the fly zone.

Boogaard: It was all palm trees you see.

Riehl: Oh yes. So, one could live there.

Boogaard: They were very good. You take the coconut when it's green and the milk is very good. When the coconut is ripe then you eat the fruit. It was all palm trees. It was a very nice island, no doubt about it, however as I say the friendship between her and me grew and in the end I was almost a member of the family. They had a family home on the east coast of Oahu and every Sunday I had to go out with the family and spend the day there and of course Mrs. _____ and I were always talking _____.

Riehl: Playing chess.

Boogaard: Yes. She said had she known me earlier she would have treated NCAR a little bit different. I said, "Well I'm only a pawn at NCAR", I said I wasn't in the business of doing anything _____. But I remained friends with Leslie too; he was very kind to me. He owned a hotel, The _____, and all the land around where the big hotels were built they owned the land. So, they were very well off.

Newton: They were not hurting.

Boogaard: Yes, they were very well off still. So, they rented the land to the big hotel people and so they were really well off. Leslie was very good to me. I remember when I came to Honolulu I just had to take a room in his hotel, I didn't have to pay anything. So, she never showed herself. I think I was perhaps the only one at NCAR that ever met her. The bitterness has always remained with her. That's the story of her life and it is really also in depth magazine. But she was really a regal lady; she really had class in her, first class.

Newton: Did she live on the island at that time? You said when you saw her it was in Honolulu.

Boogaard:
(Maureen) It was on the island.

Newton: It was on the island?

Boogaard: (Maureen) Wasn't it on the island that you met her?

Boogaard: No, in a house in Waikiki.

Boogaard: (Maureen) Oh, so she didn't live on the island.

Boogaard: Oh no. She lived in a house in southwest Waikiki, that's where she lived. No, I don't think she ever went back to the island after her husband died.

Newton: What kind of an arrangement is there now for Palmyra Island?

Boogaard: I think she must be dead by now and I think that her son Leslie, and there was one more son…

Newton: Is it still private property?

Boogaard: Yes, oh yes. The Supreme Court gave them the property rights.

Riehl: They had the papers, I presume.

Boogaard: (Maureen) Yes, awarded legally from Judge Cooper.

Boogaard: Yes, that island was their property according to all the papers that were available. The Navy still wanted to start a court case about the coral reef around it. They wanted to say that that is still theirs but that thing went down the drain; that never worked.

Riehl: I have a question about the Line Islands too. The last time you spoke about NCAR participants in the experiment _____ _____ was a whole UCAR experiment of all the members there should have been 100 scientists around, or something of the sort, _____ there or a large contingent of many people?

Boogaard: Yes. On the island itself there were quite a few. There was _____ from Saint Louis; he was there most of the time although he was dead scared of the story that I told you. There were mostly the people Wisconsin were there.

Newton: Sumi and…

Boogaard: Sumi and his students. And Moreno was working on _____ on the islands. He had a special camera or lens that he was photographing clouds from _____ _____.

Newton: That's the other half of matching the satellite pictures.

Boogaard: That's right. I went to visit him there to see him and that's what he was doing there from Saint Louis and who else would be there? It was mostly NCAR people, of course, that were running the show. On the other islands we also had NCAR people. So, active participation by other universities was really not that visible.

Riehl: That was 1967.

Boogaard: That's right.

Riehl: It was in contrast two years later in 1969 you had the Barbados experiment and there were 100 scientists and they made all the decisions.

Boogaard: Yes, everybody was there but in the Line Islands experiment it was Wisconsin basically and it was basically also NCAR people and, as I say, _____ from Saint Louis was on Palmira and Dan Moreno was on _____ _____. That was about the only university that I think participated.

Newton: Where did all these people live? Under field conditions or was it…

Boogaard: No, there were some old barracks. There was one big old barrack that was there. As a matter of fact that caused a lot of friction with the Air Force people; they said they were living below substandard in the barracks. I think that caused a lot of trouble. But otherwise there were a lot of buildings still left over from the war, I think. So, we were all…and we built some extra buildings and don't forget that every palm tree you cut down cost you $75.00. The runway was still there although it was very overgrown.

Riehl: It had to be cleaned up.

Boogaard: They cleared the runway. Then we had trouble with the birds. There were a lot of birds on the island especially at the end.

Newton: Large enough to harm airplanes.

Boogaard: That's right. We had to stop and chase them off.

Boogaard: (Maureen) What kind of birds?

Boogaard: Seagull types.

Newton: Booby's?

Boogaard: Yes, Booby's.

(Inaudible talking)

Newton: So, I'm starting again.

Riehl: You were at the Barbados project also.

Boogaard: Oh yes.

Riehl: You more than anybody knows the difference between these two experiments.

Boogaard: Yes I do. The scale, of course, was much different. We had more ships and yes we had more participation from the universities. We had _____ _____ with the aircraft and no; it was a far different experiment.

Riehl: _____ _____ aircraft was a big experiment in that after the '69 experiment essentially George Benton who was one of the originators of this at university…not university of Maryland…

Boogaard: Baltimore.

Riehl: Something close by.

Newton: John's Hopkins.

Riehl: John's Hopkins, yes thank you. He ____ _____ experiment that ____ show us how to conduct experiments but that is what you already had said about the Line Island experiments.

Boogaard: Yes. That Bomax had a completely different basis because with Bomax we used about 14 aircraft and the purpose of Bomax was to wait for the first satellite picture in the morning and see where there was a disturbance and then send all the aircraft out to go after the disturbance, which was not the object in the Line Islands, it was a completely different objective. In Bomax I flew just about every day all day long even ____ _____ to _____.

Riehl: To what?

Boogaard: _____ with the _____ DC-6 or whatever.

Riehl: Yes, DC-6.

Boogaard: That was a very strange flight. We went down to _____ at the height of 4,000 ft. Sometimes we were told to put our vests on because we had been down to 150 ft. We stayed the night in _____ while the winds were mostly from…I'm trying to remember now…they were from the northeast. Then the next day we flew back, I think it was at 6,000 ft.

Riehl: Low level.

Boogaard: Low level. At the equator we went straight out of _____ north to the equator and then turned to Barbados. All of the sudden from then on all the way to Barbados the wind was from the southwest, a monsoon. I have never been able to understand that. I asked the main pilot by the name of George, at least that's what his ____ name, and he said, "No, the winds are correct." I said, "Well I don't know yesterday we had northeasterly winds at 4,000 and now we have southwesterly wind." I have never been able to figure that out.

Riehl: I heard about this; it's a strange thing. I think ____ _____ _____ southwest winds would mean that essentially that there would be _____ _____ zone for just about _____ Barbados was and a strong one too. I don't think that was the case at all.

Boogaard: However that was the last flight of Bomax because…what's his name, the leader of the experiment?

Riehl: Jule Charney?

Boogaard: No.

Newton: The Bomax? That was Josh Harland wasn't it?

Boogaard: The German.

Newton: Oh, you mean Kutner?

Boogaard: Kutner.

Newton: Jacque Kutner.

Boogaard: Kutner was there and opened the aircraft and had a bottle of champagne. But I did most of the flying those times either on the _____ the Air Force flight or the Navy one. It was very interesting though to see that where

you get out from Barbados how hazy it is, up to 6,000 to 7,000 ft. Then where you get over that it is as clear as a bell.

Newton: Is that a salt haze?

Boogaard: That's all the stuff that comes from the Sahara.

Newton: Oh yes.

Riehl: _____ the wind is northeast.

Boogaard: All the stuff from the Sahara comes across and gets into Miami.

Riehl: I know. I have had many experiences with that also but then the wind is not southwest but it is northeast.

Boogaard: When you cross the equatorial belt there from the hazy zone to the clear south southern hemisphere air, that's also very spectacular. I flew over the _____ of the ____ where you can see the dirty water of the _____ going 600 miles into the Caribbean.

Riehl: You've seen that too, yes. It is quite something.

Boogaard: Yes, it's quite something. So there was _____ very different characteristics to be noticed when you fly in these things. I had recorded these on paper, a very many…all of them. It was a big job.

The scope of Bomax was completely different to the Line Islands. The Line Islands weren't mainly for the smaller scale disturbances and the aircraft we had, the NCAR aircraft, was at many times the instrumentation was not functioning properly; the Doppler and so on. So, I have tried to look at some of these things but it always was a problem with the instrumentation that didn't work. It had a limited scope.

Newton: Wasn't Bomax also…it had an objective of doing water vapor and heat budgets and…

Boogaard: That's correct.

Newton: A wider objective.

Boogaard: That is correct because _____ had your ships stationed and all sort of things and yes the aircraft were instrumented to that _____.

Newton: Did that work out fairly well to get the…

Boogaard: I don't know. I have never seen anything about that whether it did work or not.

Riehl: Yes it did. _____ publish _____ _____ _____ _____ _____.

Boogaard: Yes that _____ _____ _____ you see so I was mainly working at the synoptic. The other part was that…what's his name, the leader of the expedition, _____. Always he depended on me. He wouldn't do anything without my _____. _____ _____ to ships and things like that. In any case the ships work well; we had good _____ _____ _____. Most of the aircraft were_____. From an instrumental point of view I think it was a good success. We were well based there on the south side of the island. I think there were no major complaints there. It was a…the experiment was well put together in view that the original leader of the experiment died. Kurtner just had to step in and take over.

Newton: Who was the original?

Boogaard: I can't remember his name. He was from NOAH but he died. I met him a few times at meetings and then he died. So, Kurtner had to take over.

Riehl: You've been through a lot of experiments then. You did Line Islands, with Barbados, then you were with us in '72 and _____ and did you do any more? You did in '77 or so I hear.

Boogaard: No. No, the next big one was Monax. Monax was the next big one. That was the experiment of experiments. But there again we came into a crash especially with our friend Bretterton. You see Bretterton was a member of the committee that had to take part in the global experiment of _____. He and _____ and something else. But the trouble was that Monax had taken the initiative and the Monax experiment took the attention of everybody. And so, we got all the ships and all the aircraft. I know that _____ furious about that. And he particularly got furious about me because I was the spearhead of NCAR for Monax. When there was a meeting of the…what was that committee that judges the performance of the section? It was somebody from Seattle who was a member of that and he said in particular we must judge the work of those that work for Monax and Francis jumped up and he said, "No way, Monax is not a part of NCAR, so it cannot be discussed." So, that threw me out for a loop.

Newton: That was a somewhat sticky point with NCAR because people were expected to serve on these wonderful things and then they found themselves in that kind of position.

Boogaard: That's right. You know what happened to _____. You see _____ was told not to go but _____ went. He left me a note.

Newton: That's Dwayne _____.

Boogaard: Dwayne _____. He left me a note.

Riehl: _____ _____ _____.

Boogaard: Yes. Why he was going…now I was booked to go to Bombay and I went to…what's the number two man under Francis? You know him, it's _____.

Riehl: The _____ High Altitude Observatory.

Boogaard: Yes, he belonged to that.

Riehl: John Farrer.

Boogaard: John Farrer.

Newton: Oh John, yes.

Boogaard: So, I went to John. I said, "Kurtner", I had talked to Kurtner before he left for Bombay, I said, "Kurtner, you better go and see Francis and tell him that you want me in Bombay." But Kurtner didn't do that. So, then I went to Farrer, I said, "They want me in Bombay." Farrer said, "No, Monax was not a part of NCAR's project." Ok, so I sent a telegram to Bombay saying that I was unable to come. What I didn't know that that telegram went through NSF in Washington and 20 minutes later all hell broke loose. Telephones went and I said, "No I have to go to Bombay." I said, "Well, then you persuade Bretterton that I have to go." They said, "We can't do that." So, ok that's that. So, I sent it in; I sent that telegram because Bretterton is absolute about this and I said, "If you people can't move Bretterton It's a big shame but still I am not going." Then a second attempt was made for me to come. But _____ was sitting there and he couldn't do anything without me, you see. Nothing could budge Betterton.

Newton: Sitting there meaning that he was over at the experiment already.

Boogaard: That's right. He didn't like the Monax experiment at all. I was going to get no credit, no nothing, for whatever I did. So, then I went to Farrer and said that I wanted to go on medical disability. I said to Farrer, "Ok, I want to go on disability." And that's what I did. That is when I went on disability.

Newton: With plenty of reasons.

Boogaard: I'm just waiting for the aircraft to go by.

There was really no need for me to go on disability. I could have gone to Bombay. I had all the dialysis ____ and everything but they made the situation for me impossible and that's why I did it. I was totally disgusted with the whole situation.

Newton: With different expectations of you coming from different directions.

Boogaard: That is right.

Boogaard: (Maureen) Your current hearing losses due to all the flying you did in the experiments in Barbados wasn't it?

Boogaard: Yes.

Boogaard: (Maureen) From all the flying in the planes that you did.

Boogaard: Yes, I had all the experience, I had everything. The _____ was dependent on me, ____ _____ the whole section of that was dependent on me but Francis was inoperable and _____ couldn't move him. I find that absolutely unbelievable but it was. Ok, so much for that. There is another thing that during the taping you have taped some personal thing about my professional life there. I have something more to add to that.

In 19…I think it was about 1966, the Board of Trustees approved my appointment as affiliate professor at the University of Florida Coral Gables. At that time the department there was a school and the head of the school was Fred Singer. Maybe you remember him.

Newton: That was the Rosensteele school?

Boogaard: Yes.

Newton: Yes, we remember that.

Boogaard: And it was Fred Singer that had asked me to become an affiliate professor there. But what I didn't know that I landed myself in a big political battle, which I as a European was not very used to. The question was that Singer had asked the university for permission to grant PhD degrees. But there was another man who did not approve of that. This man was the head of the oceanographic department, Walton Smith.

Riehl: Oh yes, I've met him.

Boogaard: Anybody who has met Walton Smith has met Walton Smith. I met him in his office. He had a large portrait of Winston Churchill. He was a great admirer of Winston Churchill and tried to emulate his methods. However what happened Walton Smith objected to the meteorological department being able to grant PhD's. He wanted the meteorological department under the oceanographic department under him. So, Fred Singer resigned and that left all business…

Newton: I'm going to have to turn this off.

You were telling us about Walton Smith and the degree trouble.

Boogaard: Walton Smith did not want the meteorological department to give PhD's unless that department went under him. After all he had a 9,000,000 budget and the other really didn't have too much.

Newton: So, it was not the degree that he objected to but who gave it.

Boogaard: That was right. He wanted to be the top man, you see. Very soon I got involved into the whole business because I was…there was a man by the name of Douglas, I don't know whether it was a first name or last but he acted as intermediate until somebody else was found. _____ of course was there and I was there and I got _____ in this whole business and we had a meeting and we decided to advertise the post of chairman of the department for six months, come together again and see what reprise we had if any and if we had not we would choose one of ourselves. After six months we had no applicants and so we decided to leave the matter open still but all of the sudden I found myself being taken around the campus and meeting all the deans and meeting the vice president of the university and all sorts…(tape end)

Newton: Tape 2 and the interview with Henry Van De Boogaard, Chester Newton and Herbert Riehl interviewing. The date is August 9th, 1990. All right Herbert, proceed.

Boogaard: So I said I was taken around the campus meeting all the deans and whatnot and introducing and lunches and all sort of things. In that episode I met Walton Smith. He took me to lunch at Jamaica Inn. After that he took me to his office where he showed me the plans for the building he was going to put up there and he proudly showed me my office right next door to his.

Riehl: Not so bad.

Boogaard: Yes. And so, as I say, I knew that I was now being catered for to take that position but I also knew all the politics of the whole thing and I wasn't very delighted with that either. One man who was there too for a year on visits was Eric Kraus.

Riehl: Oh yes.

Boogaard: He had come from the north there somewhere. So, Eric Kraus was there.

Riehl: From ____ university.

Boogaard: Yes. So, one afternoon I went to my motel across the university there, Dixie road, and had my lunch and Eric turned up. He says, "May I talk to you?" I said, "Yes, join me for lunch." "No, we have no time for that." And I said, "Ok, what do you want to talk to me about?" He said, "Are you going to take that post?" I said, "Well, you were quick." I said, "What's the matter?" He said, "Well, I'm out of a job in a year or so." I said, "Would you like that job?" Yes, he would. I said, "Well I have mulled over the situation." I said, "The politics are too high for me, I'm not going to take the job, you can have it." He was as happy as a lark and he left. I told the others already that I wouldn't take the job, you see. But they also weren't happy with Eric taking the job. You see, Eric told me I had five out of the six votes. He said, "The only vote you don't have is mine."

Riehl: He wasn't on the committee.

Boogaard: No, that's what I told him. I said, "Number one I don't need your vote with five on my side and number two you have no right to vote, you are just visiting." But I said, "All right if you can fight your way in there do so with my blessings." And then we were supposed to have another meeting to confirm the whole business and who was going to be the chairman of the department. That was to be round about September of that year. I met _____ at the airport in Chicago. I said to _____, "What happened to that meeting?" He said, "Oh, we had it already." He said, "Eric Kraus was of the opinion that my presence was not needed." And Eric Kraus installed himself as chairman of the department. So, I gave Eric Kraus that position. He has never acknowledged that but I gave it to him and that's what I wanted to put on record.

Riehl: That's interesting.

Boogaard: There's a small thing, which is an interesting thing but it has to be mentioned for Palmyra Island and it is the legend of the brussel sprouts. When I took over at Palmyra Island and I look at the kitchen I saw rows and rows of cans of brussel sprouts. I said to the cook, "What about these

brussel sprouts?" He says, "Nobody wants to eat them." I said, "That's my favorite vegetable."

Newton: That's something you don't share with president Bush.

Boogaard: So, I mulled over the situation a bit and the next day after I ate my breakfast I called the cook. I said, "We've got to do something with the brussel sprouts. He said, "We're going to send them back to Honolulu." I said, "No." I said, "Can't you make a pie out of them?" He said, "Hey, that's a good idea. We can make a brussel sprouts pie." And so he did. He made a couple of brussel sprouts pies and put them in pie shells in the oven and piping hot put them on the table. I took a big slab out of it and started eating and the others who were watching me and seeing if I was eating it with great delight, they took. After ten minutes, "Cook, do you have some more of this stuff?" And the brussel sprouts pie became famous. We used up all the brussel sprouts, we went to the other islands to get the brussel sprouts in and we went to Honolulu to send some more brussel sprouts. The brussel sprout pie was a great success.

Newton: Palmyra pie.

Boogaard: That is it.

Riehl: Now I think on the list of questions it also mentions Chester, you said on the telephone that you would bring up subjects not immediately related to the meteorological business but other events in your life and wanted to ask particularly how you managed to ___ _____ _____ animals and your production of all these plants and everything _____ _____ _____ if not more so in meteorology.

Boogaard: That's right. I have…it's really amazing that half the things I've done NCAR has never known about it, like my life on those islands halfway in the Antarctic Ocean. Nobody has ever known about that and yet when it came to island experience I was the most experienced man. Living with six men on a desert island called…

Newton: That's going back to Marion Islands; you're talking about.

Boogaard: Yes, that's at Marion Islands, cold, desolate, stormy, the smell of the penguin _____ if the wind was in your direction. I could tell you all about that and even I don't know why I became the psychiatrist and father and mother and the whatnot of the other guys. The first two months is ok, everything is new, but after that trouble starts.

Riehl: It gets old and boring.

Boogaard: Yes, although I must say I am very lucky I never had a major problem, never.

Boogaard:
(Maureen) Did you remember your story of the brussel sprouts?

Boogaard: Yes, I just told that. But that was a hard life on that island but we braced it. It was really amazing how one can get on with six people you have never met before except for one who was your mate in the office but you obviously didn't know and it's amazing how one can get along.

Newton: Under the harshest of circumstances.

Boogaard: Yes, that's right. We never had any major trouble. Other groups had trouble but I never had it. I was in charge. I never said a swear word, not one. They were cussing all day long. I never did. Not that I wouldn't but I just didn't do it. But I had very great _____ with people. As I told you I was sent to the island to sort out al the rubbish that was mixed up with that storm, all the supplies. I had to sort it all out, put it to the books and then bring it home and they could see what they have to write off and what they could keep. But then we didn't have a store to put the stuff in so I had to build a store. So, we looked amongst the ruins, found some sections and we built a bit store and put all the stuff in. Then we had a pool in the other house that we had to draw our water from and one morning we found a big sea elephant swimming in it. So, that was the end of our water supply. So, I went looking around a found a little river and I built a dam of concrete and we stored the water and we put the water into the building, it was very good water. Up to now still they have now hydroelectric power and for a whole year I had to measure every day the height of the water. They had given that river my name. I have a name and also a waterfall has my name. They have never taken it away even though I didn't go back to South Africa they kept that name.

Newton: That's a marvelous story and it also should be taken note of that the radio sound station that you started then has provided the lone observation over a very great area since that time.

Boogaard: Oh, yes. ____ _____ ____ talking about radio sounds and releasing balloons, we had to make our own gas, our own hydrogen with _____ soda and that was a big job. We had big cylinders and _____ soda in and sulfuric acid and made our hydrogen that way. Sometimes during the night you heard (loud sound) one of the safety valves had gone and you knew you had to get up, go out and clean out the damn stuff because the damn stuff was so sticky at the bottom and then make a new sound of hydrogen. We had built a shelter to fill up the balloon but that was also a tricky business when you had the balloon to go out because the winds

were absolutely horrible. You just closed your eyes when you let the instrument go because it was near the _____ in the shore and the balloon would go out and dip down and then finally it just made it from the water up. It was a very hazardous operation but we were very successful. We really did a very good job. We learned a lot in releasing balloons. As I say, it was a great success. Marion Island has a good record of the data. I learned a lot. I became older very quickly, that I can tell you.

I served there for eight months, came back, got engaged and then I was on leave in Durbin and on the telex came a message that they were looking for volunteers for Marion Island. I ignored the damn thing and a few days later came another message with an addition; please remember that no pressure whatsoever is exercised upon you.

Newton: Thereby putting on the screws.

Boogaard: That I knew. I knew what it was. So, I sent a message back to _____ I said, "Was this message sent back to all stations?" He said, "No, only to you." Where does it come from? From the secretary of transport. I said, "Tell the secretary of transport I want to see him." So, they got me a _____ aircraft to take me to _____ and I opened the door of the secretary of transport office. The trouble was I knew him and he knew me. He said, "Come on Henry, sit down." I said, "Yes, I know." He said, "You got my message?" I said, "Yes, I got it." He said, "What are you going to do?" I said, "What would you do?" So he said, "Well I got you a special mission to do and you have to do it." And that was bringing all the stuff to the books.

Riehl: I hope he paid enough.

Boogaard: That's what I don't know. I said, "Yes, that's alright." I said, "But I'm a junior officer here in the service. I have great responsibility on that island because nobody can help me but me." He said, "What do you want." I said, "Well I want an increase in my salary when I'm there." He said, "What do you want." I said, "Fifty pounds."

Riehl: Fifty pounds?

Newton: Per day?

Boogaard: Fifty pounds, No, per month.

Newton: I was only kidding.

Boogaard: So, then I said, "I want an officer in charge allowance, also fifty pounds." "Alright", he said, "you got it." So, I said, "Alright I'll go."

Riehl: And you went.

Boogaard: So, I went six months later back again to the island. I had two _____ _____ island.

Newton: So that's how Marion Island observations got started. Is that true? Herbert has told me earlier that he has an obligation to get back.

Riehl: Yes, I do, besides that it's been long enough for Henry also.

Boogaard: Yes, I think I have…

Newton: I wanted to ask you one more question but perhaps Herbert would like to leave.

Boogaard: It's all right, yes.

Newton: Going back to your younger days on the other tape on the 26th of July, I think it was, you described to us some aspects of your youth but the one remaining question I think that needs to be filled in there is how did you come to get into meteorology? Was that your intent from the beginning? Did you want to be a meteorologist before you went to college for example? Did you come into it by accident or what?

Boogaard: Let me tell you.

Newton: Did you have another intended field?

Boogaard: The school I went to was the Christian Brother's Alliance but just across the road was the meteorological department, which at that time during the war was on the military…

Boogaard: (Maureen) Supervision?

Boogaard: Yes. I was always…yes I was interested even in Holland with the _____. I was always fascinated to read to weather forecast and to look at the pictures and you know the ____ in Holland is the big meteorological office. It was hundreds of years old, you see. _____ _____ comes from there and so they had some…_____ _____ over there, some very good meteorologists in Holland. But yes, at that school especially looking on the rugby field I could see the meteorological department and see balloons going up, you see. So, I had a basic interest, yes, in that but it was not upper most in my mind.

Boogaard:
(Maureen) You were going to be a mechanical engineer or something weren't you? Weren't you taking engineering?

Boogaard: Yes, I was taking engineering at the University of Cape Town. Then I found out that was more a glorified contractors job than anything else. So, then one night in the paper the government was advertising posts and in there they were advertising for junior meteorologists and technicians. So, again coming back to that secretary of transport whom I knew, Mr. Shaw. He at that time I knew from the church and I knew that he was working in the department of transport under which the Weather Bureau was stationed. So, I told him I said, "You know I would be interested in the junior meteorology business." He said, "Oh, that's interesting, I'll do a few words for you if you are interested." I said, "Yes, I am." So, I went to apply to a Mr. King. He was the senior meteorologist of the department and yes, I was approved and I became a junior meteorologist on trial for a year and then got my permanent appointment and that's how I got into meteorology. Soon after that the Marion Island business came up.

Riehl: It was interesting to find out at the end of all this how you ever got interested in the first place.

Boogaard: Yes.

Newton: That's a fitting conclusion to this conversation with Henry Van De Boogaard with Herbert Riehl and Chester Newton as the interviewers and we thank you very much, Henry, for telling us all of these interesting things.

Boogaard: It is my pleasure and I'm glad that that part of my body is still working.

Newton: Very good, thank you.

Boogaard: Ok.

(TAPE END)