

The Canadian Hydrographic Association
Association canadienne d'hydrographie



NEWSLETTER

*** July/August 1996 ***

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Canadian Hydrographic Association

Central Branch

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Central Branch Committees

Membership/Nominations/Elections

T. Herron, J. Biggar, J. Campbell, A. Koudys.

Lighthouse

T. Herron, J. Weller, P. Travaglini, A. Leyzack.

Social Events

BBQ: J. Biggar, P. Travaglini, A. Koudys,
J. Campbell.

H2O: A. Leyzack, P. Travaglini, B. Power,
J. Miles, B. Tinney, D. Pyatt.

AGM: J. Campbell, A. Leyzack, J. Biggar,
A. Koudys, T. Herron.

International Members

T. Herron, P. Travaglini, L. Robbins, J. Weller.

Seminar

W. Warrender.

NewsLetter

J. Weller, T. Herron, A. Leyzack, L. Robbins,
K. Weaver.

Wade Essay Award

W. Warrender, A. Leyzack.

Heritage Launch

A. Leyzack, W. Warrender, J. Dixon, B. Power,
H. Duller.

Message from the National President

Well, finally it is summer (or winter, for our International Members below the equator)! During the past months, activities of the CHA have ranged from the training course in Malaysia to the determination of the CHA Student Award winner. It is a pleasure for me to announce on behalf of Barry Lusk, CHA Student Award Manager, that M. Jean-François Olivier, a second year student of a Baccalauréat en Géomatiques program at the University of Laval, is the winner of our CHA Student Award.

The Central Branch *Heritage Launch Project* is being wound up as a charitable organization, with the handing over of the oars to the *Museum of Man* in Ottawa.

The training course in Malaysia is still on-going with another course expected to commence in September. (Late Flash ... The September course has been cancelled.) International Members aware of training needs of employees and others should contact the University of Technology or Tom McCulloch or myself.

Like many other volunteer organizations, CHA is experiencing a decline in membership and also in volunteers within the existing membership. The need

to fit private life, employment and volunteer time into a 24 hour day (and still get some shut eye) leads to many difficulties. I heartily commend all our CHA volunteers. From the production of Lighthouse to the monthly newsletters, volunteers provide the communication medium to all of our members, and communication is the mainstay of the CHA.

In September, I will be attending HYDRO 96 in Rotterdam and look forward to meeting any International Members who can get to the Conference. I had the opportunity to meet many members at the Canadian Hydrographic Conference (CHC) in Halifax in June, and hope to be able to attend Branch meetings later this year. The discussion held with members at CHC with regards to accreditation have been extremely informative and I am in the process of preparing an information package for future discussions.

Enjoy what is left of the summer (winter) and remember that a severe weather warning is usually followed by scientists trying to downplay the severe weather.

— Ken McMillan.

Notes from the Branch Vice-President

It is now mid summer and hopefully everyone is enjoying the warm weather and taking some holidays. Many of our Central Branch members are now in the field or getting ready to depart for places north; to them I wish fair winds and warm breezes.

Earlier this summer, our *Heritage Launch Surveyor* was taken to Pier 4 park in Hamilton where she and her crew participated in Aquafest. Crew members were part of a period encampment and two battle re-enactments as part of the festivities. At the end of the events, we sailed *Surveyor* back to CCIW despite the lack of wind. The launch is scheduled for several more events this summer and we are still looking for crew. Please let Brian Power or John Dixon (905-336-4836) know if you are interested in coming out for the final event of the year, which will be on the Thames River (Ontario), 4 & 5 October, at Chatham Heritage Days.

The Central Branch event of the summer... the annual BBQ will be happening on Saturday September 21st at

the Leyzack residence in Beamsville. See the ad on Page 3 of this newsletter for details.

The Canadian Hydrographic Conference held in Halifax, June 3-5, was a great success. The program was interesting and informative, and the social program was enjoyed by all.

For those of you eagerly awaiting the "Spring" 1996 Edition of Lighthouse... it is still being worked on. It will likely be published in September.

Our next Central Branch business meeting is scheduled for October 2 at my house in Waterdown. Our speaker for the evening will be Mike Crutchlow of the Canadian Hydrographic Service.

In the meantime, see you at the BBQ!

— Terese Herron.

From the NewsLetter Committee:

With this summer edition of our newsletter, we welcome Ken McMillan, CHA National President, and John Halsall, writing for the Out-house. Terese Herron (our Central Branch V-P), Keith Weaver and Larry Robbins (our International Correspondent) have their regular columns, and we also have items from Joel Box (Ottawa Branch V-P) and Rob Hare (Pacific Branch Past V-P). Thank you all. With your help this newsletter does a great job of keeping members in touch.

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Mark this on your calendar! Thursday 5 December is the Annual General Dinner Meeting of Central Branch. This is your annual opportunity to make your voice heard, to keep up with your fellow members, and to have an interesting and tasty evening out. As in past years, this will be at the Mimico Cruising Club.

News from the other Branches

The Section du Québec, and the Newfoundland, Prairie Schooner, and Captain Vancouver Branches are still going strong but we were unable to get reports from them in time to include here.

Joel Box, Vice-President of Ottawa Branch, sent us news of their activities (see page 6), and Rob Hare, Past V-P of Pacific Branch, sent us this report:

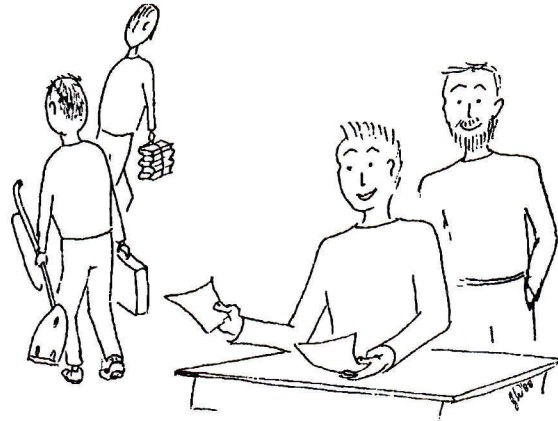
Well it's summertime on the West Coast, so most CHA members are either out in the field or on vacation, although some would contend that these two operations are not mutually exclusive. But then again, it's not always a picnic.

The Barge Pender is presently working on the west coast of Vancouver Island in the area of Esperanza Inlet. Alex Raymond has assembled a crack team consisting of Dave Thornhill and Doug Cartwright, with assistance from Central Region's Alan Shepherd and MDH Brian Wingerter. Pete Wills (also a Central Branch Member, now on assignment with Pacific Region) is to replace Brian later in the season. This should make Brian happy, as he has discovered that it can be dangerous out there. He fell overboard and then was nearly swept off a rock, by the launch!

Mike Woods is back from a GPS control survey on the Mackenzie River with PWGSC, a week or so early. The early finish was due to a minor incident involving a battery which slid off the front seat of the whaler, shorted out on a metal gas tank, which then exploded, burning the whaler to the waterline and sending an Ashtech Z-12 and a Geodimeter total station to a watery (and fiery) grave. Mike was not aboard at the time, and fortunately no one was injured.

I hope that these two examples serve as a reminder to be careful out there.

*"We didn't buy the books or a vacuum cleaner ...
... but I sold them both a CHA membership!"*



Knut Lyngberg is leading the Arctic expedition aboard the Nahidik, with Ken Halcro, Doug Popejoy, Ron Woolley and Neil Sutherland providing the necessary hydrographic support.

Kal Czotter is in Stewart, British Columbia (on the BC border at Hyder, Alaska) with geography co-op student Shannon Frame, surveying the head of the Inlet. Have you been Hyder-ized yet Kal?

Closer to home, George Schlagintweit is recovering from his revisory surveys of Vancouver Harbour with Michael Jennings earlier this year. Judging by the amount of revisory items the 10 year resurvey cycle for Vancouver Harbour seems appropriate - any volunteers for a Vancouver 1997 field survey? Bring your wallets and a big bottle of Tylenol.

Peter Milner is still awaiting the latest upgrades to the Simrad EM3000 hardware and software so that he can begin some production surveys. Rob Hare and Ernie Sargent are putting the finishing touches on the Higgins Passage field survey, carried out earlier this year.

As of Saturday August 3rd, James Wilcox's bachelor days are over. Several CHA members attended the marriage of James Allan Wilcox to Linda Marie Burgess and the reception which followed at the Stone House Pub. For some reason the hydrographers were all placed at the back, close to the beer keg?

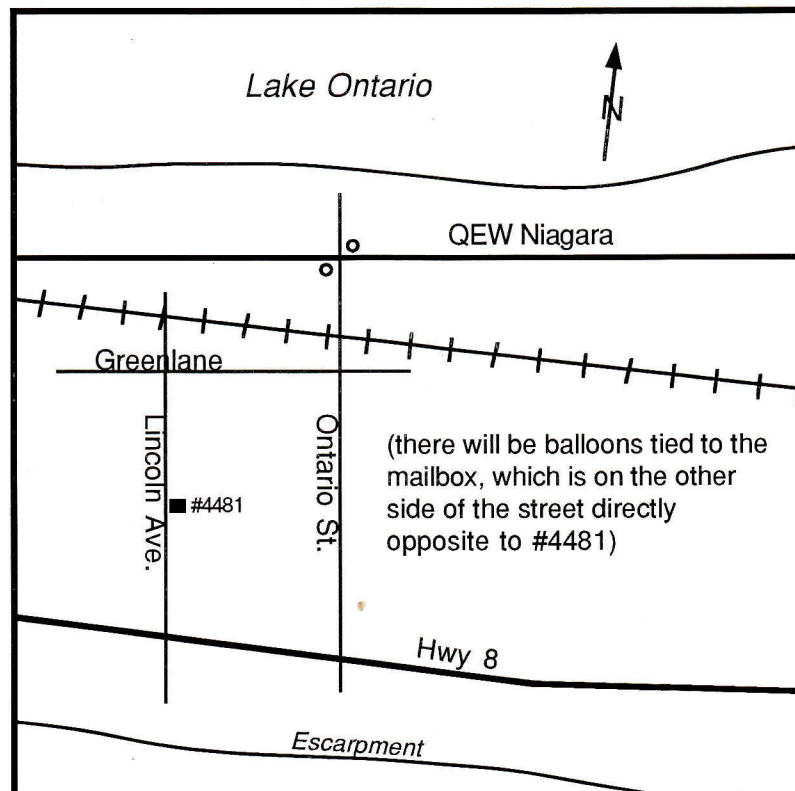
The IOS Golf tournament was well-attended by CHA members from IOS, Quester Tangent Corporation and Terra Surveys Ltd. All reports indicate a good time was had by all.

All CHA members, friends and families are invited to the
Canadian Hydrographic Association
Central Branch

ANNUAL BARBECUE

*Saturday, September 21, 1996
3:00 pm*

*at 4481 Lincoln Ave., Beamsville
The Leyzack residence*



Hotdogs and hamburgers with all the fixings,
beer, wine and pop provided.
Please bring a salad or dessert and a lawnchair.

See you at the BBQ!

The International Column

Nick Emerson (Hong Kong) is a faithful correspondent through Internet e-mail. On a recent trip to Japan he had the opportunity to take a short trip around Tokyo Bay aboard their newest hydrographic survey vessel, KAIYO. Completed in late '93, her main particulars are: 550 tons; 60 m length; 10.5 m breadth; 3.4 m draft; 15 knots service speed; 5,000 mile cruising range; and 31 person accommodation capacity. Her survey instrumentation includes a comprehensive suite for hydrographic, geophysical and oceanographic surveys, including a deep water multibeam system.

Nick says that the first thing that struck him was the cleanliness; she was absolutely spotless throughout and he goes on to suggest that with a crew of 25 there are plenty of bodies for preventive maintenance and cleaning. (In HMNZS MONOWAI we have around 125 people at full complement and have difficulty keeping her up to scratch. I guess we all live in different worlds, eh! - LR)

But it was the bridge of the KAIYO that proved most interesting - not a paper chart in sight! Instead she carried a fully IMO compliant ECDIS using Electronic Charts supplied by the Hydrographic Department of the Japanese Maritime Safety Agency. Displaying the current chart on a 26" colour monitor with ship's position being input via DGPS, GPS, Loran - C or Decca, this was Nick's first example of a true ECDIS being used for general marine navigation.

The MSA have the majority of the Japanese coast now available on ENC's with a bilingual structure, albeit from paper charts at rather small scales of 1:80,000 to 1:2,250,000. Unfortunately the IMO resolution that the ENC should be accordant with the paper charts has also delayed Japan joining the growing trend of using WGS 84 for the horizontal datum. By law all Japanese paper charts must be published using the Tokyo Datum. "Thus mariners must again be wary of the positional shift using GPS navigation. (But isn't there an automatic datum correction? - LR) Even so, electronic charting and display is definitely the way ahead." But then in this newsletter (he says!) that statement certainly is trying to teach grandmother to suck eggs!

I have been travelling around, too, and spent a week in Nuku'alofa, Tonga, looking at their Hydrographic Service following their loss of a Chief Hydrographic Surveyor and seeing if and what assistance they may need. It was a good and useful week and we were made to feel most welcome by the Hydrographic Unit. It also enabled me to escape the first really cold snap of the (southern) winter (temperatures fell almost to zero (C) in Auckland!) though with the climatic changes I am now suffering a dreadful head cold (grapes, flowers and

get-well cards all accepted, though hopefully I will be over it by the time this is published!)

I have been reading, albeit spasmodically as one gets the time, an excellent book by Andrew David, a noted 'Cook' expert. The book covers the voyages of Captain Denham in HMS HERALD in the Pacific between 1852 and 1861. It will mainly be of interest to antipodeans, I guess, but it contains some excellent glimpses of hydrographic surveying in the last century including an account of sounding by deep sea lead to 7,000 odd fathoms (later found to be in error, but the thought of the effort involved is mind-boggling!)

Our NZ survey ship MONOWAI has recently hosted visits by delegates to high-powered conferences in New Zealand and we have enjoyed meeting hydrographers and geodetic experts from around the world. There were a number of Canadians amongst them including the Dominion Hydrographer and also CHA member Adam Kerr. We have enjoyed meeting them.

Welcome to John Halsall, our new Outhouse columnist who, I gather, is something of a traveller himself. We look forward to his news ... and to him visiting New Zealand at some stage.

Stay good!

— Larry Robbins [Commander, RNZN].

Yes, Quite so!

"The grain of the green only bothers a bad putt."

— Lee Trevino, on 12 June 1996, leaving the 15th green at Hamilton Golf and Country Club.

(submitted by Beth Weller)

Gerry Wade Essay Award

It is with great pleasure that we announce two winners of the 1996 *Gerald E. Wade Essay Award*:

Officer Cadet Carol Dudfield of Sydney, Nova Scotia, for her paper "De-staffing of Canada's Light Stations: A Return to the Dark Ages of Navigation?" and

Andrew Millward of Guelph, Ontario, for his paper "GIS as a Tool to Predict Post-Harvest Soil Erosion in the Columbia Forest Reserve, Belize C.A."

Both winners will receive a cheque for \$100. and a year's membership in the CHA.

Congratulations!

Adventures with the Heritage Launch "Surveyor"

by Heimo Duller

With the coming (finally) of warmer weather, the good ship Surveyor and its jaunty crew have again embarked on a journey of fun and adventure.

Penetanguishene

Our first activity of the season occurred on June 15th, with a return visit to that shrine of hydrography — Penetanguishene, Ontario.

Ostensibly, our purpose was to examine the requirements for a seaborne assault by troops landed from larger ships, in preparation for Mackinac in '98. What we got was another Dieppe raid. One of our early discoveries was that ships and boats without proper charts tend to run aground (believe it). With impeccable local knowledge from John Dixon's fishing trips, Surveyor was able to avoid this ignominy.



Reviewing the situation...

A second discovery was to never underestimate the strength and nature of your enemy (especially if it's an island covered with poison ivy), a situation which Surveyor's crew was able to avoid by staying aboard ship with suitable preventative medicine.

This major event of the weekend concluded with one of the more elegant meals attended by the boat's crew, with candlelight, period music, and excellent fare served under a marquee, after which we all retired to our straw-filled canvas tents for a well-deserved rest.



Aquafest

Surveyor and crew once again took part in Aquafest '96, and as such were a part of the City of Hamilton's sesqui-centennial celebrations.

To begin our activities, the crew found it necessary to set up a suitable base camp, and so penetrated the wilds of Bay Street North in Hamilton (unfortunately the Bayview Tavern was again closed for renovations — or is that fortunately!).

Our first event of the weekend was to follow that long-standing British tradition of celebrating defeats as much as (or more than) our victories. Such were the "Burlington Races", when a British squadron sailed through the beach strip's old opening (which required some tricky navigation, an east wind, and lots of luck), and hid from the dastardly yankees. To commemorate this event, a fleet of tall ships and ship's boats were required to sail past various viewpoints within the harbour, which, unfortunately for Surveyor, with the dying of the wind, became a tow past.

For the remainder of the weekend, we were required to become dastardly yankees, and participate in a seaborne landing of troops to defeat the British and destroy Hamilton's *King's Head Tavern*, an objective we were strangely unable to accomplish.



The encampment at Aquafest

The general amenities provided for the crew on this weekend (fireworks, lighted sail pasts, and singles' dances) were quite enjoyable, but the decision to have an Italian caterer provide us with "Old English Beef Stew" defies understanding. If not for the culinary expertise of Francine and Ken Dixel, the crew of the Surveyor would surely have starved.

If you would like to join the crew of the Heritage Launch *Surveyor*, please let us know. We have a lot of fun, and all helpers are very welcome!

Central Branch Members on CHS Field Surveys

by Keith Weaver and Terese Herron

Jon Biggar, Terese Herron and Tim Janzen were on the **Winter Arctic survey**. This was a contract survey with Aerodat for Through Ice Bathymetry Survey (TIBS; electromagnetic bird and a helicopter) in the Dolphin and Union Straits. Spot soundings and gravity surveys were also collected via helicopter hops (2 machines). Positioning was accomplished with Novatel/MX300, and soundings with the Knudsen 320A arctic sounders.

Data processing was accomplished with a two-workstation VaxCluster, Zeta plotter using Aerodat's standard processing system, and CHS/CARIS. The survey ran for 8 weeks.

Ken Dixel was on the **gravity survey in Nares Strait**. This survey was providing two weeks of assistance in collecting gravity data to *Geodetic Survey of Canada*.

John Medendorp, Peter Knight, Mike Johnston and Mike Bennett were on the **Revisory Survey**. As with any revisory, it runs for most of the summer, with numerous venues. This year, using a PC and Hypack software, data has been collected in the lower Great Lakes area including visits to McGregor Bay and Blind River.

Jack Wilson, Al Koudys, Jon Biggar, Terese Herron, Andrew Leyzack, Fred Oliff and Mike Johnston were on the **Nottawasaga Survey** aboard the CCGS *Griffon*. Four Hourston launches and a LFGB launch were outfitted with Knudsen sounders and positioning with Novatel GPS receivers logging to ISAH. Processing was accomplished with a VAX4000-60 workstation, HP650c plotter and Tektronix using the CAR standard processing system. The survey lasted 6 weeks.

Paul Davies, Raj Beri, Tim Janzen, Paola Travaglini and Andrew Leyzack are on the **Rankin Inlet Survey** aboard the CCGS *Hudson*. The Hudson sailed from Halifax on 16 July with five P-boats (Nelson launches), on loan from the East Coast, on board. Four of these are outfitted with Elac sounders, Elac digitizers, Novatel GPS receivers logging on ISAH. One boat is also outfitted with SIMRAD Multibeam logging on a SUN Microsystem and one with Multibeam only. Processing is a two-workstation VaxCluster, HP650c plotter and Tektronix using the CAR standard processing system. Multibeam is being processed using HIPS/SIPS on the Alpha 255/266 and visualization using SGI Indigo workstation using SEE-BED. All the machines are networked and have some level of interoperability.

Some of the survey crew accompanied the ship while others left Burlington by air on the same day. The ship encountered ice in Hudson Strait, which slowed its progress, but the survey is expected to be completed by mid-September. The shore-based survey crew have meanwhile installed two tide gauges and have set up a GPS reference station.

John Medendorp, Jon Biggar and Ken Dixel are on the **Summer Arctic Survey** aboard CCGS *Larsen*. Two launches equipped with Elac sounders and Novatel and MX300 DGPS positioning logging to ISAH will be operational for the 4-5 week survey. The intent is to work on Chart 7511/7935 which is the Resolute Bay area. Processing is a VAX4000-60 workstation, Zeta plotter and Tektronix using the CAR standard processing system.

Ice conditions in and around Resolute have been bad, with westerly winds pushing more ice into the area. The ice observer on board feels that Allen Bay and Resolute Bay are not going to clear this year, so on to Plan B... and work in Peel Sound, which, at 73°N, 96°W, is 100 miles to the south.

News from Ottawa Branch of CHA

by Joel Box

Ottawa Branch elected a new executive this past spring. Vice-President is Joel Box, Secretary-Treasurer is Sheila Acheson, Past V-P is Ilona Monahan, and the Directors are Michel Blondin and Denis Pigeon. At our Branch Annual General Meeting, it was decided by the executive and the members at large that Ottawa Branch needed to refocus its efforts on hydrography and education. This approach appears to have been successful as we now have 55 members here in Ottawa.

The decision was also made to provide each CHA Ottawa member with the opportunity to post their own WWW homepage. Ottawa maintains a homepage at <http://www.cyberus.ca/~rhorrigan/CHAHome.html>. Member's pages are linked to this site.

Ottawa Branch has also put together a series of 'Pizza Seminars'. The first one, presented by Gordon Fader, was entitled 'The Other Side of the Moon: New Ways of Mapping the Seafloor'. Gordon made a dynamic and very entertaining presentation of new data-acquisition techniques in Halifax Harbour and surrounding areas. The second presentation was by Sun Wee, a senior project engineer with the Canadian Coast Guard (CCG). Sun described the CCG Differential Global Positioning System (DGPS) program, its implementation and future plans for expansion. Both presentations were very well received (as well as the pizza that followed).

In June of this year, 35 CHA members made a day trip to the Port of Montreal for a tour with Jean-Luc Bedard (Harbourmaster). The Port and Jean-Luc received us very well. We were provided with a complete history of the Port, but even more emphasis was placed on the future of the Port and its demands on organizations like the CHS. Overall the trip was very informative and entertaining.

Adventures with the "Tiny Tune"

by John Halsall



Hello to fellow CHA members. A little summer tale here for your use as refreshing tonic if YOU ever have one of those frustrating days afloat.

Late last year the opportunity arose for me to participate in a continuing series of transitional zone (TZ) seismic surveys in coastal Texas and Louisiana, a separate 'hydrographic' field in itself and a bit of a diversion from my usual marine construction activities but still very navigation intensive and a rewarding exposure. It is a field well worth watching for technological developments since it is a real environment for putting the REAL in real-time DGPS navigation to the test and a challenging environment for the control and accuracy of the fourth dimension, time, in both hardware and software.

'TZ' surveys cover relatively shallow water and instead of seismic streamer ships and the like, one ends up with a fascinating variety of smaller purpose-built or converted boats. The key vessel is the 'gunboat', basically floating air compressor and air guns (the energy sources), with computer/positioning/timing gear aboard to trigger 'shots' at predetermined regular intervals along predetermined 'source lines' sailed.

For a particular survey in a large but shallow saltwater bay in Louisiana earlier this year, I met and developed a strange fondness that perhaps only Farley Mowat and the like could appreciate, for the venerable 'Tiny Tune', which is a SHALLOW water gunboat. 'Tiny' as in 40' long, VERY low-lying (as in submarines running on surface), with twin (usually) outboard propulsion, a neat but VERY compact wheelhouse and nice leisurely speed and turning response. 'Tune' as in six airguns blown by a large compressor driven by a non-too-shy diesel on deck = earmuffs and hand signals when all this machinery was up and screaming.

As THE vessel responsible for 'shooting' zones only 5 to 3 feet deep, a daily fact of life was uh, er... well, simply put, running aground. In an area rife with shoals, mudbanks, abandoned and live oil/gas platforms and pipelines (charted and uncharted, lit and unlit), the gunboat is required to adhere to straight source lines for shooting as far as possible until obstructions come across line or water runs out. A classic damned if you do / damned if you don't setup whereby you're in the doghouse for leaving line too soon to avoid running aground and hence leaving more work for the land dynamite and airboat crews, and equally in the doghouse for running aground and holding up production while you de-suck yourself from some of the most adhesive mud I have ever encountered. I can confidently say that I have NEVER run aground so

often on a daily basis... ah, feel all those Master Mariners out there shudder!

There are positive benefits to this sort of experience however... one of which is pre-qualification as a landing craft skipper. All this is brutal work for outboard motor cooling systems and lower units (all three of us were greasy-knuckle types and spent the odd hour on the stern swapping powerheads and lower units on the go). One particularly 'challenging' day, when we had to have a 'tow truck' skiff following us about, we overheard our mud-skipping workhorse being referred to as 'Looney Tunes' on the radios... this ground hard into the crew's pride, generated some foul counter insults amongst ourselves on the private 'inter-wheelhouse' channel... and soon resulted in our refusal to respond to the call for 'Looney Tunes' over the radio.



"Tiny Tune" at rest

All those nicely synched six little geysers of mud off the sides every 15 seconds or so did tempt one to fantasize occasionally about the expression that would be on a particularly zealous Ontario Ministry of Environment inspector's face if this vessel were to 'shoot' its way across certain domestic bodies of water.

I must say that it was all made even enjoyable on those particularly frustrating days by the great crew rapport which will usually spawn itself when you're associated with not only a unique but seemingly 'outcast' vessel.

Tex-Aussie mechanic Fred with his endless supply of humor... 'what are those big green things floating by [islands]'; James, gun-mechanic/helmsman, the grand-daddy of 'Tiny Tune'... 'ah ---- what NOW! I just FIXED that son of a ----!'; and Juan, gun-mechanic & helmsman... 'O.K., time for some music'... with the power to clear the entire wheelhouse at will via control (or lack thereof) of the bodily exhaust system and varying quantities of that gaseous Coor's Light stuff the night before.

Have a good summer and a better fall, and when you've had one of those days you shouldn't have had, remember the 'Tiny Tune'...