



**SPECIAL  
POINTS OF  
INTEREST:**

- OP POLAR DIP 77
- History of FDU(A)
- Bayfield-Davies
- Arctic Plumbers

**FOUNDING  
MEMBERS**

Glenn Adams  
André Desrochers  
Leo Goneau  
Terry Havlik  
Michael Walsh

**CNDA**

Founded  
**HALIFAX, N.S.**  
1981  
President:  
Wally Green



**ONE FOR THE BOOK(s)**

**By Chuck Rolfe**

Since fully retiring on 4 January 1994, I had always thought about writing the story of how diving progressed in the Royal Canadian Navy, up to its present day superb standards. Towards this end, I had re-instigated publishing of the DIPPER'S DIGEST, which LCdr Alan Sagar and P.O. Stanley Watts had been the original Editors in the 1960's and 1970's. I deemed it crucial to obtain stories from the surviving "Old Salts" about their exploits from the 1930's on, to document their history before they left us. I was partially successful and published them in successive editions of the new DIPPERS DIGEST. Unfortunately, I had a series of setbacks and health problems, all of which put quits to my thoughts of writing this book.

In the past two years, my interest again peaked, due to three queries to me from three Authors who were preparing to write details of the RCN Divers, and Diving Branch history. The first was from retired Professor in Edmonton, Sandy Gow who requested data concerning the Lower Deck life from all Branches of the RCN for his book "**Life on the Lower Deck of the RCN – 1910 to 1968**". I was able to not only provide all of my information, but as well Ken Whitney and Red Larsen contributed also. After that, I received a request from a Brit, Haydn Iuchi-Sutton, Head of Corporate Centre Cost Analytics at the largest European Bank UBS in Switzerland for some information concerning the "Frogmen" of WW II, Midget Submarines, and how the Canadian (and Australian) Naval Diving organization changed in the late 1940's and 1950's from following the Royal Navy's training and doctrines, and went our own way after that. I sent him much of the history as I had been collecting, and directed him to read up on our DIPPERS DIGEST's on our website navydiver.ca to gather more information he was looking for. I also mailed over quite a few article for his retention and perusal, and inclusion in his proposed book. In attempting to find which Branch of the RCN was in overall command of Canadian Diving operations (first it was the Ordnance people, then it was the Executive Branch), it led me to LT(N) Jason Delaney of the DND Directorate of History and Heritage, who then requested of CNDA to provide him with all our vital information, advice and contacts he could obtain information from, towards publishing it in their proposed book about the history of Diving in the RCN. I gave him a copy of the book **THE FROGMEN OF BURMA** and about LCdr Bruce Wright, who formed the first Allied group of Frogmen in WW II. I also informed him of all the information in our DIPPERS DIGEST's and how to access them in navydiver.ca. We offered to assist him with his on-going book writing project. Should any others out there wish to aid us in our research, or provide their own stories, please feel free to do so by contacting Chuck Rolfe.

It is my firm belief that by having our Naval Diving History published in various books, it benefits all of us in a very positive manner, therefore it behooves us to assist these Authors with our experiences and expertise however we can. So, although I haven't been able personally to write this history, I feel that I was part of bringing it to fruition in another way.

## OPERATION POLAR DIP 1977

In 1977 the Federal Government approved the Military Operation POLAR DIP 1977 to take place on O'Reilly Island, North West Territory in late August of that year. The mandate was to operate Naval Reserve Divers in Arctic waters, to show a Canadian presence in Arctic regions, and to search for Sir John Franklin's ships, HMS EREBUS and HMS TERROR. These two Royal Navy Ships had been locked in the ice from 1845 to 1848, at which time the crew abandoned the ships, with all lost to the ice and starvation. Inuit (Eskimos) in later years claim to have seen a copper bottomed ship washed up on a gravel spit on the northern point of O'Reilly Island at one point in time.

The Commanding Officer of the overall expedition was RCN LCdr Mike Lafontaine, Clearance Diving Officer from HMCS BRUNSWICKER, with a Reserve Ships Diving Officer from HMCS UNICORN, Diving Chief Chuck Rolfe and Petty Officers Glynn Munroe & Roy Fox from HMCS DISCOVERY, plus various other Ships Divers comprising the Dive Team. Included in the expedition were a CBC crew to film and document the Operation (in the hope that we would find the ships), and a Public Relations group from NDHQ, which included a female RCAF Officer.

The entire group met up in RCAF STATION TRENTON for a briefing of the whole evolution, and what the objectives were that we expected to achieve. Then on to Winnipeg, Manitoba for issuance of Arctic equipment and cold weather Army wear. It was a good long flight from there up to the manned (by mostly Newfoundlanders it appeared) Distant Early Warning (DEW Line) Base at Gladman Point NWT by RCAF C-130 Hercules aircraft. Now the Gladman Point gravel airstrip was low at both ends, with a high spot in the centre, so the Pilot looking at the high spot on his horizontal plane, figured he was ready to touch down, but the aircraft was still at least 25 ft above the low spot, and when he cut the engines for landing, it dropped to the strip with a resounding bang! I've experienced catapult shots off Aircraft Carriers before, and landed on catching the arrestor wires, but thought my time had come when we hit the low end of the landing strip of this gravel runway. All our diving equipment and survival & camping gear were tied down in the fuselage, but everything seemed to be moving around a bit, and with all the dirt & dust flying everywhere, it was a bit hairy to say the least.

Everything was quickly off loaded, as the aircraft then turned around and left for warmer climes. We consolidated our base at Gladman Point, King William Island (nearest civilian inhabitation was the village of Gjoa Haven, a few hundred miles away) and commenced to move equipment, tents and personnel over to our Dive Camp on O'Reilly Island NWT. This was accomplished by an RCAF Beaver floatplane, which can operate on both land and water. Even though it was daylight for 24 hrs a day, we maintained our usual daytime routine of breakfast at 0700, dinner at Noon, supper at 1700 and bed at 2100 or 2200hrs. Field Army Ration Packs – MRE's (Meal Ready to Eat) was our daily fare, with some being quite good, while others were not. The warmest temperature we experienced during our time there was 12 C one day.

We reconnoitered the 12 ft high gravel spit on the north end of the Island on a daily basis to see if we could dive that most likely spot, where the Eskimos's said they had seen the ship, however pack ice was constantly moving over the site. Naval Diving evolutions do not take place under moving ice, as it could all jam together, thereby causing the Diver to drown when all the air in his tanks is exhausted. In fact, it is frequently the case that one can go to bed with no ice to be seen, then look out a few hours later to find that it is now completely covered with ice, all due to the vagaries of wind and tide. This forced us to conduct diving operations in the sheltered bay.

The CBC camera crew was very frustrated with this turn of events because they had been tasked to provide a 30 minute TV program. To solve this dilemma, we had the camera crew come out in their Zodiac inflatable boat to film the Divers as we did an evolution of diving in the sheltered bay. I, as the Diving Supervisor, gave specific instructions to the Divers on the surface as to where to operate in a grid search, asking them pertinent questions as to what they discovered upon surfacing from the dive. All of the necessary film footage was then made into a half hour TV documentary about our so-called search for the lost ship HMS EREBUS – which all goes to show that one must be cautious about what one views on TV now-a-days as gospel truth!!

It was my opinion that the Reserve Ships Diving Officer was ill-suited for the task of Supervising Divers on this Operation. The main reason in my estimation, is that when in charge of underwater operations, Divers will let you know that they are getting too cold (in these cases it was ½ hour in the water for most of the Divers), and it is up to the Supervisor using his acquired knowledge to decide when to get them out of the water. This Supervisor unflinchingly told them to go back down and continue the task, and he would call them up when he figured it was time to do so. All the Divers wore ¼ inch wetsuits with 5 zippers (the Chief's suit only had 1 zipper), which allows cold water to flush through more readily, causing Divers to lose body heat. Whereas the Chief could easily stay down for more than an hour. Needless to say, when the Chief was supervising this Ships Diving Officer's dive, and he surfaced after only 15 minutes stating he wanted out of the water because he was getting cold, he was informed that he must continue his task until it was completed – another 15 minutes. After that exercise, he allowed any cold Diver out of the water when so informed.

One incident that occurred on O'Reilly Island, is that the Reserve Ships Diving Officer's tent burned down one night. Every day the RCAF floatplane would take one of the Dive Team and any of the other personnel back to Gladman DEW Line base for a clean-up shower and sleep overnight, returning them in the morning flight. The one night the Chief's turn came up, and when he returned to the Island next morning, he was told about this "incident". Everyone on the expedition had been explicitly told at the briefing in Trenton, that absolutely no booze was to be taken by anybody on this Operation. Evidently the Reserve Ships Diving Officer had brought a hidden bottle of Rum, and decided to imbibe it when the Chief Petty Officer was away at the DEW Line Base that night. When the Reserve Officer went into his tent to sleep that night, somehow the small heater inside caught the tent on fire, and he bailed out with only singed eyebrows.

Roy Fox took many photo's of the Divers and Dive Operations at O'Reilly Island, which can be seen on our website [navydiver.ca](http://navydiver.ca), click on Divers Scrapbook, then on Operation Polar Dip 1977, Photo's by Roy Fox. Chuck Rolfe also took some slide macro photo's of the flora on the Island, which he loaned out to be shown at a large Dive & Photo Show in Toronto, Ontario, but he was unable to find them after the Show was over – bummer that! On our walk about of the Island one day, we found a small Inukshuk together with a stone cache of what must have been blubber, but it had all liquefied into the most horrible oily stench one could imagine. I suppose if one was starving to death, it might prove to be a lifesaver, if one could get it down without spewing it all back up.

Upon completion of the Diving Operation, all the equipment and gear was to be returned to base at the Gladman Point airstrip, to be loaded on the C -130 Hercules & return to Winnipeg, thence back to our respective Units. With 80% already moved back to Gladman, the floatplane had one of its' floats holed by gravel on the airstrip. The two-way radios had proved incapable of transmissions between the Dive Camp and the Dew Line base throughout the Operation, so when the aircraft did not come back to the Island, we were incommunicado as to what was happening. After a day of this, the Military had requested that an airliner flying its course at 30,000 ft. come down to 1000 ft. and check out what was doing at our camp on O'Reilly Island, which it did, reported the situation to Gladman, and went on its flight over the North Pole to Europe. The Military then hired a civilian twin-engine Otter turboprop floatplane to fly the 1100 Km from Yellowknife NWT to pick us up with what gear we still had on O'Reilly, and get us over to Gladman, where the C -130 was waiting to fly us home. At this time the schedule was so close, that we unloaded from the Otter directly into the waiting C -130, and we were on our way out of the Arctic.

Other than our underwater search not locating the HMS EREBUS or HMS TERROR, there was the tent burning down incident, followed by the case of one Diver thinking he was a Barrack Room Lawyer, creating some confusion when it came to everyone on the expedition handling caretaking duties, such as: preparing the community meals, and the subsequent clean-up thereafter. One lousy apple can take the shine off all the others. We did accomplish our *raison d'être*; we exercised the Reserve Divers in cold water operations, we showed a Canadian presence in the Arctic, and we did provide for a 30 minute CBC Television program.

**By Chuck Rolfe**

## Memories by Ken Whitney

**Ken Whitney** wrote to the CNDA Secretary, Hi Chuck, I wish to thank you for sending all the great information you have provided to me about the History of the RCN Diving Branch, and commend you for your enthusiasm & inspiration in being able to collect such vital material. I was pleased to hear that you can make use of my Dalhousie University Thesis: FLEET DIVING UNIT ATLANTIC – A SHORT DIVING HISTORY. It will be of interest to all of us when it is published in a book format.

It has brought back many memories I had all but forgotten. I noted that you, Red Larsen and myself had all gone through New Entry Training in HMCS CORNWALLIS during the Summer of 1951: Red Larsen in a double ANNAPO-LIS DIVISION, you in ALGONQUIN DIVISION and I in FRASER DIVISION – quite a coincidence! All of us stated that we never walked anywhere, it was double here, double there, double everywhere. I always wondered if Red played for the Cornwallis Cougar Football Team that year, as it had just formed up in 1951. I played for them when I was a New Entry, and also when I was going through COMM School in 1952. When I left the COMM Branch, I reverted back to ABNQ (Not Qualified) while on board HMCS MAGNIFICENT, followed by a draft to HMCS STADACONA, where I qualified as a Torpedo Anti Submarine (TAS) Rating. Following which came a sea draft which took me over to Korea in 1954/55 aboard HMCS IROQUOIS, back to STADACONA and then to CORNWALLIS where I qualified in the PTI Branch as an LSPR2. I also played for the STADACONA Sailors Football Team when I was shore based there. I got out of the Navy for one and a half years, during which I played for the Toronto Balmy Beach Football Team (later on they were to become the farm team of the Toronto Argonauts) in the Ontario Rugby Football Union (ORFU), who lost in the 1955 semi final to the Grey Cup. I re-enlisted in the RCN and was drafted to the Naval Air Station, HMCS SHEARWATER as a Physical Training Instructor (PTI), and played with the 1957 & 1958 Shearwater Flyer Football Team who won the Dominion Canadian Intermediate Football Championship in 1957, beating the Fort William Redskins 27-21 on a last minute touchdown by Bruce Walker. The Shearwater Flyers Football Team was inducted into the Nova Scotia Sports Hall of Fame, and the Canadian Forces Sports Hall of Fame.

I then requested to attend a Ships Diver Course, and was approved in March 1959. We started with a class of 24 prospective candidates, and were reduced to 9 after 3 weeks at the Diving Unit at French Cable Wharf (FCW) on the Dartmouth side of Halifax Harbour. There was a T-wharf that went out from the shore jetty, with two barges tied up to the outside of the T, and HMCS GRANBY tied up on the inside camber. One barge was used for classrooms & administrative offices, with the lower deck used for training and the Mine Reference Museum. The other barge was the Granby's Heating Plant, which heated the whole Unit. Also tied up in the inner camber were all the other YMT Boats. Our classroom was on the Training Barge, with Curly Vemb, Ivan Cripps, Chief Nicholson and Norm Mitts as our Instructors. To this day I still remember the many times we had to chip ice off our diving underwear prior to dressing to go diving! We were plagued by frozen radiator heaters bursting overnight, so we were extremely uncomfortable when we went out in the Harbour for our morning swims. The same thing happened on my Clearance Divers Course in 1960, before the barges were finally moved out of FCW and sold, at which time the Training Section moved to the FCW large shore building. There were train tracks separating the Jetty from this big FCW Building No. 4 (sometimes called DA 19) which the Unit modified for training purposes. Curly Vemb eventually ended up with one of these barges, and used it as living quarters on the Halifax side of the Harbour. I recall that Darby Mathews also used to live aboard the barges in the top deck housing at one time. The entire FCW installation, jetty, wharf and Building No. 4 were all torn down and remediated of environmental hazards between 2004 and 2009, so nothing remains as of this date of the old French Cable Wharf, or our Diving Unit time there.

### DIVERS AS ARMED GUARDS!

From 15 October to 9 November 1951 there was a wildcat strike along the Eastern Seaboard from Maine to Virginia by the stevedores of the ILA (International Longshoremen's Association) - but it was not supposed to affect the USA Military shipping during the Korean War effort. This put 60,000 off the job, and indirectly affected over 800,000 other workers in New York alone! The Port of Halifax, which was outside the strike zone, prepared to handle diverted shipping, as Longshoremen officials there said cargoes would be handled as required by their contract. Those two intrepid Bermudian Divers at the East Coast Diving Unit, Rod Petty and Bill Lawrence stated "It appears the snoops of the left-wing type were active in the Halifax Docking areas, during the 1951 strike along the East Coast. The Diving Unit was tasked to mount Armed Guards in the Halifax Docking areas, which allowed the Port of Halifax to remain open without strikers disrupting the operation." Chuck Rolfe is interested in obtaining any information as to how this evolution was carried out by those involved as Armed Guards, or for any information you may have heard about it. Contact Chuck at Phone: 613-832-1165 or email [maman84@gmail.com](mailto:maman84@gmail.com)

## MEMBERSHIP AND COMMENDATION

**Bob Coren** in Fredericton NB sent along a cheque to pay for 5 more years CNDA Membership. He also stated that he wishes to express his appreciation of the fine efforts of all the CNDA Executive who conduct the business of the 3 Chapters, and of the National Directors. It is through your efforts we continue to foster a close bond between our Naval Divers, both present and past. Your collective efforts are a refreshing reminder of a proud Service, whose members continue to descend into the deep dark depths, and work in that silent world on the strength of their knowledge & skills – Bravo Zulu to you all!!

## FLEET DIVING UNIT (ATLANTIC) – A SHORT DIVING HISTORY

By KENNETH WHITNEY

Members of the Royal Canadian Navy wishing to become Naval Divers in the 1920's, were sent over to Whale Island, England for their training by the Royal Navy. It was at the Whale Island Training Unit that our first Canadian Divers were introduced to the diving world. The Officer's and Men were trained using both British and American Standard Diving Dress, however the predominant dress was British. At this time, there was no specifically recognized Service Dress, or recognized Self-contained or Re-breather diving equipment as is the case in our modern day.

The Qualified Navy Diver's (DV's) of this period were required to have been DV qualified in another Trade first, and worked at their diving tasks in a secondary skill or Trade capability. To indicate they had become Navy Divers, they wore a small hardhat badge on their right sleeve, 6 inches up from the cuff. The Service Diver of that era was limited in the depth he could dive, therefore was utilized mainly in harbour and ship repairs. The more competent Divers were retained for work at HMC DOCKYARDS, in Halifax NS and Esquimalt BC.

When World War Two commenced in 1939, the requirement for Diver services became readily apparent, due to the development of new methods of underwater warfare. Numerous Diving courses to meet this demand started up, with training of new Divers being conducted at both Halifax and Esquimalt. Personnel from the Navy, Army and Air Force all trained together and, upon successful completion, the members of the various Canadian Services would return to their original units to work with Army Engineer, Air Force Crash & Rescue Boat and the Navy to various HMC DOCKYARDS and Ships of the Fleet for salvage and ship repair operations.

The diving equipment primarily used during the early commencement of the WW II era was the United States Mk V Standard Diving Dress (which allowed dives to depths of 250 ft.) and British manufactured Salvus apparatus. However, the new methods of underwater warfare necessitated a requirement for Self-contained equipment that would permit diving to deeper depths, and allow for a wider free-swimmer range of operations. Extensive research and experimentation soon provided Naval Divers with Self-contained diving equipment which would enable them to accomplish many before-impossible feats. The versatility of the Self-contained equipment made it ideal for many underwater operations.

In March 1945, an immediate need for a Mine Disposal organization was recognized. It was felt that a few Officers trained in Self-contained diving and Mine render-safe techniques used in WW II, would be sufficient for this task. Two Officers volunteered, and were sent to England to train with the Royal Navy as Instructors. Upon their return to Canada, they established an Underwater Diving Training Unit at HMCS STADACONA (now CFB HALIFAX), and the first members of this group accepted for training were RCN(R) Officers and University Naval Training Division (UNTD, or sometimes called "untidy") Cadets. What then became apparent after the clear definition of Naval Responsibilities for bomb and mine Disposal, combined with the concept of the organization to also use mine searching techniques, is that this training should also be opened up to include Men of the Diving Units. Because the Ordnance Branch had accepted the responsibility for sponsoring and coordinating this organization, this special requirement was originally met by the Armourers Trade.

The formation of the Clearance Diver Branch took over more than five years of planning, growth, pruning, grafting and, in some cases, cross-pollination. It is a wonder that the Diving Branch actually got underway, what with the discouragements, delays & frustrations that were encountered, which threatened to destroy the Branch entirely. It was the bringing together of all the diving groups, ie: the Mk 5 Standard Dress Divers (who were used in ship repairs & salvage), the "P" Party (used for Port Clearance during WW II to clear un-sweepable mines and sabotage devices from harbours vacated by enemy forces) divers, and the Bomb and Mine Disposal squads (who dealt with unexploded bombs, projectiles, parachute mines and other dangerous ordnance encountered) which was required to make a cohesive Branch. Naval Reserve Officers with wartime experiences in Diving, Bomb and Mine Disposal, DEMS, Combined Operations, and even X-Craft were attracted into the organization on Short Service Commissions and, of these Officers, a number were transferred to the RCN Regular Forces.

The Canadian Navy Diver still remained at this time a secondary Trade (DV), and upon completion of his diving course, would be away aboard ship to sea for two or three years, before returning to the Fleet Diving Unit, or to one of the locations of the Unit at that time. With the combining of the various types of Divers into one cohesive Unit, there was a requirement for new instruction and Instructors. Officers and Men were now sent again to train for these positions, both to the United States and England. All manner of Instructional Aids, in the form of publications, Mines, Bombs, Rockets, projectiles and torpedoes were ordered, as well as the most advanced types of Self-contained diving equipment. The Dominion Rubber Company commenced development of a Canadian prototype underwater swim suit that utilized the best features of the British, American and French dry suits in use at that time. Approval was given to build suitable vessels for Clearance Diver training and Operations.

A second Diving Unit, on the West Coast, was established at HMCS NADEN(now CFB ESQUIMALT). This West Coast Unit matured rapidly under the guidance of LCdr E.L. Borradaile, who was later killed when an old Japanese floating mine washed ashore on the West Coast. He had been tasked to make safe this mine, when something went wrong and explode, killing him.

Advancement of the Branch seemed to be slowing due to numerous delays, strikes, manufacturing difficulties and red tape, all of which seemed to be endless. Duplicity was obviously evident by 1952 between the Underwater Self-contained Training Units and the Standard Dress diving schools and, as the result of another survey covering all the requirements of the Canadian Naval Diving establishment, it was decided in 1952 to establish a Diving and Explosive Disposal School and Training Center, which would be responsible for all training and a single career path. What was apparent was the inability to offer a firm foundation of a Rank structure with career prospects comparable to other Trades in the Navy. It also became apparent that it was quite difficult to reconcile the Technical with the operational aspects of a Clearance Diver Trade. It was approximately two years of countless proposals and counter-proposals being investigated and considered, with the best solution being a further joining of the two functions of Standard Diving and Explosives into one Branch for Men, and with the desirability to integration with other aspects of Mine Counter-Measures, the Diving Unit was transferred to the Executive Branch.

It was in February 1954 that the Clearance Diver Trade and Branch was born – there has been much debate of the exact date of formation, however the research conducted for this Precis, seemed to point to this date. Growing pains and many adolescent problems leading to maturity were encountered, but the foundation was now in place to become a workable organization, and the status of being a Diver had now been raised from a secondary to a new primary Trade. The Standard Dress Divers who elected to change over to become a Clearance Diver, were now only required to undergo conversion courses in Explosive Disposal techniques to fully qualify. It was because of these Men and their abilities that had already been proven in their aptitude and physical fitness for diving, and their psychological fitness to deal with explosives, that this shift to the new Trade was allowed. However, new candidates arriving from HMCS CORNWALLIS in the early build-up phase, had to be thoroughly screened for acceptance.

### **RESULTS OF THE AMALGAMATION**

Since the formation of the Clearance Diving Branch, the Fleet Diving Unit(Atlantic) has had many homes, the first of which was in HMCS STADACONA and, with the combining of other groups into the Branch, further movements were undertaken. The Operational Unit was located in the South end of HMC DOCKYARD, while the Training Section was in the North end in the Boatshed. When the Operational Diving Unit was relocated from the DOCKYARD in Halifax to the Naval Armament Depot(NAD) on the Dartmouth side of the harbour, it consisted of two Barges, with YMT 5 and YMT 7 Boats. The Bangor Class Minesweeper, HMCS GRANBY at that time was already berthed there for quite some time. The Operational Diving Unit and the Training Section, on paper, were two separate entities, with the Training Section located on the Barges. It was in 1956 that the Diving Unit and HMCS GRANBY were amalgamated into one single Unit, and commenced to function under one unified Command. That same year, the Diving Unit as a whole, relocated from NAD to French Cable Wharf(FCW), some 400 Yards North of NAD, at which time the Unit obtained a two compartment Recompression Chamber and installed it in the nearby building. All diving training and operations were now conducted from the FCW site.

In 1966 the original HMCS GRANBY was decommissioned, being replaced by the reactivated HMCS VICTORIAVILLE at FCW – it was also renamed HMCS GRANBY at the time. The new GRANBY offered a more stable area to operate from, with larger accommodations, and room for expansion in the training of both Clearance Divers and Ships Divers. Subsequently, in 1974, this GRANBY was decommissioned also, with the FDU(A) moving to become a Lodger Unit on CFB SHEARWATER, where it now operates from..

After the formation of the Diving Unit in the mid 1950's, Diving Teams from the Unit have travelled to the Arctic in support of Diving Operations for the construction of the Distant Early Warning sites(DEW Line Radar Bases), as well as serving aboard the Icebreaker HMCS LABRADOR to assist it's Arctic support of these DEW Line Bases. In 1959 a Diving Team, designated as Underwater Demolition Team(UDT) Bravo, comprising of an Officer and 8 enlisted Men, of whom 4 were Ships Divers(a first time event), travelled from Halifax aboard the USN ship USS EDISTO to conduct Operations with their American Diver counterparts in the Arctic. The Divers travelled to; Goose Bay, Labrador; Thule, Greenland; back to Goose Bay, on to Robinson Creek, Newfoundland and then back to FDU(A), with all objectives fully met.

Many other Operational commitments were conducted from the 1950's through to the 1970's, i.e. Helicopter recoveries at SHEARWATER, Shock Trials in the Gulf of Mexico, off Key West Florida, ship repairs, Arctic Teams once again utilized by Department of Transport Sea-Lifts to re-supply the DEW Line sites, Combined Operations with other Military Units such as Operation Boatclock in 1962 and security for the Royal Yacht in 1964.

Diving Tenders that were utilized to add support for the FDU(A) operations during this period were YMT 7(for Standard Dress diving), YMT 5 & YMT 8(for Mine Search & Recovery), and then we had the additions of YMT's 11 & 12, to replace YMT 7.

There now began a time of technology expansion during the period from 1965 to 1974, with Divers required for multi-tasking on experimental events. The opening of the experimental Recompression complex in Toronto ON at the DCIEM (Defence and Civil Institute of Environmental Medicine) proved to be a real asset for us, since it solved many of the questions that arose from diving problems encountered by Divers in field work under pressure. Saturation diving trials were conducted, together with Pneumatic Analogical Computer tests, and with DCIEM teams travelling to CFS ALERT in the high, high Arctic to assist in the task of repairing and installing water intake pipes. 1974 saw the first operation of COLD WATER DIVER, next came COLD WATER DIVER 1975 then the 3<sup>rd</sup> COLD WATER DIVER Experiment in 1977.

Various other underwater tasks and operations have advanced the skills and experiences of our Divers:-

- Emergency Teams transported to Egypt for the six day War
- To the Bahama's for ship propeller changes and assist with Fleet repairs
- Two Divers assigned to participate with the American SEA-LAB III project
- Mobile Teams assist Provinces in search and rescue situations
- Assisting in locating and render safe Explosive Ordnance operations
- Conducting tasks involved with SOSUS
- In 1970, acceptance tests of the SDL-1(Submersible Diver Lockout – 1)
- Recovery of oil from the Supertanker "ARROW" sunk in Chedabucto Bay near Canso NS
- In 1972/73 the recovery of the crew of a Tracker aircraft off Sheet Harbour NS in 250 ft water
- Continuous recovery & disposal of ordnance from WW II wreck CLAIR LILLY off Chebucto Head NS
- Salvage Operation of a Sea King helicopter from 525 Ft off Chebucto Head NS
- Search & Recovery of data from the fishing trawler LADY LYDIA off the Magdalen Islands
- Search & Recovery of Swiss Air flight from crash site in St. Margaret's Bay NS

Over the many years up to the present day, there have been a multitude of operational taskings and assignments required of the Fleet Diving Units, and through all these operation, the Officers and Men of the Royal Canadian Navy's Diving Branch have received messages and letters of commendation. Some have come from the Chief of Defence Staff, the United States Navy, the Maritime Commander, Provincial Officials, Military Base Commanders, Law Agencies and citizens at large.

Canadian Naval Divers have acquitted themselves very well as they are now experts in their fields of endeavour. With these types of Officers and Men, we can rest assured that all three Units: FDU(A), FDU(P) and the Experimental Diving Unit at the Defence and Civil Institute of Environmental Medicine live up to their motto.

### “STRENGTH IN DEPTH”

## Maritime divers become Arctic Plumbers

When you have water problems in the Arctic, getting a plumber to make a house call is not easy. That's why members of Fleet Diving Unit (Atlantic), [FDU (A)] were sent to CFS Alert, Nunavut.

Following a request from the RCAF to assist CFS Alert, nine members of FDU (A), comprising both Clearance and Port Inspection Divers, along with one Defence Research and Development Canada (DRDC) staff were tasked on short notice to replace two critical water pumps.

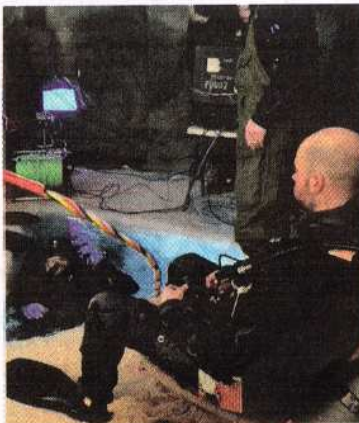
CFS Alert has three pumps, which move water from Dumbell Lake to the water distribution system, which is mainly used for firefighting and domestic consumption. Two of the pumps became unserviceable and not able to be removed from inside the water treatment plant. This left removal from the in-lake portion below the water line as the only repair option. The result of having only one serviceable pump meant that if the last pump became unserviceable,

the ability for CFS Alert to respond to a fire would be critically compromised and drinking water would be reduced to a one-week supply of bottled water.

The team departed from Halifax on a CC-130J Hercules J from 2 Air Movements Squadron, 8 Wing Trenton. Austere conditions and 24-hour darkness were some of the major factors that had to be taken into account prior to the team departing, but once in Alert, the dive team received a warm welcome from the 75 military and civilian members stationed there.

“The cohesiveness and camaraderie of the entire staff up here was exceptional. The tremendous support provided by the staff of CFS Alert played a crucial part in the successful completion of our mission,” said Lieutenant(N) Joel Cormier, underwater engineering officer at FDU (A).

Once on the ground, the dive team commenced setting up for ice diving while the DRDC staff operated the ice drill to cut a hole



A diver from the Fleet Diving Unit (Atlantic) helps repair a water pump at CFS Alert while his colleagues assist.

through the 1.5 metre thick ice. The Seabotix Remote Operated Vehicle (ROV) proved to be a valuable asset locating all three pumps and providing data to the engineering staff for future maintenance purposes. Once diving operations commenced, the divers were able to remove and replace pump one without difficulty. Several attempts were made to replace pump two, but it proved to be caught up inside the casing above the waterline.

The overall mission was successfully executed by the dive team. CFS ALERT now has two operational pumps due to the exceptional hard work and co-operation between divers from FDU (A) and the members stationed in Alert.

“Having FDU (A) on the Station has provided us a phenomenal advantage in addressing this challenge,” said Major Rick Dunning, CO CFS Alert. “They were immediately respected by the Alert team for their professionalism and capabilities.” ♦

## NEWS WORTHY

# RCN tackles international exercise

**Cdr Pat Montgomery**  
MARPAAC

Twelve MARPAAC personnel recently took part in the Western Pacific Naval Symposium (WPNS) Mine Countermeasures and Diving Exercise 2014 (MCMEX14) in New Zealand, Feb. 17 to March 7.

The focus of MCMEX14 was to practice and refine mine countermeasure and dive skills in a multi-national environment.

The Royal New Zealand Navy hosted the exercise out of their home base of Devonport.

Fourteen countries contributed personnel – totalling 635 personnel, with five ships taking part and 15 dive and Autonomous Underwater Vehicle (AUV) teams working out of the Amphibious ship HMNZS Canterbury.

The scenario was an advance force operation prior to a post-tsunami humanitarian aid and disaster relief effort by a coalition force, complicated by the existence of some misplaced explosive remnants of war, and a renegade group seeking to stall the arrival of aid.

A team of seven Clearance Divers from Fleet Diving Unit Pacific, led by Lt(N) Alex Delorey, participated in mine countermeasures and explosive ordnance serials in the water, in the very shallow water zone, and on dry land at the Whangaparaoa Tamaki Leadership Centre.

Additional RCN staff supported safety, and command and control. Three personnel from Canadian Fleet Pacific participated as members of the Canadian Task Group staff located in HMNZS Canterbury's Joint Operations Room.

Cdr Pat Montgomery was the N3 for the exercise, and directed the daily activities of all task group assets.

LCdr Larry Moraal, the Commanding Officer of HMCS Brandon, took a few weeks off from the ship to work in the N5 planning cell, and PO1 John Wood was seconded from FDU(P) to join the C2 cell working with the Australian



LS Joel Charpentier and Lt(N) Alex Delorey, from Fleet Diving Unit (Pacific) conduct Pouncer Operations, where they jump out of an aircraft and swim towards a moored mine to neutralize it.

software MINTACS.

Lt(N) Mike St-Pierre worked with the EXCON cell, and Lt(N) Lucy Gijzen was one of the Diving Medical Officers responsible for emergency response and the general health of all participants.

The exercise started with Force Integration Training alongside. During this phase, teams oriented themselves to the ships, and worked through basic drills needed for the exercise.

Participants also experienced a unique welcoming to the host country – a Powhiri, which is a traditional native Maori greeting to visitors. The entire village, led by the warrior chief, aggressively challenges the visitors to declare their peaceful intent.

During the second week, ships sailed to the nearby Hauraki Gulf to continue the Force Integration Training at sea. Throughout this phase, the Canadian task group operated a 24 hour tempo and directed all ship and team activities.

Ships HMAS Huon and HMAS Gascoyne conducted mine hunting operations, as well as seamanship with the mine layer ROKS Wonson. The RNZN ship HMNZS Manawanui conducted mine laying of exercise shapes, as well as underwater battle damage repair and surface supply diving. The dive and AUV team rotated through a variety of serials: MCM diving, AUV

missions, small arms firing, confidence (obstacle) course, demolitions, IED/EOD, leadership challenges, and Pouncer operations (Helo inserted divers).

At the end of the phase, all were ready for the final tactical phase.

The final phase was a free play of MCM operations in advance of amphibious operations. Essentially, the task group was tasked to provide a safe transit area for the notional disaster relief effort, and they had a few days to achieve this task. Despite some delays due to high winds and seas, the task group located 16 exercise mines and were able to lower the risk to the follow on shipping.

The RCN dive team was chosen to perform the last task of the exercise: covertly receive a letter of surrender from the antagonists ashore.

Following the free play, the task group spent the final two days at sea hosting distinguished visitors and VIPs from the nations involved, while packing up their sea containers for shipment back home.

The task group finally sailed back into harbour on the evening of March 6. The following day was busy with post-exercise hot wash-up and final closing activities, during which the RNZN conducted a traditional formal sunset ceremony at their naval museum.



## DEATH OF LCdr FRANK BAYFIELD-DAVIES USING CDBA

LCdr Francis Merrick Bayfield-Davies died on 14 June 1962 while diving in Victoria, British Columbia harbour, using a Clearance Diving Breathing Apparatus (British CDBA). Recently a close friend of Frank made an enquiry to the CNDA Webmaster, Tim Flath for more information about Frank, stating "I am interested in finding out more for a specific reason, as I am only vaguely aware of the circumstances, but would like to pass a little more of the story on to my son, who Frank was his Godfather". Bob Hayward.

Tim Flath responded to Bob Hayward that he had heard quite a bit about Frank Bayfield-Davies, however his accidental death occurred long before his time (Tim would only have been 2 yrs old then). Tim mentioned that there was some information provided in various older editions of the CNDA's DIPPERS DIGEST's which can be viewed on our website navydiver.ca in the Library file, and that he would send out Bob Hayward's request on our Group Emailing to all our members for their comments.

Milt Skaalrud responded "Hi Bob, Please find attached a photo of LCdr Frank Bayfield-Davies when he was the Commanding Officer of the Royal Canadian Navy Diving Establishment (West), which would be around 1959 – 60. Frank would be sitting to the right of the Mk 5 Diving Helmet. This photo was given to me by the late PO1 Charlie Greengrass, who is standing back row left. Also attached is a photo of a Diver wearing what Frank would have been diving with when he had his accident – the set is called a Clearance Diving Breathing Apparatus (CDBA). I am to believe he was diving in the closed circuit mode, breathing pure oxygen. The third photo shows a variety of the types of diving equipment used during this period of time. I started my diving training in the Diving Unit in 1964 as a Clearance Diver (Ships), and qualified Clearance Diver (CD) in 1966, serving in the Royal Canadian Navy until retiring in 1984. I am sorry that I never had the privilege of serving with Frank. I hope this assists you in knowing a bit more about the West Coast Diving Unit at that time".

Red Larsen responded "Hi Bob, I am a retired Clearance Diver (CD) who served with Frank on the West Coast Diving Unit in Victoria, British Columbia. I am quite familiar with his accident as I was almost his Diving Supervisor on the morning of the tragedy. The lead up to the situation was as Milt Skaalrud mentioned, we were required to use the British Clearance Diving Breathing Apparatus (CDBA) quite frequently, and generally in the 100% Oxygen mode. The CDBA set could also be used with a 60% Oxygen/40% Nitrogen breathing mixture OR a 40% Oxygen/60% Nitrogen breathing mixture. Using the 100% Oxygen mode there were twin main supply cylinders, each having a capacity size of .36 litres (in addition, there was also a single emergency cylinder also .36 litre capacity). Due to the small size of these cylinders, the average endurance in the swimming mode of this equipment was about one hour. As there were lots of scenarios where it was desirable to have a longer endurance time in the 100% mode, there was a strong desire to increase this capability. Using 100% Oxygen, the Diver is not allowed to go deeper than 33 ft, or else he may start to convulse, which is known in the diving world as Oxygen poisoning – keep this in mind for later. When using the CDBA set in other modes (60/40 and 40/60 mixtures), a larger set of cylinders was used. The main twin cylinders had a capacity of 2.97 litres each. The increase in size was to compensate for the Diver requiring a greater flow of breathing mixture because the Oxygen content in his main supply was far less than 100% (but using these mixtures, the Diver could exceed the 33 ft limit when using 100% Oxygen). Anyhow, Bayfield-Davies decided to use a set of the large mixture cylinders (1.97 litres size), but to fill them with 100% Oxygen. This he did, along with a fellow Diver, Bob Thompson. On the afternoon before the tragedy, Frank and Bob came down to the Training Float at the Colwood Diving Unit, where I was supervising a Class of Air Force Para-Rescue personnel on their Scuba Diving Course. Frank and Bob asked me if it would be all right to try out this configuration in the chamber, and I agreed. One thing I did ask them to do, was to pop up to the surface periodically, which indicated to me that they were all right, and for them to also stay in the chamber area. This they did, and they were quite satisfied with how the gear worked. They then exited the water and proceeded to the change rooms. Next morning I was due to take my Class for an open water dive, outside Victoria harbour just off the Royal Roads Academy. As I was getting ready to leave, Bayfield-Davies came down to the float alone, wearing the same diving equipment as he had the previous day. I almost asked him if he wanted to go outside the harbour with my Class and myself. However, it occurred to me that I would have to pair my Standby Diver up with Frank (for safety reasons), thereby making my Class short of a Standby Diver, which I was not prepared to do. Therefore I said nothing to Frank about going with me and my Class. Apparently he talked to another Instructor, Jack Thompson, who was on the Training Float that day, supervising a Class of young Officers on a Diving Course doing ship bottom searches on the HMCS CAPE BRETON, an old ship tied up at the Colwood jetty. Jack apparently agreed to let Bayfield-Davies dive there, but insisted that he wear a lifeline attached to a float (a Buoy), because Frank wanted to swim the underwater jackstay, which ran out from the chamber into a part of Esquimalt harbour. The deepest part of the jackstay did not exceed 30 ft, with a big section near the start (a couple of hundred yards) was only 10 to 15 ft deep. In this way, Jack Thompson would be able to track Frank's whereabouts fairly frequently, as well as look after his own Class of Divers. I don't know the exact time factor, but Jack saw that Bayfield-Davies was proceeding around the jackstay by the movement of the float. However, due to the shallow depth, the float did not move steadily until the depth got deeper, and the slack in the line was taken up. After noticing that the float hadn't moved for some time, Jack dispatched two Divers by foot along the beach, parallel to the jackstay track. They discovered him floating just under the surface, unconscious. The alarm was raised, but unfortunately it was too late for Bayfield-Davies. After much investigation and analysis, it was determined that Frank's diving set did not contain 100% Oxygen, although the regulator for the set was in the 100% Oxygen mode. Therefore he died of anoxia (the lack of Oxygen) which, unfortunately, gives no warning to the Diver that he is in trouble. Also, anoxia snowballs very quickly once it starts, with the brain being the prime target. It was determined that Bayfield-Davies grabbed the wrong set of cylinders from which he was diving with the previous day and, instead of having 100% Oxygen, he had considerable less because the cylinders he grabbed were already partially filled with a 60/40, or a 40/60 mixture. I can't remember exactly what the Oxygen level was in his set of cylinders, but that is what did him in. Unfortunately at the time, Bayfield-Davies was probably the most knowledgeable Diver in the Unit regarding this CDBA equipment. That may have become a disadvantage to him, for other people didn't like to challenge him in this regard. I dove with Frank on many occasions, and served under him on several occasions - down south with the US Navy Divers, in the High Arctic and on several Mine Clearing Exercises. Believe me, his death was a great shock to all of us! Also, not too long ago, I was contacted by his nephew from South Africa, who was requesting information about him; if I recall rightly, his mother was Bayfield-Davies's sister, and I responded to their inquiry at that time. If I can be of further help in this regard, please drop me a line - I live in Kincardine, Ontario. I've just passed through Parksville at the end of Febru-



## Editor's 10 Foot Stop

Dear Readers

You will notice that I've changed the format of the last page of the Digest somewhat from previous issues. Space is so limited with all the material I have been given that I simply needed more space and half of the last page has been so repetitive that I thought I would make more room for more interesting articles and stuff. I am only allocated 10 pages to keep printing costs down so this needed to be done without (hopefully) disrespecting the great forebearers of this digest and the association...

Lastly, there are a number of special events coming down the pipe that all should be aware. These were and are:

- KP McNamara Retirement Soiree - 4 July 2014  
Fox and Feather, 283 Elgin St, Ottawa RSVP alexander.macneish@forces.gc.ca or bryan.waters@forces.gc.ca
- Charlie Trombley Retirement - 28 July 2014
- FDU(P) Change of Command - 5 August 2014
- Rob Mackay Retirement at FDU(P) - 6 August 2014
- Steve Mandy Retirement at FDU(P) - 7 August 2014
- Clearance Diver Course Graduation at FDU(P) - 8 August 2014
- Keith Musselman Retirement - 8 August 2014

As we are right at the cusp of summer, I hope that all enjoy the coming good weather with family and friends. I want to pass on a hearty congratulations and best wishes for all those listed and involved with the above special events. LCDR Chad Naefken wanted to send out a personal invite to all CNDA members and retired Divers to come to FDU(P) for his upcoming Change of Command. To those retiring, and I apologize if I have missed listing any retirements or events, I wish you fair winds and following seas for the future!

