



**Oral History Interview Transcript**

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**Interviewee: Capt (N) B Blattmann**

**Interviewer: Sid Jorna**

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**Location of Interviews: Victoria, B.C.**

**Transcribed by: Joy Thatcher**

## PART ONE

**INTERVIEWER:** This is a CANDIB Oral History Project interview with Captain retired Bert Blattmann recorded on the 17<sup>th</sup> of August 2009 at his home in Victoria, British Columbia. The interview is conducted by Sid Jorna.

### Tape 1, Side 1

**INTERVIEWER:** I will now ask Captain Blattmann to identify himself.

**BLATTMANN:** My name is Bert Blattmann, Bert B-e-r-t Blattmann B-l-a-t-t-m-a-n-n

**INTERVIEWER:** And could you identify the period of time that you were [in the Navy]

**BLATTMANN:** I joined the Navy as a cadet in 1966, obtained my commission upon graduation from university in 1969 and then I did a full career of 35 years service until my retirement in 2001.

**INTERVIEWER:** Thank you sir. We will go in to a little bit more detail in a minute. I would like to confirm that we have both signed a legal release for the tape and then we can carry on.

Captain Blattmann sir, I would ask you at this time to give a very short synopsis of your career in the Navy and to outline for us perhaps the areas of your main involvement which we'll talk about today.

**BLATTMANN:** Very well, I completed my Certificate of Competency, C of C, Part Two in 1972 on board HMCS ANNAPOLIS and then served on the PRESERVER and served also on the PROTECTEUR. On the PROTECTEUR I was the Main Propulsion Officer, and then eventually I became Engineer Officer of the SKEENA in 1975-76. From there I served at 201 CFTSD in Montreal overseeing a multi-ship refit of four destroyers and also the conversion of the Cormorant into a diving ship. And then I served at NETE for a couple of years from there to NDHQ in DMEE, which looked after the design and in-service support of auxiliary machinery in the Fleet. I then served also as a BTSO at CFB Halifax in the early eighties, Squadron Technical Officer of the fifth Canadian squadron on the East Coast in Halifax in the mid eighties, a brief stint of two years on the submarine project, the CASAP project, which was then the nuclear option for the Canadian Navy. From there I actually joined the CPF in Saint John, New Brunswick as Deputy Program Manager for construction. I was... I looked after a team of inspectors, Navy inspectors in Saint John and also at MIL Lauzon where three frigates were under construction there and nine were built in Saint John. From there I ended up as CO of the Ship Repair Unit Pacific in Esquimalt which eventually was renamed the FMF Cape Breton and then my last, my last career, my last job in the, my last Navy job was Defence Attaché to Germany where I served in Bonn and then in Berlin when the German government moved its capital from Bonn to Berlin in 1999, retired in 2001 and here I am.

**INTERVIEWER:** Thank you sir, you certainly have quite a wide ranging career hopefully we can [indistinct, probably: 'focus on specific'] topics. Perhaps we can start with just a few notes on the PROTECTEUR and PRESERVER, it might be interesting because I can probably help with some comments that I've read in this book "The RCN in Review" and also some comments that come from Admiral Charles. Perhaps you can elucidate on your involvement with the PROTECTEUR and PRESERVER.....

**BLATTMANN:** Yeah with the AOR project I had very, very limited involvement with the projects. I had just commissioned in the Navy, finished my Sea Ops training in Halifax and my first posting was to HMCS PRESERVER, but the ship was being built in Saint John New Brunswick and the project was about ten months late, so when I joined in Saint John with the ship delayed by ten months they employed me on the PNO staff, like they employed quite a few other officers on the PNO staff then and I was a brand new Sub Lieutenant. My job was to look after the various sea trials, mainly to look after the scheduling, not really the scheduling, to looking after all the inspectors who need to come down from NDHQ to witness trials. I had to alert them by message or telephone to tell them when to come down to Saint John and witness sea trials or alongside trials. So my function was to coordinate all the trials and alert the inspectors for each of those trials.

**INTERVIEWER:** Thank you sir. Do you recall what were the key advantages of the PROTECTEUR and PRESERVER over its [their] predecessor HMCS PROVIDER.

**BLATTMANN:** Like I said I had very, very limited information because I had only joined as a Sub Lieutenant and the PROTECTEUR had already commissioned the year before when I joined. The AOR, or wait, the 508 the PROVIDER was commissioned around 1963 and my understanding is NDHQ set up a number of teams to study the functions of AOR and to really zoom in on Navy shortfalls PROVIDER may have and then incorporate the new technologies to the PROTECTEUR Class, the 509 Class. And these studies seemed like produced very valuable information to make the 509 Class quite superior to the Provider.

Basically some of the main changes they did is they increased the height of the main hull of the Protecteur Class by ten feet, which allowed them to have a sheltered area for all the pumping system, anything to handle liquid cargo and that would be sheltering for the crew operating the system. On the PROVIDER those personnel were exposed to the elements and in the winter, it was pretty tough to work on the outside on the PROVIDER so that change was very successful for the 509 Class. My understanding is it added top weight by adding this additional deck in which case it was offset by having both main structures of the AOR 509 built in aluminum versus steel. That was a big difference with the PROVIDER again.

In addition PROVIDER had only one funnel, the AORs had two funnels allowing for a larger hanger. The hanger was in between those two uptakes on the 509, so they had a very large hanger allowing three helicopters to be stowed inside the hanger to provide first and second line maintenance. In addition the big change from the 509 to the PROVIDER were the liquid cargo handling system whereby all the valves, the main cargo valves on the 509 Class were hydraulically controlled remotely from a control room; nothing was manual. It allowed for easy operation of the system, it allowed for fast online operations of fuelling. It allowed also for emergency shut-offs for quick shut-offs of the fuel system if there's any incidents during the RAS station.

So those were significant changes which improved the 509 Class and of course they had some capabilities to sail in the Arctic through slush ice or pack ice. They had class three Lloyd's certificates for ice conditions and I witnessed those years after when I sailed up in the Arctic. So those were the main changes. In addition, I would like to highlight here, is that the main propulsion system had a machine control room, an MCR. Both boilers and main turbines were remotely operated directly from the bridge and that was a significant change from the past. In addition of course they could be operated directly from the MCR by the machine control system. So that was quite an achievement. They were well, well designed and the AORs here we are in 2009 they're still in operation which is just amazing.

**INTERVIEWER:** Thank you sir. Could you go in to a little more detail on main propulsion system? What kind of a propulsion system, what was its antecedent, did it come from the PROVIDER system or perhaps is it from the Americans?

**BLATTMANN:** No, the main propulsions from the AOR 509 Class the Protecteur Class was designed in Canada. My understanding is they did massive studies at NDHQ of various systems. Apparently they studied five different systems of propulsion and eventually selected the setup we have now in the 509, which is two large boilers with super heated steam high pressure, 600 lb. pressure, 850 degrees Fahrenheit superheated steam operated automatically, remotely. There's no punching in and out of oil burners, it was all automatic. As a matter of fact the whole flash-up of the boilers was fully automated through a Bailey Meter system; whereby the boiler would be purged automatically before flashing up, then the fuel was controlled automatically. It was just great. Then the main propulsion, the ship is only a one shaft line; a solid shaft and it had two turbines, one high pressure turbine and a low pressure turbine. And the efficiency they managed to achieve was to have various bleed lines between the high pressure turbine to the low pressure turbine for various speeds of the ship allowing very high efficiency meaning low fuel consumption to power the vessels. Those two turbines; high pressure and low pressure HP and LP we call them led in to one single gear box. So you had two inputs to one single gearbox and one shaft output to a fixed pitch propeller 20 feet diameter back aft and one large rudder controlling the ship. To add to the maneuverability of the vessel these AORs had bow thrusters. It added maneuverability especially coming alongside jetties. You could shift the bow easily and maneuver more easily in confined spaces, like going to Roosevelt Roads and Bermuda; bow thrusters were very, very useful.

**INTERVIEWER:** In some of the older steam driven plants such as the St. Laurent Class the issue was losing the ability to support the spare parts. Now this did not, this wasn't a problem in the AORs?

**BLATTMANN:** No, no it was not a problem, all the equipment we had on the AORs were manufactured in North America; all the suppliers were North American suppliers. The ship was not built to what we call full NATO or Navy standards for warships. These were supply vessels; they had lower requirements for... particularly for shock resistance. On the other hand, on the other hand the machinery was very rugged and proved over the years that it was highly, highly functional. It was a good design. One of the main problems they had in the main machinery space in the early seventies was a lot of humidity and condensation in the main engine room. Somehow the system of bleeding steam and the steam from glands of the engines, of the turbine; somehow they had difficulty controlling those and the space seemed to be always super humid a lot of condensation and created a lot of problems with the electrical motors and electrical controls we had in the Main Machinery Room. But I suspect eventually they resolved that problem, but it was not resolved when I served on the ship back then in 1971-72. They were brand new and they hadn't resolved the problem yet.

**INTERVIEWER:** Speaking about the electrical system, I assume that these ships were completely AC standard [power distribution]: some of the other ships [were mixed ac and dc.]

**BLATTMANN:** Oh yes, yeah the AORs were, it was all AC. They had a massive switchboard just behind the MCR controlling all the electrical systems throughout the ship. We had sophisticated electronics systems also because the electronics were coming out in the early seventies. I mean the ships were designed in the sixties; for example the ship had two large elevators and they were all electronically controlled. I mean they had solid state circuit boards which to us was fairly new back then, but that was introduced in the machinery system and the electrical system. The ship was powered at the two one thousandth kilowatt steam turbines, had two diesel engines 500 kilowatt each and in addition had one gas turbine generator at 500 kilowatt gas turbine. So the ship had plenty of power, but during RAS stations a lot of the large motors, pumping motors could be electrical. They certainly drew a lot of current when we were at a RAS station. Of course we also had steam turbines to pump cargo fuels to the destroyers but we had also large motors in case the steam turbines were in problem.

**INTERVIEWER:** Can you recall with the electronics being introduced into the vessels, can you recall some of the industries that participated?

**BLATTMANN:** Not really, not really I wasn't really too familiar with the electronic systems on the ship. All I know is from the electrical department because then I was a Lieutenant on the ship and I was the divisional officer of the electrical section of the engineering department and we had shortages of any, we had shortages in electricians on board. The workload, the electrical workload was just massive on the AOR; insufficient manpower available. And in addition it would appear like the training of our electricians was not compatible or to par with the equipment installed. So they needed to revamp the electrical training for staff at Stadacona but that took quite a while to improve the quality of all our electricians to meet the new solid state electronics which were coming out.

**INTERVIEWER:** Perhaps at this time we can switch our focus on HMCS CORMORANT which was a ship that you had an involvement with. That was a unique ship. If I recall it was purchased as a commercial vessel. Can you tell us the story of the CORMORANT?

**BLATTMANN:** In the mid seventies I worked at CFTSD in Montreal and when I finished the Multi-Ship Two refit there, the CORMORANT had already arrived at MIL Lauzon for a conversion and I was posted to Lauzon and in charge of what we called the PMO team there so I looked after a small team of naval personnel to oversee the constructions and the renovations of the CORMORANT and eventually its sea trials and commissioning. Basically in 1975 the Canadian Forces bought a trawler, a deep sea trawler, from Italy and the trawler's name was Aspa Quarto. It was purchased in 1975.

**INTERVIEWER:** Could you spell that?

**BLATTMANN:** Aspa a-s-p-a Quarto q-u-a-r-t-o. That was the name of the trawler.

**INTERVIEWER:** OK

**BLATTMANN:** The constructions, the renovations were done at MIL Lauzon and the ship the CORMORANT was commissioned on the tenth of November 1978 and I took part at the commissioning and still hold a commissioning booklet. So my job on site was to oversee all the renovations and modifications and all the trials of equipment and eventually to deliver the ship to its crew and that was done in the fall of 1978. Most of my staff were actually eventually posted to the CORMORANT, they were crew members. They were all technical, electrical branch electronic branch, marine engineer branch; so they were all serving under me under my command and they provided supervisions of all the renovations taking place on the ship. It was very, very interesting, it was my first command. I was then a brand new Lieutenant Commander. The budget was very small. If I recall the budget I had was like 8 or 9 million dollars to convert the ship. The ship was done on time, the contract of course was always pushing for more work, but overall it went very, very well. We were satisfied with the results of it.

**INTERVIEWER:** What was the nature of the contract was it cost plus, fixed price?

**BLATTMANN:** No, the contract was a fixed price contract and the only way you could go above the fixed cost was if there were some changes done; they were not in the specifications, but changes were still required, i.e. the design done by NDHQ. If the design had been wrong and it was found to be wrong, well then you need to make some changes on site and that would be cost plus for those changes.

**INTERVIEWER:** Were there a lot of that kind of activity?

**BLATTMANN:** No there wasn't, no it was sophisticated, the CORMORANT although it was a small vessel it's still over 2000 tons in size, in weight, and it had a sophisticated gas system to provide breathing gases to divers for deep diving. So it was a mixed gas system. It had a hanger to store what we call the submersible which was called the SDL-1. Submersible I believe was built in Vancouver back then. The submersible could dive untethered to 2000 feet in depth. The Cormorant had a decompression chamber also available with oxygen supplies and whatever they need to decompress a crew of divers. It could handle 6 divers at a time and it had of course a large cradle at the back of the Cormorant to hoist and lower the SDL-1 into the water. So the installation of all that equipment was, was quite new and it had a lot of, it had a lot of stainless steel piping for all the various gases and all I recall is the cleanliness we needed to have those piping. It was extremely clean. We had to send samples to various labs to confirm the cleanliness of the piping for fear of potential explosion in the gas lines.

**INTERVIEWER:** That's very interesting. Was there anything else that was unique about the ship, what was the power plant?

**BLATTMANN:** The power plant was, was the original one, we never replaced the power plant on the CORMORANT. Actually everything else was changed apart from the power plant. It had, it had 3 diesel engines, Deutz diesel engine and it had 2 motors in the motor room. This ship was diesel electric so from the electrical motor they would drive the propulsion shaft.

**INTERVIEWER:** Single shaft?

**BLATTMANN:** Single shaft, single shaft yeah. It was, it was a very neat it was a very neat arrangement very, very simple. All the additional auxiliary systems added was to handle now compressors, fire pumps, air conditioning for the crew and of course as a sea trawler they never had those services onboard; so all those were added later on in the machinery room. We added also additional fresh water making systems, evaporators. So the machinery space, the auxiliary machinery space was totally different than what the original trawler had.

**INTERVIEWER:** These are somewhat different in a sense from what we had on the other ships. Did the CORMORANT prove to be a success?

**BLATTMANN:** The CORMORANT yes, the CORMORANT was unique whereby not too many people within NDHQ would know the details of the ship. The crew coming onboard, they had to do pretty well their own training. It was quite a unique ship, but it seems like they managed it very well. Unfortunately the Canadian Navy eventually decommissioned the CORMORANT, I thought sooner than they were supposed to, but maybe they had no more requirements for deep diving vessels at sea, I don't know.

**INTERVIEWER:** When [did she decommission?]

**BLATTMANN:** I don't know-I don't know when she decommissioned but I think she stayed in service at the most maybe 15 years. Yeah I'm not too sure, I don't know exactly when she was decommissioned but she commissioned in '78 so I believe in the 1990's she was decommissioned. Maybe [it was] when we had the big financial crisis around the mid nineties and the budgets were cut everywhere across DND.

**INTERVIEWER:** That sounds like a little bit too bad - sounds like it had really good capabilities.

**BLATTMANN:** Yes it was. It was a great ship. You could post a young engineer officer on board, The CO's were all Lieutenant Commanders so, again, a very young rank to be a Commanding Officer of a ship. The crew was about 16 total. They did... they had various beautiful cruises taking place all the way down to the Great Lakes; so it certainly was a fun ship to sail in.

**INTERVIEWER:** Fun ship.

**BLATTMANN:** Yeah, and fairly automated. The maintenance I'm not too sure how well the maintenance or what was the maintenance problems in service because I was no longer involved at all with the CORMORANT, but my understanding is operationally she certainly met her requirements.

**INTERVIEWER:** Were there any..., just going back in the, in the conversion phase when you were in the shipyard, did you mention MIL?

**BLATTMANN:** MIL, yeah.

**INTERVIEWER:** MIL, yeah. Were there any specific issues that you had that MIL got tied down with that caused concern?

**BLATTMANN:** One came to mind. We were just about finishing the CORMORANT maybe a month before commissioning, we were doing all sorts of trials and one of their production managers, electrical side came to me and said, oh by the way he said, all the drawings and specifications were short in identifying the length of electrical cable to be installed and they were short by about a mile and a half like 7,000 feet of cable, which the Yard said they had to supply in addition to the requirements. And they wanted me to sign this additional work order to pay for this 7,000 feet of cable and I refused. And it created [tension] for a little while. It created a little animosity between MIL and myself, but eventually we resolved it. I had to drag in NDHQ to have a good chat with the contractor and say unless they can really prove where they installed this additional cable there is no way I would sign for it. And of course they had great difficulty to prove where these additional 7,000 feet of cable went, so the issue eventually was dropped.

**INTERVIEWER:** Well thank you very much. I think we should move on from the CORMORANT now and I want to focus on CPF because that seems to be the primary area of your involvement. As you already noted you mentioned the intriguing issue of the submarine and the nuclear option. I think there's a couple of comments [indistinct, probably: 'I would like to pursue before turning to the CPF'] with submarines that you mentioned to [indistinct phrase].

**BLATTMANN:** Yes in the late eighties I joined the CASAP project which was Canadian Submarine Acquisition Project, CASAP. The Project Manager was Captain Bruce Baxter, Marine Engineer. He resides here in Victoria now.

**INTERVIEWER:** He was with BC Ferries...[indistinct phrase]..

**BLATTMANN:** He was involved with the ferries a few years ago. And so I joined his team in 1988 in Ottawa and the submarine project from a conventional then went to a nuclear option under the existing government back then, which was the Conservative government. And I joined the submarine project as the Engineer Manager and my main task or the task we had was to identify these submarines would be built in Canada. The plan was for 10 to 12 nuclear submarines to be built in Canada. No selection site had yet been made then, but my initial task was to identify what they called the nuclear package of information required to transfer to Canada, to AECL which would be the Canadian Atomic Energy Commission from the country of origin, so either from Britain, from the Royal Navy, or from France. The U.S. Navy didn't want to talk to Canada at all about nuclear submarines so they were off the list and there was a possibility that England, the Royal Navy, may have had trouble to transfer the nuclear

information from their Trafalgar Class Submarines to Canada because the Americans may veto that, since it had some information from the U.S. Navy side.

But the French were separate, the French could easily transfer the nuclear technology; of course it would be agreed between the governments. So my main task was to identify the package so with a team of engineers we flew to England and to France, met their technical staffs and we discussed about what nuclear informations are required to build the submarine. And then of course the discussions carried on to also; what are the technologies to actually construct a submarine, where the spare parts would come from, and on and on and on. So those were my involvement. Of interest was that the French Navy sent a message to Canada. They said they would invite two Canadians sailors to sail on one of the nuclear submarines and I was one of the guys selected. And another one was a Submariner, Al Dunlop, back then and he served in the submarines, he was a submariner so he was my partner and both of us, we went to France and we sailed on the French nuclear submarine. Al Dunlop's role would be to gather information on the operational effectiveness and anything to do on operations of the submarine, and my task was to gather technical information on the submarine; zooming in on what they call on the nuclear reactor side how it is controlled and also all the noise reduction measures they had throughout the submarine. So those were my tasks when I went. So Al Dunlop and I we sailed for three weeks on the submarine. Out of those three weeks I think we spent like 18 days under water. It was a great experience. On the nuclear submarine the air control systems are just amazing. Onboard ship I was always in a short sleeved shirt, the temperatures were steady always within one degree Celsius. They would monitor the oxygen CO and CO<sub>2</sub> in the air, use large scrubbers to clean it up. They had special machines of course to generate oxygen. They require a tremendous amount of electrical power, but of course with the nuclear reactor there was no shortage of fuel. The nuclear reactor could provide fuel for 3 - 4 years of operation.

**INTERVIEWER:** Is that by electrolysis system of breaking hydrogen [from oxygen]

**BLATTMANN:** Yes. Yes.

**INTERVIEWER:** What would you do with the hydrogen?

**BLATTMANN:** Yeah it was... I'm not too sure, I'm not too sure how they would dispense of the hydrogen but they would actually break down water and extract, and extract the oxygen. It was quite a sophisticated system; they would have to do it every three or four days with a build up of CO and CO<sub>2</sub> in the air, which was being monitored. When it reached a certain limit then they started generating new additional oxygen.

**INTERVIEWER:** I'm just finishing up on [indistinct phrase] ended up not going [nuclear]. Speaking with Admiral Charles through in this issue, his opinion was that the nuclear option, when studied, became way too expensive: not so much [the] construction [as the infrastructure to support it]. Do you have any comment on that?

**BLATTMANN:** You know I would tend to agree. We specified 10 to 12 nuclear submarines. Of course the construction site in Canada; we didn't have any. To build all the infrastructure needed to maintain the submarines that would have involved a great deal of resources. I saw the resources applied in France in Toulon at their naval yard and it was highly, highly sophisticated equipment they had to perform maintenance on submarines. It is certainly very, very, very costly. In particular the moment you have to work around the nuclear reactor; again it's very sophisticated equipment and safety involvement. Yes I mean Canada we would have had to pour in billions of dollars to make the system work - very, very, very, very sophisticated technology.

**INTERVIEWER:** So you would have had to have a major commitment of resources - almost impossible.

**BLATTMANN:** I agree I had a hard time, back then I had a hard time to imagine Canada being able to actually support 10, 10 nuclear submarines. I mean if you look at, we have right now 4 submarines, diesel submarines, and the amount of resources those 4 submarines gobble up - it's massive. Actually in my experience if I recall while I was in service in Halifax an O-Boat refit would be equivalent to 4 destroyers refit. The maintenance of a submarine is equivalent to the maintenance of 4 frigates. So, and that's a conventional submarine. Now if you go to a nuclear submarine maybe the ratio would be even higher maybe 5 or 6 frigates for one submarine in

maintenance and operational costs. So if you have 10 submarines you're looking at a lot of requirements for resources in personnel, in spare parts and of course in financial resources.

**INTERVIEWER:** So that would have been a major commitment by the department.

**BLATTMANN:** It would.

**INTERVIEWER:** What about the nuclear power plant, was it the type of power plant compatible with what we were doing at AECL?

**BLATTMANN:** No I think AECL would have been able to handle all the technology, they would have been our designer in Canada and of course they would have been our specialist employed supporting DND for the reactor. So AECL would have all the brain power, let's say, to handle directly the nuclear reactor in direct support to the Navy. So AECL would have been contracted out by DND.

**INTERVIEWER:** Was it the same sort of system; was it a heavy water system? Did it have much water in it?

**BLATTMANN:** I forget now, I forget, I'm sorry. No I forget what they had on the French nuclear submarine, if it was heavy water or light water.

**INTERVIEWER:** or light water...

**BLATTMANN:** Yeah I forget, I forget. No I don't know.

**INTERVIEWER:** I don't know much about submarines, but I know in power generation [indistinct phrase, possibly: 'Canada uses a heavy water approach, whereas other countries rely on light water']

**BLATTMANN:** Right exactly,

**INTERVIEWER:** ...Canada... sort of different in their fundamental approach...

**BLATTMANN:** Exactly yes.

**INTERVIEWER:** So my question really was might the actual reactors on the French submarine be a different approach than Canada?

**BLATTMANN:** Oh I see no, I'm sorry I cannot answer it. I would have to go back to my papers to see if I have the information.

**INTERVIEWER:** That's very interesting, it adds to my knowledge of what was going on with the nuclear submarine program. I think I can see from your comments some of the reasons why it might have been cancelled.

**BLATTMANN:** Yeah, well what's interesting is while I was on the submarine I ...to get any information on the nuclear side they wouldn't give it to us, it was all Top Secret for them so I had no access to it. But, I say 'but' here because I decided to join a steaming watch and then I would go on one-in-three watch system and I would join crews at the main propulsion control centre they had on the submarine. And then from the crew I could ask them all sorts of questions about; how the reactor operates, how do they start it up, how did they shut it down, how do they control the speed the energy level of the reactor? So I obtained all the information. In addition what was interesting of course in the small MCR of the submarine I would see always the shaft RPM of the submarine and the velocity, the knots, the speed of the submarine. So whenever I went in the MCR I would write down the speed of the submarine with the shaft RPM to make a kind of a curve between the two. In addition of course there's one main propulsion motor, electrical and it had Amperage; they had a large amperage gauge showing the amperage going to the motor. I would also write down the amperage to the shaft RPM and the speed of the boat. So I ended up with a full power curve of the submarine to its top speed over 30 knots under water - what were the RPMs of the propellers and what speed the boat was doing and how much energy it was using then at high, high velocity. So quite interesting I could just, it took me a while to - I don't know if it was cheating - but now I was gathering a lot of information that they didn't know I could actually gather, but I did gather it.

**INTERVIEWER:** Oh that's very, very fascinating. Okay Captain we've talked about the ship programs and we're coming up to the main one which is the CPF. I understand that you had

quite an involvement with the construction of the CPFs. Maybe you can tell us a few stories about what happened about that.

**BLATTMANN:** Yes in 1990 I joined the CPF staff in Saint John New Brunswick almost 20 years after the AOR experience I had as a sub-lieutenant. I replaced Captain Roger Chiasson as what we called DPM Construction deputy program project manager, Deputy Project Manager - Construction and the PMO was a Commodore and the PMO was in Ottawa. I looked after all construction matters for quality control of the CPF.

**INTERVIEWER:** Was that Commodore Gibson at the time?

**BLATTMANN:** No Healey had left, it was Commodore Reilley, Dennis Reilley and then eventually Dennis Reilley was replaced by Wayne Gibson and Dennis Reilley... I had Dennis Reilley for one year and Wayne Gibson for three years. I worked four years at Saint John. So the mandate of the project was 12 frigates, 12 CPFs, 9 to be built in Saint John and 3 to be built in Quebec City.

So when I arrived in Saint John in 1990 we were just about to start the sea trials of the first CPF, CPF 01 HMCS Halifax. That's when I joined the ship. They were finishing contractor sea trials contractors alongside trials when I joined. And then there were always 6 or 7 frigates under various stages of construction while I was on the project. What was amazing is how Saint John Shipbuilding managed to improve its efficiency in construction of the CPF and I would monitor those improvements and sure enough they made a tremendous stride of efficiency.

**INTERVIEWER:** [Can you give some examples?]

**BLATTMANN:** Yes the CPF for instance initially was designed to be assembled in 26 modules so small modules from 100 tons to about 2 or 3 hundred tons. Eventually instead of 26 modules they slowly increased, diminished the number of modules, to eventually have only 7 modules. And each of the modules now, are between 500 to 600 tons of weight in each and the improvement was mainly in the level of outfitting of each of those modules. This is where they save man hours.

Any work to be done on the ship itself would take much, much more time for the crew to actually perform that task versus performing the task in the shed where they were assembled; the module were assembled. So for example the level of finishing of modules was to the point that if you walked in the modules you would feel like you were on the finished ship. Everything would be inside the modules, everything would be painted, the equipment would have been there, the wiring in there, the piping, even the markings on the piping, the stickers, labeling, name tags. Everything would be already pre installed in the modules before moving the modules to the graving dock and then being welded with other modules.

So those improvements were just fantastic to the point that the accuracy of welding the modules together, what, which was fantastic, was for example and I'll show it to you. The ship of course had a main mounting gun. Initially the first few ships the modules at the bow of the gun seating would be... the gun seating would be roughly machined in a machine shop and eventually when the whole ship is assembled in the graving dock and floated up, they would then do the final machining of the gun seating and install the gun to make sure it's properly aligned with the structure of the ship. When we came to CPF 05 or 06 with the Montreal, the module the forward module instead of being 4 pieces [was] only one now; the whole bow structure is one module instead of four and we already had the gun mounted in the shop on its seating fully mounted. So when this module came to the graving dock the gun was already installed.

Now the technology of welding this module the 600 ton modules to the rest of the structure and you're talking about arc welding here with distortion and everything else, it was such that at the end of all the welding and then when the ship is floated up and you have now bending of the haul the gun was perfectly aligned. We just couldn't believe it and when we had visitors from other navies and other shipyards coming here they could not believe it that you could actually mount a gun in a shop and then eventually have it still aligned when it's fully assembled and the ship is afloat. But SJSI managed to do it.

**INTERVIEWER:** Well that sounds like quite an innovation. Now let me just pause, this is the end of side A of the tape and I'll just turn the tape over and continue with our story.

## Tape 1 Side 2

**INTERVIEWER:** ...talking about increasing efficiency in building the modules, now Captain do you know with this efficiency going on in Saint John do you know was there similar efficiencies happening like that in other shipyards or did they simply [copy] technologies somehow?

**BLATTMANN:** Well the other shipyard was MIL. MIL was a subcontractor to SJSJ so the prime contractor was SJSJ Saint John and MIL would follow up. MIL were to build 3 frigates and they did. They built 3 CPFs, but in addition the government forced MIL to diversify a little bit and some sections of the 3 ships at MIL were built in, in Lauzon, no not Lauzon another yard in Quebec City.

**INTERVIEWER:** Quebec City?

**BLATTMANN:** No, it was alongside the St. Lawrence River not far from Montreal. Uh, Sorel.

**INTERVIEWER:** Sorel.

**BLATTMANN:** Yeah in Sorel. So modules were built in Sorel, towed down the St. Lawrence River to MIL and then of course MIL, they were building the CPFs on slips versus a graving dock. So those modules they had to actually hoist them up the slips to assemble them; so it was quite a tedious and difficult problem. In addition MIL would receive all the design changes from SJSJ - all the revisions. By the time the revisions were actually approved and shown on drawings there was a 3-4 month lag. And after MIL would have to repeat its work because the design had changed, the manufacturing drawings had changed, and MIL was not too happy. As a matter of fact MIL took SJSJ to court eventually based on that, but it was eventually solved. So MIL had some efficiency, but very minor because they built only 3 ships. SJSJ built 9 ships and that's where they really gained greater efficiencies.

**INTERVIEWER:** With that the kind of efficiency growing up out of experience, it seems a shame that we weren't able to continue to build. For instance not just repeating the St Laurent Class, they were building 2 ships in there in the St. Laurent days to keep Canadian industry alive in part and its too bad that we didn't get that coming from the CPF.

**BLATTMANN:** No what's, well what can I say here? The CPF was for 12 frigates and it took them like ten years to build the 12 frigates. Yes 1983 to 97' actually - 12, 13 years of construction; the 12. But then the Navy had no longer any projects after that to follow up and what's really amazing also is that Saint John Shipbuilding did not win any commercial contracts after the CPF. I would have thought they would have been a highly successful shipyard having come forth with all the efficiencies of constructing the CPF. They could have adapted those to the construction of regular tankers or regular ships, commercial vessels but somehow they were not successful to win contracts. I guess to compete against shipyards from the Far East was very, very, very difficult and Saint John just could not, in spite of the experience gained from the CPF, could not be competitive which really astounded me but that's, that's the situation.

**INTERVIEWER:** Yes, well I know there was a lot of effort by the Navy to try and sell the CPF and derivatives of that at the time.

**BLATTMANN:** In addition Saint John when they built their sheds or their module sheds where the CPF modules were assembled in, which was a huge large shed - brand new. It was designed to fit our new submarines for the Canadian Navy. So SJSJ were aiming after the CPF they were aiming at the CASAP project, which was the submarine construction projects, but again we know now the history. The Canadian Government decided not to build new submarines but we bought 4 old used submarines from the British Navy, from the Royal Navy. So SJSJ of course lost, really lost out there. They were hoping to get involved with the submarine projects right after the CPF, building new submarines in which case... this would have been conventional submarines not nuclear, conventional submarines ... in which case they would have been very well geared to actually perform very effectively in building those ships.

**INTERVIEWER:** Alas SJSJ invested very heavily in building up their shipyard.

**BLATTMANN:** Yes SJSJ and also, and also the Canadian Government. The Canadian Government provided a lot of assistance to SJSJ to upgrade and upgrade their infrastructure for the CPF. It was heavy investments from the Federal Government, but really worthwhile to have a modern infrastructure and then of course it proved that CPF ended up to be fantastic ships,

well designed. They operate, I mean if you look at the operation of CPFs now, we send them from Halifax or from Victoria all the way to the Middle East and they return 8-9 months later still fully operational. Just amazing how they function and these ships are almost 20 years old.

**INTERVIEWER:** That's amazing isn't it; time passes.

**BLATTMANN:** Yes, well yes the first CPF would be 20 years old next year, she commissioned in 1990 and here we are year 2010 next year so she'll be 20 years old, so just amazing. Time flies.

**INTERVIEWER:** Are there any other issues in the shipyard that concerned the CPF? I notice in your documentation, the document Lessons Learned...

**BLATTMANN:** Yes, I, I generated a booklet when I left the CPF and it was called the title CPF Construction Experience Gained. Well experience gained within the Navy to manage a large project because this project was a, was a very, very big project. It was over 10 billion dollars of 1990 dollars and also the shipyard and you had Paramax in Montreal doing all the electronic systems. They both learned a great deal and I can say the end results of the CPF were just, just amazing, superb design. SJSL with their teams of engineers designed the vessel, the Navy provided only what we call performance requirements but the SJSL was the prime contractor was responsible in all aspects of design to meet all the contract performances specified in the contract. So it was quite an achievement to be able to do that; on the weapon side, on absolutely every, every aspect of the vessel; operational aspect.

**INTERVIEWER:** There is one that I can differ with that. I know that from my experience at the sonar systems came from the Matrix.

**BLATTMANN:** Correct the 510.

**INTERVIEWER:** And the CANTASS.

**BLATTMANN:** And the CANTASS correct. There were I agree with you, there were certain equipment provided by the Navy, it was not really designed by the contract.

**INTERVIEWER:** GFE.

**BLATTMANN:** GFE correct. The same would be for some of the weapon systems we purchased from the American Navy including the main engines, the gas turbine engines, General Electric LM2500's.

**INTERVIEWER:** Yes [indistinct phrase] electronics

**BLATTMANN:** Yes, yeah, yeah so some equipment were actually supplied to SJSL I agree but if you look at, yes I would say components on the weapon side and the Operation Room side many components were designed by the Navy. But SJSL with Paramax and CAL, CAE, CAE in Montreal they produced the Machinery Control System. They designed it from scratch. So as a Canadian achievement I think overall it was a great achievement.

**INTERVIEWER:** It certainly was, yes. Can you comment on the Machinery Control System, is that...?

**BLATTMANN:** Well the machinery control system was pretty sophisticated. We had them of course as I've mentioned on the AOR before but this is a totally, totally new system here. This is not pneumatic this is all electronic. The machinery control room would actually monitor all aspects of the main propulsion system; ventilation throughout the whole ship, firemain status, status of any rotating equipment in the ship. It would be monitored centrally within the MCR and you could have a print out of the status of all your machinery and equipment so it was a superb system including all facilities for Damage Control which was very high on our list. So the ship had exclusive zone for Damage Control; smoke extraction throughout the ship, the shutting down of the firemain in sections automatically done, starting up fire pumps all automatic. It was just, just, just great.

**INTERVIEWER:** Just pursuing for a moment the lessons learned document, what were some of the key lessons that you would highlight as we learn from this exercise?

**BLATTMANN:** Well the key lessons were in the conduct of trials onboard ship. Of course from the first ship everything was new for the Navy side and also from the contractor side to conduct the trials, monitor all the trials and of course in the shipyard the main activities of course was construction, so the gain in the construction efficiencies were just tremendous. Just on top of

my head I'll give you an example. The first CPF took 5.2 million manhours to construct, 5.2 million manhours. The CPF 07 when I left the shipyard we had delivered 7 CPF. The seventh one was down to 3.2 million man hours. So one ship was 5.2 and the number 7 now is 3.2 million and eventually my understanding is that the last CPF number 12 was around 2.7 million manhours, which is half of the first one in manhours. So these are tremendous, tremendous you know gains done by...

**INTERVIEWER:** Huge.

**BLATTMANN:** ...huge gains done by the shipyard in innovation of how the methods of, of improving installation of equipment and in manufacturing. So huge events, the same for sea trials. The first sea trials lasted 5 - 6 months and eventually they were all conducted within 6 weeks; all of the contracted sea trials. Again great improvements of sea trials. Of course the lead ship sea trial packages always more extensive than other ships, than the remainder of ships, but still we reduced greatly the time allocated for sea trials and that means savings to the contractors, savings to the Navy.

**INTERVIEWER:** Yes.

### *End of Part One*

## **PART TWO**

**INTERVIEWER:** This is the second segment of an interview with Captain Bert Blattmann held at his home on the 7<sup>th</sup> of October 2009. The first session was held on the 17<sup>th</sup> of August 2009, but technical problems prevented completion of the interview at that time. We have both signed the release form for this and the previous session. This session will focus on Captain Blattmann's experience in the Ship Repair Unit (Pacific).

Captain, this session will try to focus on your experience in the SRUP and perhaps you can just give us an overview of that experience.

**BLATTMANN:** With pleasure Sid. I joined the SRUP in the summer of 1994 as the CO replacing Sandy Sutherland and when I joined I'd like to maybe give you an overview of the environment. In 1994 the Federal Government was in huge deficit and the Federal Government had instituted cutbacks to the various departments of the bureaucracy including of course DND. DND was severely hit like a 15% cut of budgets and in addition the Federal Government was looking at contracting out work so the moment that news hit DND they said well we better get our act together and we have to protect our Ship Repair Units, because apparently the government wanted to privatize the Ship Repair Units as it was done in some shipyards in England. So the Navy quickly set up an investigation team called the NEMS and the NEMS function was to look at the SRUs the NEUs and FMGs on both coasts and see how we could improve efficiency among those units and that's when I joined, that's when I joined the Ship Repair Unit.

**INTERVIEWER:** Right, for people who might not be aware of those acronyms can we just spell them out, the SRU and the NEU what that means.

**BLATTMANN:** Okay, yeah the SRU were of course the Ship Repair Units, Atlantic and Pacific, NEUs we had Naval Engineering Unit the same, Atlantic and Pacific, and the FMGs Fleet Maintenance Groups were in the Atlantic and Pacific. The SRUs were prevalent in the... in civilian employees. The NEU were mixed civilian and military employees, engineers and technologists, technicians and the FMGs were solely military personnel, technical personnel in the FMGs. So the aim here was to create one unit on each coast which would [redundent words deleted for clarity] have compressed the FMG, SRU and NEU into a one unit. So that's when I joined the scene in the Ship Repair Unit when the NEMS, naval engineering maintenance systems review was taking place. So I was involved in that review and discussions and that took over two years to eventually sort out our act and create what was called, or what is called now the FMF the Fleet Maintenance Facilities, Cape Breton on the West Coast and Cape Scott on the East Coast. So the integration of those three units in to one created some headaches whereby all the civilians in the Ship Repair Units were scared of having more military coming in and nobody would know where to put those military technologists and technicians among the civilians. The unions were scared of losing some force that the unit now would be predominately military versus civilian dockyard Navy and the military of course had also their concern because if you had junior military personnel your supervisor could be a civilian in the

Ship Repair Unit and they were scared about how would this authority function, a question of discipline, and even writing performance assessments - our famous PERs.

**INTERVIEWER:** Yes

**BLATTMANN:** The civies in the dockyard didn't really know how to do it.

**INTERVIEWER:** How to do that?

**BLATTMANN:** So we had to look at all those issues and then give all sorts of briefings to the personnel, not to scare them. But under the NEMS which was controlled by COS(MAT) in Halifax they were pushing forward to integrate the units so there was no going back. We had to move forward and do our best how to integrate those 3 units into one. So in addition of course on the West Coast and East Coast the CPFs, the new frigates were coming into service, so the whole fleet structure was changing on both coasts. So when it came to maintenance of the CPFs on the West Coast, well all the technicians had to be retrained in the Ship Repair Unit and you needed new tools and on and on and on. So there was a drastic change taking place already and the steam destroyers were being phased out. As a matter of fact when I joined in '94 there was only one DDE left; a DDH which was the [HMCS] ANNAPOLIS.

**INTERVIEWER:** The ANNAPOLIS.

**BLATTMANN:** Yeah, and then the other steamships would have been [HMCS] PROVIDER and PROTECTEUR, AORs, and so the steam, the steamships were disappearing and now it's all gas turbine ships taking place in the shipyards. So that was the environment when I joined, very I mean very, very busy and a lot of arguments with the NEMs group and then, and then with COS(MAT) and then the boat CO's and we had often of course we had meetings. I would fly to Halifax or vice versa they would come to the West Coast and we were chucking along but the biggest threat was from DND, the biggest threat was to privatize. There was a strong push to privatize, to privatize the SRUs. It was under a..., a paper came out from NDHQ called ASD, Alternate Service Delivery. Basically, alternate service delivery meant privatization. [Redundant Words deleted for clarity] In there was not only Army and Air Force, but the Navy was in there with the Ship Repair [Unit]. They were looking at the Ship Repair and saying 'can we do a privatization of the Ship Repair?' And so there was a big, big debate. Eventually the Navy won whereby we certainly, the technical staff, convinced the Admiral's and the Navy staff in Ottawa that Ship Repairs are critical for any emergency and we have the qualified personnel to handle the ships to maintain them. A private shipyard couldn't really repair all the weapon systems we have on the ships, I mean they can repair pumps and so and so, we understand that, but when it comes to the crux of, you know, weapon systems on ships, fire control systems and on and on and on, it's difficult to see a private ship yard to handle it. So on that side of course we won.

**INTERVIEWER:** Yes, well it must have been..., privatization must have been a bigger threat to the civilian contingent in the dockyard than having the military ingrained.

**BLATTMANN:** Yeah.

**INTERVIEWER:** It must have been quite an interesting battle scene.

**BLATTMANN:** You're correct, you're correct Sid, whereby when we spoke with the union and then we spoke with the civilians in the Ship Repair the card in our back pocket was always privatization and if that were to come of course that would threaten their position, their jobs. On the integration we said listen there won't be any threat of jobs here because the workload is all the same it doesn't matter if we bring FMG in or out. FMG was doing Ship Repair work on their own.

**INTERVIEWER:** Already

**BLATTMANN:** Exactly, already so you see so there was no threat for the civilians apart from privatization. Now the Federal Government under the ASD and that was from the Deputy Minister and it was a lady back then Fréchette, Deputy Minister Fréchette. She was pushing hard to do non-core functions to contract those out, irrespective of integration of the units on either coast, whereby they were forcing us to contract non core functions. So there was a debate; what is core; what is non-core? Well basically non-core was functions that any private shipyard can do; painting the ship, repairing a valve, repairing a diesel engine and on and on and on. They said this is non-core, anybody can do it you don't need the Dockyard Navy specifically to do those jobs.

**INTERVIEWER:** But not the weapon systems and....?

**BLATTMANN:** Exactly, the weapon systems, and the communication systems and the Ops Room equipment we had. We quickly classified those as core functions [redundant words removed for clarity] which would be retained by the Navy. Of course the debate then went further. The non-core that were to be contracted out; we said well I mean how do we handle it? Well now the CO of the Ship Repair Unit issued ... (because according to Treasury Board regulations every time you issue work you have to go to a competitive bid). Every time we needed to repair something on the ship which is non-core for example painting, painting the steering gear compartment - well if I have to go to a competition every time I want to paint a steering gear compartment or any other compartment of a ship it starts to be pretty complicated...

**INTERVIEWER:** That's pretty complicated.

**BLATTMANN:** ...to manage. In addition what would be the civilian personnel's function now from this private contractor coming into the shipyard? How does it work with the union working on the same ship and on and on and on? So I could see all sorts of headaches there.

**INTERVIEWER:** How did it work with, for example VMD, Victoria Machinery Depot? They build ships there, they have the graving dock, and they have a core function capability. Couldn't they have come to an arrangement with DND for some things as a strategic resource?

**BLATTMANN:** Well you see over the years actually the Navy was always doing it whereby most repairs, refits of destroyers, most of them were always contracted out, apart from the weapon systems which went to various, you know, depots in Canada repairing armament. And, but refits were done ... most of the refits, 80% of all our ships were being refitted in private shipyards. So we were already doing ASD, already doing it. As a matter of fact while I was here at the Ship Repair, [HMCS] *Protecteur* was under refit back then; a massive refit, a two year refit of nine hundred thousand man hours. It was a huge refit whereby they modernized the *Protecteur* installing new electronics, installing Close-in weapon systems and basically it was a mid-life refit of the *Protecteur*. Well many of those jobs were actually contracted out to the local shipyard called Victoria Shipyard and we would work on the *Protecteur*. When it was turn now to dock the ship, the *Protecteur*, and do all its fuel tanks and repairs of all the valves and the fuel tanks that was done privately not by Ship Repair Unit. And then when Vic Ship had finished the *Protecteur*; doing all the valves and the underwater paint and propellers and all - propeller, the ship came back to the dockyard and we finished the refit. So we were already doing...

**INTERVIEWER:** ASD

**BLATTMANN:** ASD we were already doing it.

**INTERVIEWER:** Well what about, what about competing for those refit jobs? Surely it would only have been practical to do certain refit jobs on this coast here with the....

**BLATTMANN:** Correct, correct from NDHQ, DGMEM, Director General of Marine Engineering and Maintenance in Ottawa, they monitored, they had control of all the expenditures for the Ship Repair including refits in the dockyards or refits out of the dockyards and they had always a plan 3 or 4 years ahead whereby in saying we need to keep the Ship Repair Units busy so we'll provide them some refits, not too many because they won't be able to handle it, in addition to running repairs. But we always had a ship in refit among the both SRUs and the remainder of the ships would then be contracted out under competitive bids. So it was always on the competitive bids.

**INTERVIEWER:** Always.

**BLATTMANN:** And that worked well. The SRUs we decided which ship we would like to do a refit on and that was non-competitive it was assigned to the SRUs with a budget and we were held to the budget and held to the time frame of doing the refit, like a private contractor, and then the remainder of the ships not being done inside, I mean refits not being done inside the Naval Dockyards they were contracted out competitively. And it was a good arrangement and as a matter of fact they're doing it now. In addition of course when we, with the scare of privatization they said well you know the Ship Repairs need to be more business oriented. We had to become more efficient. Okay, so; meaning more efficiency; meaning we should reduce

costs of the Ship Repair Unit. So now we under the NEMs review, the functional review, we looked at new business approach for the Ship Repair and good plans, good intentions, but very, very difficult to introduce in the Navy, but we did it while I was still at the FMF and the Ship Repair.

**INTERVIEWER:** Yes.

**BLATTMANN:** Whereby we determined budgets for each of the ships; a maintenance budget for each of the ships and it was like a monopoly game. We gave that budget to the Admiral and the Admiral gave the budgets to his Commanding Officers of ships. So for example a CPF back in the mid-eighties, mid-nineties I'm sorry, would require about 1.8 million dollars a year for running maintenance, 1.8 million on average unless there's emergencies something cat...

**INTERVIEWER:** catastrophic

**BLATTMANN:** ...catastrophic failing. But that was the budget. So we gave budgets to the ship and whenever the ship was doing a short work period, which are done in the Naval Units, we said okay, the 3 week's short week period we're going to be doing all these jobs, all these repairs and here are the man-hours we're going to spend. Oh by the way we're going to need 420,000 dollars of your budget during the SWP time. And during this SWP time if you want urgent jobs with overtime I'll let you know what the overtime costs. So all of a sudden now the COs were afraid to exceed their budget, the 1.8 million.

**INTERVIEWER:** Yes.

**BLATTMANN:** So they were actually, the intent was good but the result was not really that good whereby we said, oh maybe they're not raising the work orders they should just to be within their budget and look nice in front of the Admiral, look our ship we're not burning a lot of money. But actually by reducing maintenance which eventually will cost you more to repair you see; so that started to creep in. So I'm not too sure how efficient that was our intent and when I left the Ship Repair three years later of course I lost complete touch of how far did they go and is it still being implemented now. I really doubt it, I really doubt it.

**INTERVIEWER:** I'd just like to take a moment to.... In trying to measure the efficiency of the dockyard at that time. I imagine one of the challenges might have been knowing that the entire workforce was always employed in an optimum way. I mean how would you account for the man-hours that aren't actually being used if you're not laying people off and adjusting your workforce on a continual basis like industry does?

**BLATTMANN:** I agree it certainly was a big challenge to have a continuously work, a minimum work level to employ all the employees we had within the Dockyard because under Treasury Board rules if we're short of work we could just not tell the employees by the way just stay home and we'll cut your pay. They still showed up at the shop, and were still being paid.

**INTERVIEWER:** And you still had to pay them.

**BLATTMANN:** Exactly so it was a big challenge and the challenge actually within DND we made it even worse on ourselves whereby they wanted us to be more efficient, but then for instance, DND started to contract out all Auxiliary vessels. They're saying they're non-core ships. Based on non-core they said all the tugs and auxiliary vessels the yard craft, the yard cranes, you name it, that was being contracted out, DND will no longer do it. So on paper it looks very nice and a private shipyard will do it maybe cheaper than doing it within the Naval Dockyard but at the same time it removed work from us and I had less efficiency because I had less work for the employees and I could not fire my employees I had to retain them.

**INTERVIEWER:** Right.

**BLATTMANN:** A private shipyard they quickly adapt their level of employees to the work level.

**INTERVIEWER:** Exactly, yes.

**BLATTMANN:** But DND we can't because we're not allowed according to Treasury Board rules, so we were stuck here. Here is DND they're trying let's be more efficient and then some of the actions they take they made us less efficient.

**INTERVIEWER:** Yes.

**BLATTMANN:** It came even worse to that. When the new minesweepers came into service called the MCDV the mine countermeasures vessels, six came to the West Coast. They were immediately contracted out to a private company and so again the potential work for the Naval Dockyard was reduced so it became extremely difficult. So while I was CO of the Ship Repair I recall on some occasions we had out of our large Frigates and AORS we had 4 or 5 of them sailing together for 3 months to Hawaii and do whatever they do at sea.

**INTERVIEWER:** Yes.

**BLATTMANN:** Now what do I have left in the dockyard. I'm left with one ship in refit, one other ship with maybe one SWP, and all the Auxiliary vessels I cannot maintain [clarification added later 'Because they have been contracted out'] and I have, what, I have 900 employees, well I cannot stuff 900 employees on 2 ships. [ Added later 'So the efficiency of the Naval dockyards has actually gone way down']

**INTERVIEWER:** No.

**BLATTMANN:** So although we were doing some repairs for what we call the supply chain, we were repairing equipment under the base supply system...

**INTERVIEWER:** Yes.

**BLATTMANN:** ...but that was not enough work for all the employees we had in the Dockyard so it created big, big problems. Then of course with the budget cuts and then DND told us we had to reduce the size of the Ship Repair Units so I was in a massive downsizing of the Ship Repair, and that was very, very painful. For example from 980 personnel at the Ship Repair when I joined in '94, when I left we were down to about 600 instead of 980, so we had like 30 to 35% reduction of civilian employees.

**INTERVIEWER:** That's huge.

**BLATTMANN:** It's a big, big reduction and it was done to facilitate our, our methods of reducing the civilian employees and the Federal Government is to do what's called civilian reduction plan, CRP. A similar plan was actually in place already for the military because the whole of the military had to cut down 15% of its, all of its membership within the Canadian Forces and they instituted what was called the FRP, the forces reduction plan whereby a person was given a golden handshake to leave the military, military/civilian, so it was an easy way actually to reduce the civilian component and it worked very, very well. At the same time we were integrating the military the FMGs within the units. Yes, the question of efficiency we're trying to find out how efficient are the Ship Repair and eventually we said well we should be able to measure it. Well it's not that easy to measure an efficiency of a large Unit. It's not only man-hours, productive man-hours, but I found out that if you account for all the free days the personnel get they could be statutory holidays, annual leave, running to the doctor, running to the dentist all those hours are reduced, I found out that the civilian employee was on site for about 60% of the time so 40% of the time he's not even on site. He could be on a course you know; harassment [sensitivity training] course, on a trades course; so on average 60% of his time is on the job, but his full salary is on my budget.

**INTERVIEWER:** Of course.

**BLATTMANN:** So right-away you can see there's some..., so what we devised we said what could be our charge-out rate that we would charge to this...

**INTERVIEWER:** The overhead factor.

**BLATTMANN:** ... the phoney budget we passed on to the CO 1.8 million for a Frigate. Well our charge out rate was like 57- 58 dollars an hour. The employee was maybe paid 35- 40 dollars an hour, the rest was just overhead for heating the buildings, electricity or whatever, all the clerical staff we had they don't provide direct hours. Even the Commanding Officer's an overhead, I don't repair ships per se, I'm a manager, so all the managers are overhead.

**INTERVIEWER:** Overhead.

**BLATTMANN:** And this is why we actually tried to reduce the management within the Ship Repair and we did, we did. We compressed some of the ranks structure of the civilians whereby charge hands and lead hands were compressed. We removed foremen; we changed the ratio of

supervision, that any supervisor should look after a minimum of 15 employees below him and so that made us leaner on the management side to reduce the overhead costs.

**INTERVIEWER:** Yes.

**BLATTMANN:** You don't want to be too lean because personnel still need to be supervised. If they're not supervising them properly they may not work properly so there's a balance. But we eventually did that and it was pretty painful, but we adjusted the ranks of the civilians and reduced our numbers by about 35% of the management. A huge, huge cost cut down of the management to be more efficient and yes we did it.

**INTERVIEWER:** Did it yes. You certainly presided over a very challenging time in the SRU; almost unprecedented.

**BLATTMANN:** I agree, I agree there were big, big events taking place and the FMF stood up on the first of April 1996 and we had a contest of naming the new units. FMF, of course Fleet Maintenance Facility, that's what eventually was selected. Many of us didn't like it, it didn't mention the word 'ship' in there, did not mention repair of ships it just said Fleet Maintenance Facility. All the engineers we integrated in the unit from the NEU, we didn't mention the word 'engineering' or 'engineer' in our title so they were upset also; they're not recognized.

**INTERVIEWER:** Not recognized.

**BLATTMANN:** So, but in any event FMF came into [being]; for a while we had FEMU, (Fleet Engineering Maintenance Unit) for a name and we tried to push that through and we failed, but we started to use it. On East Coast and West Coasts many used FEMU title F-E-M-U Fleet Engineering Maintenance Units and eventually that was shut down.

**INTERVIEWER:** Sounds more descriptive doesn't it.

**BLATTMANN:** But eventually it was shut down and we became the FMF.

**INTERVIEWER:** Yes.

**BLATTMANN:** And our ceremony we stood it up the 1<sup>st</sup> of April and MARPAC Commander, the Admiral, presided over the ceremonies and it went very well, we, our unit adopted the crest of the [HMCS] CAPE BRETON because we called it the FMF Cape Breton so we had a whole new crest made of the CAPE BRETON and we employed it now within the unit which was fine. It's a lovely crest, yes.

**INTERVIEWER:** Are they still using the vessels, the [HMCS] CAPE BRETON and the [HMCS] CAPE SCOTT?

**BLATTMANN:** No, no they're, both have been scrapped.

**INTERVIEWER:** Both have been scrapped, they still use the names?

**BLATTMANN:** We use the names but both have been scrapped, yeah. I mean those vessels were of course very important in the Navy in the sixties and in the seventies but from there on they were mainly tied alongside, they no longer deployed with the Fleet.

**INTERVIEWER:** Yeah, yeah.

**BLATTMANN:** They were aimed of course deployed with the Fleet to provide maintenance to the ships in foreign ports.

**INTERVIEWER:** Yes, well, actually just as an aside, I was in [HMCS] BONAVENTURE...

**BLATTMANN:** Yes.

**INTERVIEWER:** ...for its next to last cruise and we, maybe I'm getting two things mixed up, but anyway we ended up in Roosevelt Roads,

**BLATTMANN:** Yeah, could be in CAPE SCOTT's place

**INTERVIEWER:** And CAPE SCOTT was alongside,...

**BLATTMANN:** That's right.

**INTERVIEWER:** ...to provide maintenance over...

**BLATTMANN:** That's right.

**INTERVIEWER:** ...a period of time. I have vague recollections of that.

**BLATTMANN:** No, and that's how they used to be deployed back then because I have met many friends who actually served on, on the FMG. FMGs, Fleet Maintenance Groups, were actually the ships.

**INTERVIEWER:** Were actually the ships.

**BLATTMANN:** They didn't have really shore establishments at FMGs. Its only the moment CAPE SCOTT and CAPE BRETON were tied alongside the jetty then they said well the sailors cannot live continuously on the ship we'll move them ashore and then we had shore units of the FMGs.

**INTERVIEWER:** Yes.

**BLATTMANN:** And so 20 years later we integrated those shore units within the Ship Repair Units and now they're within the FMF.

**INTERVIEWER:** Now within the FMF.

**BLATTMANN:** So it's quite an evolution.

**INTERVIEWER:** I'd like to go back a moment to the division of labour between the FMF and the NEUs and the SRUs.

**BLATTMANN:** Yes.

**INTERVIEWER:** Now the SRU, I take it embodies all of them, like the word SRU takes all of them into account.

**BLATTMANN:** No the FMF, Fleet Maintenance Facility, takes them all into account.

**INTERVIEWER:** I see.

**BLATTMANN:** The SRUs have existed before were strictly Ship Repair Units mainly 95% of civilians, dockyard Navies, and they provided maintenance of ships but they were all civilian and the FMGs were all military so we integrated them. So we brought now the military technicians within the shops of the SRUs so now within the shops they're on their tools. So if we had a hull technician he could be within working in the pipe shop.

**INTERVIEWER:** Right.

**BLATTMANN:** And he could be working also in the sheet metal shop. An electrician would be in various electrical shops which ...they used to be all civilian...all of a sudden now you had uniform personnel showing up in those shops; our military.

**INTERVIEWER:** So the FMF is now a completely integrated facility of civilian and military.

**BLATTMANN:** That's right.

**INTERVIEWER:** Engineering and the various trades.

**BLATTMANN:** Exactly, exactly, and to me it makes a lot of sense, it makes it more efficient. The Ship Repair Units whenever they needed to do complex repairs had to depend on the NEUs to provide what they call technical guidance and now of course the NEU had their own Commanding Officer and the Ship Repair their own Commanding Officer and sometimes they both didn't have the same priorities but now with the NEU integrated, the CO of the FMF tells his Engineer Manager because now its called the Engineer Manager he said by the way this is a priority here. Now the Engineering Manager of course has marching orders and he responds directly.

**INTERVIEWER:** So you got rid of a few stove pipes.

**BLATTMANN:** That's correct. It's too bad that some Commanders, they used to be CO of the NEUs which was a very prestigious job also, that those functions disappeared. Now he is no longer called Commanding Officer of the Naval Engineering Unit. Now he's called an Engineer Manager. There's no Commanding Officer.

**INTERVIEWER:** Huge demotion.

**BLATTMANN:** A demotion, prestige for the same function.

**INTERVIEWER:** Prestige, same function.

**BLATTMANN:** Same function, and the same responsibilities.

**INTERVIEWER:** And the same pay probably.

**BLATTMANN:** And the same, same rank you name it, yeah.

**INTERVIEWER:** What would be the rank level of the Commanding Officer in FMF today?

**BLATTMANN:** It's still as it was back then a 4-ring Captain and Naval Captain yes so, so he would have a civilian production manager and then the other senior manager would be the Engineer Manager which would be a Commander, yeah.

**INTERVIEWER:** And all of the union problems with this integration were managed with the threat of privatization.

**BLATTMANN:** Correct, correct and actually it was a good card for us to hold so the union marched in step with us but we gave them to be fair though we didn't push it down their throat.

**INTERVIEWER:** No.

**BLATTMANN:** We had for example the integration of civilian and military we discussed for a year and a half, 18 months for us initially to find out how to integrate and then how will the process go and how will it operate in the future? And then we gave briefings to the FMGs to the Minister only then we gave briefings to the various shops of the Ship Repair with the union present and briefing after briefings and open to any questions they had and some questions were rude, but we tried to answer them properly but overall it was well handled, well managed, both on the union side, the civilian side and the military side. So we all realized after this integration we have to work together.

**INTERVIEWER:** So you really did achieve quite a remarkable result.

**BLATTMANN:** We did, we did. So it took, it was intense for 2 years but it ended up I thought with very good results.

**INTERVIEWER:** Very good results, yeah.

**BLATTMANN:** And the integration to me made sense to be more efficient overall to have all these units together. FMGs for example beforehand they were doing first line maintenance only. They would pick and choose which job they wanted; pass the rest to the SRU. NEU well, were of course were floating between all the other units and now all of a sudden they're all under one command, and all with the same functions to repair and maintain the fleet.

**INTERVIEWER:** Sounds a lot better.

**BLATTMANN:** Yeah, I think so, I think so. So in overall we're quite happy with the results of it and I'm sure the units are more efficient and, and there's no need to contract too much out because there's a lot of it already contracted out like I mentioned; Auxiliary vessels, MCDVs, even many refits are contracted out, so the civilian shipyards around the area on both coasts are pretty happy. They're receiving the maximum work they can receive from DND, yeah.

**INTERVIEWER:** I'd just like to focus for a minute on the contracting out of those Auxiliary vessels and MCDV. I presume that they have to go by, by tender, competitive tender and I'm just wondering how it's managed if some shipyard for example on the East Coast just to come up with a scenario wins the contract to refit a tugboat on the West Coast? Do they actually swap these vessels around to get them to the....

**BLATTMANN:** No, no, they don't, no, no they have, no, no they can only tender East and West Coast ships in their own, in their own geography. On the other hand recently the Navy tendered the repairs of their new submarines the Upholder submarines we have and actually it's a West Coast shipyard, Victoria Shipyard who won the contract.

**INTERVIEWER:** They won the contract.

**BLATTMANN:** And now the submarines are being transferred from the East Coast to the West Coast for the refit done here on the West Coast. How efficient that is I don't know.

**INTERVIEWER:** No but at least they didn't hold up doing that work.

**BLATTMANN:** They're doing it, they're doing it for the submarines, so as a matter of fact this year 2009 they transferred the [HMCS] CHICOUTIMI from the East Coast and its here on the West Coast now and its refit starts in January 2010. [This statement subsequently revised to 'July 2010']

**INTERVIEWER:** Oh very good, okay. So are these competitions international or are they within Canada only?

**BLATTMANN:** No they are within Canada only. Yeah it's strictly within Canada. I've never seen any rules from the Canadian Government but I suspect for military vessels they belong to the Federal Government so they're within the Federal Government. They are not under the WTO, the World Trade Organization, they don't come really under that. However, when we purchase equipment some WTO rules apply.

**INTERVIEWER:** That's different.

**BLATTMANN:** It's different when you purchase new equipment, but again I'm not too familiar what the rules are, but I believe when we go for tender for new equipment, other yards are allowed to bid for, not yards, suppliers of equipment.

**INTERVIEWER:** Yes, well do they then, have to have a yard here or do they use... for example in the case of MCDV you've got SNC-Lavalin looking after it, right?

**BLATTMANN:** Correct, correct and, and another instance the Government now, the Navy's trying to buy replacements for the AOR and, and they're looking at buying new tankers and the Federal Government specified any foreign contractor bidding for it, those tankers will have to be built in Canada. So a contractor could be foreign, could be outside of Canada, to bid for the new the JSS, the joint support vessel, ship, Joint Support Ship, JSS. These are the new AORs to be contracted out soon. So you could have a consortium from Europe bidding for the contract and doing all the engineering and on and on and on however its formulated within DND that the ships have to be constructed,...

**INTERVIEWER:** ...built...

**BLATTMANN:** ... built in a Canadian shipyard and then they would specify the amount of Canadian content of the ship.

**INTERVIEWER:** Yes.

**BLATTMANN:** So not all the content is purchased offshore and so that's all written within the rules but it could be the prime contractor could be a company outside of Canada.

**INTERVIEWER:** Yes, well I'm aware of some of that, I was in General Dynamics and General Dynamics probably did something like that.

**BLATTMANN:** Correct and of course General Dynamics then would establish firms or headquarters here in Canada and so they would have....

**INTERVIEWER:** Yes, which they do have.

**BLATTMANN:** They do so under this Canadian wing of General Dynamics they're allowed to participate.

**INTERVIEWER:** Right, well it'll be very interesting because there are only so many shipyards that can handle something like that.

**BLATTMANN:** That's right I mean we're really, we're really down in shipyards.

**INTERVIEWER:** Yes.

**BLATTMANN:** A few years ago I recall when B.C. Ferries went out to purchase new vessels and they did not select a shipyard within B.C. there was a huge uproar from the unions and then from the population. Why does B.C. Ferries buy ships and they actually bought them from Germany and they said well it costs less and so and so.

**INTERVIEWER:** Well they went to competitive tender.

**BLATTMANN:** That's right.

**INTERVIEWER:** You can't go to competitive tender and then say no, you can't have it.

**BLATTMANN:** That's right.

**INTERVIEWER:** It's got to be you.

**BLATTMANN:** Correct and that's what they did, that's what they did, but they were allowed to go outside, but B.C. Ferries no longer a Crown corporation, it's an independent...

**INTERVIEWER:** That's right, that's right.

**BLATTMANN:** So that's about it Sid, I don't have much more to add to the FMF and the Ship Repair Unit apart from it was an exciting time.

**INTERVIEWER:** Yes, well I think you presided over a very critical time in the Ship Repair Unit and the FMF and I think you are to be congratulated for all the things that you achieved there. I also want to express our thanks for this interview, it was a very interesting interview and I think from our CANDIB, forgetting what it stands for, but it focuses on the effect of military procurement and maintenance on our industrial base so I think you're a very important contributor in that regard and you've given us many insights and I'd like to thank you very much sir.

**BLATTMANN:** Well it was my pleasure, thank you.

**INTERVIEWER:** Okay.

**END OF PART TWO**

### **Abbreviations/Acronyms-Part One**

510	SQS-510 Sonar
AC	alternating current
AECL	Atomic Energy of Canada Ltd
AOR	Ammunition Oil Replenishment (ship)
BTSO	Base Technical Services Officer
CAE	Canadian Aviation Electronics Ltd, Montreal Quebec
CANTASS	Canadian Towed Array Sensor System
CASAP	Canadian Submarine Acquisition Project
CFTSD	Canadian Forces Technical Services Detachment
CO	Commanding Officer
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CPF	Canadian Patrol Frigate
DPM	Deputy Project Manager
FMF	Fleet Maintenance Facility
GE	General Electric Ltd
GFE	Government Furnished Equipment
HP	high pressure
LP	low pressure
MCR	Machinery Control Room
MIL	Marine Industries Ltd, Sorel Quebec
NDHQ	National Defence Headquarters
O-Boat	Oberon Class submarine
ORs	operational replenishment ships
Paramax	Combat Systems integrator, Montreal Quebec - subcontractor to SJSL
PMO	Project Management Office
PNO	Principle naval overseer
RAS	Replenishment at sea

RPM revolutions per minute  
SJSL Saint John Shipbuilding Ltd

### **ACRONYMS/ABBREVIATIONS-Part Two**

AOR Ammunition, Oiler, Replenishment vessels  
ASD alternate service delivery  
CANDIB Canadian Naval Industrial Base project  
CO Commanding Officer  
CPF Canadian Patrol Frigate  
CRP civilian reduction plan  
DGMEM Director General of Marine Engineering and Maintenance  
FEMU Fleet Engineering Maintenance Unit  
FMF Fleet Maintenance Facility  
FMG Fleet Maintenance Group  
FRP forces reduction plan  
JSS Joint Support Ships  
MCDV Maritime Coastal Defence Vessels  
NEMS naval engineering maintenance systems  
NEU Naval Engineering Unit  
SRU Ship Repair Unit  
SWP Short Work Period  
Vic Ship Victoria Shipyard (formerly Victoria Machinery Depot)  
VMD Victoria Machinery Depot  
WTO World Trade Organization