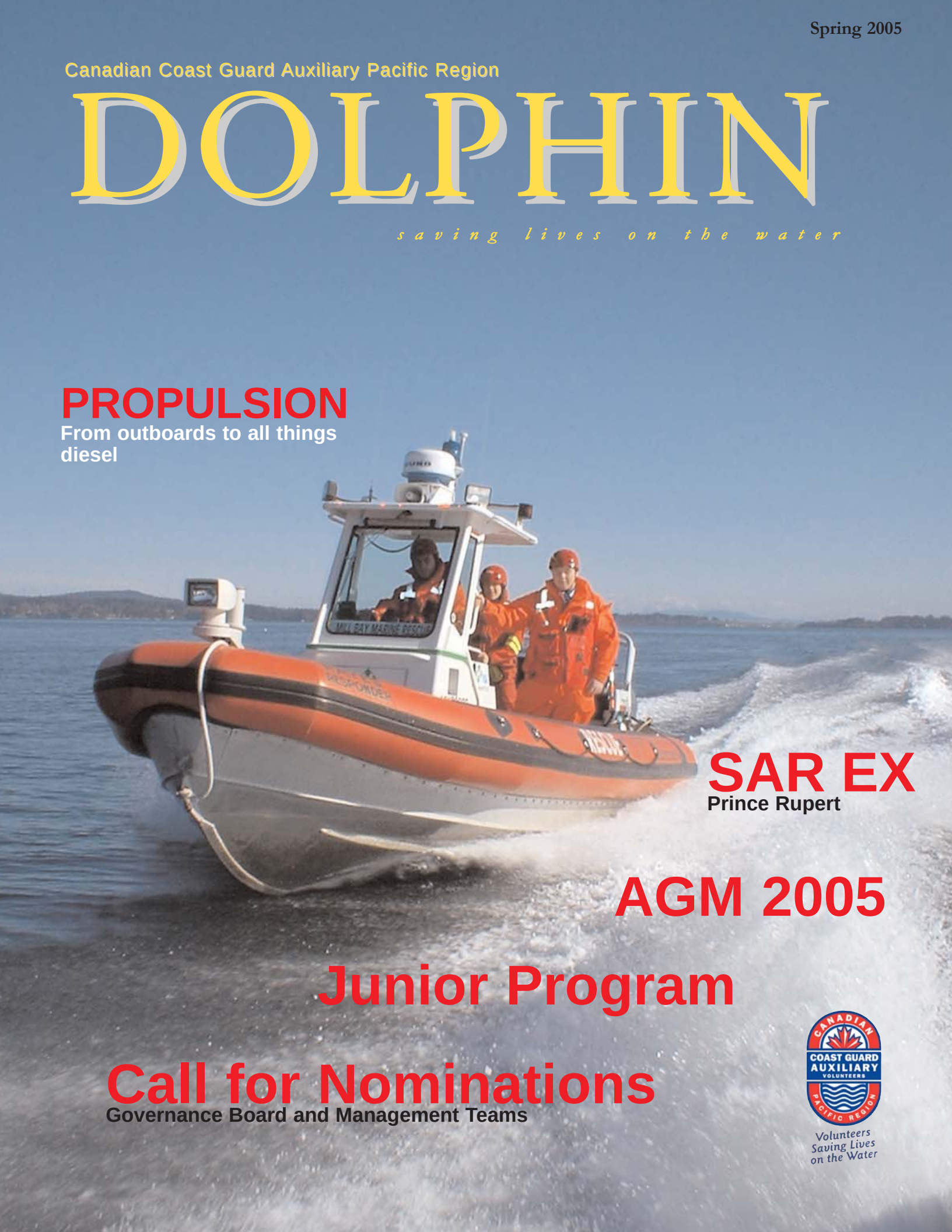
Spring 2005

Canadian Coast Guard Auxiliary Pacific Region

DOLPHIN

saving lives on the water



PROPULSION
From outboards to all things diesel

SAR EX
Prince Rupert

AGM 2005

Junior Program

Call for Nominations
Governance Board and Management Teams

Volunteers Saving Lives on the Water

This Issue

On the cover:
Unit 34 Mill Bay - "HAYES RESPONDER", photo provided by Eric Manchester

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Dolphin

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"A Transition from Management to Governance"

A Call for Nominations

To the Board of Governors

Canadian Coast Guard Auxiliary - Pacific Region

The Canadian Coast Guard Auxiliary-Pacific (CCGA-P) is an organization of volunteers who, in partnership with the Canadian Coast Guard, have provided year-round 24/7 on-call marine search and rescue services, and boating safety education services to the citizens of British Columbia since 1979.

More than 1,400 highly trained and motivated volunteers of the CCGA-P are required to work in a high stress and fast moving environment as they respond to approximately 1,000 marine incidents annually.

On February 26, 2005 the membership of the CCGA-P voted overwhelmingly in favour of moving the CCGA-P Board of Directors from a management to a governance structure to properly direct and govern the organization.

The time has now come to submit nominations to fill positions for the Board of Governors, for its initial term with the finest candidates available. The positions that need to be filled are:

President
Vice-President
Secretary-Treasurer
Community Representatives (4)
Area Representatives (3)
Societies Representative (1)
Members at Large (3)

The application form and a list qualifications needed in order to be considered for each of the positions can be found on-line at http://www.ccga-pacific.org/board.html

In addition to the qualifications found on-line, candidates should have:

- Experience in governing medium to large organizations;
- Extensive public and private sector networks; and
- A marine background would be an advantage.

Please submit your letter of interest along with your qualifications no later than April 29, 2005 to:

Attention: Director of Human Resources

Canadian Coast Guard Auxiliary-Pacific,
25 Huron Street,
Victoria, BC, V8V 4V9,

Fax: 1.250.480.2742
Email: dolphin@ccga-p.ca

Navigating the Future
Call for Interested Candidates
to Join the
CCGA-P Management Team

The time has now come to recruit those candidates who aspire to serve the membership of the CCGA-P at the regional level. These positions will appeal to individuals who possess excellent leadership skills and are team orientated. The term of appointment shall be one year open for renewal. The positions that need to be filled are:

Manager of Search and Rescue
Manager of Training
Manager of Boating Safety
Manager of Financial Development and Public Relations
Manager of Human Resources

Qualifications needed in order to be considered for each of the positions available can be found on-line at www.ccga-p.ca

In addition to the qualifications found on-line, candidates should have:

- A passion for the work of the CCGA-P,
- Experience in implementing policies and procedures,
- A leadership background in either the CCGA-P or other organizations or companies, and
- Desire to assist the membership and units on operational matters.

Please submit your letter of interest along with your qualifications no later than April 29, 2005 to:

Attention: Human Resources

Canadian Coast Guard Auxiliary-Pacific
25 Huron Street,
Victoria, BC, V8V 4V9
Email: dolphin@ccga-p.ca
Fax: 1-250-480-2742

26TH Annual General Meeting

OFFICE OF THE LIEUTENANT GOVERNOR

Greetings from Government House, the Ceremonial Home of all British Columbians! As the British Columbia representative of Her Majesty, Queen Elizabeth, The Queen of Canada, I send a warm welcome on the occasion of the Canadian Coast Guard Auxiliary Pacific Region's 26th Annual General Meeting, this year in Richmond, BC.

On behalf of the people of British Columbia, I express full appreciation and thanks to all auxiliary members of the Coast Guard for your dedication to securing lives in jeopardy on this sometimes perilous coastline. Search and rescue operations remain essential, but with volunteer participation, the Coast Guard also teaches vital boating and other safety skills, while working in many ways to reduce the hazards facing those who ply the waters of British Columbia's Pacific Region.

Best wishes for this weekend as you honour your colleagues and share in the camaraderie and educational aspect of meeting with those who share your passion for preventing accident and saving lives.

Sincerely,

Iona Campagnolo, CM, OBC
Lieutenant Governor

COMMISSIONER'S COMMENDATION

Frank Hudson

NATIONAL AWARDS

Administrative Excellence Medal

Given in recognition of outstanding administrative achievements or service to the CCGA.

Ryan Woodward
Allan Hughes

Leadership Medal

Given in recognition of sustained professional and/or leadership achievements in operations or administration.

Bruce Falkins
Brian Cameron

CCGA-P AWARDS

Blue Spirit Award

In recognition of your commitment and professionalism throughout your service with the Canadian Coast Guard Auxiliary - Pacific.

James Miller

Certificate of Appreciation

In recognition of your contribution to the work of the Canadian Coast Guard Auxiliary-Pacific during the past year.

Jonathan Martin
Bart DeFreitas
Victor Lironi
Unit 8 - Delta
David Holmes

Certificate of Commendation

In recognition of your commitment and professionalism throughout your service with the Canadian Coast Guard Auxiliary-Pacific.

Jim Brewin
Glen Rea
Mike Sorensen
Dario Gorssi
Barry Hastings
Robert Ounpuu
Jay Willoughby
David Welters
Curt Hansen
Ellen Reid
Unit 6 - Richmond North
Unit 7 - Richmond
Unit 38 - Long Beach
RCMP North Coast

Certificate of Merit

In recognition of your meritorious service to the Canadian Coast Guard Auxiliary-Pacific.

Hugh McKinnon
Ted Wallis
Garry Brown
Unit 27 - Nanaimo

Executive Officer's Award

In recognition of the Canadian Coast Guard Auxiliary - Pacific Unit that makes a significant contribution to the goals of the entire Pacific Region

Unit 61 - Pender Harbour

Gerry Moka Award

In recognition of your outstanding work in prevention.

William Hopkins

Honorary Membership

In recognition of your outstanding and exceptional service to the Canadian Coast Guard Auxiliary-Pacific.

Tyler Brand
Alison Keighan
Jeff Nemrava
William Mather

Incident Duration

In recognition of the Canadian Coast Guard Auxiliary - Pacific Unit that took part in the year's longest incident.

Unit 63 - Kitimat

John McLean Award

In recognition of outstanding service given to the Canadian Coast Guard Auxiliary - Pacific by an owner/operator.

Harvey Humchitt

JRCC Award

Joint Rescue Coordination Center's Award for Unit Operations.

Unit 63 - Kitimat

Lindsay Halliday Award

In recognition of your outstanding service and dedication to the boating safety program.

Dale Living
Raelene Living

MIKE Award

In recognition of the Canadian Coast Guard Auxiliary - Pacific Unit that performed the first rescue of the year in aid of their fellow mariners.

Unit 33 - Oak Bay

OBS Award

In recognition of significant contributions of the advancement of boating safety in the Pacific Region.

Unit 101 - Southern Interior

Operations Directors Award

In recognition of outstanding SAR readiness demonstrated consistently by a Canadian Coast Guard Auxiliary - Pacific Unit.

Unit 7 - Richmond

Roger Wishart Award

In recognition of the Canadian Coast Guard Auxiliary - Pacific member who has made outstanding contributions to the organization in the fields of training, boating safety and SAR/Operations.

Geoffrey Gould

Tolonen Award

In recognition of the Canadian Coast Guard Auxiliary - Pacific Unit that accomplished an outstanding operational record in volunteer marine SAR in support of the Canadian Coast Guard.

Unit 35 - Victoria

The AGM weekend held something for everyone!

The 26th AGM kicked off with a spectacular trade show. Sixteen exhibitors displayed the latest in first aid, survival gear, marine electronics, vessels and motors. The show offered the opportunity for directors, unit leaders, members and guests to discuss product lines with the exhibitors.

The workshops held on Friday were a great success. An array of topics was covered, giving all who attended some useful information. A special thanks to our instructors; Bob Beckett - Volunteerism, Joanne Balance & Marnie Hill - Fundraising, and Ron Monk - Conflict Resolution.

Saturday held the official portion of the AGM, with the opening ceremonies hosting VIP's from BC, Ottawa, and the USA. The awards lunch was an inspiring affair with 4 National awards presented and a Commissioner Commendation. During the evening we had the presentation of CCGA-P awards, and the privilege of Ian Strachan - Director of the National Sea Rescue Institute of South Africa present a dynamic report on South Africa Sea Rescue operations.

The Silent Auction gets bigger and better every year. There were over 120 items up for auction and something for everyone. Among the many items auctioned there were original art, handcrafted woodwork, limited edition prints, clothing, first aid kits, and marine equipment.

The success of these events is due to our committed volunteers, wonderful sponsors who donated gifts and to the enthusiastic bidders. **Thank you very much.**

The Canadian Coast Guard Auxiliary-Pacific Board of Directors, Members and Staff would like to thank the following donors for their support of the 2005 AGM.

Trade Show Participants:

Carlton Rescue Equipment
Carswell Industries
CMC Electronics
Ferno Canada Inc.
GUTZ EMS Inc.
Helly Hansen Canada
ICOM
Megatech
Mustang Survival
Nautilus
Pacific Yachting
Suzuki Marine
Vancouver Life Raft & Safety
Vancouver Marine Equipment
White's Manufacturing
Yamaha Motor Canada

Silent Auction Sponsors:

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Changing Times
Chateau Victoria
Cim MacDonald
Clay Evans
CMC Electronics
CNC Creations
Coast Capital Savings
Connie McClure
Cowichan Collision
Creekhouse Gallery
Dayspring Studio Inc.
Dermot McCann
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Fairmont Hotel Vancouver
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First Aid & Survival Technologies
Four Seasons Hotel Vancouver
Front Runners
Genumark
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Malcolm Dunderdale
Megatech
Model Ships Museum
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Mustang Survival
Nautilus
Oak Bay Bicycles
Parker Marine
Peninsula Gallery
Purdy's Chocolates
Pure Radiant Energy
Radisson Hotel Vancouver Airport
Robert Bateman
Ryan Woodward
Scotty
Silver King Marine
Silver Star Club Resort
Sonora Resort
Spinnakers Guest House
Stanley Tools
Stu Worthington
Suzuki Marine
The Beagle Pub
The Harbour Chandler
The Paw Print Network
Thrifty Foods
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Vancouver Port Authority
Volvo Penta
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West Coast Air
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Western Marine
WestJet
White's Manufacturing
Yamaha Motor Canada
Zodiac Hurricane Technologies

Donors:

HMCS MALAHAT
Liquid Metal
Lumberworld
Marine Insurance Association of Canada
West Marine

PHOTO CONTEST WINNERS

The Winners Are:

SEARCH & RESCUE
Eric Manchester

BOATING SAFETY
Duane Currie

MARINE MISHAPS
Scott Baker

Thank you to all the members who sent in photos.

A special thank you to London Drugs for sponsoring the CCGA-P Photo Contest.

PLANTING THE SEEDS OF LEADERSHIP

In an organization that I consider to be filled with leaders of all types and at all levels, I am honoured to be recognized and awarded the CCGA National Leadership Medal. Being the recipient of the Leadership Medal emphasized to me the strong, and expanding role our volunteer members assume. It is becoming more common for our volunteer members to be called upon to handle a variety of situations and responsibilities. These situations usually call for some form of leadership, whether it is the crewmember that is looked upon as a leader by a victim, a unit leader administering to his unit, a member doing a courtesy check, a zone director or a member participating in board activities, we are all looked upon as a leader in some fashion or another.

The CCGA-P has been developing a fairly comprehensive Coxswain training standard with Performance Training (practical and theoretical), Development Training (leadership, administrative and professional skills) and finally Unit Specific Training modules. Based on the belief that for Pacific Region, the coxswain (or equivalent in an owner operator or Boating Safety unit) can be a shiny example of good leadership, influencing our up and coming members.

Another way we can develop leadership is by collaboration and partnering with other professional SAR organizations. Leadership in an organization can grow when that organization reaches beyond itself to seek solutions. By exposure to examples of good leadership within our Coast Guard partners, the USCGA, the RNLI and other professional agencies our organization will grow as we find new and innovative ways of dealing with our opportunities and we will continue to start up new initiatives that benefit our members and the people we serve.

Are we capable of training leaders?

As a volunteer organization, perhaps we aren't in a great position to do total leadership development such as would be seen at a leadership academy, but we can certainly identify current members with leadership potential and build upon these individuals. If we train our members in the right atmosphere, then they are more likely to flourish into our future leaders. The challenge in our training is to set the right atmosphere so that we can develop our member's leadership potential. We may not have a formal leadership development academy, but we can recognize good leadership potential and set an atmosphere in our training that encourages good leadership practices. This will allow our members to step up to the plate and display their leadership potential, so that we can meet our vision and goals as an organization.

One of the challenges of being a leader, either as an individual or as an organization includes "learning to follow as well as lead". It is often said that good leaders attract good followers. When leadership and follow ship exists as interrelated processes, a mutual relationship develops between the people who take on these interchangeable roles. Given the stresses and strains put on today's rescue system, organizations and individuals within those organizations need one another's support and leadership. In order to do this, we must immerse our members in a culture of vision, courage, commitment and good leadership practices.

So remember as you develop your unit training plan, you are actually planting the seeds of good leadership early by setting the example, setting the right atmosphere and recognizing our leaders of tomorrow - today. As we continue to grow we will not only be able to "Save Lives on the Water" (or before they get to the water), but as an organization we will truly become a world leader in Marine SAR.

We are training our leaders for tomorrow, every time we train as if our lives depend on it...
...because someone's does and so does our auxiliary.

Brian Cameron

CANADIAN COAST GUARD AUXILIARY JUNIOR PROGRAM: RESCUERS IN TRAINING

Fourteen year-old Jamie Franzmann recalls her initial reaction to the work for which she began training in Nanaimo. "It was kind of shocking to learn about the grim tasks that we might have to do, and how tough the working conditions can be." Franzmann is one of a few dozen junior candidates, aged 14 to 18 years, preparing for service in the Canadian Coast Guard Auxiliary - Pacific.

The junior program, seen by CCGA-P as a farm-team of sorts that could help fill its future ranks of searchers and rescuers, gradually evolved from an idea in 1998 to a reality in about six of the auxiliary's four-dozen units by 2004. "It really happened by accident", according to Malcolm Dunderdale, CCGA-P President, "Some of our members' kids expressed interest in the auxiliary, but we had concerns about liability. Most importantly, we didn't want them to be in harm's way, so we developed strict guidelines governing their training and what roles they could have at their young ages."

Today most junior members are from non-auxiliarist families, attracted in part by unit recruiting advertisements or from a school counsellor's suggestion, according to Curtis Bolton, leader, Unit #27 (Nanaimo). "The pre-requisites to join are simple - be responsible and safety-conscious. Boating experience isn't necessary."

Juniors must acquire the same qualifications as their adult counterparts, including radio operator and first aid certificates; pleasure craft operator card; proficiency in boat handling, search and rescue techniques, vessel maintenance, and navigation - and body recovery. "To maximize skills development the teens undergo specialized classroom and on-the-water instruction, and also participate in the regular unit training with adult members", said Ron Mellson, instructor, Unit #34 (Mill Bay). At age 17 years, juniors are allowed to crew on their unit's boat during real rescue missions. But, with the auxiliary's emphasis on incident prevention, units have many boating safety and education assignments available for even the youngest member.

With a quarter-century of service, Victoria-based CCGA-P comprises 1,400 volunteers and nearly 200 rescue boats in units around the BC coast and the Interior. It handles some 30% of the west coast's 3,000 annual marine incidents, which include fires, bridge-jumpers and collisions - more commonly mechanical problems; people overboard; medical emergencies; and vessels lost, aground, overdue or sinking. Some incidents are so disturbing that rescue crews require trauma counselling.

Many units use open-deck, rigid-hull inflatable (RHIB), fast-response boats, propelled by powerful twin outboard motors, and equipped with radar, global positioning system, and portable pumps. Crews are exposed to the elements, but they can respond at 40 knots. Not far from the southern concentration of multiple agencies and resources, units generally are alone with only their equipment and skill to rely upon. Regardless of locale, all units can face daunting weather and rigorous operating conditions.

Many adolescent recruits have been around the water for large portions of their young lives, mainly through family boating. A

few think they'll have some form of nautical career - marine biology, coast guard, tow boating or marine mechanics - but most of these high school students are likely to leave in pursuit of careers that may one day bring them back to their coastal roots. "Retaining them in the short term will be a challenge" said Dunderdale, "Some will continue straight into a CCGA-P unit as a regular member. We're hoping that the others will come back to us later."

Fifteen year-old Glen Waugh, from Duncan, is typical of many kids growing up around the water. "I learned to paddle a canoe at age five, and got my pleasure craft operator's card at age 11." The grade ten student looks ahead to a career messing about with logging equipment and engines - heavy duty diesels - and expects to continue serving in his coast guard auxiliary unit. "I hope that my work will allow me to stay close to home." What attracted him to the auxiliary? "Driving that fast RHIB was the first big attraction. It was also my first big challenge, learning the specific way the boat was to be driven, and mastering the high-speed maneuvers. Now I like navigating over driving. But, the hardest thing of all is searching for people because it takes lots of concentration, and during long searches it can get quite cold - especially with waves coming over the bow."

Jamie Franzmann, a grade nine student, felt a different motivation to join the auxiliary, and saw unique challenges in meeting the auxiliary's standards. "I did sports but it got boring, and I wanted something more serious. Here, there is so much to remember, especially navigational charting - good thing we've got erasers. The hardest physical parts of the work are rope handling, and using the boat hook to get a disabled boat ready for towing. Working in bad weather - wind, rain, darkness - can be tough, especially since my night vision isn't great." Franzmann is undecided about her career plans - maybe forensics, maybe coast guard- but she thinks that the auxiliary will remain a part of her life.

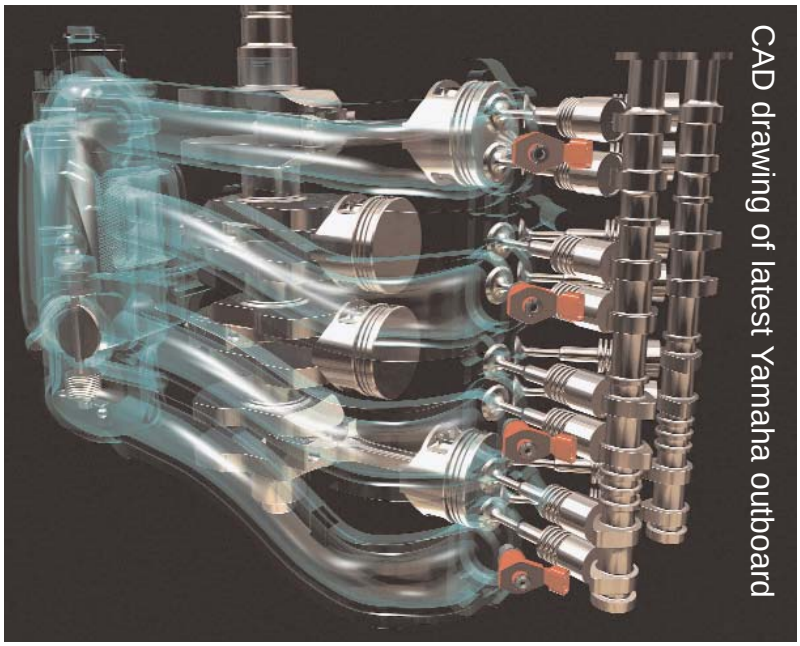
Seeing them whiz past on a sunny day, it looks like fun. Training in good weather is surreal, because troubles seem to happen only on blustery nights. Asked what advice she would offer anyone thinking of joining the coast guard auxiliary, Franzmann said, "Be serious about the training, because the job to be done is very real."

Story by: Eric Manchester
Photos provided by:
Eric Manchester and
Barry Frenzmann

THE ART OF PROPULSION

FROM PISTONS TO PROPS

Deciding what drive system will be best suited to a small RIB will almost invariably result in the purchasing of an outboard motor. But isolating the right drive for a large RIB is becoming more and more of an issue due in no small measure to the rapid development of the new high-speed diesel engine. In this article we endeavour to look at some of the options currently available and evaluate their suitability for use in RIBs.



CAD drawing of latest Yamaha outboard

OUTBOARD MOTOR

Firstly the outboard motor, the drive principle of which is virtually unchanged since it first appeared almost exactly 100 years ago. The principle is simple. There is an upper leg with the engine sitting on top of it, and a lower leg housing the gearbox. The two are joined by a straight drive shaft, which starts at the bottom of a vertical crankshaft in the motor, and ends with a bevel gear down in the gearbox. This bevel gear spins continuously in unison with the rotation of the crankshaft and, sitting horizontally below it is the propeller shaft with another bevel gear at each end - one reverse and the other forward. When in neutral, both forward and reverse bevels are kept away from the drive shaft bevel by a gear selector rod, which moves them backwards and forwards along the propeller shaft.

When pushing the remote control lever on the dashboard of your RIB to select forward gear, the selector slides the forward gear until it engages (meshes) with the spinning drive-shaft gear, and the same applies to reverse. This is why, especially if the rpm is too high on tick-over, engaging gear is often accompanied by a resounding 'clunk', or, if being handled too gently, a chattering or grinding noise as the gears try to engage. Trying to put an engine into gear with too many engine revs is, at best, putting the entire drive chain under duress and shortening its life expectancy. At worst, it's capable of wrecking the entire gearbox! Trying to be too gentle engaging gear may result in the selector just moving the gear far enough for it to touch the drive shaft gear without properly 'locking in'. This causes excessive wear on both sets of gears and can lead to the gearbox jumping out of gear or failing to engage in the first place.

Today's outboard is extraordinarily suited to the marine environment. It is a form of power that has become hugely reliable as well as relatively economical. Its development has been largely responsible for the success of the RIB itself and the outboard continues to develop in many aspects of technology and engineering. Give it clean fuel and it will run and run. Easy to install and uncomplicated to adjust for maximum performance, the larger models also benefit from being fully 'trimable'. With an outboard of course, one has none of the installation and housing issues associated with an inboard - the venting and waterproofing of the housing etc. In fact, an outboard, for the most part, is rarely troubled by a good swamping as long as the battery is located above the waterline. Furthermore, compared to a diesel, a petrol outboard has a lower purchase cost and unless the number of hours of use dictate otherwise, in most instances it will still be cheaper to pay more for petrol than to invest in a diesel inboard with its related fuel consumption savings. It's true that the central point of gravity is sited higher on an outboard and this can affect the handling - particularly with a RIB that possesses a

weight-sensitive hull design. All in all though, I think you'll agree that an outboard makes a pretty attractive proposition.

INBOARDS & STERN DRIVES

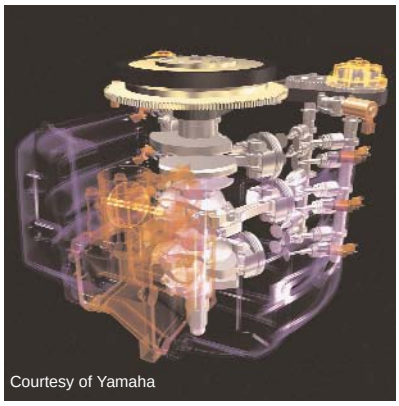
If not running an outboard, it would seem logical that one would choose an inboard motor. As inboard motors are just that, they need to have some way of transferring the motor's power into the water. This entails connecting it to a propulsion system; preferably something already designed for a particular application and matched to the engine's power in order to provide the best performance and reliability at a relatively cost-effective price.

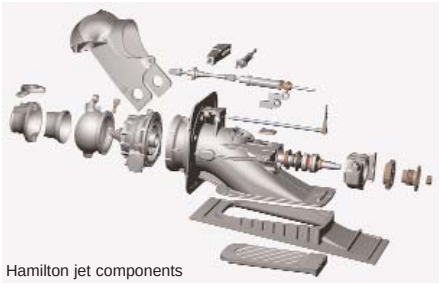
Prop driven stern-drives are by far and away the most popular option, but jet drives have their advantages in certain applications, and surface-drives, which have only really been popular for racing, are now beginning to creep into the leisure market for those seeking the ultimate in performance.

A stern-drive is similar to outboard motors in that the bottom end, which is in the water, houses a bevel gear, taking the vertical drive to the horizontal. In some cases the gearbox works in exactly the same way as an outboard motor's within the lower unit beneath the water, but in some cases the gearbox is mounted on top of the stern-drive or even to the motor itself, thus providing a slimmer gear case and, in some cases, better efficiency. Whichever system is employed, the stern-drive has to go through two changes of direction before it puts its power into the water and this can cause additional friction and mechanical complications. However the advantages that the stern-drive offers are similar to outboard motors, in that they can be trimmed for optimum performance, can be lifted for shallow-water manoeuvring and beaching, and require no additional rudder for steering. They are also relatively easy to remove for servicing/maintenance and efficient when coupled to petrol and diesel engines of various horsepower ratings. Whilst many stern-drives will take significant amounts of horsepower, sometimes several hundred in specialist applications, there is a growing problem with larger turbocharged diesel engines, which can develop massive amounts of torque and put enormous stress on the whole drive train of a stern-drive.

Manufacturers have learned the hard way concerning this and, to a significant extent, from the use of powerful diesel stern-drive applications in high-speed RIBs where the craft are frequently leaving and re-entering the water. A petrol-engined stern-drive RIB with around 300hp could comfortably cope with the constant loads associated with leaving and re-entering the water, whereas a 300hp turbocharged diesel producing significantly more torque than its petrol equivalent would subject the gears, bearings, drive shafts and couplings to huge loads as the propeller re-enters the water. Over the past few years, stern-drive manufacturers have strived to keep up with the ever increasing development of the modern diesel motor, but still the maximum 'safe' horsepower is only 300 - although Volvo have recently announced a 350hp supercharged and turbocharged diesel engine that will comfortably and reliably work with their new stern-drive package.

So where do you go above 350hp with a turbocharged diesel motor developing such enormous torque? Well, it could be through one of the very heavy-duty and still relatively new, bespoke stern-drives that have just started to arrive in the UK and which rely on a gearbox fitted to the engine. Or you could consider a conventional through-hull drive system that offers tried and tested technology


Courtesy of Yamaha


Hamilton jet components


Suzuki powerhead


Volvo Duo-Prop stern drive

Volkswagen Diesel

- but these present the obvious drawbacks of fixed under-water appendages. An equally well tested jet-propulsion system offering the advantage of shallow-water drive and simplicity might be the alternative, but then again, inefficient power delivery and offshore ventilation/cavitation issues can be a problem on RIBs of less than 8.5m. What about one of the numerous surface-drive systems that promise much improved top-end performance and reliability through simple, efficient, engineering? The problem though with these is that one has to sacrifice acceptable low speed manoeuvrability, especially when going astern.

For those tempted to experiment with new innovative designs, the latest stern-drive options from a number of 'bespoke' manufacturers could be the way to go. But this requires courage to invest in the relatively unknown, and knowledge of setting up such a unit; presently there is insufficient feed-back from RIB users as to how these units perform compared to other better-known propulsion systems.

The conventional through-hull propeller 'P' bracket system has been around 'forever' and is a well-tried and tested layout, but is better suited to conventional craft, which never venture into the shallow water areas that a RIB would explore. Most RIB users have become complacent about launching and recovering a RIB, but imagine how much more difficult it would be to carry out this operation with all that vulnerable hardware protruding out of sight somewhere under the hull!

WATER JETS

Jet-drives are very popular with commercial and shallow-water operators, where the lack of any underwater appendage and excellent low speed manoeuvrability offers tremendous benefits to those that require these properties. However, for those who travel at speed offshore, a jet can be very frustrating, as it ventilates and stops driving every time it becomes airborne, causing the RIB to 'stall' in mid-flight and occasionally land heavily. Also, jet drives tend to be less efficient and therefore require larger engines to compensate, which can then lead to a larger jet being required to accept the extra power. This all adds to the expense and weight of the installation, so jet RIBs tend to be mostly commercial craft with a specific requirement and appropriate design.

SURFACE DRIVES

Finally, the surface drive, on paper at least, looks the best option, with its efficient low-drag potential coupled to its simple 'no nonsense' drive chain, with little to go wrong. However 'every silver cloud has a dark lining' and the surface-drive has more than one Achilles heal: selecting the right propellers to cover all modes of boating, low-speed manoeuvrability, especially on a single engine set up - and, because they operate close to the surface, their inherent lack of reverse propulsion.

CONCLUSION

All the above systems are in operation in RIBs in every corner of the world, and all offer advantages and drawbacks depending on one's requirements. At the end of the day, the system you choose depends on your use and preferences, and if there were one 'package' that suited everyone, everyone would be using it! Unfortunately life is not that simple and, in the practical world of RIBs, it is still as difficult as ever to find the optimum solution to one of the oldest conundrums: inboards or outboards, petrol or diesel, stern-drives, jets, surface-drives or what ever else is available that we have overlooked. There simply isn't a definitive answer I'm afraid….sorry!

Paul Lemmer
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Member Profile
HARVEY HUMCHITT UNIT #48 (BELLA BELLA)

*I*ntuition and a keen sense of smell saved two soggy souls from a hypothermic death, after their 36' tug sank near Bella Bella. Their single May Day broadcast launched a multi-agency response which included craft from 442 Squadron, Department of Fisheries and Oceans, and the Canadian Coast Guard Auxiliary - Pacific. Among the responders on that frigid, long-ago January day was Harvey Humchitt and his colleagues from CCGA-P Unit #48 (Bella Bella) - who thought it prudent to look some ten miles outside the main search area. "There was no debris, but we passed through some strong diesel odour, and an oil slick that appeared to be coming up from a sunken vessel", recalled Humchitt. "When we shut off our motor and drifted, we heard a faint cry for help. One person was on the beach, and the other was in the water clinging to a 40lb propane bottle."

Fifty-five year-old Humchitt has been with CCGA-P for 17 years - serving as unit leader and zone director - and is one of six owner-operator members that make up his entire unit. His nautical career began with commercial fishing near Namu. Today, Humchitt runs his own sportfishing business, Campbell Island Charters, with a small fleet of 17' runabouts, and his old gillnetter. Many of his customers come all the way from Hawaii for the thrill of catching some of our big ones. In recognition of his outstanding service to CCGA-P as an owner-operator, Humchitt received the John McLean award for 2004.

Having just a dinghy-full of auxiliarists based at Waglisla (better known as Bella Bella) hasn't hindered the unit's ability to aid mariners in distress, according to Humchitt. "The whole community responds - instantly - if someone is missing. They walk the beaches. They use their own boats to do shoreline searches. Even small speedboats come out to help."

Unlike most CCGA-P units, forming a marine rescue society through which to raise funds to support its operations isn't on the horizon for Unit #48, according to Humchitt. "We're so isolated, and there aren't any big companies around to donate, so a society doesn't seem very useful for us."

With the opening, in 2004, of the Coast Guard lifeboat station across the channel at Bella Bella (Shearwater), life has changed for Unit #48. "Things have calmed down. We used to get calls - lots of them - concerning overdue boats and lost people. We even delivered medicines. We were almost too busy sometimes, so we're glad to have the new lifeboat station here", said Humchitt. Coast Guard's new lifeboat station is also welcomed for its resources that can benefit Unit #48 members, particularly for training. "When the Coast Guard ships were in our area, they'd provide some training for our members. But, we really were on our own most of the time because we're somewhat isolated - communications-wise - from the auxiliary's headquarters. The lifeboat station invited us to meet and develop a working relationship."

Unit #48 covers a huge territory laced with channels and passages. In an area where eight-hour searches, 60-knot winds and seven-metre seas are common, unit members are glad to have owner-operated commercial fishboats to work from, according to Humchitt. "It gives us shelter, and somewhere for those helping us in smaller boats to warm up and get food."

Foremost among local concerns is the potential for disaster from heavily-populated cruiseships running aground, or colliding with other commercial traffic through narrow, twisting passages - some only a few hundred metres wide. And, there is evidence of pollution. "We see oil slicks and sludge on beaches, and places where bilges were pumped, despite it being illegal."

The unit believes that it has helped improve marine safety in its community, through education and courtesy vessel examinations. "People here didn't file float plans or let others know their whereabouts, but now they do. When we had members trained to do CE's the commercial fishermen were initially resistant, but they came to like the service." Above all the day-to-day challenges of keeping the unit together, and the risks inherent in the work, there is one factor that makes it all worthwhile for Humchitt. "It gives you a good feeling to do something decent for fellow mariners."

Story by: Eric Manchester
Photo provided by: Harvey Humchitt

Prince Rupert Children's Festival

Bobbie was once again a big hit with the crowd at the 14th annual Prince Rupert Children's Festival, held at the Jim Ciccone Civic Centre on March 5, 2005. "Bobbie" spoke to over 500 kids during the 6 hour event, answering their questions and educating them on boating safety. Kids were also invited to try on a PFD and then sit in Unit 64's small inflatable.

Five members of Unit 64; Geoff Gould, Eric Brooke, Mike Sorensen, Paul Kennedy and Nika Santucci, put in 36 hours of volunteer time to promote the boating safety cause.

UNIT UPDATE

Unit 63's new boat house was towed to it's mooring with the Snowflake Responder. The boathouse is moored at Nechako dock courtesy of Alcan, who also allowed Unit 63 to use their wharf to unload. The boathouse features a classroom space upstairs and enough room to store all of our gear. This should end several years of unease about a home for our unit.
Thanks,

Mike Colongard
Unit 63, Kitimat

Prince Rupert SAR EX

The first annual zone 7 SAR competition was held in Prince Rupert on April 2nd and 3rd, 2005. There was an impressive turn out with 6 out of the 9 units for zone 7, 3 RHI's and unit 75's owner operator attending . The participants were units: 45 Masset, 63 Kitimat, 75 Kincolith, 74 Kitkatla, 66 Queen Charlotte City and 64 Prince Rupert, Unit 69 Sandspit was forced to turn home while crossing the Hecate Straits due to bad weather.

Events included First Aid, SAR planning and execution, navigation, towing, seamanship and pump and line toss. Some contestants braved the chilly Prince Rupert harbour waters in the survival suit swim and raft exercise. On Sunday, a mock disaster was staged with the help of the Coast Guard cutter Point Henry. A mock mayday was issued from a whale watching boat that had hit a rock. There were several injuries on board and 2 passengers were ejected, resulting in 5 auxiliary vessels combing Prince Rupert harbour looking for survivors.

With the assistance of ARTE members and Tyler Brand, the teams experienced various challenging scenarios. Each team was evaluated on their performance and those evaluations and the event plans went back to the units. These events give members not only the opportunity to compete, but also the chance to learn new skills and increase their performance standards.

Throughout the weekend the amount of effort, sense of team building and camaraderie was phenomenal. This kind of event is only possible with the cooperation and time of a great many volunteers. Thanks to all the contestants for coming and taking part in this exercise.

Duncan Peacock

CCGA-P
REGIONAL SAR
COMPETITION

MAY
13TH, 14TH, & 15TH
2005

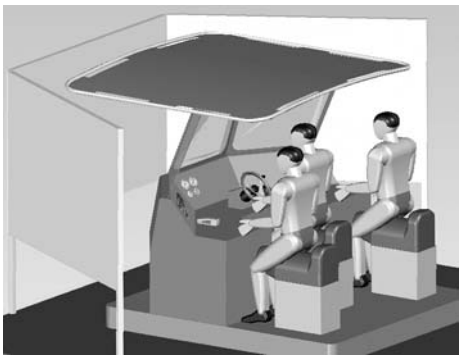
STEVESTON
(Vancouver)

Expanding the Vision: Training Through On-Line Learning and Simulation

After a thorough evaluation of available vendors and technology during the fall of 2004, it was concluded that existing simulators and software packages would not be able to meet our requirements. Industry vendors were not able to customize their packages to suit our needs for an on-line education program and Fast Rescue Craft mission simulator.
The Memorial University's Marine Institute and the Centre for Marine Simulation (CMS) are experts in the field of high fidelity simulation and connected training programs used to reduce the likelihood of human error in real marine situations. We are collaborating with the Institute and their partners to provide an online training center, web based simulator and full mission FRC simulator.

This simulation and web-based learning project will increase the effectiveness and range of our current training curriculum using the established training objectives. The Search and Rescue Crew Manual will serve as a foundation of the web based Learning Center, augmented by more advanced curriculum topics in both an online library format and in interactive online simulations. We will also have the ability to evaluate and record member's training progress in a centralized database- streamlining the tracking and recording process. While this website will be largely student driven, we are looking into the potential of instructor led on-line courses to deliver some of our training objectives. This will enable an instructor to schedule an on-line course and deliver it in real-time to a number of students across the region. This type of e-learning system will also have broad appeal to the public including boating safety applications.

The web-based training program will be instrumental in bringing together the skills of adjusting and using electronic navigational instruments and applying the knowledge of basic chart work to short 'virtual passages' on the west coast. Completion of this training package will be a pre-requisite to moving into the advanced curriculum that will be incorporated into the Full



Mission Simulator. Here individuals and teams will be trained and evaluated on navigation and collision avoidance skills at our 'advanced crew' and 'coxswain' level. As well, teamwork and crew dynamics will be evaluated in terms of a functioning Search and Rescue Unit through complex skill interactions and communications. One of the primary goals of the simulator scenarios will be to develop skills in situational awareness, positive control, risk-level assessment, and responsible management of risk. What the simulator will not do is teach skills such as towing, docking, and rough water handling which are best suited to actual on the water training. The simulator will also be programmable for a variety of applications including public demonstrations, boating safety, and operator testing.

Simulation technology will allow individual members and teams to encounter dangerous and life threatening simulations in perfect safety and develop skills required for on the water SAR missions. The key to the accuracy of vessel simulation is 'stitching' the vessel's numerical model to the wave environment. At CMS they have spent the last 2 years developing a lifeboat simulator that captures the realistic movement of a lifeboat in big seas. I had a chance to drive the virtual boat in a 180 degree, three-screen projection simulator and was impressed how well it replicated the real experience. The FRC simulator will be based on the same type of mathematical models and wave environment and should provide us with excellent 'virtual boat' handling characteristics. The first vessel profile to be developed will be based on the Titan 249, with subsequent profiles to be created further down the line. Initially, a desk top simulator will be completed and upon passing our verification, validation and accreditation process will be further adapted into our Full Mission Simulator. For the near future a motion base is beyond our budget limitations, but the possibility of a full motion, full mission FRC simulator is within reach when we can raise the funds.

We will have the opportunity to help develop the geographical environment databases in which the vessel will run. As well, I am looking for any members who may have access to any 3-D visual files, or plans of vessels to be used as 'targets'- kayaks, sailboats, powerboats, tankers- any type of vessel you would see on the water that could be put into the virtual environment. I will continue to update the project in future issues of the Dolphin. As well, I invite anyone who has applicable skills or interests that could contribute to the review of functional and design specifications to contact me to join our re-activated working group.

Thomas Kerr
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Marine Simulator Project Manager

Working Together - Unit 12 & 61 Respond

At 3:20pm on Feburary 13, 2005 members of CCGA-P 12 were paged and Unit 12 Halfmoon Bay was tasked to assist, along with four other Search and Rescue and emergency medical services, after a hiker on North Thormanby Island found himself pinned under a fallen tree with a broken leg.

The Sunshine Coast LSAR members are primarily based in Gibsons and there was a 30-40 minute response time for them to arrive in Halfmoon Bay. RCC had designated EMS as OSC and because of the limited daylight remaining they requested that the Hovercraft be dispatched to provide the final transport off Thormanby Island. Shortly thereafter Unit 61 (Pender Harbour) was also tasked to assist.

The sheer amount of equipment that the LSAR members carry made the tasking of Unit 61 essential. Each member has a good sized backpack, there were stretchers, tools, climbing equipment, lights, even a 2.5' diameter wheel for the stretcher in rough terrain. Unit 12's RHI sped the first group of people and equipment to the island while the rest were boarding Unit 61's vessel. The Hovercraft was also underway at this point; all told over 25 rescue personnel were now involved from four different agencies.

As is frequently the case on Thormanby Is., a local volunteer offered their vehicle to assist in reaching the hiker and as EMS and LSAR members trekked in to the location of the injured hiker CCGA-P 12 and 61 provided radio relay between the Rescue Coordination Center (via Comox Coast Guard Radio) and the ground based rescue effort as well as providing on scene reports to the approaching Hovercraft. With the significant number of SAR personnel involved communications played a key part for the incident - merely passing messages between the LSAR members operating on land radio frequencies and the various CCGA-P and CCG personnel using marine VHF involved careful coordination.

The successful rescue saw the hiker put aboard the Hovercraft, which beached just north of the Vaucroft dock on Thormanby, while Units 12 and 61 transported all the LSAR members back to Halfmoon Bay.

From the perspective of CCGA-P Units 12 and 61 the best part of the incident, apart from the successful rescue of the hiker, was probably the parting radio comments from the Hovercraft, stating that they "Just wanted to say thanks for your assistance this evening" going on to say that, "We rarely get to work up here and we were impressed with the professionalism of how everything was handled."

For many of the members of both the LSAR and CCGA-P units it was their first time working together, prompting further understanding between the different groups and all in all a great experience.

Scott W. Baker

A Tale of Three Boats

At the AGM in Richmond, there was a brief discussion about the contributions of a couple of CCGA-P Units along with presentations from the Admiral in recognition of the efforts of four units in putting boats into service. Three of these Units are linked through the vessels that are in service with their respective units. The story behind these Units & the team attitude shared by two of them is one of the big successes of 2004, one which we hope is the first of many examples of units working together towards the common objective of improving the SAR capability within the CCGA-P overall and deserves an explanation of exactly what transpired between these units.

Approximately three years ago, Unit 33 - Oak Bay replaced one of the very first Zodiac Hurricane 733's (built in 1991) with a Carswell Titan 249. After replacing the 733, the Oak Bay Marine Rescue Society didn't put their vessel on the open market, but instead took the step of first offering it to the CCGA-P at a reasonable price. At that time, there were a number of CCGA-P Units that either had ill-suited vessels or no vessels at all. Unit 38 - Long Beach (in Ucluelet on the wild west coast of Vancouver Island) was one of the units that had over the years had a number of CCG loaned 19 foot Mark V rigid hull inflatable but at that time was without a boat for their area with poor prospects of getting another.

The CCGA-P identified the potential location or uses for Unit 33's 733 the "Jack Groves" and purchased the vessel, subsequently offering the vessel for sale to Unit 38's Society, the Pacific Rim Marine Search and Rescue Society. Over the next couple years there were a number of problems with the vessel in Ucluelet that put a serious financial strain on their limited financial means, including one engine that died of old age and a re-righting system that needed to be completely replaced. Luckily, CCG was able to provide a pair of well used 150's to replace the ageing engines and the CCGA-P was able to foot the bill for having the re-righting system replaced.

While the vessel christened by Unit 38 as the John Hamelin (in recognition of a Tofino MCTS employee who had recently passed away) was going through some repair challenges, the unit had realized that they needed to have a boathouse for their prized boat. The Unit Leader, Mark Livingstone set about the task of single handedly constructing a cedar boathouse, literally milling the lumber himself and acquiring donations of the materials he needed; a project that took Mark many months of hard work to complete.

During the time when Unit 38 was in their worst financial situation they demonstrated their exceptional team spirit when the CCGA-P loaned Mark VII being used by Unit 14 - Gibsons suffered an engine failure, in order to get the unit back up and running again, unit 38 freely loaned the CCGA-P their good engine for this boat for more than 6 months. During this period, the CCGA-P recognized that the vessel was doing the service that was expected of it, but that the financial demands of operating and maintaining this older vessel in the small community was probably more than their society could bear, and subsequently forgave the Pacific Rim Marine Search and Rescue society the balance of the funds owed for the vessel. This was about the same time that Unit 6 & the their society the Strait of Georgia Marine Rescue Society made the decision to initiate replacing their 1996 Zodiac Hurricane 733 (which at the time had a pair of 1998 Yamaha engines on it) while it was still in good enough shape to be of use to another CCGA-P Unit.

In late 2003, the Strait of Georgia Marine Rescue Society had almost completed the fundraising for their new vessel and began the process of trying to find a new home for their 733 (and the balance of the funding needed), which had suffered an engine fail-

ure itself and had been re-powered with a pair of 2001 Yamahas purchased used from Unit 5 - Crescent Beach and the Semiahmoo Peninsula Marine Rescue Society.

Unit 38 and Pacific Rim Marine Search and Rescue society stepped up to the plate having recently acquired gaming funds towards the purchase of a new vessel acquiring Unit 6's 733 at a price well below the market value, allowing Unit 6 to move ahead with the purchase of their Carswell Titan 249. Unit 38 then in turn committed to the return of their old 733 (this is unit 33's old 733 for those trying to keep track) to the CCGA-P for redistribution to another unit, along with the trailer from Unit 6's 733.

If it stopped there, this would have been a success story of units working together to a common goal. But it goes on & gets better. Unit 38 recognizing that they didn't have a local Yamaha dealer and knowing that the CCG loaned engines on their old 733 were tired on the best of days, made the decision to donate the 2001 yamahas (one of which had just had a powerhead replaced on it) to the CCGA-P for use on their old vessel. This put the unit into a position where they now were dismantling an above average vessel to make the vessel they were giving away better than the boat they were getting in return!

Somehow, a boat just doesn't look quite the same when its missing engines, gauges and controls. Luckily this was only a temporary condition, on getting the boat back to Ucluelet it was equipped with a good used pair of Evinrude engines, while their old 733 was brought to the lower mainland, repowered with the donated Yamaha engines put through a minor refit and sent to Unit 45 - Masset as a CCGA-P loaned vessel to upgrade the older Mark V that had been on loan to the unit for many years - in many cases overmatched by all but the calmest of conditions. This Mark V has recently undergone an extensive refit and upgrade itself and is now part of the CCGA-P's relief fleet available as a backup and for training purposes.

The story doesn't stop there though. Not long before unit 38 was to return their old 733, the chartplotter suffered a failure. In typical fashion, instead of returning the vessel without a plotter, Unit 38 stripped the plotter out of unit 6's old 733 and gave the CCGA-P back a boat that had a complete electronics package while they worked on finding a replacement for their own vessel. Not that long ago, the Unit Leader (who by now was finished with his boathouse constructing days) had the damaged plotter repaired and had made it available to another unit that had a need for it, without asking anything in return.

The CCGA-P took Unit 38 up on their offer, and convinced them to allow us to reimburse the Unit for the cost of the repairs to the plotter. the CCGA-P sent it to Unit 45 to reinstall on the 733 they now had. In the lower mainland, Unit 6 and their society were left with a single Yamaha 150, two lower units and an easy decision to make. Knowing that Unit 45 is in an area where parts and service can be a challenge, they donated their good engine to the CCGA-P which sent it to Unit 45 to hold as a spare in case the Masset Unit runs into mechanical problems with their vessel.

The end result? Unit 38 has a vessel which should last them for a good long time (and a boathouse), Unit 6 has a new vessel, Unit 45 has finally received an upgrade in the CCGA-P loaned vessel they operate and the CCGA-P has added a support vessel to its relief fleet for operations and training. Without the vision, team attitude and selflessness displayed by Unit 38, Unit 6 and their supporting societies Pacific Rim Marine Search and Rescue society and the Strait of Georgia Marine Rescue Society none of this would have been possible. It's hoped that other Units & Societies will follow in the footsteps of these two groups to help make our organization stronger from within.

Anonymous

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