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GOVERNOR OF
HAWAII



SUZANNE D. CASE
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BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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FIRST DEPUTY

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DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
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HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the House Committee on
OCEAN, MARINE RESOURCES, & HAWAIIAN AFFAIRS**

**Wednesday, February 17, 2016
9:00 AM
State Capitol, Conference Room 325**

**In consideration of
HOUSE BILL 2024
RELATING TO PROPELLER GUARDS**

House Bill 2024 proposes to require all motorized recreational vessels operating in near shore waters of the State to have properly functioning propeller guards. **The Department of Land and Natural Resources (Department) offers the following comments.**

The Department recognizes the concern of the general public regarding vessel strikes that have occurred in the State near shore waters especially the most recent that occurred in Kailua Bay, Oahu, that resulted in a fatality. Due to the sheer number of people enjoying the States near shore waters, it is inevitable that there are going to be interactions between vessels and swimmers, divers, snorkelers, etc. While propeller guards may decrease the possibility of critical or fatal injuries in some instances, they can also interfere with the operation of the vessel that can hinder navigation, for instance, debris such as plastic bags can become entangled with the prop guard and cause cavitation. Propeller guards are also not manufactured for all vessels as they are typically affixed to outboard engines but may be impractical to install on sailboats and certain straight shaft vessels.

The Department believes it would be more beneficial to engage in public outreach and training to help ensure that both vessel operators and the general public utilizing the State near shore waters are aware of their responsibilities as well as their surroundings while on the water. The Department has already begun this process and implemented a mandatory vessel education requirement several years ago that requires all vessel operators operating a vessel with a ten horse power or greater engine to complete a training class on the safe operation of vessels and this includes training on Hawaii specific laws. The Department's Division of Boating and Ocean Recreation (DOBOR) also engages in public outreach and has created marketing materials to get

the message out regarding ocean safety that includes recreational users other than vessel operators. DOBOR participates during Boating Safety Week, works with the United States Coast Guard Auxillary, Power Squadrons, Hawaii Ocean Safety Team (HOST), and staffs booths at various marine shows.

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 16, 2016 7:14 AM
To: omhtestimony
Cc: jonikamiya@gmail.com
Subject: Submitted testimony for HB2024 on Feb 17, 2016 09:00AM

HB2024

Submitted on: 2/16/2016

Testimony for OMH on Feb 17, 2016 09:00AM in Conference Room 325

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Joni Kamiya | Individual | Oppose | No |

Comments: A reactionary policy to the recent boating accident will not necessarily save lives. That incident was the result of a careless boater and this law will not prevent harm. There will be unintended consequences if legislation isn't considered thoroughly.

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Cc: reefour@aol.com
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HB2024

Submitted on: 2/16/2016

Testimony for OMH on Feb 17, 2016 09:00AM in Conference Room 325

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Kathy Takahashi | Individual | Oppose | No |

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 16, 2016 8:53 AM
To: omhtestimony
Cc: dean@HawaiiGoesFishing.com
Subject: Submitted testimony for HB2024 on Feb 17, 2016 09:00AM

HB2024

Submitted on: 2/16/2016

Testimony for OMH on Feb 17, 2016 09:00AM in Conference Room 325

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Dean Sensui | Hawaii Goes Fishing | Oppose | No |

Comments: The requirement of propellor guards on all boats has some merit under certain circumstances, but for the vast majority of boaters it would be an unnecessary expense. There are boat operation rules and guidelines that have been long established to protect humans, property and marine mammals. Simply following these would greatly reduce the number of boating accidents occurring each year. The installation of prop guards should be kept as an option rather than made a requirement. While safety is paramount in all that we do, the recent tragedy that led to the death of a diver in Kailua Bay was the result of recklessness and a failure to adhere to well-established rules of safe operation. That includes maintaining an appropriate watch, and limiting speed in the presence of other ocean users. The speed at which the boat struck the diver would have proven fatal even with a prop guard in place. And it was reported that the person who caused this accident had a history of carelessness. It would be far more effective to enforce existing safety requirements such as the boating safety certificate that all boat operators are required to obtain. Prop guards and smilar devices cannot protect against reckless behavior, nor replace the mindful and safe operation of all marine vessels. Aloha, Dean Sensui, Hawaii Goes Fishing.

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Sent: Monday, February 15, 2016 11:08 PM
To: omhtestimony
Cc: hawaiifishingfanatic@gmail.com
Subject: *Submitted testimony for HB2024 on Feb 17, 2016 09:00AM*

HB2024

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Testimony for OMH on Feb 17, 2016 09:00AM in Conference Room 325

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Don Aweau | Individual | Support | No |

Comments:

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**TESTIMONY OF LAHAINA DIVERS, INC.
Speaking in Opposition of HB2024 Relating to Propeller Guards**

**COMMITTEE ON OCEAN, MARINE RESOURCES, & HAWAIIAN
AFFAIRS**

Rep. Kaniela Ing, Chair
Rep. Nicole E. Lowen, Vice Chair

My name is Gregory L. Howeth, Owner of Lahaina Divers, Inc. Like mine, there are many other family businesses which are locally owned and operated in the State of Hawaii. Many of us have been in business for several decades and are an important and valued part of our respective communities. My business, in particular, has been in operation since 1978. We employ over 25 local staff, providing year round income and benefits for themselves and their families. Most of these businesses, including mine, rely on boats as our mode of transportation.

From my point of view, it would be ludicrous to impose the use of propeller guards on all recreational boats. *While I appreciate the concern for human and marine life safety*, propeller guards are simply not a solution to the boating safety issue. HB2024 is actually quite flawed and filled with misinformation. There are many possible hazards and problems created by prop guard devices that are not being considered. Additionally, the availability, installation and implementation costs could be quite prohibitive to the small business owner. Currently, there is a lack of existing standards for propeller guards and related devices.

Please give careful and thoughtful consideration to this bill. There are just too many issues that make it virtually impossible to comply with this regulation for the foreseeable future.

Sincerely,

Greg Howeth, President Lahaina Divers, Inc.

143 Dickenson Street • Lahaina, Maui, HI 96761
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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 16, 2016 1:54 PM
To: omhtestimony
Cc: matt.htfa@gmail.com
Subject: Submitted testimony for HB2024 on Feb 17, 2016 09:00AM

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| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Matthew Ross | Individual | Oppose | Yes |

Comments: Prop guards are expensive, cumbersome, and in most cases will not reduce injuries from boating accidents. The recent tragedy in Kailua was the result of dangerous driving and lack of attention on the water, and propeller guards would not have prevented it. As a diver I am concerned about my safety around other motorized vessels, but this is the wrong way to approach the problem. Please do not pass this bill.

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Sent: Tuesday, February 16, 2016 12:45 PM
To: omhtestimony
Cc: mlflaherty@yahoo.com
Subject: Submitted testimony for HB2024 on Feb 17, 2016 09:00AM

HB2024

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| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| michael flaherty | Individual | Comments Only | No |

Comments: I oppose SB2024 this is a topic that should be properly handled by the Coast Guard. There will be additional expenses to include the purchase of equipment that will reduce fuel economy and the lack of a benefit analysis. Accident's of this nature are caused by inattention and poor-sea-man ship, there are no safety devices that can safeguard a swimmer from a boat driver that is not paying attention, I assume that why a boat handling certificate is now required in Hawaiian Waters. It isn't fair to punish the 99.9% of good boat handlers to attempt to restrain the one or two incorrigibles.

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Cc: rkailianu57@gmail.com
Subject: *Submitted testimony for HB2024 on Feb 17, 2016 09:00AM*

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|---------------------|---------------------|---------------------------|---------------------------|
| Rachel L. Kailianu | Ho`omana Pono, LLC | Support | Yes |

Comments:

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To: omhtestimony
Cc: hfacte@gmail.com
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| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Edwin Watamura | Individual | Oppose | No |

Comments: More research needed Please visit website-propellersafety.com

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| Submitted By | Organization | Testifier Position | Present at Hearing |
|----------------|--------------|--------------------|--------------------|
| Edwin Watamura | Individual | Oppose | No |

Comments: Home About Us About Us Our Mission Position Statement on Propeller Guards Our To Do List Help Us Introduction to Propeller Safety Positions Propeller Safety Consortium Statistics Propeller Accident Statistics Accident Stats: a Guide for Reporters Houseboat Propeller Accident Statistics Misclassified Lewisville Lake Accident Boater Demographics & Accident DB Accidents Media Coverage Accidents by Year 2016 Propeller Accidents Prior to 1950 Propeller Accidents 1950 – 1989 Propeller Accidents 1990 – 1999 Propeller Accidents 2000 – 2004 Propeller Accidents 2005 Propeller Accidents 2006 Propeller Accidents 2007 Propeller Accidents 2008 Propeller Accidents 2009 Propeller Accidents 2010 Propeller Accidents 2011 Propeller Accidents 2012 Propeller Accidents 2013 Propeller Accidents 2014 Propeller Accidents 2015 Propeller Accidents Involving Skilled Professionals High Profile Propeller Accidents People Struck by Propeller Guards Dangers of Non Rotating Propellers Typical Propeller Accident Scenarios Cost of Propeller Accidents Guide for Propeller Accident Victims Propeller Injury Prevention Campaigns Prop Guards Propeller Guard Manufacturers Types of Propeller Guards Propeller Guards: Benefits and Advantages Propeller Guards: Objections Propeller Guard Design Trade Offs Testing Propeller Guards List of Propeller Guard Tests Propeller Guard Inventor Assistance Early History of Propeller Guards Legal Expert Witness Services Propeller Cases and Trials Listman vs. OMC Legal References Taking Legal Action in Prop Accidents Sprietsma vs Mercury Marine Brochtrup vs. Sea Ray & Mercury Marine Decker vs. OMC Propeller Trial Decker vs. OMC Trial Scoreboard Davis vs. Yamaha and Skeeter Technologies Prop Guard Technologies <2011 Safety Propeller RingProp Flapper Propeller Guard Design Propeller Guard With Reduced Drag Circle of Death Propeller Accidents Propeller Guard Inventor Assistance Propeller Guard Patents Propeller Safety Bibliography Senior Design Projects Virtual Propeller Guard Terminology Advocates SPIN Propeller Safety Advocates Sites Message to New Safety Advocates Who is Who in the Debate USCG Our Houseboat Regulation Study USCG Propeller Safety PSA Propeller Safety Meetings NBSAC 1989 Guard Report USCG 2007 Testing Proposed Prop Guard Regulations The Debate Agendas, Motivations, and Incentives Who is Who in Propeller Safety Propeller Guard Paradox Defense Defeated Boating Industry Statements About Propeller Guards Expert Witness Services Site Index Contact Us

Propeller Guard Information Center Propeller Safety Blog Our Thoughts News Legal Shorts Listman vs. OMC Some Accidents Statistics Comments Test Propeller Guards Our Inventions New Products Regulations Research Projects Guard Tech Wordles Year in Review Media Medical Misc Propeller Safety Videos Propeller Safety Causes Memorials Fundraisers History Preventing Accidents Bass Tournaments Propeller Guards: Objections List of Objections Raised Against Prop Guards Many objections have been raised to the use of conventional cage / screen and ring type propeller guards as well as some of the related accessories said to help prevent or reduce propeller injuries Some of these objections have been raised by groups opposing the use propeller guards. These objections may or may not have merit depending upon a specific vessel, the specific guard, what the boat is used for, and its operating environment. Objections raised include: Restrict Performance Lower top speed Decrease acceleration Increase drag Reduce reverse thrust Disturb flow in front to the propeller, decreasing its efficiency Guards themselves entrap people, injuries become more severe Increase zone of danger (Guards increase cross sectional area for impact) Create unstable handling conditions Reduced maneuverability at low speeds Reduced maneuverability at high speeds Poor handling Durability problems Increased steering loads Poor steering in reverse Increase fuel consumption Not as dependable as a bare propeller Not as efficient as a bare propeller (takes more horsepower for same performance) Guard cost, installation, and operational cost add to cost of ownership of a boat Increased maintenance Not aesthetically pleasing – detract from “appearance” of the boat Detract from the appearance of the drive Deeper draft (ducts stick down lower than the prop itself) More surface area exposed to corrosion and marine slime problems Some may be noisy Are too expensive Cavitation problems Ventilation problems Guards interfere with use of “ear muffs” (clips to run fresh water through the drive after use) Guards interfere with access to the drive or propeller for maintenance Easily foul with floating weeds / plant growth / seaweeds, especially in reverse Easily foul with debris Foul with ski ropes Foul with fishing nets Fouling could result in stranding of the vessel Although guards may provide some level of protection from fouling with fishing lines or lobster lines, once a prop does becomes fouled with a line, the line may be more difficult to remove with the guard in place The cage itself may become fouled with fishing lines or lobster lines “Off throttle” steering performance Increased stopping times and increased stopping distances Increased turning times When someone falls out they can be injured falling into the direct stream of water from water jets, including body orifices. Engine emissions are increased due to the additional drag (engine has to work harder and creates more emissions) Propeller guards/ prop guards added in the field may require purchase of a new propeller to keep the engine RPM in proper range (RPMs may be too low) or to improve efficiency. Propeller guards / prop guards may decrease WOT (Wide Open Throttle) RPM below allowable limits and void the engine warranty. Commercial boats, fishing charters, and others running a fixed route may require additional routine maintenance and overhauls because the engine must run longer to cover the same distance (lower top speeds take longer to run the route, get out to the fish, etc). Rescue boats with guards may take longer to arrive at the scene, and longer to transport the injured to shore. Why worry about protecting from a propeller strike if it occurs after they have already been struck by the lower unit (gear case, skeg, etc) at high speed before the propeller strike occurs. Are not commercially available

without the above problems Many people just respond, “They are not technically feasible”. Some sensor approaches require the person to wear a sensor (it only protects people with something on them) Does not protect people from all the situations in our typical propeller injury scenarios list. Just like motorcycle helmets, some people may want freedom of choice (no helmet and no prop guard) Some suggest boat and drive manufacturers fight against their use to maintain highly profitable sales of replacement propellers (guards could protect propellers and reduce sales of replacement props). If boat and drive manufacturers were to adopt them now, they might be forced to retrofit them onto units already in the field (very costly for the manufacturers). If boat and drive manufacturers were to now say propeller guards worked, they could be liable to past accidents because they did not use them then. Structural integrity of propeller guards – Some prop guards may vibrate off, crack or break under higher horsepower loads (larger motors) or after periods of running at full speed. When they fail, they may also damage the propeller or the drive itself, including the internal gears/shafts. Wires of cage type guards have broken welds in the past. They may cause severe vibrations when wires, rods, or welds break. Device may require modification, adjustment or “tuning” for the specific drive, boat and boating activity. This modification, adjustment or “tuning” may be difficult and doing it improperly may make the craft unsafe. If the device reduces performance (speed, acceleration, fuel consumption) of the vessel and is installed by the boat builder, the builder may install a larger engine to get the performance of the boat back near where it was without the device. If the boat owner wishes to eliminate the reduction in performance, the owner may remove the device at which time the boat may become overpowered and unsafe. Plus installation of the larger engine itself mentioned earlier results in increased weight and drag on the vessel. In some situations this could result in the need for a trailer with additional capacity and/or a larger tow vehicle. Presence of safety devices may give boat operators or those in the water a false sense of security and result in them exposing themselves to additional dangers/risks of being struck they would not have without the device (such as operating the drive in proximity to swimmers). These operations may result in injuries. Marine drives come in many types (outboard, inboard, stern drives, water jets, etc) in several different horsepower classes. They are used on dozens of types of recreational boats (bass boats, runabouts, saltwater fishing boats, pontoon boats, deckboats, houseboats, ski boats, wakeboard boat, etc) and used for dozens of applications (fishing, skiing, diving, wake boarding, high performance, river running, etc). No one single propeller guard method / design covers more than a few elements of the large matrix of drive type X horsepower X boat type X application. Plus those building the drive may not know what type of boat it goes in and those selling the boat may not know what it will be used for. This could make it hard for manufacturers to select the proper guard approach for your drive and boat. A 2002 U.S. Coast Guard article put it like this, ” There is currently no one size fits all solution...” or as a U.S. Coast Guard Boating Safety Circular 81 put it “None of the devices has the high degree of practicality in a wide range of operating environments (trash, weeds, shallow water, damage tolerance, etc.) as that established by an unguarded propeller. For planing vessels, the study concluded that some improvement in low-speed human protection can be achieved at the expense of decreased performance, decreased high-speed protection and some decrease in practicality. The cost benefit ratio for using the tested devices on planing

vessels is sensitive to both vessel type and operating environment. The large number of drive types, drive sizes, propellers, and applications (mentioned above) lead to a large number of models of cage type guards. Finding the right one is almost like going to the shoe store and looking through their catalog of all possible shoes. This creates design, manufacturing, inventory, distribution, and prescription/selection issues. We found an incident of a surf rescue boat propeller guard fouling several times on jellyfish during a major jellyfish outbreak in New Zealand. They had to actually take the guard off to operate. Propellers are well known for entangling with ropes, anchors, fishing lines, nets, etc. Some propeller guards / prop guards provide some protection against this entanglement (entanglements occur less frequently), but when/if they do occur the entanglements are more severe and require more time/effort and possible removal of the guard to untangle them from the propeller / guard. Limited selection of propeller guards / prop guards. Some devices are patented and demand for guards (sales) is limited. This results in a relatively small set of off the shelf propeller guards for a specific boat and situation. Lack of widespread use makes for limited profitability of firms in the business, leading to lack of long term suppliers. It is somewhat of the which came first, the chicken or the egg problem (demand or supply). Comments on the List of Objections to Propeller Guards

The real or perceived animosity to the use of propeller guards by drive manufacturers and boat builders has at one time or another been attributed by some to: Their fear of losing the lucrative business of selling propellers (if guards keep propellers from being “dinged” or damaged, they will sell far fewer propellers). They are more concerned about the bottom line than the safety of their customers. They would have to eat the statements they have said for so many years that guards were no good, did not exist, etc. They are trying to pass responsibility down the chain: Drive manufacturers say one type of guard wont work in all applications and we do not know what kind of boat this drive is going to wind up on, so we cant put a prop guard on it. That is a bit difficult to believe when it comes from Brunswick that is putting it own drives on its own boats) Boat Builders say we do not know how or where the customer is going to use the boat so we do not know if it needs a propeller guard or not or what type of guard it needs. Boat Dealers say they do not have the research capabilities to figure out what type of guard you need, they do not want to accept responsibility for it, put a prop guard on yourself if you want one, but it may violate your warranty. There is considerable inertia resisting any change in accepting propeller guards. Some of this inertia exists due to: Prior to December 2002, Federal Pre-emption was seen as a reason not to use prop guards (prior to the U.S. Supreme Court ruling on *Sprietsma v. Mercury Marine*, lower courts had said since the U.S. Coast Guard did not require guards, states could not require propeller guards.) This was actually an incentive to do nothing. It was the only safe square on the checkerboard for them. (See reasons below) If they started to use propeller guards, it would signal their previous products were dangerous. (not good for them in pending or future court cases) If they started using them and chose/elected or were forced to retrofit units in the field, who would bear the huge costs for retrofit/ recall (drive manufacturer, boat builder, dealer, owner)? None want to bear the cost or any portion of it. Even with the use of prop guards, a few people will still be hurt now and then. Companies would still be sued by those struck by prop guards, injured installing them, injured by propeller guards installed improperly, etc. Now in a Post 2002 world, the industry may be trying to hang on to their

old ways for as long as possible. They may be hanging on hoping for an alternative that does not make them look bad (something like the Virtual Lifeline tags from MariTech). Drive manufacturers could say these did not exist in the past so we did not make bad decisions then. Guards are still bad, but this new technology solves the problem, plus we can sell it at a good markup and our props will still get dinged up when they hit something, keeping our highly profitable aftermarket prop business intact. Its the best of both worlds. In today's economic environment (early 2011) drive manufacturers and boat builders are continuing to fighting for their very survival in these tough economic times with a very strong downturn in sales, lack of available capital, lack of loans for potential buyers, high fuel costs, decreased home values (potential boat owners cant take out a second mortgage on their home) and other issues, propeller safety is not on the table. Companies are slashing and burning trying to keep from sinking themselves and feel they have no time to spend on issues of this nature. Closing Comments: Before those objecting to guards say the list of objections above is insurmountable due to its pure length alone (number of objections that have been raised), please notice that if you mentally select a type of boat, a general use for that boat, and general type of guard, many of the objections listed above vanish, or do not come into play. Some say boater safety education and warnings fix the problem and no guards are needed. Cross Sectional Area, Impact and Water Density Issues: Water is much more dense than air. A person struck by an object in water suffers a much greater impact than being struck by the same object at the same speed in air. One U.S. Coast Guard report says being struck by an object in water at 1 mile per hour is equivalent to being struck by the same object in air at 29 miles per hour. A 1989 NSBAC report indicates 80 percent of "struck by boat or propeller" accidents occur above 10 miles per hour. The use of cages, guards or deflectors usually increases the cross sectional area of the drive which could strike more people. For example, the boating industry has said that cage type guards can increase the cross sectional area (danger zone) by 40 to 100 percent. There are plenty of challenges as to the exactness of the three numerical statements just discussed and re-listed below: Being struck at 1 mph in water being equivalent to being struck at 29 mph in air 80 percent of propeller strikes happen above 10 mph Cage guards increase cross sectional area by 40 to 100 percent However, the basic issues do exist (impacts are more severe in water, some people are struck at higher speeds, cage guards do increase cross sectional area) and need to be considered by those designing and applying propeller guards. Print Friendly Search Recent Posts The Leash : tether prevents outboard motors from flipping into boats Barhanovich case: Suzuki released, Bean appeals Boat Propulsion Impact Relief System: University of Cincinnati thesis Moreno vs. Ross Island Sand & Gravel trial: jury decision Angelopoulos v. Volvo Penta, Grady-White, et al: in Pre Trial Conference Pontoon rental boat safety training bill signed in New Jersey Denique Peace, 16, struck by propeller December 2014: a followup Nichols Marine Tournament Series Championship Grand Lake September 2015 Bassmaster Classic 2016 Grand Lake / Wolf Creek boat ramp facilities preview Bass Tournament industry to be covered by PropellerSafety.com Sri Shim killed by boat propeller in Hawaii, Trey Albrecht injured Kim Hong Soek riding banana boat killed by boat propeller: Indonesia Featured Content Aspects of the Propeller Safety Debate chart Houseboat Propeller Regulation Proposed and Withdrawn by USCG: Analysis by PGIC History of Boat Propeller Safety Mitigating Boat Propeller Injuries & Fatalities

Chart Tags ABYC accident victims Australia BARD Barhanovich bass tournament boat Boating Safety Brunswick Carnival catamaran Coast Guard Cruise Ship dredge pipe excursion flipped Florida inventions kill cord kill switch lanyard Listman Mercury Marine Meyer news media OMC outboard Outboard Marine Corporation pontoon boat product liability propeller Propeller Accident Propeller Accident Statistics Propeller Accident Trial Propeller Guards Propeller Safety Prop Guards Regulation Senior Design projects St. Lucia UK under reporting USCG Warnings Yamaha Archives February 2016 January 2016 December 2015 November 2015 October 2015 July 2015 June 2015 May 2015 March 2015 February 2015 November 2014 October 2014 September 2014 August 2014 July 2014 June 2014 May 2014 April 2014 March 2014 February 2014 January 2014 December 2013 November 2013 October 2013 September 2013 August 2013 July 2013 June 2013 May 2013 April 2013 March 2013 February 2013 January 2013 December 2012 November 2012 October 2012 September 2012 August 2012 July 2012 June 2012 May 2012 April 2012 March 2012 February 2012 January 2012 December 2011 November 2011 October 2011 September 2011 August 2011 July 2011 June 2011 May 2011 Propeller Guard Information Center Copyright © 2016 All Rights Reserved iThemes Builder by iThemes Powered by WordPress

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To: omhtestimony
Cc: makani.christensen@gmail.com
Subject: Submitted testimony for HB2024 on Feb 17, 2016 09:00AM

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HB2024

Submitted on: 2/16/2016

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| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|---|--------------------|--------------------|
| makani | Hunting Farming and Fishing Association | Oppose | Yes |

Comments: PROPELLER GUARD ISSUES: Here are lists of issues in no particular order that make this virtually impossible to comply with this regulation for the foreseeable future: Possible Hazards and Problems Created by Prop Guard Devices • May Disable Boat if Malfunction • Cavitation of Propeller, Cage, Wires, or Ring o Cavitation is very destructive to all materials surrounding it. It increases electrolysis, destroys bottom paint, and wears down fiberglass. o It can compromise the propellers effective operation in the water column • Drag • Decreased Top Speed • Decreased Acceleration • Down Time to Repair Vessel or Device • Durability, Reliability • Fatigue Failure of Guard Wires, Rods, Welds, or Castings Due to Propeller Cyclic Loads • Debris Impacts • Guards Requiring Holes to be Drilled in the Hull Create Stress Points which can compromise the water tight integrity of the hull • Groundings May Drive Guard into Propeller Which May Also Damage the Gears, break the shaft, cause the vessel to turn sideways in the beach break and loose steering and ultimately loss of the vessel. • Additional Fuel Costs & Related Emissions • Decreased Performance in Reverse • Increased Cross Sectional Area of Guard vs. Propeller in the water column • Level of Protection Provided May Depend on Orientation of Person's Body Near the Propeller/Guard AND Location on Person's Body of the Strike • Increased Draft • Entrapment: Swimmers and divers could get entangled in the cage. Type of Approved Propeller Guard for Outboards • Cage Guards o Mesh Size Tradeoffs o Conventional guards effectivity questioned • Ring Guards o Level of protection to rear is questioned Availability and Implementation Costs • Boating Industry Claims the Qualifications and Skills to Design and Test a Guard Are Beyond the Capability of Those Currently Manufacturing Guards • Cost of Devices if they can even be found • Installation Costs: These Vessels must be dry docked to install this type of apparatus. • DOBOR has not given any guidelines on what is a DOBOR Approved device • Down time to repair the device. Must schedule a dry dock. This can take weeks. • Guards Are Not Currently Issued as Standard OEM Equipment by Any Recreational Boat or Drive Manufacturer • Product liability • Huge impact on boat owners • Lack of Existing Standards for Propeller Guards and Related Devices This is just a partial list of the problems and issues related to this one size fits all rule. There is the cost to the boat owner. There is already national

push back even for regulations on outboards from many recreational and commercial user groups as well as the Federal Small Business Administration Office of Advocacy. The US Coast guard rescinded a proposal to require house boats (with outboards and out drives) to install propeller guards for many of the reasons mentioned above.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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HB 2024 - IN OPPOSITION

JAMES E. COON, As an individual
OMH 2-17-16 9:00 am Rm 325

PROPELLER GUARD ISSUES:

Here are lists of issues in no particular order that make this virtually impossible to comply with this regulation for the foreseeable future:

Possible Hazards and Problems Created by Prop Guard Devices

- May Disable Boat if Malfunction
- Cavitation of Propeller, Cage, Wires, or Ring
 - Cavitation is very destructive to all materials surrounding it. It increases electrolysis, destroys bottom paint, and wears down fiberglass.
 - It can compromise the propellers effective operation in the water column
- Drag
- Decreased Top Speed
- Decreased Acceleration
- Down Time to Repair Vessel or Device
- Durability, Reliability
- Fatigue Failure of Guard Wires, Rods, Welds, or Castings Due to Propeller Cyclic Loads
- Debris Impacts
- Guards Requiring Holes to be Drilled in the Hull Create Stress Points which can compromise the water tight integrity of the hull
- Groundings May Drive Guard into Propeller Which May Also Damage the Gears, break the shaft, cause the vessel to turn sideways in the beach break and loose steering and ultimately loss of the vessel.
- Additional Fuel Costs & Related Emissions
- Decreased Performance in Reverse
- Increased Cross Sectional Area of Guard vs. Propeller in the water column
- Level of Protection Provided May Depend on Orientation of Person's Body Near the Propeller/Guard AND Location on Person's Body of the Strike
- Increased Draft
- Entrapment: Swimmers and divers could get entangled in the cage.

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Type of Approved Propeller Guard for Outboards

- Cage Guards
 - Mesh Size Tradeoffs
 - Conventional guards effectivity questioned

- Ring Guards
 - Level of protection to rear is questioned

Availability and Implementation Costs

- Boating Industry Claims the Qualifications and Skills to Design and Test a Guard Are Beyond the Capability of Those Currently Manufacturing Guards
- Cost of Devices if they can even be found
- Installation Costs: These Vessels must be dry docked to install this type of apparatus.
- DOBOR has not given any guidelines on what is a DOBOR Approved device
- Down time to repair the device. Must schedule a dry dock. This can take weeks.
- Guards Are Not Currently Issued as Standard OEM Equipment by Any Recreational Boat or Drive Manufacturer
- Product liability
- Huge impact on boat owners
- Lack of Existing Standards for Propeller Guards and Related Devices

This is just a partial list of the problems and issues related to this one size fits all rule. There is the cost to the boat owner. There is already national push back even for regulations on outboards from many recreational and commercial user groups as well as the Federal Small Business Administration Office of Advocacy. The US Coast guard rescinded a proposal to require house boats (with outboards and out drives) to install propeller guards for many of the reasons mentioned above.