ISSUE FEATURES



SAR SCENE

Fall 2010 Vol. 19, #1

The Canadian Search and Rescue Magazine Online

The Safest Catch program launched in BC

AdventureSmart 2010

The 2010 SAR Awards of Excellence

The Aviators: new TV series takes to the sky

Featured SAR volunteer association: Cape Breton SAR Association





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Occupational Health and Safety

Produced by the National Search and Rescue Secretariat

Translation by: Translation Bureau

Facts and opinions in SARSCENE are those of the individual contributors and do not necessarily reflect the position or policies of the Secretariat.

Cover photo courtesy of Marc DesRosiers

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ISSN 1183-5036

Submissions are welcome and should be sent to the Editor.

CS09-0229



Géraldine I Inderdown NSS' Executive Director

A wind of change blew over the National Search and Rescue Secretariat (NSS) this past year, and as part of this renewal, the SARSCENE outreach workshop was revitalized. As well, the National Search and Rescue (SAR) Program Awards were transformed, with the introduction of the Awards of Excellence.

The program will continue to recognize the people and organizations that go above and beyond in their contribution to SAR in Canada. Starting this year,

Awards of Excellence will be presented in five distinct categories: Education and Training, Innovation, Leadership, Research and Exemplary Service. Developed in close consultation with the SAR community of Canada, the new Awards of Excellence aim to recognize the full diversity of contributions made by individuals and organizations to SAR in Canada.

The National SAR Program Awards of Excellence will be presented at SARSCENE 2010 in Montréal on the evening of Monday, September 27.

SARSCENE 2010

On September 27 and 28, 2010, the NSS is hosting a national search and rescue workshop. This outreach activity is a key, core element of the National SAR Program whose purpose is to improve search and rescue response, prevention, education and technology. Workshop attendees represent a range of organizations, agencies and jurisdictions across the country and internationally that have a role in SAR response and/or prevention. In addition to presentations and panels, industry, academic, and public sector exhibitors will be sharing their expertise and knowledge with delegates on the floor of the SARSCENE 2010 trade show.

In the past, SARSCENE was a very large event held over a five-day period. In 2009, the format was reviewed and transformed into a balanced, tightly concentrated education and training workshop, reflecting a more frugal and prudent fiscal reality. Under this new format, the SARSCENE 2010 workshop warrants alignment with National SAR Program priorities, offers learning opportunities, and ensures that participants receive increased value for the time and money they invest in attending.

SARSCENE 2010 was positioned immediately following the Canadian Safe Boating Council's (CSBC) annual symposium in Montréal. The CSBC symposium attracts delegates from the marine sector and focuses on prevention, one of the three pillars of the National SAR Program. With the two events held back to back, the strategic partnership will provide delegates with the opportunity to attend both.

The Future of SARSCENE

Even though SARSCENE benefits immensely from the generous donation of time and resources by its hosts, presenters, and volunteers, all government programs and activities - including SARSCENE - are being evaluated as part of a government-wide review to ensure Canadian taxpayers are receiving value for the expenditure of public funds.

The SARSCENE outreach event benefits all SAR professionals from the federal, provincial/territorial and volunteer sectors in the execution of their duties and improving SAR. Canadians have high expectations from search and rescue, especially during incidents. SARSCENE provides excellent opportunities to those involved in SAR response, prevention and education, to further inter-agency understanding and cooperation that ultimately result in improved search and rescue for Canada.

Feedback

Your feedback – both at SARSCENE and through emails and letters – is critical to the continued success of the workshop. To this end, we are seeking your input as to how SARSCENE directly benefits you and the SAR community you represent. Without your involvement, it will be difficult to validate quality information during the government-wide review of SARSCENE and other outreach activities. The outcome of the review will have a direct impact on shaping the future of SARSCENE.

Please share with me your ideas, suggestions, support and feelings about what SARSCENE means to you. You can reach me by email at sarscene@nss-snrs.gc.ca, or write to me at the National Search and Rescue Secretariat, 275 Slater Street, Ottawa, ON K1A 0K2.

I look forward to hearing from you, and thank you for your dedication to continuing progress in search and rescue for Canada.

SAR NEWS

SAR Techs rescue survivors of air crash in northern Quebec

By Sergeant Andrew Mackenzie, SAR Tech. 424 Squadron / Forces.gc.ca

On July 16, 2010, a search and rescue (SAR) CC-130 Hercules aircraft (Rescue 336) from 424 Transport and Rescue Squadron based at 8 Wing, Trenton, Ont., was tasked by Joint Rescue Coordination Center (JRCC) Trenton to search for an overdue float plane in northern Quebec, about 40 kilometres west of Chutes-des-Passes. The missing aircraft, a de Havilland Beaver with six people on board, had not arrived at its destination.

About 30 minutes back from the search area, Rescue 336 received notification from JRCC Trenton that a crew from a privately-owned aircraft flying in the area had spotted the crash site and reported survivors waving from the wreckage.



Rescue 336 immediately made its way to the location communicated by the JRCC. Once on scene, they spotted the crash site, but the downed aircraft was partially covered by evergreen trees and its emergency locator beacon was not operating. The CC-130 Hercules' aircrew made low passes and selected a nearby clearing for the SAR Technicians (SAR Techs) to safely execute their jump. The two SAR Techs were immediately dispatched from 2000 feet in a fullequipment jump. Despite challenging conditions at the drop zone, both SAR Techs landed safely and navigated the 800 metres to the crash location through heavily-wooded, rising terrain.

Master-Corporal Les Maclean, one of the two first rescuers to arrive on scene, was on his second SAR mission as a trained SAR Tech. "These missions are what we train for," he said. "The conditions were rough, the hours long, but you're out there doing everything you can to help a fellow human being. It's humbling."

As they approached the crash site, they called out and heard survivors banging on the aircraft fuselage. Once on location, they were met by one of the survivors, a 15-year-old boy that miraculously appeared uninjured. He quickly directed the SAR Techs to a second survivor, his 59-year-old uncle.

"What stands out most from that night is that extraordinary young man and his ability to hold everything together at a time like that," said Master-Corporal Maclean.

In the days following the accident, the teenager would be hailed as a hero for his courageous actions that day. He is credited with pulling everyone from the wreckage and providing initial first aid, which ultimately contributed to saving his uncle's life.

Regrettably, four of the six persons on board had perished in the crash.

"Unfortunately, in this case, the outcome wasn't what we had ultimately hoped for, which was to find all the persons on board as survivors," said Major Micky Colton, CC-130 Hercules aircraft commander on Rescue 336. "Our heartfelt thoughts and condolences go out to the families of the victims."

SAR efforts carried on for several hours and the survivors were rapidly airlifted to the hospital by the crew of a CH-146 Griffon helicopter from 439 Combat Support Squadron, based at 3 Wing, Bagotville, Que. The SAR Techs remained on scene to await the arrival of a CH-149 Cormorant from 413 Transport and Rescue Squadron at 14 Wing, Greenwood, N.S., that would allow them to extract the remaining persons from the site.

Major Colton said, "I continue to be gratified and proud of the incredible professionalism of all SAR crews and the amazing capabilities of the SAR Techs."

424 Squadron is one of the units responsible for the 10,000,000 square kilometres of the Trenton Search and Rescue Region, comprising most of Quebec, all of Ontario, the prairie provinces and the entire Arctic. The squadron has one aircraft of each type on standby around the clock to respond to distress cases as tasked by the JRCC.

"Being a part of a crew that was able to find and rescue people from a catastrophic crash like this one can't help but fill you with a sense of pride and accomplishment," added Major Colton.

CALLOUT: Search and Rescue premieres this fall

By Brian Ross Fire One Entertainment Ltd.

The dynamic new documentary TV series CALLOUT: Search and Rescue premieres on the former national and regional television networks in Canada this fall. See real search and rescue (SAR) teams at work in these live rescue stories and fast moving "vignettes" centered on actual SAR missions. Go to www.calloutsar.tv for broadcast dates and times. Canadian SAR teams can now register on the Website to download the series' high-powered rescue stories and vignettes for training and prevention purposes, once the national broadcast has aired.

Volunteer SAR teams across Canada will benefit from the increased public awareness CALLOUT will generate. Sgt. Robert Lajoie, the former National SAR Program Coordinator for the RCMP, states that "Not only will the series create heightened awareness, appreciation and understanding of SAR in Canada, it will also provide long-term education and prevention resources for SAR teams and the public alike." On the Website, SAR teams' contact information can be posted, so that local community members can make direct contact with their organizations to donate time or money, or perhaps simply to say "Thank you" for a job well done.

On the Website, you can also watch videos for all 13 half-hour promos, read blogs by featured SAR team members, and submit approved written and video information for use in the "action" section. CALLOUT is produced by Fire One Entertainment Ltd., a division of Vancouver-based Third Wave Communications Inc, and is a New Initiatives Fund project.

Information requests or questions about the series can be directed to info@calloutsar.tv.







17 Wing Squadron helps Coast Guard find missing boaters on Lake Winnipeg

By Capt Jeff Noel 17 Wing Public Affairs Officer / Forces.gc.ca

17 WING WINNIPEG, Man. – Four boaters on Lake Winnipeg are safe today thanks to the combined efforts of a CC-130 Hercules aircraft and crew from 435 'Chinthe' Transport and Rescue Squadron based at 17 Wing, Winnipeg, Man., the regional Canadian Coast Guard (CCG) and the Royal Canadian Mounted Police (RCMP) in Gimli, Man.

The four were aboard a small 12-foot sailing dinghy that had been blown roughly 10 kilometres offshore by strong winds on July 15, 2010, and were unable to get back to shore.

On arrival at the search area, 435 Squadron crew spotted the dinghy and relayed the position to nearby CCG vessels that, along with the RCMP, recovered the boaters shortly afterwards. All are reported in good condition.

"Having both rescue aircraft and vessels on scene was definitely a major reason the boaters were assisted in a timely manner as the area we were tasked to search encompassed almost 100 square miles," said Captain Chris Jacobson, one of the pilots who flew the Hercules during the search and rescue (SAR) mission.

Commanding officer Brian Sparks with the CCG in Gimli indicated that all boaters aboard the stranded dinghy were wearing personal flotation devices, a crucial part of boating safety.

"Inland water SAR is generally the RCMP's responsibility," said Sergeant Wes Olsen with the East Interlake Detachment in Gimli. "But we have an excellent working relationship with the Coast Guard based here in Gimli and they provide an invaluable service to our detachment."

17 Wing's 435 Squadron provides primary SAR response for 8 Wing Trenton Search and Rescue Region (SRR). Extending from Québec City to the British Columbia/Alberta border and from the North Pole to the Canada/United States border, the Trenton SRR is the largest of the three SRRs in Canada.

Responsibility for the overall effective operation of the federal coordinated maritime and aeronautical SAR system in Canada is assigned to the Commander of Canada Command. Responsibility for SAR operations is divided into three SRRs, named after their respective Joint Rescue Coordination Centres (JRCCs): JRCC Victoria, in British Columbia; JRCC Trenton, in Ontario; and JRCC Halifax, in Nova Scotia.



AgustaWestland Congratulates Canadian Forces 442 Squadron on Winning International Award for Daring Glacier Rescue

Aviation.ca

COMOX, British Columbia – AgustaWestland is pleased to congratulate members of the Canadian Forces 442 Squadron based at Canadian Forces Base Comox, British Columbia, for winning this year's Prince Philip Helicopter Rescue Award for "Outstanding Courage or Devotion in the Air."

The winners were announced at the base by John Burley, Chairman of the London Guild of Air Pilots and Air Navigators (Canada). The award will be presented in a ceremony at the Guild Hall, London, U.K. on October 21, 2010. The award honours the crew of Cormorant #902 for its efforts in the Homathko Glacier Rescue on the night of April 24, 2009. The recipients are:

- · Major Jason M. Von Kruse
- · LCol J.E. Christian Lalande
- · Cpl B.R. Dominic Frenette
- · Sgt. Kent J. Gulliford
- · MCpl Billy R. Ternes

The dangerous rescue was conducted in darkness on a moonless night at 3 a.m. on the side of a steep B.C. glacier. The crew was required to hover their EH101 helicopter at

2,650 metres, first lowering a line to rescue two climbers from a 45-degree slope then lowering a search and rescue (SAR) technician into a 30-metre-deep crevasse, where the seriously injured third climber had fallen. Unfortunately the victim was found without vital signs and pronounced dead on arrival at hospital despite the heroic lifesaving effort.

"This was an exceptional rescue by the Canadian Forces SAR technicians and helicopter crew, which is highly deserving of this prestigious international recognition, and I am again pleased to offer our congratulations to these outstanding members of the Canadian Forces," said Mr. Graham Cole, Managing Director, AgustaWestland.

The crew of Cormorant #902 was also the 2009 winner of the Cormorant Trophy, awarded annually by AgustaWestland to the crew of the Canadian search and rescue aircraft that carried out the most significant rescue of the year. Full details of the Cormorant Trophy award are available at http://www.agustawestland.com/news/agustawestland-congratulates-2009-cormorant-trophy-winners.

This is the second time Sqt. Gulliford has been awarded the Prince Philip Helicopter Award as a member of a search and rescue crew aboard a Cormorant, making him the only double winner in the international award's 22-year history. Gulliford and his fellow crew members aboard Cormorant #901 won the 2007 award for what was described by the Canadian Forces as a "hairraising rescue...which pushed all the limits." The rescue is detailed on the Canadian Forces web site at http:// www.airforce.forces.gc.ca/19w-19e/ nr-sp/index-eng.asp?cat=79&id=4966.



New TV series takes to the skies

. . . .

Photo credit: The Aviators

By Kim Fauteux, NSS

A few years ago, television producer John Lovelace – accomplished pilot and host of the series Wings Over Canada (1997-2007) – approached Anthony Nalli, founder of FourPoints Television Productions, with a new concept for a television show. After discussions, Nalli took the plunge and partnered with Lovelace so that The Aviators could become reality.

The weekly magazine-style TV series, which will be covering stories from the world of aviation, will start being broadcasted in September across Canada and the United States. "In Canada, Global Television airs the series on Saturday mornings. An independent station broadcasting to southwestern British Columbia, CHEK TV, is also broadcasting the series", stated Anthony Nalli, Executive Producer of the show.

The Aviators partnered with the two largest aviation organizations in North America: the Aircraft Owners and Pilots Association and the Experimental Aircraft Association.

A show about aviation, from A to Z

The show covers everything from new aircraft designs and the latest GPS technologies, to accident and safety awareness. The series has different segments, such as the people of aviation, the places, planes, professionals, safety and training, gear and gadgets and the "making of" the series.

The TV show is made by aviators – the Executive Producer, Director and correspondents are all pilots – and will appeal to pilots, people who are passionate about aviation and others who are looking for entertainment. "The Aviators can go a long way in filling knowledge gaps. It could also make people less afraid to fly as they would gain information on the world of aviation", mentioned Mr. Nalli.

In addition to the TV series, there will be a multimedia angle to The Aviators. The content that will air during the episodes will also be available online after the broadcast. As well, there will be a monthly magazine that will be composed of a compilation of segments and will be available online or in print.

Emergency prevention

While discussing the TV show, Mr. Nalli talked about how The Aviators could help the search and rescue community. "It's legally required to have an ELT on board right now, but there are a lot of problems with the 121.5 MHz ELT since it is not monitored. Unfortunately, the adoption of the 406 MHz ELT is resisted. By highlighting the good of the 406 MHz technology, more and more people will adopt it naturally", explained the Executive Producer. Mr. Nalli thinks that by adopting the 406 MHz technology, there will be less false alarms, and that it will be easier and faster for rescuers to locate and get to the site of the emergency.

The Aviators will also provide tips on how to avoid getting into trouble while flying. The show, which uses past emergencies to promote prevention to the aviation community, will show pilots how to end up on the "happy side" after managing an emergency.

Close Calls

A column detailing the "close call" experiences of fellow pilots, appropriately named Close Calls, is a collection of

articles published monthly in a number of aviation magazines throughout North America, with a print readership of nearly half a million. In the series, a segment will also be entitled Close Calls and will be the television version of the column.

"There are lessons to be learned from other people's mistakes. If an emergency situation occurs, you have to know how to get out of it", states the Executive Producer. Stories that inform, educate or would be of interest to a broad audience can be sent in by e-mail at info@TheAviators.TV.

The audience can also visit the series' Web site at the following address: http://www.theaviators.tv to obtain more information on the series, as well as sign up to be on the updates list. You can also join the "Fans of The Aviators" Facebook group to discuss the series and get the latest news on the show.



Grace MacEachern, Para-belle



By Jill St. Marseille/Air Force - DND

Grace "Gracie" MacEachern (née Gagnon) was a pioneer for women at a revolutionary time for women's roles and rights. She was a "parabelle", a romantic term coined for pararescue nurses from the 1950s in the Canadian Forces. That not only made her an asset in redefining gender roles, but also in what would become modern day search and rescue (SAR) in Canada.

In the words of her son, Bruce MacEachern, a major in the Air Force, "she really blazed a trail for women and for the Air Force itself".

Her career as a nurse started as a nursing sister for the Grey Nuns in the Pembroke, Ont., area. Following the death of her first husband, Cranston Woodward, she enrolled in the Canadian Forces in 1951, where she received a commission as a pilot officer just prior to joining the pararescue course at the age of 32.

The pararescue course offered in the 1950s was attended by nurses and doctors, who at the time were the only medical personnel to jump out of airplanes on rescue missions. And they did so on a voluntary basis. The course was the foundation of, and at that time the only equivalent to, today's vigorous and demanding SAR technician training course. (It was only a month long, in contrast to the current one-year training course.) Either way, says SAR technician Master Warrant Officer Gavin Lee, "you've got to give a hats off to whoever makes it through [the training]. It's tough."

While the ground-breaking achievements of all the para-belles are worthy of commemoration, Mrs. McEachern is especially



noteworthy for the fact that she is the first woman to do an operational jump in pararescue. This first jump was in Mount Coquitlam, B.C., one month after she took the pararescue course, to rescue a geologist.

She ended up landing in a tree, and due to an ill fitting harness, "she was left dangling by one foot and it took her about two hours to right herself and get down. She used her let down line, or nylon rope, which was 100 feet [30.4 metres] long; however, it was still 20 feet [6 metres] short. She had dropped her gloves during the time that she was trying to right herself, and on the descent down the line she got severe rope burns on her hands," said her son.

It was dark by the time the 95-pound (43 kg) woman reached the ground but she carried her two kit bags, which weighed 60 pounds [27 kg], up the mountain. She had to spend the night in the wild as she could no longer see anything. She caught up the other rescuers in the morning and the geologist that they were rescuing was saved in the end.

The equipment that the para-belles used was crude; the helmets had cages (much like hockey masks), the boots were similar to those worn by Boy Scouts, the harnesses did not fit the smaller frames of the women, and "the parachutes were basically enough to get you to the ground," said MWO Lee.

"[The parachutes] weren't the big competition chutes that we have now, that get you safer in tighter places," he continued. "You were going to get to the ground quite hard. It was antiquated equipment at the time; and in these times no one would jump in that stuff."

Mrs. MacEachern eventually had to have several surgeries as a result of numerous jumps, including three knee replacements and a spinal fusion.

"She was really a caring individual, very determined, bordering on stubborn, and she really had an adventure side to her," said her son. "Nursing came first. She was determined to go and do some trailblazing."

She left the Forces in 1955 for a mission of a different kind. She was going to remarry and at the time women could not be married and be nurses – so she pursued a career in the public health sector.

In 1965, she moved to Trenton, Ont. She retired from public health in the 1970s, but she and her husband continued to visit veterans and the elderly in homes from Kingston to Brighton, Ont.

Grace MacEachern passed away on Feb. 17, 2010, seven months shy of her 90th birthday.

For her funeral, six SAR techs in their orange jump suits were her pallbearers and 424 Transport and Rescue Squadron from 8 Wing Trenton lined up to pay her homage. She was well respected in the SAR community and affectionately known as "Gracie" to many.

MWO Lee attended her recent funeral in Trenton, where he overheard people say that "she would be so proud" of having techs in jump suits carry her.

"And we were as proud of her," he said. "She is part of an elite unit in the world. She was an explorer, a pioneer."

Grace MacEachern walking away from the helicopter that picked her up after the rescue on Mount Coquitlam. She suffered severe rope burn after having to get herself down from the tree in which she landed.

Photo credit: Mai Bruce MacFacherr

The new 2010 SAR Awards of Excellence

Recognizing outstanding contributions to search and rescue

By Kim Fauteux, NSS

Canada's National Search and Rescue (SAR) Program is comprised of a great diversity of government, military, civilian, and private sector individuals and organizations working together to save lives. In addition to responding to search and rescue emergencies, time and resources are also invested to help prevent incidents from occurring. Through public education and awareness, and by capitalizing on research and innovations in the academic and private sectors, the National SAR Program helps make Canada a safer place to live, work, and play.

Most of those who are involved in search and rescue are already remarkable, in that they have chosen to come to the aid of others, often in their time of greatest need. Since 1995, the National SAR Program, which is managed and coordinated by the National Search and Rescue Secretariat (NSS), has acknowledged particularly outstanding individuals and groups through the presentation of the annual Outstanding SAR Achievement Award and Certificates of Achievement. After many discussions and a consultation process to the SAR community, the awards program was revamped in order to better recognize those within the SAR community.

Starting in 2010, the National SAR Program's new Awards of Excellence will continue the tradition of recognizing outstanding contributions to SAR response and prevention in Canada. The categories have changed, but the base of the program remains the same: the awards recognize contributions that may not necessarily take place on the front lines, but are critical to supporting SAR in Canada. Awards are now available in five categories:

- Award of Excellence for Education and Training
- · Award of Excellence for Innovation
- · Award of Excellence for Leadership
- · Award of Excellence for Research
- Award of Excellence for Exemplary Service

Eligibility

Volunteers and other SAR professionals are eligible to be nominated for an Award of Excellence. Nominees may include, for example, SAR volunteers, university researchers, public servants, park wardens and emergency services workers, amongst others. Both groups and individuals may be nominated for an award and there is no minimum or maximum age for nominees. People who are being nominated have to be Canadian citizens or permanent residents of Canada.

Those nominating an individual or a group for an Award of Excellence must have first-hand knowledge of the nominee's contributions to SAR and must be 18 years of age or older. Members serving within a group, team, or unit cannot nominate that same group, team, or unit for an award. An arms-length nomination within a larger organization is, however, permissible.

Awards description

The Award of Excellence for Education and Training recognizes those who have made an outstanding contribution to training and education in the SAR field. The nomination must highlight the special or exceptional quality of the training or educational initiative.

The Award of Excellence for Innovation recognizes those who have solved a problem or successfully leveraged an opportunity that has served to enhance SAR. Such innovation may involve technology or equipment, but may also include innovative approaches or techniques. The nomination must highlight the special or exceptional quality of the innovation.

The Award of Excellence for Leadership recognizes those who have distinguished themselves as leaders or outstanding SAR advocates, either locally, nationally, or internationally. The nomination must highlight the special or exceptional quality of the leadership exercised by the individual or group.

The Award of Excellence for Research recognizes those who have made an outstanding contribution in the field of research, to the benefit of SAR response and/or prevention. "Research" may include the natural and applied sciences, social sciences, humanities, or a related discipline. The nomination must highlight the special or exceptional quality of the research initiative.

The Award of Excellence for Exemplary Service recognizes special and outstanding service to SAR provided by an individual or organization, usually over a significant period of time, or during a critical event of widespread or national/ international significance. "Service to SAR" may include a wide range of activities, such as front-line incident response or coordination; public awareness and communication; academic research or teaching; the provision of logistics or administrative support to SAR responders; the manufacturing, supply, or servicing of search and rescue equipment; advocacy and support to volunteer organizations; program management; policy development; and many other possibilities.

Nomination process

Nominations must be directed to one of the five award categories. Each nomination will be evaluated on its own merit, and in relation to the context and supporting information provided. Individuals or groups may only be nominated in a single award category in a given year. If a nomination is not successful, it may be resubmitted for consideration in a subsequent year.

The recipient of a National SAR Program Award of Excellence cannot be nominated for a subsequent award in the same category. Previous recipients may, however, be nominated for new achievements in a different category.

Detailed information about the nomination package is available at http://www.nss.gc.ca/site/awards/2010/index e.asp.

Awards committee and review

While the NSS administers the Awards of Excellence as part of its National SAR Program mandate, selection of recipients will be entrusted to an Awards Committee, chaired by the NSS and comprised of: two representatives from the NSS (chair plus one other member), two federal representatives, two provincial/territorial representatives and two representatives from the SAR volunteer community. These representatives will be invited to participate by the NSS, on the basis of their SAR knowledge and experience.

The nominations will be reviewed in a two-step process: the administrative review and the assessment of merit. Following the final submission date for nominations, the NSS Awards Coordinator will review all nominations for completeness and clarity. Nominators may be contacted should clarification be required. When the administrative review is complete, the nominations will be forwarded to the Awards Committee members for review and scoring. The Committee will meet in person or via teleconference to discuss their results and make a final decision. The most deserving recipient in each category will be determined through a ranking system.

Announcement of results and presentation

Once the Awards Committee has made its final decision, the NSS Awards Coordinator will advise each nominator whether or not their nomination was successful. The NSS will contact the selected award recipients, and provide them with information on the awards ceremony and related arrangements. The NSS will also contact the nominees who were not selected for an award.

The Awards of Excellence are typically presented each year in conjunction with the annual search and rescue event, SARSCENE. If, for some reason, the SARSCENE Awards Banquet does not proceed as scheduled, the NSS will arrange an alternate date, occasion, and location to present the Awards of Excellence.

To obtain more information on the 2010 Awards of Excellence, send an e-mail to SARawards@nss-snrs. gc.ca or call 1-800-727-9414 (or 613-944-4101).

Op HESTIA:

SAR techs in Haiti from the beginning



Search and rescue technician Sgt Bob Hervieux talks to an injured Haitian woman during a flight by CH-146 Griffon helicopter from the Canadian Role 2 hospital to the U.S. Navy hospital ship USNS Comfort.

Photo credit: Col Pierre Thériault, Canadian Forces Combat Camera

By Lieutenant (Navy) Kelly Rozenberg-Payne

PORT-AU-PRINCE, HAITI – Canadian Forces (CF) search and rescue technicians (SAR techs) were among the first rescue and recovery workers to deploy to Haiti after the massive earthquake of January 12, 2010.

SAR crews from 424 Transport and Rescue Squadron at 8 Wing Trenton, 439 Combat Support Squadron at 3 Wing Bagotville, and 444 Combat Support Squadron at 5 Wing Goose Bay received immediate notice to move at 7:00 a.m. on Wednesday, January 13, and the first 424 Squadron crew arrived in Port-au-Prince on January 14. As soon as they hit the ground, they began working with the Disaster Assistance Response Team (DART), delivering primary medical care to survivors in the battered capital.

"We didn't really know what to expect when we got here," said SAR team leader Master Warrant Officer (MWO) Eric Larouche. "We were told to be flexible, and to be ready for anything."

The scope of destruction in Portau-Prince created widespread confusion, panic and despair. Close to 90 percent of the city's buildings were destroyed, and the rubble blocked roads and hampered lines of communication.

"Normally we respond to domestic emergencies, so coming to Haiti and being integrated with DART was definitely a new experience," said Sergeant David Payne of 424 Squadron. However, they soon found themselves working with an even bigger network of national and international relief and emergency response teams.

The first 72 hours of their mission was dedicated to locating survivors trapped in the wreckage of collapsed houses, schools and offices. During this period, the SAR techs worked with CF firefighters and the expert urban search and rescue teams from countries such as Chile, France, Germany, Italy, Mexico and the United States.

"Unfortunately, we weren't able to locate and free survivors on any of our missions, but we did provide medical care and attention to injured people at each of the sites we visited," said MWO Larouche. Never giving up, the international search crews worked around the clock to find survivors, treat the injured, and identify sites where fatal casualties might be buried.

In fact, their flexibility and their first-responder skills were the SAR techs' primary assets during the initial rescue phase. They provided primary medical care to injured survivors at several sites in Port-au-Prince, including the Canadian Embassy and the *Hôpital de la Paix*, where two SAR teams treated more than 35 patients over two days.

"Working in the hospital was a very rewarding experience" said Master Corporal Jeff Ferguson of 424 Squadron. "It was great to be able to use the skills we practise at home to help children and their families."

Working from lists compiled by Department of Foreign Affairs and International Trade consular staff, the SAR teams hunted for nearly 200 Canadian citizens reported to have been in or near Port-au-Prince at the time of the earthquake. They found 52 Canadian earthquake survivors.

The SAR teams also played a critical role in bringing 30 earthquake survivors with life-threatening injuries from remote areas to medical facilities, such as the Canadian Forces Role 2 hospital at Léogâne and the hospital ship USNS Comfort.

The mission has been challenging. The long hours, poor communications and limited resources compelled relief workers to be resourceful, and to work together to get things done. The SAR techs deployed on Op HESTIA persevered through skills and flexibility.

"Over time, we end up helping a lot of people, but every now and again you get a mission where you really get to make a difference by easing suffering and saving a person's life," said Sgt Payne.

"The people here blow me away. Within eight or nine days of the earthquake, there were definite signs that people are trying to get on with their lives. There are small stalls and vendors on the street, the people here are resilient and resourceful," said MWO Larouche.



Featured SAR volunteer association:

Cape Breton SAR Association (CBSARA)



By Paul Vienneau Search Manager, CBSARA

On November 19, 1969, Billy Antle and five of his buddies were hunting in Wreck Cove in the Cape Breton Highlands. The friends went into the woods and were to meet back at their jeep for lunch. When lunch time arrived, Billy didn't return. His friends realized that he was missing and went to look for him. After a while, they decided to go get help. It was approximately 80 miles back to Sydney. Billy's family and friends were told the unfortunate news that Billy was missing and headed to the highlands to look for him.

On November 23, with 400 people and a Department of National Resources (DNR) helicopter looking for him, Bill was found by the helicopter on its final pass of the search. He was six miles from where he had entered the woods. He was found alive but was suffering from severe frostbite to both his feet. Afterwards, he spent the better part of two months recovering in the hospital. Unfortunately, he lost all the toes on his left foot.

While he was in the hospital, his friends and community members saw that there was a need for an organized search group; volunteers who could be trained to search for lost or missing persons. On December 11, 1969, in the basement of a church, a group of 17 men got together to form what would be the first of 24 search and rescue (SAR) groups in Nova Scotia. This was the start of the Cape Breton Search and Rescue Association

(CBSARA). Not only were they to search for lost people, but its members would gain knowledge regarding map and compass use, survival, and hunting safety. They wanted to share their new-found knowledge and skills in woodland safety with others in the community.

As soon as Bill was physically able, he attended what was the second meeting of the group and became a member of CBSARA on January 6, 1970. This legacy now continues after more than 40 years of dedicated service to Cape Breton and Nova Scotia.

First volunteer SAR team in Atlantic Provinces

The CBSARA team was the first SAR team east of Sault Ste Marie, and the very first in the Atlantic Provinces. According to our research, it is the fourth oldest purely volunteer team in Canada.

Over the past forty years, CBSARA became the first team to do night searching. It has conducted well over 700 searches for lost or missing persons and evidence searches for police, not to mention the 15 days it spent at Peggy's Cove following the crash of Swiss Air Flight 111, on September 2, 1998.

These dedicated men and women have taught map and compass use to hundreds of people over the years, as well as survival skills, hunting safety, firearms safety and woodsproofing (now the Hug-a-Tree Program). They have made countless presentations to schools, boy scouts, guides, brownies and cubs. They have also helped establish four additional SAR teams on Cape Breton Island and the rest of Nova Scotia.

Forty years of service

In November 2009, CBSARA celebrated 40 years of uninterrupted devoted service to Nova Scotians. The Emergency Management Office of Nova Scotia awarded "Long Service Medals" to ground SAR in Nova Scotia. The first medal for 40 years of service was presented to Bill Antle, who is the longest serving volunteer ground SAR member in Nova Scotia. Bill still contributes in a variety of ways, from serving on the team's board of director, to assisting with the call-outs and fundraising.

With 88 active members listed on the books, including men and women, aged 17 to 77, this team remains active after 40 years.

The search for James Delorey

At 2:13 pm on Saturday, December 5, 2009, seven year-old James Delorey, an autistic boy, went missing. After family members went looking for James without success, they called the police. A canine unit was brought in but was unable to find the boy either. At 3:30 p.m., CBSARA received a call to assist with the search. The temperature was 11 degrees C. The CBSARA team had separated into four teams in the woods for the search when they received word of an impending snowstorm due that night.

DNR choppers and the RCMP helicopter with forward-looking infrared radar were called in immediately, as were three SAR teams from Cape Breton (Cheticamp, Inverness and Strait). Unfortunately, the DNR and RCMP choppers had to be grounded because of the storm. The Joint Rescue Coordination Centre in Halifax was asked for help and sent a SAR Cormorant helicopter. The Cormorant arrived on the scene and started a search pattern at 10:30 p.m. The other three SAR teams arrived by 11 p.m. and took over the second operational period at 2 a.m. On Saturday night, about 250 civilian volunteers showed up to help, and DNR arrived with their ATVs and about 100 volunteer fire fighters to provide assistance.

By 6 a.m. on Sunday, December 6, the snowstorm was in full force, with winds up to 70 km/h and visibility sometimes down to six metres. With the wind chill, the temperature dropped to -10 degrees.

On Sunday, the Cape Breton Regional Police registered 1014 volunteers at the local fire station in South Bar. Every volunteer was used in one part or another of the search. On Sunday morning, CBSARA resumed its duties as lead team. In the evening, a call was put out to the remaining Nova Scotia SAR teams for assistance and five teams responded: Colchester Co, East Hants, Pictou, Springhill and Halifax. What was normally a four and a half hour drive took up to eight hours in the storm.

In the course of the search, we found out more about autism and this particular young boy. He had a dog with him. This dog was trained not to bark, as it would scare the boy, but he was also taught to stay with him wherever he went. James was classified as a "runner". He loved to play hide and was non verbal! We changed tactics and started calling out his name, saying "James...let's go with Mommy to Walmart", or "James, let's go get pizza with Mommy". But to no avail.

On Monday morning at 7 a.m., the Halifax SAR team took over period four of operations with assistance from four other teams and some members of CBSARA. Finally, the storm began to abate and the RCMP helicopter arrived on the scene, having been grounded since Friday in Moncton, New Brunswick.

At around 12:45 p.m., the child's dog, Chance, showed up at the family home. The overhead team immediately assigned a team to back track the dog's path. Meanwhile, a team coming from the east found young James at 1:10 p.m. He was alive but in critical condition. Medical personnel was airlifted to the site. He was stabilized and airlifted to Cape Breton Regional Hospital and then flown to the IWK Health Centre in Halifax. Unfortunately, young James succumbed to his injuries at midnight on Monday, December 6.

The child's dog was a hero in this incident. There was evidence that Chance laid down beside the boy to keep him company and keep him warm.

Christmas Miracle

With the help of the local Autism Society, new search techniques were tried that narrowed down the search area and helped find James. The Halifax team consulted with an Autism expert and the book "Lost Person Behaviour", by Robert J. Koester, to bring this search to a successful close. Unfortunately, the Lord had other plans for young James. We brought him home to his family, but He took him home.

The fact that James was found in such adverse conditions was called a "Christmas Miracle", but one lady I met said he was a "Christmas Angel" now. Some people have compared this operation to the search for Andy Warburton in 1987.

This young boy, age 7, brought all of North America and other parts of the world together in prayer for his safe return. James' legacy will live on, as he brought recognition to the Autism Society and to SAR in Nova Scotia. Because of this search, CBSARA has gained 32 new members who are being trained as searchers.

Paul Vienneau, who is retired from the military, has been a CBSARA volunteer for the past 13 years, and a search manager since 2002. He is also the vice-president of the Nova Scotia Ground Search and Rescue Association.



AdventureSmart 2010

Nationalizing a Prevention Success Story

By Sandra Ferguson

AdventureSmart Coordinator, British Columbia

AdventureSmart is a search and rescue (SAR) prevention program concentrating on outdoor safety education for all ages and was initiated in British Columbia (BC) in 2005 through a New Initiatives Fund proposal. Its work is supported by Emergency Management British Columbia, the BC Search and Rescue Association, the Search and Rescue Volunteer Association of Canada (SARVAC) and the National Search and Rescue Secretariat (NSS).

AdventureSmart was welcomed with open arms in BC and with this type of acceptance and support, the program flourished and continued to grow from 2005-2010. The enthusiastic, highly skilled and dedicated staff that has been a part of the BC AdventureSmart teams over the years has successfully operated the program for 10 seasons, with great strides taken and many goals reached. The communities throughout BC expressed deep gratitude for the facilitators of this program, with regards to their attention to detail, consistency and professionalism.

Well over 100,000 children and adults have received one of the programs at their schools, outdoor clubs, ski hills, camps and recreation centres on the West Coast. Each season,

these groups sought out the program exposing participants to this important safety message and encouraging them to be better prepared for outdoor activities. Participants, young and old, were educated about personal responsibility outdoors, which in turn assisted AdventureSmart and SAR volunteers in ensuring safer outdoor adventures.

Going National

The NSS recognized the success of AdventureSmart and nationalization of the program is underway. This has widened the scope of the program by partnering with SAR volunteers across the country to try to reduce the number and severity of SAR cases in Canada.

In the fall of 2009, over 140 experienced SARVAC members, representing all provinces and territories, attended a national training workshop in Toronto, where they were trained in disseminating the AdventureSmart message and delivering the program. Since then, these trainers have been busy within their communities, organizing local workshops and training other SAR volunteers as presenters. There are now over 565 trained and qualified AdventureSmart presenters in Canada who have already reached over 14,000 participants.

These presenters have not only increased outdoor safety knowledge, but they have also created a higher level of awareness of the AdventureSmart initiative. The presentations encourage Canadians to take more personal responsibility with regard to trip preparation and planning, as well as recognize individual and group limitations.

Programs

AvendureSmart is committed to encourage people to get informed and go outdoors, by following three easy steps:

- Trip Planning (Write a trip plan before leaving and give it to a friend or family member)
- Training (Obtain the skills and knowledge you need before heading out)
- Ten Essentials (Carry the ten essentials and know how to use them)



Currently, AdventureSmart consists of three programs with more to follow. These programs are:

Hug-a-Tree and Survive Program

This presentation is targeted at children from kindergarten to grade 6 and provides them with the knowledge and skills to survive in the wilderness if they get lost.

Topics include:

- How to avoid getting lost in the woods
- · What to do if you do become lost
- · How to avoid harm
- · How to help searchers find you

Survive Outside Program

This presentation is aimed at people aged 12 to 99 years, and is adaptable to all skill levels.

Topics include:

- · SAR information
- · The Code of Responsibility
- The 3 Ts: Trip planning, Training and Ten Essentials

Snow Safety Education Program

This presentation is aimed at children in grades 4-6.

Topics include:

- · Ski hill safety and signage
- · Alpine Responsibility Code
- "Out of Bounds" hazards and backcountry preparedness for riders
- · Avalanche awareness
- · Basic snow science
- The 3 Ts: Trip planning, Training and Ten Essentials

We would like to thank all SAR volunteers who have committed their time and energy towards such a pro-active program. May we all continue working together across the country, reaching communities far and wide and making a difference!

Sandra Ferguson volunteers as the AdventureSmart Coordinator for the province of British Columbia. She also assists with national training, coordination and program delivery. She took the Outdoor Recreation Management program at Capilano University in North Vancouver and has always enjoyed educating others.

World Record Lifejacket Inflation kicked off Safe Boating Awareness Week 2010



By Ted Rankine, Canadian Safe Boating Council

El Nino was predicted to make this year's spring and early summer hot and dry. That meant that recreational boating was set to be bigger than ever, and this is why the Canadian Safe Boating Council (CSBC) worked extra hard at this year's Safe Boating Awareness Week (SBAW) to remind boaters about boating responsibly.

The CSBC, along with their members, government agencies, non-profit organizations, for-profit companies, media outlets and individual volunteers, have managed the SBAW since it was first organized back in the early 90s. Since then, the campaign has made its mark on the Canadian boating public through a combination of national media outreach and volunteer efforts at the local level.

2010 Campaign

The 2010 SBAW was held May 22-28, which coincided with the May 24 weekend, the unofficial start of summer and launch of the boating season. It is also a time when Canada experiences its first significant number of seasonal boating accidents.

Five key messages were promoted during the week; the importance of wearing a life jacket, don't drink and boat, take a boating course, vessel and operator preparedness and cold water risks. As with previous years, the Transport Canada Office of Boating Safety provided financial resources to the 2010 campaign.

Two regional launches were held for SBAW, in Toronto and in Vancouver. Attendance at both was strong with both the public and the media showing up in large numbers to see the latest in boating safety gear and learn about boating safely and responsibly from the experts.

Each year, the CSBC works with local volunteers to lend a hand and help with the SBAW campaign. The volunteers' role is to dedicate some time in their local area communicating with the local community newspapers, radio and television stations to get them on board and help promote responsible boating behaviour to their audience. Local media is usually very receptive to carry safe boating messaging. To inform local volunteers about what is required, the CSBC utilizes a Volunteer E-Guide located on the CSBC Safe Boating Awareness Week web site (www.csbc.ca). On the Web site, there is also plenty of information to be disseminated to the media in the form of radio/TV public service announcements and print articles.

Local safe boating events held by agencies or groups during the Safe Boating Awareness Week are published on the Web site, which is informing visitors about the 5 Ws...the Where, When, Who, Why and How of the event, to provide an opportunity for local media or others to participate in the events.

World Record Attempt

As a pre-launch event this year, the CSBC and SmartBoater.ca worked together on a world record attempt. On May 20, 2010, at 11 a.m. EDT, boating safety stakeholders gathered all across North America to establish a World Record Life Jacket Inflation. The National Safe Boating Council organized the American portion of the event. The Toronto and Vancouver local launches provided a particularly strong turn out, along with other local life jacket inflations across Canada and the United States.

The purpose of the event was to raise public awareness of the importance of wearing a lifejacket and of general boating safety practices. In Canada, the CSBC used the platform as the launching pad for their new SmartBoater.ca Web site. Local inflations were led by marine enforcement officers and boating safety educators who engaged politicians, the media and the public to participate.

To document the inflations of this World Record event, pictures and videos were taken by the local event coordinators and posted to the www.readysetinflate.com Web site. The Web site will also include details on inflation, repacking, annual inspection and general care of an inflatable life jacket, along with additional material about inherently buoyant jackets.



Each registered venue provided a tally of the number of individuals who participated along with their picture proof. Once all of the numbers will be added, the World Record Inflation number will be posted to the Web site. Currently, there is no world record in that category so the benchmark will be set in 2010 and it is expected that this will be the first of many more annual events to come.

Next year's campaign is months away, but the CSBC is already inviting people to step up and volunteer for 2011. With local help, and local campaigns, we can make a difference and reduce unnecessary deaths and search and rescue missions on Canadian waters. For more information about becoming a Safe Boating Awareness Week volunteer, send an e-mail to ted@smartboater.ca.

Ted Rankine is a video/communications professional specializing in the creation and execution of safety programming. He is the president of Play Safe Productions and a past chairman and active member of the CSBC.

SAR NEW INITIATIVES FUND

The Safest Catch Program Launched in BC

By Gina Johansen, Fish Safe Program Manager

The goal of all programs developed by Fish Safe BC is to help ensure that every fisherman comes home safely. In this spirit, Fish Safe BC has developed a new three-year program called *The Safest Catch*. This program, which was made possible in part through the financial support of the National Search and Rescue Secretariat's New Initiatives Fund, was created for implementation across Canada and is being piloted in British Columbia (BC).



Safest Catch advisors with coordinator John Krgovich.

The Safest Catch program has three main objectives. The first objective of the program is to train fishermen as mentors, who will, in turn, use their new acquired skills and their experience to teach other fishermen how to make safety an integral part of their commercial fishing business. Another objective is to enable fishermen to take ownership and responsibility for on-board safety. Both of these objectives, when executed successfully, will contribute to the third objective, which is to reduce the number of search and rescue distress calls from fishing vessels.

Program Development

Experienced fishermen are trained as Safety Mentors to work oneon-one with fishing vessel owners, skippers and crew members, and to help develop vessel-specific safety procedures. A multi-media fishing vessel safety toolbox was created, containing the Safe at Sea Procedures Guide, the Safety Quik Emergency Drills Guide, and the Safest Catch DVD, which features fishermen across Canada applying safety procedures on board. This DVD is used as the inspiration to get fishermen involved in the Safest Catch program. The Safe at Sea Procedures Guide is an interactive CD that assists them in creating an on-board safety procedures manual. This CD contains many fishing safety references, regulatory information, a template and samples of safety procedures manuals, all of which will help fishermen better organize their own on-board safety program. The Safety Quik Emergency Drills Guide is a hands-on "how to" guide for creating an on-board safety orientation and drills plan. This guide has been adopted by Transport Canada and will be included on its list of safety publications. Other tools found in the toolbox include a Vessel Damage Control Kit bucket, a Vessel Safety binder, and a Safest Catch decal.

How does this all come together?

Collaboration with all safety agencies was required to put together the comprehensive training program for the fishermen mentors. Transport Canada provided seminars on certification and inspection, and WorkSafeBC, the Canadian Coast

Guard and the RCMP did likewise by explaining their regulatory roles. Mentors received safety orientation training, as well as mentoring skills and communications training. Coupled with their active background in commercial fishing, these trained mentors become the key resource in pulling all the tools and resources together and in providing guidance to their fellow fishermen on formalizing their own on-board safety program.

After completing the training of the fishermen advisors (they prefer to be called advisors rather than mentors as they felt it put them more on an even keel with their peers), we launched The Safest Catch program in October 2009, and the uptake by the fishing industry in BC has been overwhelming.

Program in demand

Over 40 fishermen, with vessels ranging in size from 30 to 220 feet, have engaged in the vessel visit component of the program, and many others are awaiting their opportunity. A typical vessel visit takes two days. During this time, a well scripted step-by-step approach is undertaken by the advisor, starting with the joint development of goals and objectives with the vessel operator. With each step, the advisor links together the tools and activities by reinforcing and respecting the participant's experience and recognizing his/her existing safety program. The advisor notes the importance of documenting their vessel's program on a muster list in the safety manual, and then pulling it all together by implementing realistic drills. At the end of the vessel visit, the advisor reviews the objectives and makes sure that the vessel operator and his crew feel comfortable and have the skills to create their safety manual and drills program. Most importantly, the advisor ensures that safety has become more integrated into their everyday operations.

Results so far have been extremely positive. The Safest Catch Program Coordinator, John Krgovich, noted that on every vessel we visit, the fishermen have been able to find value in our program. An example of this is when a crew performs a man-overboard drill, finds that its rescue ladder does not reach the water and that its life ring retrieval line is so badly tangled it is rendered useless. At first, the incident seems comical; however,



the mood quickly changes when they realize that someone could have been lost because of the faulty safety gear. After running drills, the vessel owners quickly note the need for new equipment, crew men discuss things like the appropriate location of safety equipment or note changes that they want to make to their drills, and everyone appreciates the new tools and resources provided by the Safest Catch program. The awareness of the value of this program is quickly resonating throughout the fleet. On a trip to the town of Powell River, BC, while working with a group of fifteen vessels, the advisors were stopped by other fishermen who asked, "When can we sign up for a vessel visit?".

This program is not just about ensuring that fishermen comply with regulatory requirements. The Safest Catch Program is about changing attitudes and behaviour with regard to safety so that regulations can become an auditing tool and not the only catalyst for on-board safety.

With this program, fishermen will ultimately be better prepared to deal with an emergency situation and make it their business to come home safely.

Gina Johansen, Fish Safe Program Manager, has an extensive background in project management and marketing. Her background as a third generation commercial fisherman, and the unfortunate loss of her father and uncle in the capsizing of a fishing vessel, have given her the motivation and insight to develop common sense safety programs for her peers in the commercial fishery.

Right Pack for your Back

The National Search and Rescue Secretariat, its partners and the Government of Canada do not necessarily endorse the opinions or products featured in this article. They are submitted for information purposes only.

By Dr. Emily Roback, B.Sc., D.C.

My favorite mode of travel is not by train, bus, car, or plane, but by placing one foot in foot in front of the other in a perfectly synchronized manner. With comfortable steel-toe orthotic boots (CSA approved), a solar pack, and an organized ground search, this form of travel is priceless. Eyes have time to focus on the surroundings; ears decipher many unique sounds; and noses smell scents that may alert to potential dangers, whether it be a bear hidden in the bush, smoke, or a distinctive odour of a fox's lair. Hiking or tracking for a ground rescuer is what gets him or her to the lost or injured people.

When your pack and gear are light and efficient, you feel comfortably mobile. If you are trekking through the underbrush on your way to rescue someone, you may have the desire to return to investigate and enjoy the surroundings at another time. But, if your gear and pack are heavy and bulky, you will never be a happy rescuer. Consumed with the singular demand of transporting your burden to its destination, the only thing you will experience is the ground in front of you.

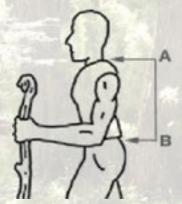
It can be quite difficult to find the perfect backpack. In fact, Tim Standley, a high-angle rope-rescue instructor with Equinox Adventures, has lead four international deployments into disaster affected zones and has not yet found a comfortable pack that will satisfactorily handle the necessary rescue gear or weight.

Effects of a heavy backpack

According to Attwells et al (2006) "The backpack is one of several available forms of manual load carriage that is often used by the military and navy." There is a

tendency for the load to increase as advancements in technology require the pack haulers to carry more gear. The main biomechanical effects of load carriage include a forward lean, increased knee flexion (aka bending), and fallen arches. These changes often lead to muscle tension and fatigue, perhaps exacerbating the potential for injury. With this in mind, bearing a loaded pack should feel as though your body has become somewhat heavier; however, it should not feel as though you are shouldering a sumo wrestler! If the suspension system is doing what it is supposed to do, most of the pack's weight will be comfortably transferred to your hips.

As a chiropractic doctor and SAR volunteer, I recommend the following tips on finding your ideal pack size and fitting based on your back length:



To find your back length, have a friend measure your spine. Find the most prominent vertebrae at the back of your neck. It is the large bump at about the same level as the top of your shoulders (A). Find the top of your hip bones. Follow this point around in a line to your spine (B). Lay measuring tape directly against your spine and measure the distance from A to B. Put the pack on, place the hip belt directly over the hip bones. Snug in the shoulder straps. The strap ends should be no more than four inches from your armpits. The bottom of the pack should be no more than two inches below the waist.

Feet and back pain

It is not uncommon to hear search and rescue professionals grumble about their shoes, packs, and back pain! Usually this is less the fault of the manufacturers and more the fault of improper shoe and backpack fitting. Backpacks have numerous dangling appendages, such as shoulder straps and hip belts, which have the uncanny ability to be chewed to bits due to intensity of use. Top-loading. internal-frame packs are most efficient for packing gear into the smallest possible space and delivering the maximum walking freedom. For shoes, choose the model that fits your foot like a glove and supports the arches. Even the slightest toe pinch can send you off to the emergency room within twenty-four hours. Many medical conditions often stem from a biomechanical gait abnormality that can be treated with custom orthotic boots (CSA Approved). If you find that you have chronic complications that will not subside, it might be time to have a chiropractor or podiatrist check your feet.

Dr. Emily Roback is the founder of www. chirotrek.ca and the Roback Solar Pack. Her private practice focuses on sport performance and rehabilitation, integrating chiropractic, massage, and exercise. Dr. Roback can be contacted at roback@doctor.com and/or 1-866-960-8641 ext. 02.

References:

Attwells, R. et al., 2006, Influence of carrying heavy loads on soldiers' posture, movements and gait.

Ergonomics. 49, 1527-1537.

Roback, E. The effects of backpack type and positioning on standing posture in boys. *Unpublished*

Undergraduate Thesis (Kinesiology), Laurentian University, Sudbury, ON. 2001.

Standley, Tim. Electronic Interview and Conversation. Equinox Adventures. 27 Jan 2010.