

M I N U T E S
of the Board of Directors of

PARA MARINE SEARCH & RESCUE

November 9, 2022 TELECONFERENCE, 5:00 pm (EST)

ONLINE: Maurice Brenner
Colin Thomson
Gary Endicott
Rob Anderson
Keenan Watters
Mark Poray
Samuel Cummings
John Rycroft
Rhonda Mulcahy

REGRETS: Shaun Collier

Also present at the invitation of the Board, Jennifer McGuinty, Treasurer and Secretary of the Association.

Maurice Brenner declared the meeting open at 5:06.

Declaration of Interest

There were no conflicts declared

Approval of Past Minutes

Colin Thomson moved that the Minutes of the March 30, 2022 meeting be approved as distributed, Mark Poray seconded. ***Motion Carried***

Samuel Cummings moved that the Minutes of the April 21, 2022 meeting be approved as distributed, Mark Poray seconded. ***Motion Carried***

Commodore's Report
(see Attachments)

Colin Thomson presented the distributed report.

Colin informed the board that the vessel had been pulled out of the water on Monday November 7th for the season for storage in Whitby.

Samuel Cummings requested that the board be notified when PARA is on a tasking, Colin agreed to send an email to the board if the tasking is not cancelled before full embarkment.

A discussion was held regarding the measures each municipality is undertaking to minimize the effects of weeds within the marina bays. Some approvals from the province/nation are required to use stronger measures. Keenan agreed to work with Pickering officials to see if a coordinated effort with bring better results.

Mark Poray moved that \$70,000 of funds be moved to the long-term investment portfolio, Rhonda Mulcahy seconded. ***Motion Carried***

Rhonda Mulcahy moved that spending of up to \$45,000 be approved for electrical and other repairs over the winter season, as outlined in the Commodores November 9th, 2022 report, seconded by Gary Endicott. ***Motion Carried***

Gary Endicott moved that PARA apply for the grants as outlined in the Commodores November 9th 2022 report, seconded by Mark Poray. ***Motion Carried***

John Rycroft moved that PARA change its insurance brokers to Gwilliams Insurance brokers of Ajax but the policy remain with current carrier, seconded by Gary Endicott. ***Motion Carried***

Gary Endicott Moved that the Commodore's Report be approved as distributed, seconded by Rob Anderson. ***Motion Carried***

FINANCIAL REPORT

Unaudited Balance sheet and Profit and Loss statements to October 31, 2022 were reviewed as distributed.

It was agreed that the Board would receive the monthly financial statements as distributed to the Executive Committee.

Rob Anderson moved, that the financial reports be accepted as distributed John Rycroft seconded, - **Motion Carried**

Other Business

Rob Anderson reminded the board that the new Not For Profit Act came into effect October 2021 and that we have 3 years to make our Articles and Bylaws compliant. Rob felt that our bylaws are in good shape, but the Articles may need re-writing and the AGM would be a good time to have that completed by, if possible.

Maurice Brenner suggested a sub committee to review the Act and our compliance with it.

Kennan Watters moved that a sub committee be formed to oversee the compliance of PARA's documents with the Not For Profit Act, Mark Poray seconded. **Motion Carried**

Rob Anderson was appointed Chair, John Rycroft and Colin Thomson agreed to sit on it. Other PARA members may be asked to join as the scope of the work becomes more defined.

Future Meeting Dates

March 7th 2023

Colin Thomson moved; that the meeting be adjourned Mark Poray seconded **Motion Carried**

There being no further business, Maurice Brennan declared the meeting terminated.

Maurice Brenner

Jennifer S. McGuinty

Approved March 29 2023

Appendixes attached:

- A1 Commodore Report – Fall 2022
- A2 PARA Marine SAR Electrical Refit v02 Scope
- A3 PARA Marine SAR Refit Estimate v03
- A4 Unit Risk Profile – Fall 2022

- B1 Financial Statements Oct 31 2022 – DRAFT

Commodore Report Fall 2022

September 7, 2022 17:11

Opening Remarks

1. Congratulations to our returning board members on the recent elections
2. Attachments
 - a. Risk Profile - Fall 2022 and Risk Criteria
 - b. Project estimates for Electrical upgrade - scope (1) and estimates (2)
3. Off season plan
 - a. The boat to be stored indoors in Whitby, at a Port Whitby Marine supplies facility.
 - b. Work will be done by the following and the details are outlined in the maintenance report below.
 - a. Primary project work done by a contract electrician ([\(2\) Marco Heitz | LinkedIn | Sailing Instruction \(luckymesailing.com\)](#))
 - b. Supporting work done by TYS and SWANS
 - c. Other projects performed by ourselves
 - c. Will need Port Whitby Marina to transfer vessel to the storage location.
4. Similar to last year, the unit has participated in gathering bathymetry data. See appendix B for further information and visuals of where the vessel has operated.

Operations and Admin

1. Personnel
 - a. Members: 47
 - a. Admin: board members (7); administrative members (1)
 - b. Operational: 39 members (37 active) of possible 50 or 74% of operational capacity. Previous years were (~85% to 95%)
 - b. Comments
 - a. The unit encountered challenges in staffing crews over the course of the summer.
 - b. We are actively promoting to seek new applications for this fall interviews. To-date we have over 20 new candidates to interview and select from. Safety
 - c. 2 safety related event has occurred this season
 - a. one member injured themselves while reboarding the vessel. Due to the low water levels, their shin was knocked and swollen. After examination by Pickering EMS, the member was released and departed for home. The incident was reported following the CCGA protocols.
 - b. One member suffered a broken arm as a result of the vessel encountering some larger than expected waves departing Bluffers Park. Member was transported to Scarborough General via EMS where he received treatment and assessed for other injuries. Member returned home that same evening.
 - d. Helmets were introduced as per the new CCGA SOPP (13.32.01). The unit executive decided to expand this directive and mandated helmets for use at all times. This was met by mixed acceptance by the membership and concerns were raised however the policy remains in effect. We are adjusting to a new normal. The concern was that helmets would not be used when they would be needed the most if they remained optional thereby introducing an increased level of liability risk.
2. Taskings and Patrols
 - a. Patrols resumed to pre-COVID scheduling however a maximum crew size (5 vs 8) and COVID PPE protocols remained in effect.
 - b. Number of taskings were tracking similar trend of the past 2 years. Currently at 31 where 2021 and 2020 had 38 and 35 respectively.
 - c. 2 large scale taskings are worthy of noting.
 - a. A canoe was overdue transiting to the Toronto Islands in mid August. It resulted in a multiple unit and multiple day search on the west side of Toronto including Toronto (TSAR), Oakville (TOWARF), Hamilton (HBRU), Oshawa (COMRA), Port Weller CCG, RCAF and local police units.
 - b. An overdue PWC out of Whitby lead to an overnight search with DRPS Helo, CCG Lampton and Commodore, TSAR, COMRA and RCAF 424 helo.
3. Vessel and Equipment Readiness
 - a. The vessel was relocated to Whitby for approximately 1 month due to the weeds in Frenchman's Bay. A new raw water cooling system was installed in early August and the vessel was able to return to Pickering to FBYC.
 - b. The datum marker along with the new AIS marker was unfortunately lost on the lake during testing. It is assumed to have sunk given modifications that were completed. A replacement will be sourced in 2023. (Approx value \$1500)

Training

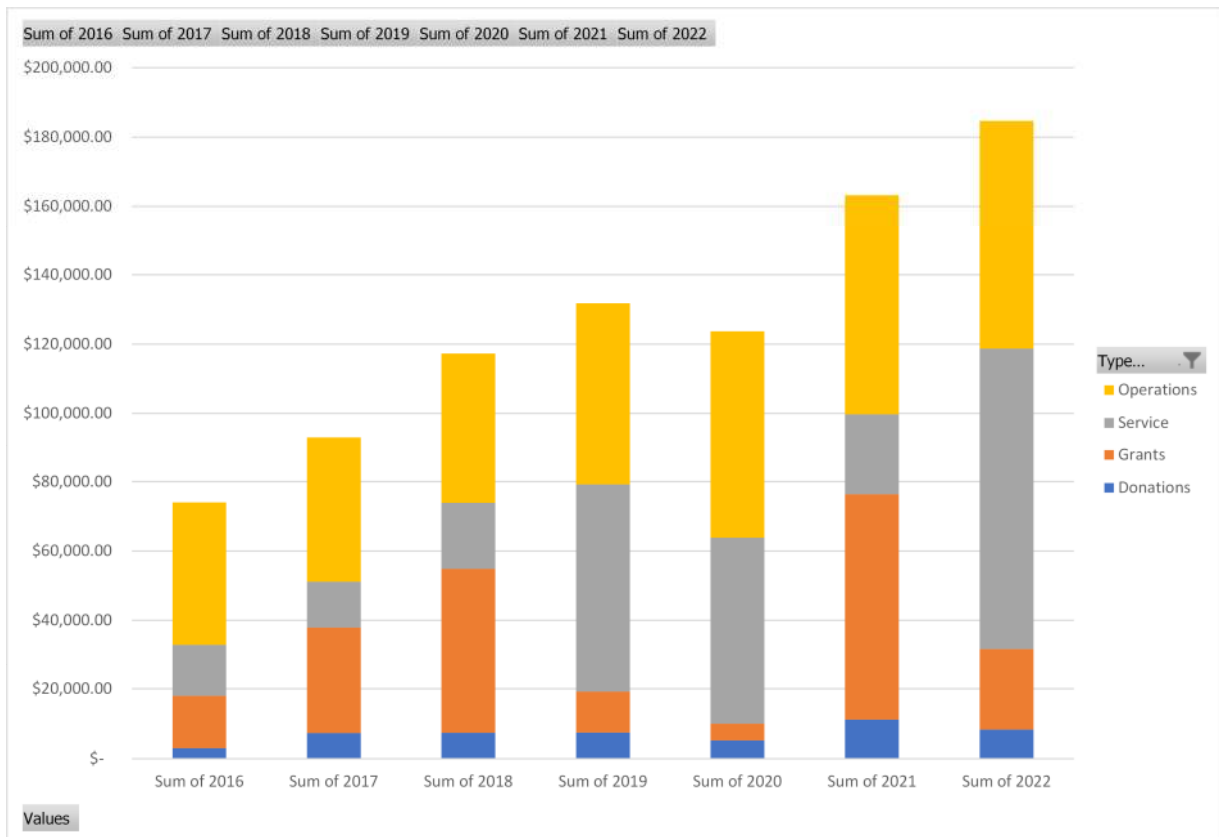
1. On water training was conducted with Durham Region Police Marine Unit and RCAF 424 Squadron. Discussions are underway with local fire departments (Ajax, Pickering and Whitby) to plan events for 2023.
2. Masters training for coxswains was completed in the spring however:
 - a. in discussions with Transport Canada we would not be permitted to be evaluation for the qualification on a CCGA vessel given the current exemption that is place.
 - b. Further more, TC indicated that the requirement for masters limited would be removed for a vessel of our size when the new qualification is released this fall.
 - c. This essentially reduces the risk for the unit not being able to operate the vessel with a CCGA tasking given the phase training results in the necessary TC qualifications.
3. CCGA Training
 - a. Phase training classroom and on water was completed in the spring.
 - b. Clint Scott obtained his full instructor status
 - c. 2 instructors also supported District 3 on water ride checks and phase training in August.
4. A more structured continuous learning program has been developed.
 - a. The Personal Progression Log (PPL) concept will provide members a structured approach for SAR capability growth.
 - b. NOTE: this was not rolled out in 2022 and will implemented in 2023.

Equipment and Maintenance

1. Projects - Proposed for Winter 2023:
 - a. To be completed by PARA Marine SAR volunteers:
 - a. Storage improvements to the forward compartment of PARA Marine.
 - b. Installation of new rear searchlight.
 - c. Cabin anti-fatigue flooring will be installed
 - d. Various minor maintenance activities
 - b. To be completed by Contract Electrician: (NOTE: work would be covered under our insurance coverage)
 - a. Cleanup of the DC electrical system in the engine compartment.
 - b. Install of DC air conditioner / heater.
 - c. To be completed by SWANS
 - a. Supporting install of A/C unit (ie thru hulls)
 - b. Possible install of the davit system.
 - c. New helm indicator installed. NOTE: A more robust solution is being explored as the previous indicator was replaced 2x and subsequently broken.
 - d. To be completed by TYS
 - a. Relocation of engine components (ie oil filters) and support in engine electrical connections.
2. Projects - Underway
 - a. Reassessment of use of Helmets. Given the mandated use of the helmets we are seeking better ways to connect the helmets and headsets to allow external communications. ie clasps to fold up the ear piece so a person can hear persons not on the headsets.
 - b. Installation of a new computer and associated software (ie possible automated deck and radio logs).
 - c. Operationalizing of a new line launcher (thanks to a Whitby grant) and subsequent training for crews
3. Projects - Outstanding:
 - a. Storage improvements to the trailer to support community events

Financial

1. Income and Grants (see graph)



- a. Donations
 - i. Notable is another donation on behalf of Jim Dyke (In memory of)
 - b. Grants
 - i. Sizable donation (\$2500) from Canadian Western Bank (Thank you Sam Cummings)
 - ii. Both City of Pickering and Town of Whitby contributed grants this spring for equipment purchases.
 - iii. City of Pickering responded to our additional funding ask to install the new raw water filter system. ~\$13500. Many thanks to Maurice and the city for responding so quickly!
 - c. Service Income
 - i. Town of Ajax service agreement is up for renewal in 2023. Will be following the new online process available in November.
 - ii. CCGA Income:
 - 1) CCGA back paid 2 seasons of uncompensated training and patrols. This resulted in \$71K of income. **APPROVAL REQUIRED:** recommend that we transfer approx. \$70K to long term savings while maintaining our required \$50K float and project costs below.
 - 2) Taskings to-date resulted in ~12K in reimbursement from the CCGA. Compensated training was another ~\$5500.
2. Future Expenses: **APPROVAL REQUIRED** for the following strategy:
- a. Winter projects - ~\$45K
 - ii. Indoor storage at Port Whitby Marine Supply: ~\$4200
 - iii. Work to be completed by SWANS: upwards of \$2000 (Time and materials)
 - iv. Work to be completed by Toronto Yacht Services: ~\$5000 (Time and materials) and is in support of the electrical upgrade.
 - v. Work to be completed by Contract Electrician in attached quote: ~\$12000 (Time and materials) + \$18000 in materials
 - vi. Work to be completed by PARA Marine volunteers. \$4000 (materials only)
 - b. Grant status:
 - Government
 - 2) Pickering: Fall 2023 submission items - ~6-7K for a DC air conditioner
 - 3) Ajax: will contribute the annual 5K to services for the electrician
 - 4) Whitby: Fall 2023 submission items - ~4K for cabinetry on the redesigned forward cabin
 - 5) Region funding:
 - b) NOTE: Advance for 2022 is still outstanding
 - c) Approx upwards of \$15K will be allocated for the improvements listed above.

- 6) Savings:
 - a) Approx upwards of \$20K will be held in reserve to help with the project costs.

Corporate

- 2) Firehouse: can not apply till 2023 but targeting the possible Wholly purchase. This will be a joint purchase and donation from vendors.
- 3) OPG: additional canisters for line launcher, new datum marker, new pump, and new clips for helmets / headsets: ~\$5K
- 4) Elexicon: nothing allocated at this time however we are exploring a logging software package. Approximate cost ~20k.

c. The following figure illustrates the estimated breakdown of project costs and funding sources:

Project	Comments	Lead	Supported by	Estimate Price	Funding Source								
					Region	Pickering Grants	Ajax SLA	Whitby Grant	Cash Float	Firehouse	Elexicon	OPG	
V-berth storage	assume the same storage needs as today except remove unnecessary PPE supplies												
	Design	Justin	Maintenance Team										
	Demolition	Justin	Maintenance Team										
	rebuild - starboard; cabinetry; tools - refreshed toolset	Justin	Maintenance Team	\$ 3,000.00			\$ 3,000.00						
Datum Marker	Install datum marker on roof	Justin	Maintenance Team	\$ 100.00								\$ 100.00	
	Order replacement marker and AIS	Duane		\$ 1,500.00									\$ 1,500.00
Cabin Flooring	anti-fatigue matt(s)	Justin	Duane	\$ 1,000.00	\$ 1,000.00								
Forward bilge solution	drill hole from forward to middle bilge	Cyrl											
	design	Justin	Marco										
Electrical AC DC cleanup	remove old inverter, air compressor, wiring	Justin	Cyrl										
	Installation and connection	Marco	Justin	\$ 12,000.00	\$ 2,000.00	\$ 5,000.00		\$ 5,000.00					
	Material purchase (batteries, isolaters, cabling etc) - TYS - engine and supporting equipment relocation	Marco	Justin	\$ 20,000.00	\$ 8,000.00				\$ 12,000.00				
	assessment	TYS	Justin	\$ 5,000.00					\$ 5,000.00				
Install Air Conditioner / Heater	Through hulls and other miscellaneous	swans	Justin	\$ 1,000.00	\$ 1,000.00								
	Air conditioner / heater purchase	Duane	Justin	\$ 6,000.00		\$ 6,000.00							
	light purchase	completed											
Install rear search light	Ceiling opening and install wire and supplies	Justin	team										
		Justin	Maintenance Team	included									
Helm Indicator - replacement	Design solution	cyrl	TBD (Swans or TYS)	\$ 1,000.00	\$ 1,000.00								
	install solution	swans	TYS	\$ 500.00	\$ 500.00								
Headset	clips for helmets (x8)	Duane		\$ 1,500.00								\$ 1,500.00	
Wholly purchase	New boat (including partial donation of boat and engines)	Duane		\$ 20,000.00					\$ 20,000.00				
	Equipment	Duane		\$ 2,000.00					\$ 2,000.00				
install davit arm	design	cyrl	Ed Oconnor Swans	\$ 1,000.00	\$ 1,000.00								
	install	swans		TBD									
install computer	purchase and setup	Ivan	Colin										
	electronic logging app	Colin	Ivan	\$ 20,000.00							\$ 20,000.00		
Line Launcher	additional heads (x2). NOTE: heads would charged by Pickering Fire following any use on tasking	Duane		\$ 1,500.00								\$ 1,500.00	
dewatering pump	new pump	Duane		\$ 1,000.00								\$ 1,000.00	
Comm Station Fan	Install and Wire	Justin	Maintenance Team	\$ 100.00	\$ 100.00								
Railings		Cyrl	Maintenance Team	\$ 200.00	\$ 200.00								
				\$ 98,600.00	\$ 15,000.00	\$ 6,000.00	\$ 5,000.00	\$ 4,000.00	\$ 22,000.00	\$ 22,000.00	\$ 20,000.00	\$ 4,600.00	\$ 98,600.00

3. FYI - Future projects / purchases requiring funding:

- a. Exploring acquisition of near shore "run about" vessel.
 - a. Possible use of a corporate grant for a similar "wholly" vessel. See picture below of a similar vessel at Inland Rafts in Ajax. Budget for vessel, motor and trailer would be ~25K
 - b. Discussions are still underway with the vendor. There would be an investment from PARA Marine SAR perhaps upwards of 50% of the cost. More to follow in 2023 as discussions continue over the winter.



- b. Exploring a software package from Kongsberg that facilitates deck and radio logging along with automated checklists.

More to follow.

4. Insurance broker change: **APPROVAL REQUIRED**

- a. Recommending that effective 15 Nov 2022, that Gwilliames & Associates Insurance Brokers in Ajax, ON be appointed as the broker. See Appendix A for more details on the broker.
- b. Intact insurance will remain the owner of the policies. Current policies include: Hull Machinery (vessel), Directors and Officers and General Liability. Policies renew in the spring.
- c. Advantage - local broker vs remote (Sudbury) offers an opportunity to have a more interactive and responsive relationship when needed.
- d. Disadvantage - none as the policy remains with the same insurance company.
- e. NOTES:
 - a. The vessel replacement value will be increased from 200K to a more current value of approximate \$300K based on upgrades made in recent years.
 - b. The renewal date will be changed from calendar year end vs March 31. This provides sufficiently more time to get proof of insurance required for Durham Region submission.

Community Development

1. General

- a. Mandate: to increase awareness of PARA Marine SAR to the local residents, local businesses and government entities.
- b. New community tent was received and used this summer at events.



c. Activities and Events in 2022

a. Community

- 1) Canada Day events - Ajax and Pickering with a boat presence in Port Whitby
- 2) OPG Tree Planting
- 3) Remembrance Day - in all 3 municipalities
- 4) Holiday Parades in December

b. Business

- 1) Ajax Pickering Board of Trade:
 - a) May 19th Pickering/Ajax - Golf Tournament (hole sponsorship and charity of choice) was very successful. We received \$3K as the charity of choice.
 - b) October 20th - Winner of the "Not for Profit" business of the year.
- 2) Whitby Chamber of Commerce
 - a) June 3th Whitby - Golf Tournament with hole sponsorship. A great event for awareness and networking.
- 3) Other
 - a) Continuing discussions with Girls Inc. to cohost some events.

c. Government

- 1) Ajax Mayors Gala (June) was supported with materials for a nautical theme and volunteers at the event.

d. Fundraising Plans

- a. Support from Town of Ajax contact. Materials (2 samples) received in Q1 2021 but haven't been able to act on the recommendations or support as of yet. Thank you very much for the support and time from the individual.
- b. PARA Marine - Proud support program is being overhauled with new ideas. Materials have been purchased and are pending roll out.

e. Planned Presentations and Awareness programs

- a. Local Government Councils - following the fall elections and into the new year.
- b. Yacht clubs and marinas - Helping members understanding our mandate and engagement processes

Strategic Action Review

1. Action Items

Action items	Person responsible	Deadline	Status
Funding Sources for New Vessel	Board	Ongoing	Open - do we need to carry open action given funding happens through the municipalities programs or can we go direct?
• Talk to Pickering re Funding New Vessel from Casino revenue	Maurice/Colin	After COVID	Open
• Talk to Ajax Casino re: Funding New Vessel	Shaun	After COVID	Open
a. Reach out to new Chief, re long term plans for marine fire and rescue in Frenchman's Bay	Colin	April 30	In progress
Reach out to Police Board to make a (letter and presentation) regarding our capabilities and wishes in regard to possible dispose of the vessel: JD Edwards	Colin	April 30	Complete but no subsequent feedback
Contact Yacht clubs & Marines to explain mandate & engagement process – maybe an email they could send for us	Colin	April 30	In progress
See if an opportunity at the Mayor's Gala to promote PARA	Colin / Shaun	April 30	complete
Realign Investment account to lower fees	Jen	April 15	TBD
Whitby Chamber of Commerce golf tournament – become a hole sponsor	Colin	April 15	complete
Possible media and VIP events in Pickering and Whitby harbours.	Colin	April 15	Not completed. Will reconsider for Spring 2023

2. Risk Profile - selected risks for discussion (see Fall 2022 Risk Profile PDF)

a. Objectives

a. Strengthen the organization

- 1) LOW - INCREASING - There is a risk of potentially losing members due to lack of engagement during the season and post COVID impacts.
 - a) The unit struggled to staff many of the crew shifts this season. Larger recruiting drive is on for this fall to fill the existing and potential gaps.
- 2) LOW - INCREASING - There is a risk that PARA Marine SAR will not be able to maintain a sustainable succession plan for the unit executive and leadership.
 - a) The existing executive team has been in place for 6+ years therefore the unit is looking at different strategies to increase the engagement for leadership roles to mitigate any potential future changes.

b. Develop our crews

- a) LOW - DECREASING - There is a risk that PARA Marine SAR coxswains will be unable to obtain a limited Masters in order to use the vessel outside of CCGA taskings.
 - a) The risk is decreasing given the requirements for the vessel are changing and probably removing the need for a master's limited ticket. The current SVOP tickets will be sufficient once the changes are published by Transport Canada this fall. At that time, the risk will be closed.

c. Ensure SAR Readiness

- a) MEDIUM - INCREASING - There is a risk that the inconsistent practices by crews, leads to a safety event
 - a) Given the safety events that occurred during the season, safety related focuses will be part of the 2023 training programs
- b) MEDIUM - DECREASING - There is a risk of being exposed to a communicable disease.
 - a) No COVID-19 issues arose during the season. Our members did an excellent job of maintaining the

protocols despite changes to public practices around. CCGA protocols for mask usage has now been relaxed and it is anticipated the 5 person maximum will also be removed prior to the 2023 season.

- c) LOW - INCREASING - There is a risk that the annual maintenance program (including refits) has cost and schedule over runs
 - a) Given the T&M nature of the winter projects, close project management practices will need to be adhered to.
- d) LOW - DECREASING - There is a risk that increased weed presence in Frenchman's Bay will impede long term operational availability and readiness in Pickering.
 - a) Situation:
 - i) Continued efforts are not making significant progress to keep the weed level reduced.
 - ii) The unit is supporting the local community initiative.
 - iii) More vessels are being constrained either by weeds and / or low water levels.
 - b) UPDATE: This risk came to reality this summer and forced the vessel to be relocated to Whitby for a short period. Given the new raw water cooling, the vessel PARA Marine can now safely navigate through the weeds outside the channel thereby decreasing the probability and impact of this risk.

d. Plan for the Future

- a) HIGH - NO CHANGE - There is a risk that PARA Marine SAR will not be able to raise sufficient funds for strategic vessel acquisitions.
 - a) Awareness initiatives within the community continue.
 - b) 2023 will ideally return to the "normal" number of events
- b) LOW - INCREASING - There is a risk that PARA Marine SAR will not be able maintain a sustainable succession plan for crews
 - a) We are potentially looking at some of more experience coxswains retiring in the short term. This is compounded for crew member billets by the unusually high number of openings that the membership (~12) and reinforced given the staffing challenges this season.
- c) LOW - DECREASED - There is a risk of not renewing the commercial license.
 - a) New 5 year license was received and a copy is maintained on the vessel.

Appendix A

Gwilliames & Associates is a local broker located in Ajax Ontario since 1991 and servicing the surrounding areas. Our office has been in business since 1968 started by Philip Gwilliames. Philip became a member of Frenchman's Bay Yacht club in 1972 and is currently the longest member of the club. Gwilliames & Associates has been the insurance broker for Frenchman's Bay Yacht Club for over 30 years providing insurance expertise for the club and the junior sailing school program. Our entire family remain members of FBYC and own a 34' Catalina Sailboat as such we are very vested in the club. It is a spectacular place to be.

I enjoy providing a personal service to my clients and being a FBYC club member with PARA Marine Search and Rescue there on the same property and knowing what insurance requirements are needed to protect the operations for its members and directors. Being at the club I am an insurance broker all day every day. I know it sounds funny to say it, but I truly enjoy my job. I can be reached by cell or email at any time and always willing to help or answer any questions. Insurance issues never happen Monday- Friday 9am – 5pm.

Owen McNeil
President / Broker

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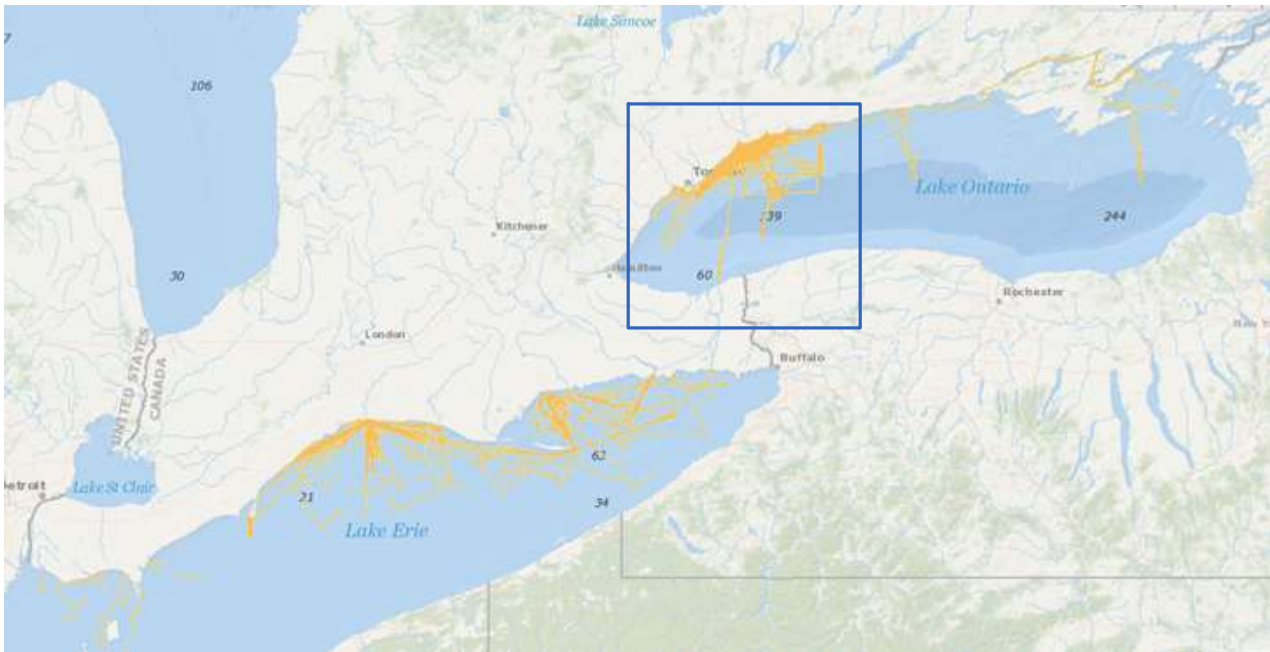
Appendix B

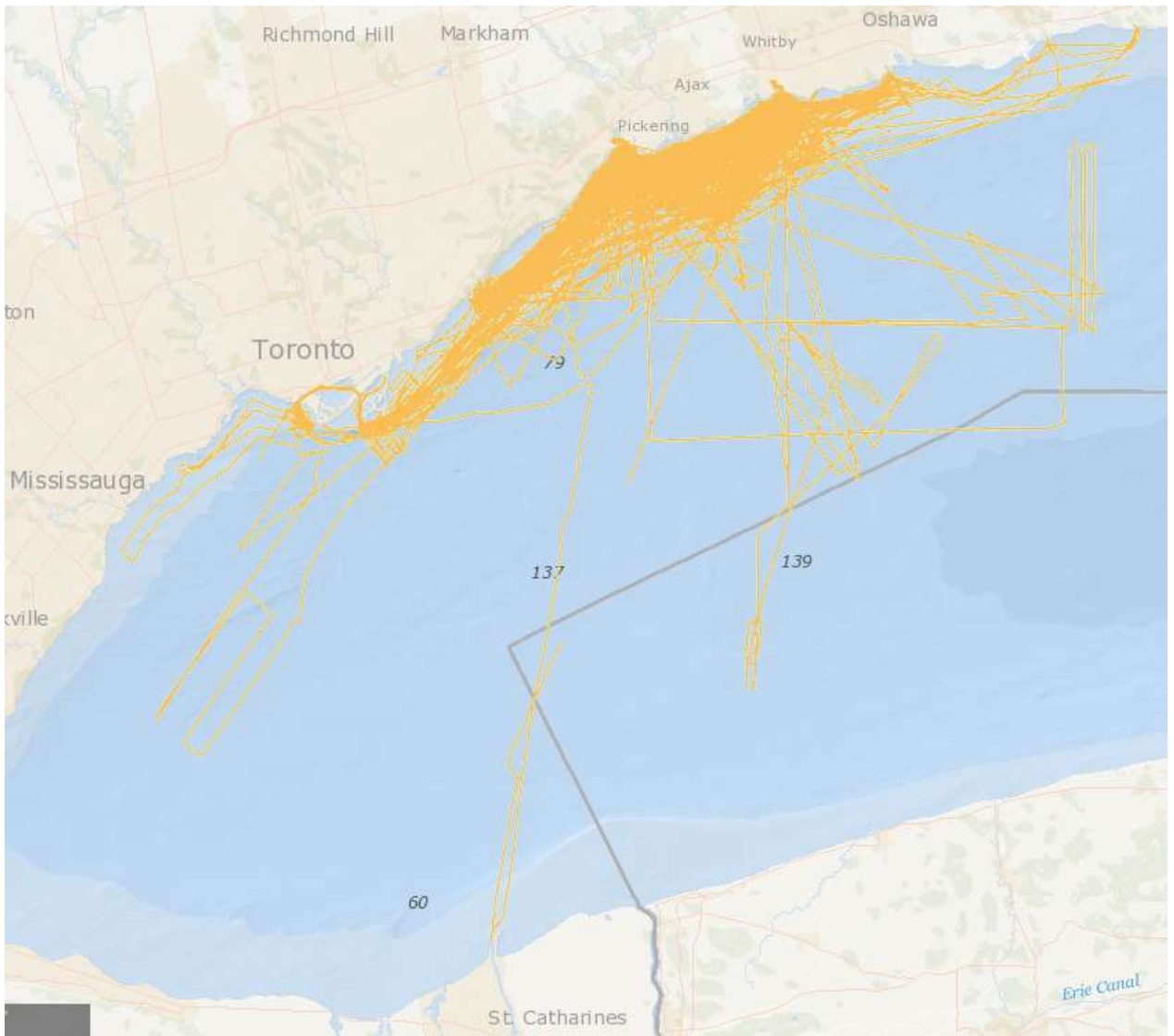
PARA Marine is participating in a citizen science mandate to gather bathymetric data on the Great Lakes as part of [LAKEBED 2030](#) and [SEABED 2030](#) initiatives. A data logger was installed on PARA Marine in 2021 and gathered data for the past 2 seasons for the project. The data ends up being using by GLOS and eventually by the CHS - Canadian Hydrographic Services ([Nautical charts and services](#)), NOAA - National Oceanic and Atmospheric Administration (www.noaa.gov) and IHO - International Hydrographic Organization ([Bathymetric Data Viewer \(noaa.gov\)](#)).

NOTE FULL DISCLOSURE:

1. Commercially, I have been working with a company called Orange Force Marine to develop this solution for the Great Lakes Observing System (www.glos.org).
2. There was no cost to the unit as the equipment was installed free of charge by GLOS via OFM.
3. Data is collected in the regular course of activities, no special activities have occurred.

The following picture illustrates the data collected over the course of the summer. Our intention is to continue participation in this program and collect data as part of our regular activities.





PARA Marine Search & Rescue

ELECTRICAL REFIT (WINTER 2022-23)

Objectives:

- **MAIN:** Increase DC power ampacity to supply all existing current loads plus an added DC heating/cooling unit with a view to and flexibility for future expansion.
 - Current DC Operating load is estimated at maximum 100A @ 12 VDC
 - Inverter 500W (45A @12VDC, 60A Peak)
 - DC/DC chargers to two start batteries (2x4A @12VDC, 2x30A Peak)
 - Additional 12000 BTU heating/cooling unit (30A @ 12VDC, 47A Max)
 - **Total max load is about 300 Amps at 12 VDC**
- **SUB:** Install a battery bank to power the above DC loads
 - Estimated operational times to be used in calculations:
 - Estimated Hours of daylight use (8 hrs @ 30A = 240Ahr)
 - Estimated Hours of night time use (6 hrs @ 40A = 240 Ahr)
 - Estimated Hours of full additional DC loads (4 hrs @ 30A = 120 Ahr)
 - Estimated Hours of heating/cooling use (4 hrs @75% = 35A*4 = 140Ahr)
 - Estimated Hours of Inverter use (4 hrs @50% = 25A*4 = 100Ahr)
 - **Estimated total consumption for a 14 hour patrol = 840Ahr**
 - Assuming that a minimum of one engine is on during the entire time producing a minimum of 60A charge (14hrs * 60A = 840Ahr)
 - **Battery capacity** recommended 440 Ahr (220Ahr @ 40A = 5.5 operating hours)
- **SUB:** Install a charging circuit with alternators and shore power supply charging of all batteries with the appropriate balance of power
- Installation to be done to comply with ABYC Standards

Phase 1

- Install external regulators (2) and new compatible alternators (2) of about 215 Amp rating
 - Alternators installation not included in this estimate
- Upgrade conductors to the higher amperage
- Proper chafe protection (sheathing), support, and routing for conductors as per ABYC Standards
- Install appropriate fuses to protect the conductors
- Upgrade the AC Charger for all 3 battery banks, used while on shore power
- Install 3-stage DC/DC chargers (2) to maintain engine start batteries while underway
- Install a Bluetooth shunt and use existing Victron voltmeter plus a Victron Connect Bluetooth App to monitor house bank
- Install a 2-bank Volt meter to monitor each engine start battery
- Upgrade AGM house battery bank to 440 Ahr 4D size 21" x 8 ¼" x 9" (box is 28"x 9.5")
- Install a Battery Combiner to connect either start battery with the other in an emergency

Estimate is based on the following assumptions:

- Estimate is for Phase 1 only
- Alternators (2) installation is not included
- Existing DC conductors for engine starting circuit can be re-used as is
- Heater/Aircon unit purchase and installation not included.
 - Purchase and installation not included
 - Breaker to the unit not included
 - Power connections (+ve & -ve) are included
 - Crew will pull necessary conductors from engine bay to the unit
- No changes to DC Panel, crew will pull necessary conductors from engine bay to the unit
- Crew will pull other necessary conductors from engine bay to Dash or DC Panel as needed
- Conduits or wire trays not included
- Electrical components to be removed are located in engine bay only
- Existing AC conductors to Battery Charger can be re-used as is
- Inverter AC output does not require additional wiring

Project Estimate

25-Oct-22

PARA Search & Rescue

Summary

Equipment		1	\$ 13,617.00	\$ 13,617.00
Parts & Supplies		1	\$ 3,696.04	\$ 3,696.04
Labour - Design & Documentation		1	\$ 2,500.00	\$ 2,500.00
Labour - Removal of existing electrical items from engine bay		1	\$ 1,500.00	\$ 1,500.00
Labour - installation		1	\$ 6,500.00	\$ 6,500.00
Labour Contingency for unanticipated obstacles	20%	1	\$ 1,300.00	\$ 1,300.00
			Sub TTL	\$ 29,113.04
			HST	\$ 3,784.70
			TOTAL	\$ 32,897.74

<u>MFG</u>	<u>Item Description</u>	<u>Item P/N</u>	<u>QTY</u>	<u>Each</u>	<u>Total</u>	<u>Stock</u>	<u>Availability</u>
ElectroMAAX	E-MAAX Pro X regulators	E-MAAX Pro X	2	\$ 1,099.00	\$ 2,198.00	Yes	
ElectroMAAX	E-MAAX 215 Amp Alternators	E-MAAX 215	2	\$ 1,999.00	\$ 3,998.00	Yes	
Victron	Orion-Tr Smart 12/12- 30A (360W) Non-isolated DC-DC charger	ORI121236140	2	\$ 304.00	\$ 608.00	Yes	
Victron	Skylla-IP65 12/70(3) 120-240V	SKY012070100	1	\$ 1,176.00	\$ 1,176.00	No	2 weeks
Victron	SmartShunt 500A/50mV	SHU050150050	1	\$ 176.00	\$ 176.00	Yes	
Victron	Phoenix Inverter 12/500 120V VE.Direct NEMA GFCI	PIN125010510	1	\$ 229.00	\$ 229.00	No	2 weeks
Victron	12V/230Ah AGM Super Cycle Batt. (M8)	BAT412123081	2	\$ 949.00	\$ 1,898.00	Yes	
Blue Sea	PowerBar 600A BusBar - Four 3/8"-16 Studs	2104	2	\$ 199.00	\$ 398.00	Yes	
Blue Sea	ANL Fuse - 150 Amp	5127	1	\$ 38.00	\$ 38.00	Yes	
Blue Sea	ANL Fuse Block with Insulating Cover - 35 to 750A	5503	1	\$ 97.00	\$ 97.00	Yes	
Blue Sea	285-Series Circuit Breaker - Surface Mount 150A	7189	1	\$ 89.00	\$ 89.00	Yes	
Blue Sea	285-Series Circuit Breaker - Surface Mount 100A	7187	3	\$ 89.00	\$ 267.00	Yes	
Blue Sea	285-Series Circuit Breaker - Surface Mount 80A	7186	2	\$ 89.00	\$ 178.00	Yes	
Blue Sea	285-Series Circuit Breaker - Surface Mount 50A	7183	6	\$ 89.00	\$ 534.00	Yes	
Blue Sea	DC Digital Voltmeter Panel	1474	1	\$ 649.00	\$ 649.00	No	10 weeks
Blue Sea	Battery Combiner, ML Solenoid - 12V DC	7701	1	\$ 369.00	\$ 369.00	No	10 weeks
Blue Sea	HD-Series Heavy Duty On-Off Battery Switch	3000	3	\$ 149.00	\$ 447.00	Yes	
Blue Sea	Class T Fuse Block with Insulating Cover - 225 to 400A	5502100	1	\$ 139.00	\$ 139.00	Yes	
Limitron	Class T Fuse - 400 Amp	JJN-400	1	\$ 129.00	\$ 129.00	Yes	
Sub-TOTAL (Equipment)					\$ 13,617.00		

<u>Circuit</u>	<u>Description</u>	<u>Gauge (AWG)</u>	<u>QTY</u>	<u>Unit \$</u>	<u>Total \$</u>
Charger1	DC Conductors +ve	4 AWG	10	\$ 3.25	\$ 32.50
Charger1	DC Conductor ring terminals	4 AWG	4	\$ 2.60	\$ 10.40
Charger2	DC Conductors +ve	4 AWG	10	\$ 3.25	\$ 32.50
Charger2	DC Conductor ring terminals	4 AWG	4	\$ 2.60	\$ 10.40
Charger3	DC Conductors (+ve & -ve)	4 AWG	10	\$ 3.25	\$ 32.50
Charger3	DC Conductor ring terminals	4 AWG	6	\$ 2.60	\$ 15.60
Dc/Dc1	DC Conductors (+ve & -ve)	6 AWG	10	\$ 3.25	\$ 32.50
Dc/Dc1	DC Conductor ring terminals	6 AWG	8	\$ 2.04	\$ 16.32
Dc/Dc2	DC Conductors (+ve & -ve)	6 AWG	10	\$ 3.25	\$ 32.50
Dc/Dc2	DC Conductor ring terminals	6 AWG	8	\$ 2.04	\$ 16.32
Alternr	DC Conductors +ve	2/0 AWG	30	\$ 13.71	\$ 411.30
Alternr	DC Conductor ring terminals	2/0 AWG	6	\$ 4.25	\$ 25.50
Alternr	DC Conductors -ve	2/0 AWG	30	\$ 13.71	\$ 411.30
Alternr	DC Conductor ring terminals	2/0 AWG	6	\$ 4.25	\$ 25.50
Combinr	DC Conductors +ve	2/0 AWG	6	\$ 13.71	\$ 82.26
Combinr	DC Conductor ring terminals	2/0 AWG	4	\$ 4.25	\$ 17.00
DC Panel	DC Conductors (+ve & -ve)	2/0 AWG	40	\$ 13.71	\$ 548.40
DC Panel	DC Conductor ring terminals	2/0 AWG	6	\$ 4.25	\$ 25.50
Aircon	DC Conductors (+ve & -ve)	2 AWG	40	\$ 4.75	\$ 190.00
Aircon	DC Conductor ring terminals	2 AWG	6	\$ 4.08	\$ 24.48
Batt +	DC Conductors (+ve & -ve)	2/0 AWG	8	\$ 13.71	\$ 109.68
Batt +	DC Conductor ring terminals	2/0 AWG	10	\$ 4.25	\$ 42.50
Invert	DC Conductors (+ve & -ve)	8 AWG	20	\$ 3.06	\$ 61.20
Invert	DC Conductor ring terminals	8 AWG	6	\$ 1.48	\$ 8.88
Misc	DC Conductors +ve & -ve (rolls 25 ft)	16 AWG	4	\$ 29.00	\$ 116.00
Misc	DC Conductor ring terminals (pkg of 25)	16 AWG	2	\$ 45.00	\$ 90.00
Misc	Conductor Sheathing		1	\$ 100.00	\$ 100.00
Misc	Wire clamps and ties with screws		1	\$ 100.00	\$ 100.00
Misc	Heatshrink tubing		1	\$ 75.00	\$ 75.00
Misc	Mounting Panels (starboard)		2	\$ 400.00	\$ 800.00
Misc	Shop supplies (PPE & compounds)		1	\$ 200.00	\$ 200.00
Sub-TOTAL (Parts & Supplies)					\$ 3,696.04

PARA Marine SAR: Strategic Objectives and Risk Profile

Category: Operational Financial Strategic	Risk Impact Area (see Risk Criteria)	Strengthen the organization		Develop our crews		Ensure SAR Readiness		Plan for the future		Legend		
		Strengthen the organization through improved communications: 1. Continue our Management Transparency initiatives 2. Identify opportunities to encourage increased member participation 3. Increase member engagement and awareness		Develop our crews by instilling a strong nautical knowledge base 1. Continue training to build basic skills 2. Improve skills competency in our crew members		Ensure SAR readiness in order to maintain operational resiliency and agility: 1. Build consistency between crews 2. Validate crew readiness, safety through training and evaluations 3. Broaden SAR Partner engagement to other partners		Planning for the future to ensure a sustainable future: 1. Continue to increase our Community awareness and presence 2. Maintain and execute a viable Asset Management strategy 3. Ensure Succession planning is in place 4. Maintain Financial strength and sustainability		Risk Change		
Operational	Regulatory			↓	There is a risk that PARA Marine SAR will be unable to obtain a limited Masters in order to use the vessel outside of CCGA taskings (Training)	↔	There is a risk that the CCGA transport Canada exemption might be discontinued resulting in members not having the appropriate TC qualifications (Training)	↔	There is a risk that the secondary SAR asset may not be a recognized CCGA vessel (Operations & Safety)	⚓	Emerging Risk	
						↔	There is a risk that the boat will not operate under a CCGA tasking to ensure appropriate TC exemptions. (NOTE: CCGA refers to this as Dockside Insurance) (Operations & Safety)			X	Risk to be Closed	
				↔	There is a risk of timely completion for the Phase training signoffs. (Training)	↔	There is a risk that internal crew readiness evaluations will be not be completed (Operations & Safety)			↕	Increasing or Decreasing risk	
	Training				↔	There is a risk that the number of members to complete the phase training becomes unmanageable. (Training)					↔	No change in assessment
		Safety					↑	There is a risk that the inconsistent practices by crews training leads to a safety event (Operations & Safety)				
							↓	There is a risk of being exposed to a communicable disease (Operations & Safety)				
	SAR Readiness	↑	There is a risk of potentially losing members due to lack of engagement during the season and post COVID impacts (Admin & Personnel)	↔	There is a risk that PARA Marine SAR will be unable maintain the appropriate skillsets for both the primary and secondary vessel. (Training)	↔	There is a risk that the CCGA 5-year ride check requirement will not be meet. (Training)	↔	There is a risk that the primary asset may require replacing prior to the planned date (Equipment and Maintenance)		Not Assessed	
	Personnel & Teamwork	↑	There is a risk that PARA Marine SAR will not be able to maintain a sustainable succession plan for the unit executive and leadership. (Admin & Personnel)						↑	There is a risk that PARA Marine SAR will not be able maintain a sustainable succession plan for crews (Admin & Personnel)		Low
		↔	There is a risk that PARA Marine SAR will be unable to man both the primary and secondary vessel. (Admin & Personnel)									Medium
	Asset Management						↔	There is a risk that the boat can not meet the TC Commercial Requirements with respect to equipment and systems (Equipment and Maintenance)	↓	There is a risk of not renewing the commercial license. (Equipment and Maintenance)		High
	Financial	Business Plan					↔	There is a risk that the Region funding will be insufficient to maintain a regular maintenance program (Board)	↓	There is a risk that commercial towing operations in the area may reduce tasking income (Board)		
							↔	There is a risk that the annual maintenance program (including refits) has cost and schedule over runs (Equipment and Maintenance)	↔	There is a risk that PARA Marine SAR many not be able to fiscally operate both a primary and secondary vessel (Operations & Safety)		
Regulatory								↔	There is a risk that PARA Marine SAR (under NFP Rules) is not permitted to save funds for a long-term asset (Board)			
Asset Investment								↔	There is a risk that PARA Marine SAR will not be able to raise sufficient funds for strategic vessel acquisitions. (Community Development / Board)			
Strategic	Reputation	↔	There is a risk that there is insufficient participation at the fundraising and community events (Community Development)			↔	Lack of participation from SAR partners for collaboration in training exercises (Operations & Safety)	↔	There is a risk of negative community perception of PARA Marine SAR due to a lack of presence at FBYC (Community Development)			
	Long Term Planning					↓	There is a risk that increased weed presence in Frenchmans Bay will impede long term operational availability and readiness in Pickering (Operations & Safety)	↔	There is a risk that a new primary vessel would introduce new and higher commercial requirements (Equipment and Maintenance)			
	Community							↔	There is a risk that municipalities will not fund future grants until a name rebranding is completed. (Board)			

1. Review Emerging Risks
2. Review changes to risks and discuss mitigation plans
3. Identify new risks
4. Confirm Risks to be closed

PARA Marine Search & Rescue
Profit & Loss Prev Year Comparison
 January through October 2022

	<u>Jan - Oct 22</u>	<u>Jan - Oct 21</u>	<u>\$ Change</u>	<u>Region Budget</u>
Ordinary Income/Expense				
Income				
4010 - from Muni/Reg Gov't	65,980.00	63,480.00	2,500.00	65,980.00
Total Income	<u>65,980.00</u>	<u>63,480.00</u>	<u>2,500.00</u>	<u>65,980.00</u>
Gross Profit	65,980.00	63,480.00	2,500.00	65,980.00
Expense				
5001 - Maintenance and Repairs				
5002 - M&R Vessel	26,526.24	39,122.65	-12,596.41	20,000.00
5003 - M&R Equipment	6,655.81	4,600.55	2,055.26	6,000.00
5004 - M&R Materials	546.02	1,570.87	-1,024.85	1,500.00
5001 - Maintenance and Repairs - Other	67.48	0.00	67.48	
Total 5001 - Maintenance and Repairs	<u>33,795.55</u>	<u>45,294.07</u>	<u>-11,498.52</u>	<u>27,500.00</u>
5010 - Fuel - Deisel	13,730.43	7,700.08	6,030.35	9,000.00
5020 - Insurance				
5021 - Insurance - D&O	1,416.87	980.91	435.96	-
5022 - Insurance - Personell	939.52	731.43	208.09	-
5023 - Insurance - Vessel & Equ	1,472.40	832.50	639.90	
5024 - Insurance General Liabil	7,926.12	6,081.12	1,845.00	-
Total 5020 - Insurance	<u>11,754.91</u>	<u>8,625.96</u>	<u>3,128.95</u>	<u>10,900.00</u>
5030 - Professional Fees	0.00	400.00	-400.00	2,800.00
5031 - Professional Services	0.00	0.00	0.00	1,500.00
Critical Stress Training	0.00	0.00	0.00	1,500.00
5040 - Personnel Related				
5041 - Training				4,500.00
5042 - COVID	0.00	418.88	-418.88	500.00
5044 - IMRF Membership	0.00	711.75	-711.75	500.00
Total 5040 - Personnel Related	<u>0.00</u>	<u>1,130.63</u>	<u>-1,130.63</u>	<u>5,500.00</u>
5050 - Rentals				
5051 - Rental Boat Lift	1,234.20	614.40	619.80	1,500.00
5052 - Rental Slip Fee	1,922.85	2,293.60	-370.75	1,830.00
5054 - Rental Winter Storage	0.00	2,177.23	-2,177.23	1,500.00
Total 5050 - Rentals	<u>3,157.05</u>	<u>5,085.23</u>	<u>-1,928.18</u>	<u>4,830.00</u>
5070 - Misc Services				
5071 - Bank Fees	0.00	0.00	0.00	200.00
5072 - Communiation	1,081.44	1,492.42	-410.98	2,000.00
5073 - Office Expense	114.02	462.29	-348.27	250.00
Total 5070 - Misc Services	<u>1,195.46</u>	<u>1,954.71</u>	<u>-759.25</u>	<u>2,450.00</u>
5080 - Licences				
5081 - K-Sim Navigation Radar	0.00	550.00	-550.00	
5080 - Licences - Other	50.00	0.00	50.00	
Total 5080 - Licences	<u>50.00</u>	<u>550.00</u>	<u>-500.00</u>	<u>-</u>
Total Expense	<u>63,683.40</u>	<u>70,740.68</u>	<u>-7,057.28</u>	<u>-</u>
Net Ordinary Income	<u>2,296.60</u>	<u>-7,260.68</u>	<u>9,557.28</u>	<u>65,980.00</u>

PARA Marine Search & Rescue
Profit & Loss Prev Year Comparison
 January through October 2022

	<u>Jan - Oct 22</u>	<u>Jan - Oct 21</u>	<u>\$ Change</u>	<u>Region Budget</u>
	<u>Jan - Oct 22</u>	<u>Jan - Oct 21</u>	<u>\$ Change</u>	
Other Income/Expense				
Other Income				
6001 - rec'd from CCGA	85,686.74	13,805.63	71,881.11	
6004 - rec'd - other charities	2,710.25	1,749.13	961.12	
6005 - gifts - not receipted	67.80	0.00	67.80	
6007 - Tax-receipted gifts	5,610.00	2,665.21	2,944.79	
6510 - Unrealized gain on inves	-11,790.83	6,544.55	-18,335.38	
8002 - Other revenue	600.00	2,500.00	-1,900.00	
8004 - Rev. sale of good	3,673.00	1,550.00	2,123.00	
8007 - Service Agreements	5,000.00	5,000.00	0.00	
8009 - Interest Income	5.70	21.95	-16.25	
8010 - Grants Received				
8014 - Grant City of Pickering	19,500.00	6,000.00	13,500.00	
8015 - Grant - Firehouse	0.00	25,983.21	-25,983.21	
8016 - Grant Town of Whitby	3,836.35	3,200.00	636.35	
8017 - Grant Elexicon	0.00	27,000.00	-27,000.00	
Total 8010 - Grants Received	<u>23,336.35</u>	<u>62,183.21</u>	<u>-38,846.86</u>	
Interest Earned on Investments	-17,933.95	0.00	-17,933.95	
Total Other Income	<u>96,965.06</u>	<u>96,019.68</u>	<u>945.38</u>	
Other Expense				
9001 - Ad & Promotion	1,044.60	1,224.26	-179.66	
9002 - Awards and Grants	124.64	0.00	124.64	
9003 - Fundraising Exp	0.00	653.89	-653.89	
9004 - Members Exp	1,331.50	0.00	1,331.50	
9006 - ParaWear Expenses	2,836.85	2,765.69	71.16	
9007 - Supplies for Spit Base	0.00	11.16	-11.16	
9008 - Community Engagement Exp	628.37	463.96	164.41	
9010 - Square Fees	124.75	55.58	69.17	
9011 - Pay Pal Fees	20.09	62.31	-42.22	
9012 - Specific Gift Expenditur				
9014 - Spec Grant - CITY PICK	3,861.59	0.00	3,861.59	
9017 - Spec Grant - Pickering	2,184.78	0.00	2,184.78	
9012 - Specific Gift Expenditur - Other	316.99	0.00	316.99	
Total 9012 - Specific Gift Expenditur	<u>6,363.36</u>	<u>0.00</u>	<u>6,363.36</u>	
9018 - Trailer Expenses	22.57	0.00	22.57	
9020 - Adjustments	1,953.34	0.00	1,953.34	
9025 - Membership & subscriptio	357.00	10.00	347.00	
Total Other Expense	<u>14,807.07</u>	<u>5,246.85</u>	<u>9,560.22</u>	
Net Other Income	<u>82,157.99</u>	<u>90,772.83</u>	<u>-8,614.84</u>	
Net Income	<u><u>84,454.59</u></u>	<u><u>83,512.15</u></u>	<u><u>942.44</u></u>	

PARA Marine Search & Rescue

Balance Sheet

As of 31 October 2022

31 Oct 22

ASSETS

Current Assets

Chequing/Savings	
1000 - TD - Checking	123,628.27
1050 - PayPal	7,281.64
Total Chequing/Savings	130,909.91
Accounts Receivable	
1200 - Accounts Receivable	65,980.00
Total Accounts Receivable	65,980.00
Other Current Assets	
1300 - Prepaid Insurance	4,900.78
1350 - Prepaid Slip Fees	2,007.13
1452 - Advances for Expenses	-4,600.00
1460 - Short-term investments	
1465 - New Boat Fund	174,682.62
Total 1460 - Short-term investments	174,682.62
Total Other Current Assets	176,990.53
Total Current Assets	373,880.44

Fixed Assets

1500 - Vessel Asset Purc (PARU)	110,000.00
1510 - Acc Dep on Purch vessel	-110,000.00
1520 - Improvements to PARU	247,604.40
1530 - Acc Dep on Improv to Ves	-119,514.00
1601 - Shore Assets - Operating	7,858.12
1602 - Accum Depr Shore Assets	-3,010.00
1603 - Trailers	7,860.53
1604 - Accum Dep on Trailer	-519.00
Total Fixed Assets	140,280.05

TOTAL ASSETS 514,160.49

LIABILITIES & EQUITY

Liabilities

Current Liabilities

Other Current Liabilities

2000 - Accrued Liabilities	4,000.00
2010 - GST/HST Payable	-6,617.48
Total Other Current Liabilities	-2,617.48

Total Current Liabilities -2,617.48

Total Liabilities -2,617.48

Equity

2500 - Deferred Contribution	294,777.56
2501 - Acc Dep of Deferred Cont	-75,528.00
3100 - Opening Balance Equity	213,073.82
Net Income	84,454.59

Total Equity 516,777.97

TOTAL LIABILITIES & EQUITY 514,160.49

NOTES:

1. Region funding has not been received due to delay in insurance certificates.

2. Fuel costs are estimated from ship log as invoicing from Whitby is lagging.