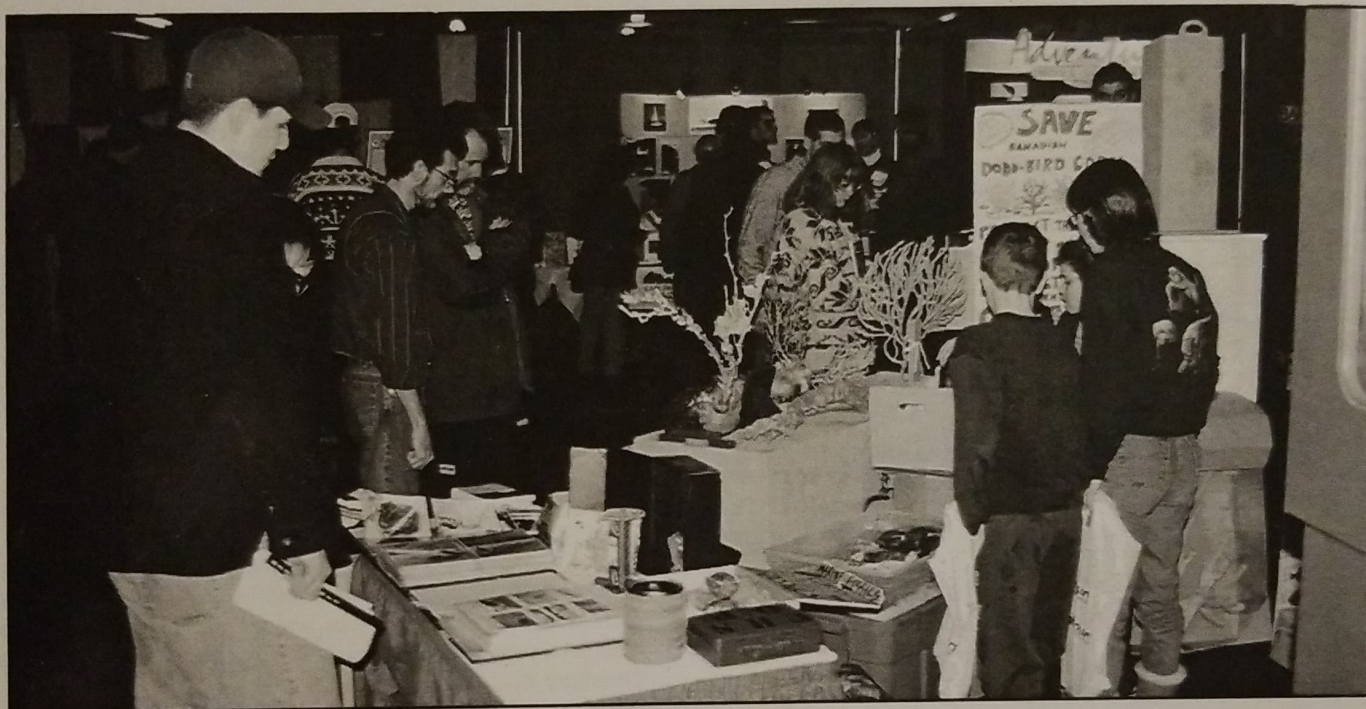
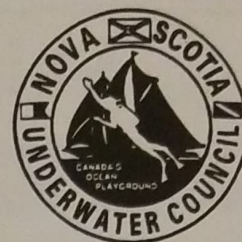


Bottomtime:

The Newsletter of the Nova Scotia Underwater Council



A few of the thousands of visitors who spent time in the NSUC Under the Sea Exhibit at the Halifax International Boat Show.

S.S. Atlantic

shipwrecks

by Lawrence Taylor

Featured on the Discovery's @DISCOVERY.CA this month. A historic underwater tour of the S.S. Atlantic by wreck-diver-come-historian Greg Cochkanoff of Dartmouth. It's been years of hard work, but Greg has put together a very impressive museum display of the Atlantic which is now at the Fishermen's village in Eastern Passage, Dartmouth. Greg's interview on Discovery, was the leading feature story for the show, and gave viewers an insight into a tragedy that few know about or can imagine experiencing.

Built by Harland and Wolf which constructed the Titanic, the Atlantic was Thomas Ismay's second ocean liner.

She was state-of-the-art and had 17 trans-Atlantic voyages under her keel, when on April 1, 1873, 600 miles off her course, the 420 steamship ran full speed into a reef just

33 kms south of Halifax — 562 people perished. It was one of the worst marine disasters the world had known and Ismay attempted to erase all evidence of its existence.

Depth restricts humans from the Titanic, but the Atlantic is only restricted to divers during heavy seas. For Greg, it's really quite impressive to see the wreck lying there on the bottom broken up the way it is and to know that a thousand people struggled here for their lives that night, and most of them didn't make it.

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In This Issue:

Shipwrecks treaty under way



shipwrecks

The draft of an international treaty involving protection of abandoned, historic shipwrecks will be the subject of a public hearing in Washington DC June 12 hosted by the Department of State, and an international meeting in Paris June 29-July 2, hosted by UNESCO. The formal name of the treaty is "Convention on Underwater Cultural Heritage." According to one archaeological expert who has worked on the treaty for several years, it has two especially contentious provisions: One relates to the definition of the class of shipwrecks the would be covered by the convention and other the definition of what constitutes abandonment.

Under U.S. law, upheld recently by the Supreme Court, a state does not have to prove that a ship was abandoned in order to claim ownership of it — that is, the owner didn't need to affirmatively state that he/she was abandoning it but the mere passage of time and lack of effort to reclaim it was sufficient.

The treaty is also hotly contested by commercial salvors, who are now banding together at the international level similar to fight efforts to protect historic (a.k.a. "abandoned") shipwrecks.

For further information on the meetings and the convention itself, contact Mr. Robert (Bob) Blumberg, Office of Oceans Affairs, Department of State, (202) 647-4971 or Mr. Ashley Roach, Office of the Legal Adviser, (202) 647-1646.

(Contributed)

Air Station Regulations

regulations

by Darren Connors

Regulations regarding air quality is governed by certain standards. Below are excerpts from these standards are listed. If you wish further information or to review the full documents, please contact the Canadian Standards Association.

As taken from the National Standards of Canada Standard CAN3-Z180.1-M85 Compressed Breathing Air and Systems 1.

Scope

1.1

This Standard covers the minimum requirements for the purity of compressed breathing air supplied to the breathing zone, and for the breathing air systems required to produce and distribute such air for use in the following applications:

- (a) air-supplied respirators, hoods, or suits;
- (b) self-contained breathing apparatus;
- (c) diving equipment for use in less than 75 m (246 ft) depths of water; and
- (d) such other industrial or sports-oriented equipment requiring a supply of breathing air.

1.2

This Standard also includes requirements applicable to the construction, testing, operation, and maintenance of compressors, cylinders, receivers, and piping systems that supply compressed breathing air.

4.2.1 • Cylinders

Cylinders shall be designed, constructed, tested, and maintained in accordance with the regulations of the Canadian Transportation Commission and shall meet the requirements of Clause 5.3 (see also Appendix B).

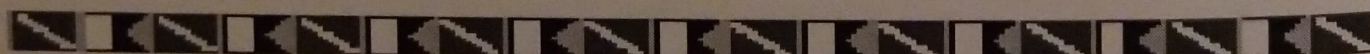
Note: For detailed cylinder inspection and maintenance procedures, refer to CSA Standard Z94.4.

4.3 Air Compressor Systems

4.3.1

All air compressors shall have:

- (a) switches that will activate audible and visual alarms, shut down the compressor, and prevent automatic restart when the following conditions occur:
 - (i) low oil;
 - (ii) high temperature, as specified by the manufacturer;
- (b) a high pressure shutdown switch;
- (c) check valves to prevent feedback of purified air (refer to Schematic in Appendix D);
- (d) an instruction manual and operating logbook;
- (e) a fail-safe controller, which shall be activated at a shutdown temperature specified by the manufacturer.



4.3.4

Maintenance and operation of compressors and of internal combustion or electromotive power shall be in accordance with the manufacturer's instructions and specifications, unless such instructions and specifications could result in an infraction of this Standard. Maintenance operations shall be logged and the log book kept as a permanent record for inspection at any time by the regulatory authority.

4.3.8

Air produced by the breathing air system shall be submitted for purity analysis to a qualified laboratory acceptable to the regulatory authority at least once every 6 months. Additional analyses shall be required following major overhaul modifications or extensive repairs to the breathing air system.

4.3.9

Routine maintenance of the compressor and purification systems shall be carried out every 6 months, or more frequently as needed.

4.6.5

A log of periodic replacement of the purification sorbent media shall be maintained in accordance with the manufacturer's instructions and specifications. The purification sorbent media and chemicals shall be replaced as a complete set and a log kept.

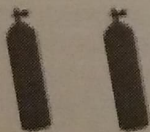
5.3 Testing of Cylinders

5.3.1

The periodic retest of cylinders shall be carried out in accordance with CGA Pamphlets C-i C-6, and C-6.1 and with CSA Standard B339.

5.3.2

All corrosion products, oil, and moisture shall be removed prior to refilling of cylinders.



5.3.3

Cylinders shall be inspected externally before each fill and internally at least once per year. Cylinders fitted with a boot and those used in salt water or other corrosive environments shall be visually inspected at least once every 3 months. The cylinder boot shall be removed prior to the inspection.

Note: Refer to CSA Standard Z94.4 for detailed information.

5.4 Quality Assurance of Compressed Breathing Air

(within this section, air quality is discussed in great detail and gives guidelines as to the parts per million of allowable quantities of such things as Carbon Dioxide, Carbon Monoxide, Methane, Moisture, etc. Too lengthy to publish here)

As taken from the National Standards of Canada Standard CAN/CSA-Z275.2-92 Occupational Safety Code for Diving Operations

6.9 Testing of Cylinders

Each 'SCUBA' cylinder shall be hydrostatically tested as required by Transport Canada for the specific type and construction at a station licensed by the Canadian Transport Commission and, at least once in each year, the cylinders shall be visually inspected internally and externally by an agency acceptable to the regulatory authority.

Note: SCUBA cylinders should be cared for and stored in the manner recommended in CSA Standard CAN3-Z780. 1.

Important Dates

- **July 25** — Executive Meeting, Aggett Award Presentation, and Treasure Hunt Meeting • NSUC Office
- **September 13** — NSUC Treasure Hunt '98 • Crystal Crescent Beach, NS
- **January, 1999** — DEMA, New Orleans
- **February 18-21, 1999** — NSUC Under the Sea, Halifax International Boat Show
- **February 26-28, 1999** — Underwater Canada, Toronto



Calling all divers! 1998 NSUC Treasure Hunt



The planning for the next Treasure Hunt is underway. Those that offered to assist with this year's event are requested to call our Executive Director today so that you are included in the planning now.

The Treasure Hunt is the longest continuous running event held in the province each year and is one of the important traditions of the NSUC. Meeting at 1:00 p.m. in NSUC Offices on July 25 for organization.

Dive charter regulations in Nova Scotia

tourism

After speaking extensively with a Transport Canada Atlantic Region Marine Safety Officer, the following overview of regulations regarding passenger vessels was compiled. For further details contact Transport Canada Marine Safety Division, 45 Alderney Drive, P.O. Box 1013, Dartmouth, NS, B2Y 4K2 Phone (902) 426-3500.

Definitions

- The Tonnage of a vessel is a measure of its volume and is expressed in units of tons - one ton being equal to 100 cubic feet.
- The Gross Tonnage is, in general, the measure of the overall size of a ship and the Net Tonnage is, in general, the measure of the useful capacity of a ship (its carrying capacity).

This quotation also is useful:

While the term "passenger ship" is defined in the Canada Shipping Act, there is no definition of the term 'charter vessel' nor of any equivalent term.

A "passenger ship" is defined as "... a ship carrying passengers"; the word "passenger" being defined by exclusion. In other words, the act tells us who is not considered to be a passenger. It is at this point that confusion appears to have arisen as, amongst those excluded we find:

- (ii) the owner or charterer of the ship...*
- (iii) a guest of the owner or charterer of the ship if it is used exclusively for pleasure and the guest is carried on the ship without remuneration or any object of profit...*

Two distinct categories exist: less than 5 gross tons with less than 13 passengers, and over 5 gross tons.

Category: Less than 5 gross tons and/or less than 13 passengers

Currently legislation existing for this category is the CSA76 - "SMALL VESSEL REGULATIONS," but draft legislation is in the process of being approved that will change this category significantly.

Basically, part 4 of regulation deals with equipment requirements and classifies vessels into the following groups:

- Not over 5.5 m in length
- Over 5.5 m and not over 8 m in length.
- Over 8 m in length

Each group has specific safety equipment requirements. (please check with)

Licensing of any vessel over 9.9 hp also applies.

Fines or other penalties may be imposed for any vessel not meeting these requirements.

Category: More than 5 gross tons or more than 12 passengers

Any vessel in this category requires yearly Certification. This is not the same as a "Coast Guard Courtesy Examination", and fees do apply. Within this category vessels are grouped together depending on the operational requirements and a few other items.

Below, we have listed a couple of these groups and their restrictions:

MINOR WATER VOYAGES

Minor water voyages are restricted to three areas within Nova Scotia; Halifax Harbour and Approaches, Annapolis Basin; and the Bras d'Or Lakes. (Many of the regulations outlined in 'HOME TRADE IV' below also apply.)

HOME TRADE IV

- Applicable to vessels of up to 40 gross tons, of not more than 15 m (49') registered length and carrying not more than 40 passengers on extended HOME TRADE IV VOYAGES between May 1 and September 30 in each year or on MINOR WATERS VOYAGES.
- No more than 5 miles from shore, in fine weather, daylight hours between May 01 and September 30.
- Inspection Certificate to be posted in a conspicuous location available to all passengers.
- Prohibitions: Gasoline Engines and propane installations NOT permitted.
- Operator's Certificates: Limited Master Certificate, (see description below)
- Inspection: Vessel to have annual inspection of lifesaving and firefighting equipment, etc. To be inspected out of the water for external hull, propeller shaft, sea connections and all underwater fittings when first inspected and at intervals up to four (4) years thereafter, subject to the surveyor's satisfaction.
- Plans: General arrangement layout plan, Structural plans, Pumping, piping and electrical diagrams.
- Stability and Complement: (see specific details)
- Structural Fire Protection: (see specific details)
- Bilge Pumping: (see specific details)
- Lifesaving: One approved lifejacket (with retro-reflective tape and flute whistle) for each person on board - adult keyhole or SOLAS type - plus 10% of the complement for children (under 90 lbs.).
 - i. Lifejackets must be stowed in a readily accessible location.
 - ii. Approved Inflatable liferafts or platforms for 100% of the complement services annually (as appropriate)
 - iii. Two approved lifebuoys 750 mm (30" dia.) with 15 fathoms of line.
 - iv. Six type 'B' Distress Signals. (HT IV and MW 1 only)
 - v. Placards showing the deployment of liferafts and donning of lifejackets must be posted.

- Fire Fighting Equipment: (see specific details)
- Navigation: The following navigation equipment is required:
 - i. Masthead light
 - ii. Port and Starboard Lights
 - iii. Sternlight
 - iv. Radar Reflector
 - v. Anchor Shape (One)
 - vi. Compass
 - vii. Fog Bell
 - viii. Dual watch VHF or 2 VHF radios
 - ix. Whistle or Horn
 - x. Radar
- Suitable Anchors with 45 Fathoms of one of the following:
 - i. 64 mm (2.5") circular manila rope,
 - ii. 92 mm (3/8") wire rope
 - iii. 3/8" dia. Chain
 - iv. 19 mm (3/4") dia. polypropylene rope.
- General: (see specific details)

HOME TRADE III

Home Trade III Voyages have many of the same requirements as Home Trade IV with more detail and more required equipment. Some of the major differences are listed below:

1. Limited to 20 passengers unless positive buoyancy is fitted and limited to 10 miles from home port.
2. This guide is based on the maritime 'cape island' type hull and may or may not be applicable to other designs of hulls.
3. Applicable to vessels of up to 40 gross tons, or open cockpit type not exceeding 18m (59 feet) in length overall and carrying not more than 40 passengers on limited Home Trade IV.
4. Inspected at intervals of two years, subject to the surveyor's satisfaction.



News from the Council

The good old days...

In the February 1998 issue of the *Bottomtime*, a mention was made that when reviewing old issues of *Maritime Diving News* many of the dive shops which advertised then are no longer in business. We guess that the dive shop business was as challenging and competitive then as it is now. Mike Chambers pointed out that we had made an error. "Nautilus, in business under the same owner for 25 years, was started in 1973 as Chamber's Dive Shop and then re-registered as the Nautilus School of Diving in 1975. We are in fact the longest established dive shop in Eastern Canada and are still going strong." Sure enough, he is correct and on page 19 of the June 1979 issue of *Maritime Diving News*, there it is! An advertisement for Chambers Dive Shop of Portuguese Cove. ('Nuff said Mike?)

Mike also mentioned as did others the article brought back a lot of fond memories and we are pleased he is carefully reading his *Bottomtime*. If you have any old issues of diving magazines or newsletters, even NSUC ones, would you loan or donate them to the Council as these fond memories are a good source for future articles?

SCUBA Tourism Committee

Resulting from discussion generated from the *Bottomtime* article on Marine Tourism, the executive unanimously supported a proposal to establish a Diving Tourism Committee. The goal of the committee would be to work on

goals and priorities outlined in the ERA's report. It has been suggested that those in the tourism part of the diving industry would be best qualified to work with the committee. If you have an interest step forward, or if you know that well qualified but slightly shy person, nominate them and we will do the arm twisting to get them aboard.

Membership Dues

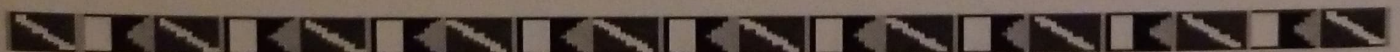
Bottomtime will no longer be mailed to those who have not paid their annual fee (new divers excepted) or to those who have not sent a change of address form to us. On your mailing label, it will show when your membership expires. Membership is the same for all now but renewal is often included as part of a participation fee to an NSUC event (e.g., Diver Evacuation Workshop). Instructors no longer get free membership but newly certified divers do.

Artificial Reef News

Resulting from meetings co-sponsored by the Artificial Reef Society of Nova Scotia and the Artificial Reef Society of British Columbia and held at Underwater Canada, a new Canadian Artificial Reef Federation was born.

Representation from Newfoundland, Nova Scotia, New Brunswick, Quebec, Ontario, Alberta and British Columbia are recently signed up participants.

Look for many more new projects in the near future including the plans of CBARS in Cape Breton.



NSUC Outcomes 1997-1999

The following list includes the Outcomes planned by the Board of the Nova Scotia Underwater Council during its Planning Session on February 7, 1998, for the operating years April 1, 1997-March 31, 1999. They constitute the goals and objectives of the Association for the period involved.

Increased Public Awareness

Outcome (Activity)

- The NSUC will produce four newsletters per year.
- The NSUC will create and maintain an electronic home page.
- The NSUC will organize the *Under the Sea* Trade Show.

Lead Responsibility

Newsletter editor
Home page editor
President

Time Lines

Quarterly
Quarterly updates
Annually

Increased Opportunities for Safe Participation

Outcome (Activity)

- The NSUC will undertake a Dive Flag Awareness Program.
- The NSUC will address the question of Charter Boat Safety Guidelines with the various parties involved in use, delivery, and regulation.
- The NSUC will organize a Public Service Diving Workshop.

Lead Responsibility

President
Vice-President
Vice-President

Time Lines

Under the Sea/Bottomtime
by the end of 1998
Oct. Or Nov. 1998

Improved Efficiency and Effectiveness

Outcome (Activity)

- The NSUC will encourage regular e-mail communication amongst the Board.
- The NSUC will hold Quarterly Board Meetings, and AGM, and a By-Laws and Policy review.
- The NSUC will create a package for advertisers.

Lead Responsibility

President/ Secretary
Past President
Vice-President

Time Lines

ongoing
June 1998
June 1998

Improved Sustainability and Quality of Facilities

Outcome (Activity)

- The NSUC will work with the Dept. of Fisheries to represent recreation divers in the scallop fishery.
- The NSUC will attempt to establish a greater knowledge of the issues involved in wreck diving among divers, regulators, tourists and legislators.
- The NSUC will promote, support, and educate divers, tourists, regulators, legislators, and the general public on the issues related to Marine Parks.

Lead Responsibility

President
President
President

Time Lines

ongoing
ongoing
ongoing

Increased Supply and Availability of Leaders

Outcome (Activity)

- The NSUC will undertake a survey of resources and needs in Nova Scotia through Municipal Recreation Directors.
- The NSUC will develop a map of "Air Stations" in Nova Scotia. Guidelines with the various parties involved in use, delivery, and regulation.
- The NSUC will develop, maintain, and distribute an up-to-date Instructors List.

Lead Responsibility

Executive Director
Home page editor,
Regional Reps
Home page editor,
Regional Reps

Time Lines

June 1998
by the end of 1998
by the end of 1998

Increased Contribution to Community Development

Outcome (Activity)

- The NSUC will hold an *Evacuation Procedures* workshop in Sydney.
- The NSUC will develop a Speakers Program.
- The NSUC will encourage the development of clubs.

Lead Responsibility

Cape Breton Director
Home page editor
President

Time Lines

June 1998
Sept. 1998
ongoing

Summarized Income Statement for the 1997-98 Year

The following is a summary of the financial activities of the NSUC for the year ending 1998. Members are entitled to review complete financial statements at either the AGM or in the offices of the Council.

Income

Grants	\$13,140.00
Other	1,778.02
Total	\$14,918.02

Expense

Employee Wages	\$4,915.36
Newsletter	2,394.10
Treasure Hunt	2,138.91
Administration	1,345.78
Executive Meetings	1,128.00
Postage	1,026.27
Total	\$12,948.42

Surplus \$1,969.60

NSUC Under the Sea PHOTO CONTEST!

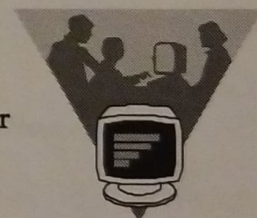
There will be a photo contest at next winter's NSUC Under the Sea exhibit as a major part of the Halifax International Boat Show.

Details will be announced during the summer.

The focus will be on wrecks of Atlantic Canada.

Diving information on the web!

Check out this web page for great diving information!



www.chebucto.ns.ca/Recreation/EastCoastDive/ns.htm

NSUC Membership

The Nova Scotia Underwater Council has made several substantial changes to its membership fee structure. This revision comes after a process of reevaluating the goals and mandate of the Council, and attempting to discover how best to serve the diving community in Nova Scotia

Individual Memberships: \$10.

Newly Certified Diver: Free. (Yes, we mean it). If anyone needs to know impartial news about the diving community in Nova Scotia, it is the newly certified diver. We want to assist these people to enjoy their new hobby as much as possible, and we believe that it is vital that they become connected to the greater community. There is no better way to ensure they join than this. We hope you agree. Just enclose a Xeroxed copy of the newly issued basic certification card in place of the \$10 fee.

Family and Commercial Memberships: All person are members individually.

Questions on the new membership fee structure can be answered by contacting the Executive Director or your Area Director. Join the Council today.

Roger G. Aggett Memorial Award

*For dedicated
contribution to the NSUC
"Safety, Service, Sport"*

Gordon Murray 1988

John Pothier 1989

Robert Semple 1990

Lyn Gallant 1991

Colin Whitlock 1993

John Webber 1994

Rick Welsford 1995

Grant MacLeod/
Greg Cochkanoff 1998

Bottomtime Newsletter Advertising

The editor of the Bottomtime will consider limited advertising in future issues of the newsletter. At the back of each issue, a special space has been reserved to acknowledge specific private or public support for each Bottomtime issue.

As a service to our membership, commercial brochures or flyers may be enclosed with the mailing of the Newsletter, for a reasonable fee. For example, equipment sale flyers, certification course announcements, etc. can be inserted without editing by the Council (or responsibility for the content). Inexpensive copying or assistance for this service can be arranged with the Executive Director at the Council's office. Please note the dates of newsletter publication in another section of this issue.

Nova Scotia Underwater Council

Since 1971

OBJECTIVES

- To be a representative body for the SCUBA diving community so as to preserve, support and promote diving and diver safety in the province.
- To ensure 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.
- To make available to all members information concerning safety, medical, technical and research data concerning the sport of SCUBA diving and SCUBA diving equipment.
- To cooperate and participate with the government on projects and policies that lead to the recognition of sport diving as a significant recreation activity.

BOARD OF DIRECTORS & EXECUTIVE

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