

BOTTOMTIME

The Newsletter of The Nova Scotia Underwater Council

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ANNUAL GENERAL MEETING
June 24, 1995 at the Fisheries Museum in Lunenburg
Board meeting in the morning and AGM
plus guest speakers starting at 1 p.m.

FREE SCUBA REFRESHER COURSES
YES FREE !!! - SEE PAGE 2

1995 MEMBERSHIPS ARE DUE

PRESIDENTS REPORT:

It is getting to be the time to clear out the spiders, knock the cobwebs off of the dive equipment and take them to your friendly dive shop to give them a pre-season check. Watch for the free spring tune-ups, being held by a number of the shops, coming up in the next few weeks. These are being sponsored by the NSUC and are free to members and non-members alike. Ask your local shop if they are participating.

New Special For Member Clubs. As a pilot scheme until March 96 if a club joins the NSUC as member club

their members will be offered an NSUC membership for \$5.00

Lynn Gallant and I met with Mr. Robert Ogilvie (Curator of Special Places). The lines of communication have been re-established and may benefit all divers in Nova Scotia. Some possibilities are club involvement on surveys and shop involvement on diver education pertaining to wreck management.

Our AGM will be in Lunenburg this year on June 24th and hosted by South Shore Tourism. This is still in the planning stage but it looks like there will be other events to make a weekend of it. There will certainly be a dive on the Saguenay on the Sunday and a night dive possibly on the Friday. WATCH FOR MORE IN THE UPCOMING BOTTOMTIMES.

Depending on our funding from the Sport and Recreation Commission we are hoping to offer money to member clubs to underwrite the cost of oxygen kits or oxygen courses. Details to be released at a later date.

The Nova Scotia Scuba Association has just published their first news letter, and it looked good. We hope to have some dialogue with them in the near future to enable us to work together for the good of the Nova Scotia sport diver.

We often get asked what do you get for your membership dues? Some answers include - liability insurance for those of you that belong to a member club, subscription to the Bottomtime 6 times a year, reduced prices for entry into NSUC events such as the Sea Hunt, sponsorship on selected safety courses and access to the video library. On initial membership you will receive a hyperbaric decal, emergency card, dive slate and NSUC pin while quantities last.

Remember, if you have trouble with the local residents at your dive site please be polite. Contact your area director or myself and one of us will endeavor to liaise with the residents and sort the problem out.

The Aims and Objectives of the Nova Scotia Underwater Council

1. To be a representative body for the scuba diving community so as to preserve, support and promote diving and diver safety in the province;
2. To ensure that training programs are given to a recognized level of quality, to foster and encourage the safe handling and usage of all approved types of equipment used in the sport of scuba diving;
3. To make available to all members information concerning safety, medical, technical and research data concerning the sport of scuba diving and scuba diving equipment;
4. To co-operate and participate with the provincial government on projects and policies that lead to the recognition of sport diving as a significant recreation activity.

UPCOMING EVENTS

Divers World - Special Events

902-876-0555 or 1-800-616-3483

Free Scuba Refresher courses: (1 evening)

- May 17, May 24, May 31, June 7

Location: Dalplex pool, (pre registration required)

Enriched Air Nitrox Basic Course:

(course duration 1 day or 2 evenings plus 2 dives)

- June 03 (Saturday - dives on Sunday)

- June 27 & 29 (Tues & Thurs evening, dives Sat.)

- July 3 & 5 (Mon & Wed evening, dives Sat.)

- July 22 (Saturday - dives on Sunday)

Basic Underwater Photography - tentative starts:

- June 5 (Mon & Thurs nights)

- June 24 (Saturdays)

DIVERS WORLD - ONE DAY SALE, MAY 27

U.S. Divers Treasure Hunt - June 18, 1995

GET WET '95

July 16th, 1995. The Owen's Natural Park, Bayport. Fifth Annual Scuba and Snorkel Festival.

THOUSANDS OF \$\$\$\$\$\$ IN PRIZES

- Buoyancy and navigation competitions.

- Treasure Hunt.

- Barbecue.

- Assisted boat dives.

- Dive charters.

- Tent sale.

- Equipment trials.

- Snorkel excursions.

- Air Fills.

- Charity dunk tank.

Diving is also available on July 15th. Prize draws and competitions will be held on July 16th. Local camping should be reserved well in advance.

1-800-JO-DIVE-1

NEW DIVE CLUBS

BE YOUR OWN DIVER - BE A SEA DOG !!!!

A non-profit assoc. promoting diving and diving awareness in the South Shore and surrounding areas. The Sea Dogs will keep you involved and informed about dive activities in your diving community with:

- ♦ Organized Dive Events. ♦ Employment & training opportunities. ♦
- ♦ Equipment & photo seminars. ♦ Naturalist lectures. ♦
- ♦ Local charter and dive shop discounts. ♦ Winter Travel Packages ♦
- ♦ Local Weekend dive excursions. ♦

\$25.00 Individual - \$40.00 Couple - \$ 50.00 Family

The N.S.U.C. Lending Library

1991 Sport Diver Open Water Vol. 1, Pts 1 & 2 Video
Contains: Using Skin Diving Equipment
 Using Scuba Diving Equipment

Sport Diver Open Water Vol. 1 & 2, Pts 1 & 2 Video

Buoyancy / Out of Air, Pts 1 Slides

Rescue / Accident Management, Part 1 Slides

Rescue / Accident Management, Part 2 Slides

Dive Promotional Programs Slides
Audio Tapes for Above

Underwater Louisbourg Video

Louisbourg's Marine Heritage Video
Part 1 - English / Part 2 - French

Underwater Hockey Video

Hyperbaric Video, (VHS or BETA format) Video

Sport Diver Advanced Vol. 1, Pts 1 - 3 Video
Contains equipment, boat diving, U/W navigation

Neal Watson's Undersea Adventures Video

Australia - Discover It Video

Dive Nova Scotia Series Video
Part 1 - Dive Nova Scotia
Part 2 - Dive Nova Scotia continued
Part 3 - Wreck Diving

All videos are VHS unless otherwise stated. Lending Policy
- There is a \$10.00 deposit for each item borrowed (except
audio tapes needed for the slide presentations). The deposit
will be returned within 21 days of shipping from N.S.U.C..
All costs incurred in shipping payable by the borrower.

Contact: Mike Haynes at Sport Nova Scotia
 5516 Spring Garden Road.
 Halifax, NS

Or by calling 425-5450

**The BOTTOMTIME is
printed with the assistance
of SPORT NOVA SCOTIA**

Instructor List

1.	Dave Allen	464-4091	
2.	Austin Baird	492-2653	***
3.	Noel Battcock	876-0555	***
4.	Craig Boudreau	742-6527	
5.	Forbes Cavanagh	742-5554	
6.	Mike Chambers	454-4296	
7.	Ches Chaulk	765-8527	
8.	Sheilagh Condry	423-5783	
9.	Darin Connors	479-1630	
10.	Carol Draper	757-2149	
11.	Gary Edwards	883-9392	
12.	Kevin Ernst		***
13.	Gary Field	479-2981	
14.	Aaron Flynn	461-2855	***
15.	Tim Gay	835-6565	
16.	Ken Jardine	562-6061	
17.	T. Kenchington	889-3555	
18.	Roland Lewis	562-2457	
19.	Rob Mack	860-0684	
20.	Dwayne McLaughlin	798-8862	
21.	Gordon McVicar	564-4863	
22.	Roland Morrison	463-3796	
23.	Chuck Musial	852-3994	
24.	Carolyn Smith	466-8715	
25.	Tim Oickle	634-3443	
26.	George O'Neil	564-5671	
27.	Lorne Piercey	429-8265	
28.	Mario Plata	457-1641	
29.	Donnie Rogerson	835-8833	
30.	Don Saunderson	420-1230	
31.	James Simple	876-0555	***
32.	Joanne Shadbolt	634-9190	
33.	Bob Smith	462-0738	***
34.	Dale Smith	275-4471	
35.	Ralph Tomilson	634-9466	
36.	Russel Warren	567-2055	
37.	Sean Wilkie	634-3443	
38.	Tony Beare	742-2626	

*** These numbers are unconfirmed at time of print.

N.S.U.C. Items for sale - Excellent Deals

Hyperbaric Video	\$20 + \$2 s&h
Cloth Crests	\$8 + \$1 s&h
Passport To Diving	\$3 + \$2 s&h
Emergency Card	\$1.50+ \$1 s&h
Hyperbaric Decal	\$0.75+ \$1 s&h
Dive Slate	\$2.50+ \$1 s&h

*Note - The shipping and handling barely covers
the postage*

UNDERWATER CANADA '95

by Roland Morrison

Underwater Canada is billed as the "largest consumer dive show in North America". With an attendance of over 30,000, 29 free symposiums, 16 workshops, film shows on three different days, an acre of exhibits, and hosts of training agency and dive business meetings and seminars, the show certainly lives up to its reputation.

The show has been held in the Regal Constellation Hotel, near the Toronto Airport, for the last several years. With large halls, a swimming pool, a huge ballroom, an enormous show area, and several workshop-sized salons, the hotel provides a top-rate facility for the show.

Several manufacturers and dealers hold their own seminars and clinics just before and during Underwater Canada. One of these was the Visual Inspection Program offered by the Ontario Underwater Council (OUC), which began at 2:30 PM on Thursday, April 6. Nova Scotia was well-represented with three employees from Discover Diving of Bedford, and myself in attendance.

The course covered scuba tank fabrication, reading tank markings, the different alloys and metals used and the weaknesses of each, detection of hairline cracks, pin-hole leaks, and unacceptable pitting, tank cleaning and legal requirements for compressed gas cylinders. Eleven tanks and cut-away tanks were provided for visual inspection, giving the course an important hands-on component.

One problem with Underwater Canada is that there is so much offered at conflicting times that hard choices have to be made. My first such choice was Friday morning, when I opted for the Field Neurological Workshop instead of the DCIEM Tour and Scuba Regulators Fundamentals. There were even other courses I would have liked such as Comprehensive Underwater Photography. Lifeguard Systems, the presenter for Field Neurological, has an international reputation for dive rescue techniques, and the brochure write-up was compelling.

This was a full-day course costing \$125.00, a 60% discount from the standard \$US250.00. It really was eye-opening. For instance, I had never thought of the valsalva method of equalizing as a potential risk activity for lung over-expansion injury. Lifeguard Systems also challenged other concepts of conventional diving wisdom, giving their own common-sense suggestions to prepare divers for the reality of the diving environment.

The Exhibit Hall opened Friday evening at 7 PM, as did the first film show, featuring works on treasure salvage, wreck diving, sharks, manatees and cave diving. Some prizes were

awarded to attendees. Unfortunately, I missed the show as I had another conflict. A NAUI Instructor Trainer Workshop (ITW) was scheduled at Diver Down in Toronto, and this was my priority.

Saturday featured 27 free 45-minute symposiums, including three lectures in French. These covered four main topics: "Ships in the Sea", "Potpourri" (wildlife encounters, flying after diving, underwater beauty, etc.), "Travel/Adventure", and "Leadership". Again, I had conflicts and was only able to take in two symposiums. Both were packed to overflowing, and both were professionally presented. As I had free time between 4:30 PM and 7:30 PM, I finally made it into the Exhibit Hall.

Nova Scotia was represented by booths from Aqua Dive Travels (Windsor, N. S.), Vollmer's Island Paradise (Cape Breton) and Eco-Nova (Halifax). Although there were tons of traditional suits and gear on display, what really caught my attention were the high tech exhibits, such as re-breathers and mixed gas apparatus. Indeed, I learned that IANTD (Int'l Assoc. of Nitrox & Technical Divers) will soon be affiliated with two or more N.S. shops, so Nitrox diving will be offered in N. S. I ran through the Exhibit Hall in two hours, but a proper tour would have taken four hours or more.

The International Film Show was scheduled to commence at 8 PM sharp, with doors opening at 7:30 PM. Doors actually opened around 7 PM, so when I entered the hall at 7:40, the front two-thirds of the ballroom was already full. The film screen was raised and the sound was excellent, but because the ballroom had a flat floor, I was never able to see more than the top two-thirds of the screen (and less, depending on the movement of the heads in front of me).

Phil Nuytten, inventor of the Newt Suit, and a well-known Canadian commercial diver, was the MC. He also exhibited his own tongue-in-cheek piece about the development of a shallow water (100 meters or less) suit. The films were great, and it was special to have the producers or film makers give personal comments on the making of their films. It was somewhat amusing to hear the collective gasp from the audience when one cave diver had to wriggle through a narrow opening, several hundred meters into a cave system.

I was disappointed that Dr. Robert Ballard, discoverer of the Titanic and the Bismarck, did not show up as previously advertised, but the remaining films and speakers were excellent. There was also a sensitive tribute to the late Marjorie Banks who contributed so much to diving.

The film show ended around 10:30 PM, which was about all my rump could take from the hotel chair. My neck was also

giving me trouble signals from all the craning. With the popularity of this event, I would recommend that the organizers look at hiring a proper theatre next year. Although a dance was included in the \$20.00 admission, at least half the audience seemed to call it a night when the show ended.

Sunday's program included four symposiums, several workshops, and a Sunday Matinee Film Show. With the closure of the Exhibit Hall at 3:30 PM, Underwater Canada was officially over for 1995.

The OUC has hosted Underwater Canada for more than twenty years, and they have refined the show to a fine science. The program meets the needs and interests of divers, dive leaders, and the dive industry. In fact, one training agency accepts attendance at the show as a continuing education credit for dive leaders. With the show's popularity, however, the Constellation, large as it is, may no longer be adequate by itself to handle the crowds that attend. Mark your calendar for the last weekend of March, 1996, so that you can attend North America's largest consumer diving event.

LETTER TO THE EDITOR, #1

Dear Sir,

First of all, congratulations to Lynn Gallant on another well run Sea Hunt. I noticed she publicly acknowledged various other people who had helped but not herself of course and as the prime mover of the event she deserves the greatest acclaim. The main purpose of this letter is to bring to your attention a shocking example of bad behaviour that I heard about when our group went to the Acadian Campground at Arichat for a weekend of diving the Arrow. A week or two previously another large group of metro-area divers had behaved so drunkenly over their campfire that other campers had become frightened even to visit the washrooms.

Flares were set off (remember what a dry summer it was) foul language and raucous noise disturbed the night. Eventually the campground owners, Mr. and Mrs. Davenport, had to call in the single area RCMP officer who stayed on the scene till lam when at last the divers retired to their tents. (Could they have been fit for diving at daylight?)

When Mr. and Mrs. Davenport realized that another group of divers (ours) had reserved space for the Labour Day weekend, not recognizing the name the group was reserved under, they considered cancelling the reservation. Luckily they first phoned the boat owner with whom I had made a reservation and since both he and the Davenports know me quite well they were relieved of worry and welcomed us for a good weekend of diving.

Too many incidents of this kind have occurred recently. We know who the perpetrators are, brash young know-it-alls who have not learnt the responsibility of adulthood. It behoves all dive shops to teach the etiquette of diving as well as the skills or we may all find ourselves banned from the facilities.

We might even be banned from the water. While we were diving the Arrow that weekend, another large group of divers was also there and one of their number removed one of the brass plates that hold in the remaining crude on the ship.

Fortunately this diver realized what he had done and quickly replaced the plate though not before a fair bit of oil had come out. But who was the dive leader who did not warn that those plates must not be removed? That incident caught the attention of DFO - did you see the stern warning in the Chronicle Herald recently? A total ban on the Arrow and heavy fines are threatened.

Our Sport is still a mystery to many Nova Scotians and it is up to us to make it a fascinating mystery they want to know more about rather than an annoying disruptive mystery that angers them.

Jane Biggs

EDITORS NOTE:

Spring finally seems to be making its presence known. From what I hear, the water is even warming up. Remember, if going on a first dive after the winter months, thoroughly check out your equipment for hydro/visual dates, etc. Regulators, valves and BCD's should also be serviced. Spring tuneups are scheduled at various pools, see the ad later in this newsletter.

I received two letters to the editor for this issue. The newsletter needs more input from you the diver. As a representative body, the NSUC needs to know your concerns and what you want from the organization. I have been involved with the organization long enough to know that it is difficult for a few volunteers to address all the issues of the diving community, it is impossible to address issues the Board knows nothing about. If you do not have a few hours a month to volunteer for a Board position a few minutes to phone or write would result in your idea being known. The newsletter is also a forum to openly discuss diving related issues and not only let others know your views, but to learn from others as well.

Again, due to work commitments, I must apologize for getting this newsletter out so late. The next issue will be out on time, about May 15th.

NITROX - What About It? The Facts !!!

(Reprinted from a fact sheet on Nitrox by IANTD.)

What Is Nitrox?

Nitrox is any combination of nitrogen and oxygen. You have been breathing Nitrox since the day you were born. The air that we breathe is comprised of approximately 21% oxygen and 79% nitrogen. Nitrox mixtures with percentages of oxygen greater than 21% are called Enriched Air Nitrox (EANx). The commonly used EANx mixtures are EAN 32 (32% oxygen/68% nitrogen) and EAN 36 (36% oxygen/64% nitrogen). Special user friendly decompression tables for these EANx mixtures are available in a waterproof format.

Who Uses EANx?

EANx was first used in 1912 and has been used extensively for over thirty years by commercial organizations and the military. It has also been used in the medical field as a therapy gas. Advanced level divers have been taking advantage of EANx for cave diving, wreck diving, marine harvest and many other diving applications. More recently, EANx has been recognized by national Scuba diving certification agencies as an alternate breathing gas for recreational diving.

Isn't It For Deep Diving?

Many divers mistakenly believe EANx is used only on deep dives. Actually, the ideal range of EANx is between 40 feet and 130 feet, the standard recreational depths.

What About Oxygen Toxicity?

As a certified air diver, you were taught how to monitor your nitrogen uptake by utilizing a set of dive tables. The deeper the depth, the shorter the amount of allowable no-decompression bottom time available due to nitrogen accumulation. The same principle applies to oxygen at deeper depths. The greater the depth, the shorter the bottom time. Oxygen toxicity (on air or Nitrox) usually comes into play deeper than at the standard recreational depths of 40-130 feet. EANx dive tables provide a reliable, conservative, and easy way to dive between 40-130 feet, while taking advantage of EANx benefits.

What Are The Benefits Of EANx?

EANx diving has many advantages over air diving. Some of the benefits are: 1) EANx, when used with standard dive tables or computers, provides a tremendous safety factor. In fact, when utilized in this fashion, the actual nitrogen accumulation is that for a 10 to 20 feet shallower dive. This application of EANx is actually ideal for divers who simply wish to be more conservative, those individuals who are not as young as they once were or those who may not be in the peak of physical fitness; 2) A significant increase in bottom time no-decompression limits; 3) A reduction of the possibility of decompression sickness; 4) A slight reduction in nitrogen

narcosis; 5) A reduction of decompression time if the no-decompression limits are exceeded; and 6) Reduced fatigue after the dive (declared by many EANx divers).

I Keep Reading That Nitrox Is Risky. Is This True?

Some of those who question the use of EANx lack the certification, experience, and complete knowledge to competently write and report on Nitrox's recreational use. With proper training the risks of EANx diving are similar to air diving. Both have strict depth and time limitations. The treatment of Decompression Sickness (DCS) in recompression chambers is also similar with both EANx and air.

Aren't There Special Equipment Requirements For EANx?

Your standard scuba gear can be used with EAN 32 and EAN 36. (*Depending on how each shop fills EANx tanks, O2 service cleaning may be required*) Tanks for EANx use are color coded, and dedicated. See your International Association of Nitrox and Technical Divers (IANTD) professional for further information.

Where Can I Get EANx?

EANx is available at many locations throughout the U.S.A., Europe, Bahamas, Australia, Caribbean, Austria, Venezuela, and Canada. Contact IANTD World Headquarters for a complete listing of facilities that provide quality EANx training and EANx fills.

Do I Have To Be Certified To Use EANx?

Yes! IANTD instructors and facilities offer a full range of continuing education courses beginning with EANx Diver. You will want to continue your EANx education with Advanced EANx Diver, EANx Technical Diver, EANx Cave, EANx Wreck, EANx Overhead Environment, Trimix Diver, and more.

For more Information, Contact Divers World Nova Scotia's newest Nitrox Facility offering: I.A.N.T.D. and T.D.I. Certifications in Nitrox

CONTEST ! **WIN - WIN - WIN**

Win a 1996 membership to the NSUC !!

Submit an article to the BOTTOMTIME. It can be either an "I learned from that: or a "best Nova Scotia dive experience". All entries to be published and contest closes December 95.

LETTER TO THE EDITOR.. #2

Dear Sir,

Did you see the excellent article in the Jan 27th issue of Daily News, written by Grant MacLeod? What an eminently common sense piece of writing. I am all for protecting historically significant ship wrecks, but when the iron and steel wrecks in Nova Scotia waters are old enough to be called historical, most of them will still be no more significant than the wrecks in your local salvage yard. Man made objects have been too well documented for the last many decades for twentieth century junk to be significant.

20 years ago Jacques Cousteau began a world wide campaign against spearfishing because, he said, spear fishermen in the Mediterranean were depleting it of its fish. That may have been true of the Med. but many Nova Scotia divers jumped on the band wagon and spearfishing here became "an awful thing to do." No mention of rod and reel fishing or scallop gathering (or commercial trawling and dragging for that matter) just the spearfishing was a menace to fish life! There was great debate for several years while those that thought for themselves quietly continued to spear the occasional supper. Eventually common sense had its turn again among Nova Scotia Divers.

I have been watching the great ship wreck debate in recent year with the falling into disrepute of souvenir collecting of any kind. What a hopelessly foolish notion. With Grant's article perhaps we are finally on our way back to the common sense approach to the protection of historically significant wrecks.

Jane Biggs

WRECK DIVING, by Jared Rainault

The rocky coast of Nova Scotia has long been claiming ships from the sea. From the distant times when men first sailed these shores until the present, ships have foundered in North Atlantic storms, or ran aground on fog-enshrouded shores, often with great loss of life. The S.S. Atlantic was one such ship. Owned by the White Star Line, she was a 426 ft, 3390 ton, 4 masted steamship. The masts could be fully rigged for sail as steam

engines in that period were notoriously unreliable. During a crossing from England to New York, the ship ran into three days of heavy weather. Captain James A. Williams decided to put in at Halifax to replenish his dwindling coal supplies and set a course for disaster.

At about 3 am on April 1, 1873, the Atlantic struck the shore of Mosher Island. The first large wave to hit the ship swept away the boats on the port side. As she heeled over to the starboard, the severe list rendered the boats on that side unusable as well. The quartermaster swam a line from the bow through the pounding surf and tied it to a large rock on the shore, by which 200 people managed to crawl across to safety.

By 5:30 the first boats had arrived on the scene to lend their assistance. They managed to save a handful of people that remained on board. Unfortunately out of more than 800 people, 547 lost their lives that morning, including every woman and child except one. It was one of the worst shipwrecks ever on the coast.

DIVING THE ATLANTIC, by Jared Rainault

It was a cold day in November when we loaded our gear in the boat to finally dive the Atlantic. Again, there was organized(?) confusion as everyone tried to be the first in the water. Rolling over the side, I descended down a rocky slope to a sandy bottom at 80 ft.

The Atlantic is not recognizable as a ship anymore, 122 years of pounding surf has taken care of that. As I swam around exploring the scattered pieces of wreckage, I couldn't help but think of the over 500 people who died here. I tried to imagine what it must have been like for the survivors, who although terrified, pulled themselves across a thin rope over a thrashing surf, or waiting for rescue as the ship broke up under them.

There are reminders everywhere. My buddy saw an ivory button, embedded in a rock, another diver saw a spoon. There are broken pieces of china everywhere, some with the manufacturers stamp still legible. The boilers sit side by side, slowly rusting away. The sides of them are gone and the interior piping is exposed. As always, the dive had to end, and with regret I surfaced into the cold sunshine.

The Scuba Cylinder Quiz....

The Compressed Gas Association (CGA) in New York publishes standards governing the inspection and testing of compressed gas cylinders. The C.G.A. bases its standards on Federal regulations.

Professional Scuba Inspectors (PSI) also publishes standards for the inspection of Scuba cylinders. PSI bases its standards on the C.G.A., various research facilities and cylinder manufacturers.

While you may not know the exact answers, take your best shot at the following questions. This information can be invaluable to you when handling Scuba cylinders.

1. *High pressure cylinders are those with a marked service pressure of _____ or higher:*

- A. 900 psi (62 bar);
- B. 1,800 psi (124 bar);
- C. 2,000 psi (137.8 bar);
- D. 2,250 psi (155 bar).

2. *True or False: Tapping a cylinder's side with a 1/2 pound hammer is a good indicator of internal corrosion and a convenient test that can be made without removing the valve prior to each filling of a scuba cylinder.*

- A. True B. False

3. *The allowable corrosion depth for aluminum cylinder walls is:*

- A. .030" (.75 mm);
- B. .060" (1.5 mm);
- C. 15% of the minimum design wall thickness;
- D. Either A or C

4. *An area of corrosion on an aluminum cylinder must not extend more than:*

- A. 15 % of the external surface;
- B. 15% of the internal surface;
- C. 15% of the internal or external surface;
- D. None of the above

5. *The allowable depth of pitting for aluminum cylinder walls is:*

- A. .030" (.75 mm);
- B. .060" (1.5 mm);
- C. 30% of the minimum design wall thickness;
- D. Either B or C

6. *The allowable depth and length for an aluminum cylinder wall cut is:*

- A. .030" (.75 mm) deep and 6" (154 mm) long;
- B. 15 % of the minimum design wall thickness and 6" (154 mm) long;
- C. .060" (1.5 mm) deep and 4" (101 mm) long;
- D. Either A or B

7. *The allowable dent depth and diameter for aluminum cylinders is:*

- A. .060" (1.5 mm) deep with a major diameter of 2" (50 mm);
- B. .030" (.76 mm) deep with a major diameter of 3" (76 mm);
- C. .060" (1.5 mm) deep with a major diameter of 3" (65 mm);
- D. .030" (.75 mm) deep with a major diameter of 2" (50 mm)

8. *Aluminum cylinders heated to metal temperatures exceeding _____ must be condemned:*

- A. 350 F (176.7 C)
- B. 475 F (246.1 C)
- C. 550 F (287.8 C)
- D. 625 F (329.4 C)

9. *A high pressure aluminum cylinder shall be condemned if its permanent expansion exceeds:*

- A. 10% of its total expansion;
- B. 10% of its elastic expansion;
- C. 15% of its total expansion;
- D. 15% of its elastic expansion;

10. *The number of cylinders that fail pressure (hydrostatic) testing is:*

- A. About 10 %
- B. About 5%
- C. About 2%
- D. A small fraction of 1 %

11. *True or False: A hydrostatic pressure test must include an internal (separate) visual examination of a scuba cylinder.*

- A. True; B. False;

12. *Cylinder service pressure is the maximum pressure permitted in a cylinder at a temperature of:*

- A. 70 F (21.1 C);
- B. 70 C (158 F)
- C. 100 F (37.8 C);
- D. 40 C (104 F)

13. *Select all true statements:*

- A. Cylinder internal linings, if properly applied and maintained, provide a high degree of corrosion protection;
- B. Cylinder valves should remain closed when cylinders are empty;
- C. Dragging cylinders increases the possible explosion hazard;
- D. Scuba cylinders should be stored in a vertical position.

14. *True or False: The plus (+) sign is not allowed on aluminum cylinders:*

- A. True B. False

15. *The hydrostatic test apparatus for the high pressure testing of scuba cylinders must be approved by:*

- A. Transport Canada;
- B. Consumer Affairs;
- C. Gas Fitters Association;
- D. Provincial / Territorial Dangerous Goods Inspector.

16. *A visual inspection of a scuba cylinder is required every:*

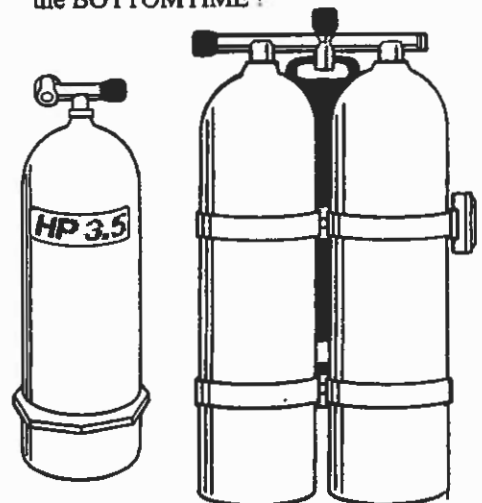
- A. 1 year;
- B. 3 years;
- C. 5 years;
- D. Depends on use

17. *A high pressure (hydrostatic) test of scuba cylinder is required every:*

- A. 1 year;
- B. 3 years;
- C. 5 years;
- D. Depends on use

Reprinted from the Yukon Underwater Diving Association.

Check out the answers in the next issue of the **BOTTOMTIME** !



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NEWS FROM THE LUNENBURG MARINE PARK AND THE HMCS SAGUENAY...

Unrecorded Minutes of a Directors Meeting of the South Shore Marine Park Society. May 1, 1994. HMCS SAGUENAY, Battery Point, Lunenburg, Nova Scotia... *The winter weather is finally breaking. All the pipes in the ship have thawed and there appear to be no more leaks in any of the tanks. The flooding in the engine room that caused the ship to roll over onto the trawlers last month has been rectified; the pine plugs are holding. As far as unanticipated "events" go, this wasn't nearly as stressful as the fire... The power bill for the winter looks like it will exceed 40K. Rick, David, Bill are all occupied at work for the next few weeks and volunteer assistance has dwindled to almost nothing. There appears to be at least three solid weeks work cleaning the bilges in both the engine room and the boiler room, and another week cleaning up and removing the loose materials in the mess and on deck. Environment Canada has no word from Fisheries and Oceans regarding the scuttling application, and the earliest it can go down is June 7. Everyone is getting very tired. National Sea came by today and suggested strongly that we move the ship elsewhere. The volunteer project from hell...*

Time flies when you are having a good time or so they say. A year ago I never would have believed that it would all be completed within two months. The time did fly, the volunteers returned, the remaining tasks were assigned, the permit would get approved and the ship would eventually be scuttled. The project goals were always completed keeping the environment and safety as the principal goals. To those of you who helped, whether paid contractors or unpaid volunteers, congratulations again; you have shown that we can work together as a community to complete projects worthy of international recognition, providing new recreation and economic opportunities in addition to protecting and enhancing the marine environment. I guess it must have been fun because, in hindsight, the time did fly.

The Park is still closed and must remain closed without exception until the end of the lobster fishing season.

This was the arrangement made with the inshore fishermen who were concerned about the increase in vessel traffic by charterboats at a time when the traps and buoys might be anywhere in the Bay. The scheduled opening of the Park this year is Saturday, June 3, 1995 and expect some changes from the fall. Last season, we noticed changes in the flora and fauna living on and around the ship on a daily basis and SAGUENAY has been left undisturbed since the end of November. Our system of access only on approved charterboats will continue as will the \$5.00 day passes. These funds will be used to pay the remaining debts from the scuttling.

Just because the Park is closed for a few more short weeks doesn't mean that you cannot go diving elsewhere along the South Shore. With all the activity generated from Park visitors last summer, more and more new dive sites have been discovered and include other interesting wrecks. Check these out with your favourite Lunenburg buddy. As predicted, new dive related businesses are being established in the area, new partnerships are being formed, new facilities are being purchased and existing facilities are being upgraded or modified to better serve divers this summer.

Lunenburg Marine Park, Inc.

Lunenburg Bay Nova Scotia Canada

One Day Pass

"Visit the HMCS SAGUENAY in Lunenburg Bay"



HMCS Saguenay is a 1940s era ship and is not a museum. It is a shipwreck and is not to be used as a diving site. It is a shipwreck and is not to be used as a diving site. It is a shipwreck and is not to be used as a diving site.

Passes for one day visits to the Park are available for purchase from dive shops and charterboat operators.

NEWS FROM THE LUNENBURG MARINE PARK AND THE HMCS SAGUENAY... (continued)

SCUBA divers love rumours, and some that I've heard recently include new charter boats, new dive shops and even motels with outdoor lockable dive gear storage, freshwater wash down areas and complimentary van transportation in and around Lunenburg. Lunenburgers supported this project from the initial planning stages and I hope you know you are always welcome and appreciated when you visit the Park

One rumour that can now be confirmed as true is the successful negotiation with both the Federal Departments of Environment and Transportation regarding the request for an amendment to the Park's Ocean Dumping Permit. The day SAGUENAY was scuttled in the Park, the ship refused to continue rolling onto her starboard side remaining upright in the sand without the necessary surface clearance. On April 26, 1995 Environment Canada published a notice in Lunenburg's *Progress Enterprise* announcing their intention to amend the permit based on the information and recommendations provided to them. To comply with the amended permit terms, the Park will have to purchase and maintain a permanent lighted buoy over the ship and will also have to cut the main mast a further 1/2 metre. You will remember that the mast has already been cut 7 metres. It is anticipated that this work will be completed within the first few weeks of June and might cost the Park as much as \$15,000. Environment Canada will consider your comments to their proposal up until May 16, 1995.

As a celebration of the thorough clean-up, the exceptional entertainment provided by the sinking and the positive support we continue to receive from both divers and non-divers, a 1st Anniversary Week-End is scheduled for June 23-25, 1995. Beginning early Friday evening with supervised night diving on the ship through to the official dedication of the Park and christening of the new Park buoy by the Lt. Governor J. J. Kinley on Sunday afternoon, the Town will be hopping all week-end. The detailed schedule will be available by the 1st of June and will be circulated via newsletter, the dive shops, the Internet and the media. As a sampling of what you can expect, the events include a presentation by Mr. Gene Hemsworth on

"Project A.W.A.R.E" Artificial Reef Creation describing projects on the West Coast and beyond; a workshop on dive accident management and evacuation from remote locations including a presentation by the Hyperbaric Unit of the Victoria General Hospital; Canada's first Guiding in Marine Parks Training Course featuring presentations by Dr. David Scarrat, Capt. Hugh Plant and Ralph Tomilson; and even a Knot Pub midnight chowder supper for those returning from night diving or arriving in Town late Friday evening. Saturday night will include a reception and open BBQ at the Fisheries Museum Aquarium where we will begin the long job of thanking those who made contributions to the Park. The Nova Scotia Underwater Council, the Nova Scotia SCUBA Association and PADI Canada each have interesting plans, presentations or events, and we will try to incorporate these details into one information booklet by June. Except for Saturday night, the Park is available for diving all week-end long and you should make arrangements now with your favourite Lunenburg charterboat operator or dive shop. The South Shore Tourism Association (902 624 6466) or the Lunenburg Tourist Bureau can provide information on both charterboat and accommodation facilities.

The most commonly asked question so far: Which is the Lunenburg B and B with the hot tub?

The week-end will no doubt be busy combining diving, presentations, some fund-raising opportunities, a contest, an auction of some special SAGUENAY memorabilia, and some prizes. The Fisheries Museum has offered some of their facilities for our events; I recommend spending at least one day in there alone. If you are G-7 watchers, the Park Dedication is being officially promoted to that crowd and I can guarantee you will see Bill and Hilary somewhere in Lunenburg that week-end.

Now if we only had another destroyer to sink...

Happy diving.
Rick Welsford
Spring 1995

NOVA SCOTIA UNDERWATER COUNCIL

P.O. BOX 3010 SOUTH, HALIFAX, NOVA SCOTIA, CANADA B3J 3G6

Name _____ Date _____
Address _____
/ _____ County _____ Postal Code _____
Phone (H) _____ (W) _____ Certification Agency _____

NSUC Membership Class

Are you interested in a position or a committee?

☐ Renewal ☐ Individual ☐ Yes (specify) _____

☐ Student ☐ Family ☐ No

☐ Club ☐ Commercial Do you belong to a dive club/organization?

☐ New Diver ☐ Yes (specify) _____

Amount Enclosed _____ ☐ No

For office use only)

Please return this application and membership fee to the above address.

POINTS FOR DIVERS

A VALID CERTIFICATION CARD IS NEEDED TO
/ AIR FILLS AND RENT EQUIPMENT IN NOVA
OTIA.

CHECK WITH LOCAL SHOPS FOR DIVE SITE
D WEATHER INFORMATION BEFORE ACCESSING
ITE. WINDS AND TIDES CAN CHANGE WATER
NDITIONS MARKEDLY.

SHIPWRECKS AND THEIR CONTENTS ARE PRO-
TECTED BY THE SPECIAL PLACES PROTECTION
ATUTE OF THE PROVINCE OF NOVA SCOTIA.
S ILLEGAL TO REMOVE OBJECTS FROM WRECKS
THOUT FIRST ACQUIRING A HERITAGE
SEARCH PERMIT.

4. IT IS ILLEGAL TO TAKE LOBSTERS FROM THE
WATERS OF NOVA SCOTIA. PENALTIES INCLUDE
LARGE FINES AND CONFISCATION OF EQUIPMENT.
SCALLOP DIVING REQUIRES A LICENSE FROM
N.S. DEPARTMENT OF FISHERIES.

5. APPROACHES TO MANY DIVE SITES ARE OVER
PRIVATE PROPERTY AND MAY REQUIRE PERMIS-
SION TO CROSS.

6. DIVER ABUSE WILL LEAD TO RESTRICTED AC-
CESS TO DIVE SITES. ENSURE FUTURE ACCESS
BY ACTING IN A RESPONSIBLE MANNER.

DIVER EMERGENCY PHONE NUMBERS

Hyperbaric Chamber,
Victoria General Hospital
Halifax

902.468.2220

Diver's Alert Network (DAN)
919.684.8111

Air-Sea Rescue
1.800.565.1582
902.427.8200 (collect)

Local Emergency Number

CLIP AND SAVE THESE NUMBERS
IN YOUR LOG BOOK

About The NSUC

- the Nova Scotia Underwater Council was founded in 1971
- it arose from the previous Maritime Diving Council formed in 1959
- corporate headquarters: Sport Nova Scotia, Spring Garden Road, Halifax
- sponsored by the Nova Scotia Sport and Recreation Commission

MEMBERSHIP BENEFITS

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- MEMBER CLUB LISTINGS
- PUBLISHED DIVE SITE INFORMATION
- SPRING TUNE-UPS
- THE ONLY OFFICIAL REPRESENTATIVE TO GOVERNMENT

NSUC MANDATE

1. TO BE A REPRESENTATIVE BODY FOR THE SCUBA DIVING COMMUNITY SO AS TO PRESERVE, SUPPORT AND PROMOTE DIVING AND DIVER SAFETY IN THE PROVINCE.
2. TO MAKE AVAILABLE TO ALL DIVERS INFORMATION CONCERNING SAFETY, MEDICAL, TECHNICAL AND RESEARCH DATA CONCERNING THE SPORT OF SCUBA DIVING AND SCUBA DIVING EQUIPMENT.
3. TO COOPERATE AND PARTICIPATE WITH THE PROVINCIAL AND FEDERAL GOVERNMENTS ON PROJECTS AND POLICIES THAT LEAD TO THE RECOGNITION OF SPORT DIVING AS A SIGNIFICANT RECREATIONAL ACTIVITY.
4. TO FOSTER AND PROMOTE MARINE ENVIRONMENTAL AWARENESS.

Bottomtime

The Official NSUC Newsletter

Containing information for divers on:

- equipment recalls by manufacturers
- dive site information
- council activities and special events
- local member club activities
- up coming courses
- instructors lists
- commercial advertising
- NSUC items for sale
- diving stories
- and much more.



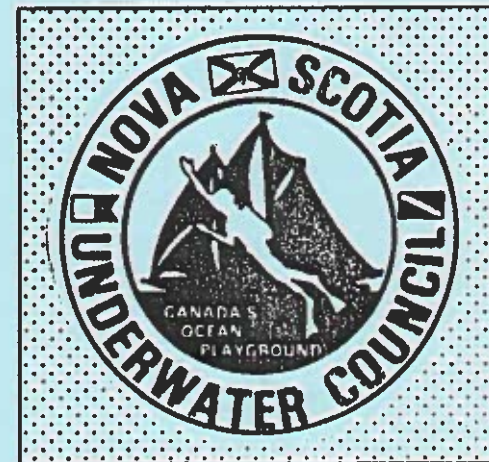
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Membership Information and
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