

CMAC Secretariat
Transport Canada, Marine Safety
330 Sparks Street
Tower "C", 11th Floor
Ottawa, Ontario
K1A 0N8

Denis Lebel
Minister of Transport, Infrastructure and Communities
797 Saint Joseph Blvd.
Suite 102 (Main Office)
Roberval, Quebec
G8H 2L4

SUBJECT: Request for Small Vessel safety equipment substitution when operating a standup paddleboard

Dear CMAC Secretariat and Minister of Transport,

As permitted under section 4 of the Small Vessels Regulation, I am contacting you regarding a formal review of my request for a substitution of the safety equipment required under Section 209(1) of the Small Vessels Regulation while operating a standup paddleboard within Canada.

The current Small Vessels Regulation issued by Transport Canada requires the user of a standup paddleboard to, "**carry** on board a personal flotation device or lifejacket that is of an appropriate size for each person on board." As presented in the attached review document, the current regulation is inherently flawed and frequently puts standup paddleboard users at a greater risk for injury or death as there is no requirement for users to be wearing the PFD, nor is there a requirement for the user to be in any way attached to the board that all too frequently bears the PFD that the user is required to **carry** onboard their vessel.

As outlined in the risk assessment portion of the accompanying review document, I agree with the formulated risk assessments for three common safety device options using the quantitative method frequently employed by Transport Canada to quantify risk (Probability x Severity x Exposure = Risk). As shown in the document, you will see that the risk to the personal safety of an individual using a standup paddleboard while using the proposed substitution safety device (an approved surf-style board leash) instead of the current requirement (a PFD or lifejacket carried onboard the vessel), suggests that there is actually a 6-fold decrease in the level of risk to a user wearing a board leash and no PFD than there is to a user meeting the current minimum requirement of a PFD (not worn) with no attachment point to their board. The level of risk to a user **wearing** the PFD (which is not currently required under the Small Vessels Regulation), but that is not attached to their board in any way, still faces a personal safety risk that is 4-fold greater than my proposed safety device.

Section 4(1) of the Small Vessels Regulation indicates that if "there are circumstances in which equipment other than the safety equipment required by these Regulations [that] provides a level of safety at least equivalent to that provided by the required safety equipment, the other equipment may be substituted for the required safety equipment in those circumstances."

It is my opinion that my proposed safety equipment substitution proposal has not only shown a level of safety that is equivalent to that provided by the current regulation, but it has actually shown to provide a level of safety that **exceeds** the current level of safety provided to a standup paddleboard user under the Small Vessels Regulation. Based on these results, I submit a formal request for approval to use a surf-style board leash as the minimum required safety device when operating a standup paddle board on bodies of water within Canada.

I appreciate you taking the time to review this request and look forward to discussing the matter with you in the near future.

Review of a Small Vessel Regulation substitute safety device while standup paddleboarding

ABSTRACT

As outlined in section 209(1) of the Small Vessels Regulation, the users of standup paddle (SUP) boards are required to “carry on board a personal flotation device (PFD) or lifejacket that is of appropriate size for each person on board”. As there is no requirement for SUP board users to actually be wearing the flotation device, it has become common practice for most users to place or attach the PFD to the top surface of their SUP board while paddling. As the sport of paddleboarding is one of balance and stamina, this practice places the user in a position of unnecessary risk for two reasons. Firstly, there is no requirement for users to be attached to the board bearing their PFD. Secondly, there is a high probability that the user may fall off their board into the water and become separated from both their board as well as the PFD that has been attached to it.

The intent of this review is to show that as currently written, section 209(1) of the Small Vessels Regulation, when applied to the sport of standup paddleboarding, is inherently flawed and results in a higher probability of user injury or death when compared to the use of a surf-style board leash attached to both the user and the paddleboard. As outlined in the following document, a board leash provides a higher level of safety to a standup paddleboard user than the current PFD regulation does, therefore, it is the request of this user to be permitted to substitute the use of a surf-style board leash as a Transport Canada approved safety equipment device when operating a standup paddleboard.

BACKGROUND AND DISCUSSION

In past years, standup paddle (SUP) boarding has been considered to be very much a niche sport in most places other than California and Hawaii and therefore, has lived in relative obscurity up until recently. However, with the increased availability of equipment and improved instruction of use, these boards are allowing almost any individual to enjoy the numerous rivers, lakes and coastal waters of our country with relative ease, resulting in the sport being viewed as the fastest growing watersport worldwide.

Unfortunately, when SUP boards first arrived to our country back in 2008, Transport Canada made the rash decision to classify them into the same class as kayaks and sailboards without any public consultation regarding the exact nature of their use. Kayaks, by Transport Canada definition, are deemed as being human-powered pleasure crafts and fall under the regulations of section 209 of the Small Vessels Regulation. Subsection 1 of section 209 reads that, “a human-powered pleasure craft shall carry on board a personal flotation device (PFD) or lifejacket that is of an appropriate size for each person on board.”

At first glance the average person may view the request to carry a PFD on board their vessel as being a reasonable request, however, when the wording of the regulation is read carefully and the recent increased enforcement of the regulation taken into consideration, it has actually resulted in an unnecessary increase in the risk to the health and safety of SUP board users. The reason for the increased healthy and safety risk relates to the use of the word “carry” in the quote of section 209 above.

Most avid SUP board users can list any number of reasons as to why the use of a standard life jacket inhibits the enjoyment of their sport. Despite complaints of poor comfort and concern over accelerated fatigue and dehydration, there has been limited success in improving the design of lifejackets to a level that is acceptable to both paddleboard enthusiasts and Transport Canada. Unfortunately, this has led to the common practice of most paddleboard users opting to place or attach the PFD to the top surface of their board rather than wear it in order to meet the minimum requirement of the Small Vessels Regulation and avoid a hefty fine. The not overly obvious flaw in this practice that Transport Canada has failed to recognize up to this point is that there is no requirement for the user to be attached in any way to the board to which many individuals attach their PFD. Considering that SUP is very much a sport of balance and stamina, it becomes quite easy to see how a person could become fatigued and/or overcome by either wind or waves and fall off their board into the water. Falling off their board could very likely result in the individual losing the only flotation device that Transport Canada recognizes in section 209 of the Small Vessels Regulation due to the PFD being attached to their board and the board floating

away from them because of no requirement for attachment between the board and the now waterborne user. Although the individual has met the requirements of the current regulation, they potentially still could perish in the middle of a lake, river or ocean due to the loss of both their board and their PFD.

Paddleboard advocates in both Canada and the United States (Appendix 2) have been actively trying to educate law makers to the fact that the current regulations are inherently flawed when applied to the sport of standup paddleboarding and actually result in an increased risk to the well-being of paddleboard users. It is the intent of the following risk assessment to demonstrate that the use of a surf-style board leash when using a SUP board instead of a PFD (worn or not), would reduce the risk to SUP board users in a way that the current regulation fails to due to the fact that it would attach the user to the most important piece of buoyant equipment readily available to them on any body of water; their board.

RISK ASSESSMENT

Risk measurement formula
<p>In the following risk analysis, the risk index is based on an evaluation of the following three factors:</p> <p style="padding-left: 40px;">Probability that a sequence of events will occur and result in a specific consequence. Severity of the consequence to the decision maker. Exposure to the opportunity for the sequence of events to occur.</p> <p>The risk level is expressed as PROBABILITY x SEVERITY x EXPOSURE = RISK</p>

Sequence of Events	Type of the Cause	Consequences	Probability*	Severity*	Exposure*	Risk Level
Risk Scenario 1: PFD (not worn) + NO LEASH						
<ul style="list-style-type: none"> • A person paddleboarding far from shore with a PFD attached to the deck of their board loses their balance due to waves and/or wind and/or fatigue and falls off their board into the water • As they fall off their board containing the attached PFD, they become separated from the board due to the lack of any form of attachment to the board • The person is now in water over their head far from shore and is unable to swim to keep their head above the water • The person drowns 	<p>Technical (The loss of both the primary (board) and secondary (PFD) flotation devices due to neither being attached to the user caused this to happen)</p>	<p>Drowning causes death. (impact on health)</p>	2	4	3	24

***Scoring based upon criteria outlined in Appendix 1**

Sequence of Events	Type of the Cause	Consequences	Probability*	Severity*	Exposure*	Risk Level
Risk Scenario 2: PFD (worn) + NO LEASH						
<ul style="list-style-type: none"> A person paddleboarding far from shore wearing a PFD loses their balance due to waves and/or wind and/or fatigue and falls off their board into the water As they fall off the board wearing the PFD, they become separated from the board due to the lack of any form of attachment to the board The person is now in water over their head and is too far from shore to swim to safety The person succumbs to hypothermia due to long-term exposure in cold water and/or is struck and killed by another vessel due to poor visibility in the water. 	Technical (The loss of the primary flotation device (board) due to it not being attached to the user caused this to happen)	Hypothermia or blunt force trauma from another vessel causes death (impact on health)	2	4	2	16

***Scoring based upon criteria outlined in Appendix 1**

Sequence of Events	Type of the Cause	Consequences	Probability*	Severity*	Exposure*	Risk Level
Risk Scenario 3: BOARD LEASH (worn) + NO PFD						
<ul style="list-style-type: none"> A person paddleboarding far from shore wearing a board leash and carrying no PFD loses their balance due to waves and/or wind and/or fatigue and falls off their board into the water As they fall off the board, their separation from their primary flotation device (board) is limited to the length of the board leash attaching them to their board The person is now in water over their head, but is able to pull the board back into their possession and attempt to remount the board The person is unable to remount the board and succumbs to hypothermia due to long-term exposure in cold water 	Human (The temporary loss of the primary flotation device (board) due to the user falling off did not cause this to this to happen. The users inability to remount the board was the cause)	Hypothermia (impact on health)	1	4	1	4

***Scoring based upon criteria outlined in Appendix 1**

RESULTS

As outlined in the risk assessment above, the results suggest that there is at least a 6-fold decrease in the level of risk to the user of a standup paddleboard when the recommended safety device is changed from the current regulation of **carrying** a PFD on board their vessel to a leash attaching the user to their board. Also as indicated by the results above, even the use of a PFD alone does not provide a level of safety equivalent to the level of safety provided by the use of only a board leash.

CONCLUSION

Based on a review of the current Small Vessels Regulation when applied to the sport of standup paddleboarding, it has been determined that there is a 6-fold greater risk to users who adhere to the current regulation in a minimal fashion (PFD with no leash) than there would be if the use of a board leash was permitted as an acceptable safety equipment substitution. Although rarely practiced, the use of a PFD without a leash only reduces the risk to paddleboard users to a level that is still 4 times greater than using a leash alone.

As outlined in section 4(1) of the Small Vessels Regulation, the minister is permitted to review substitutions of safety equipment if the substitute device can be shown to provide the user a level of safety **at least equivalent** to that provided by the currently required safety device. In order to be considered, the following seven factors are required to be taken into consideration:

- (a) the nature of the activity;
- (b) the environmental conditions;
- (c) the nature of the risks to which persons on board are exposed;
- (d) the specific characteristics of the equipment;
- (e) the recommended practices and standards to which the equipment conforms;
- (f) the manner in which the equipment will be used; and
- (g) the ability of the equipment to protect a person from injury.

As previously discussed the results of this study have shown that standup paddleboarding (activity) is a sport performed on a body of water that presents the user with a variety of challenges (conditions) that frequently put the user at risk for personal injury or death (risks). The results of this study clearly demonstrate that when used according to the recommended manufacturer's instructions (equipment use and standards), the combination of a worn board leash attached to a paddleboard (manner of use) provides the user with a readily accessible, inherently buoyant (characteristics) safety device that reduces the likelihood of personal injury or death (ability to protect) in a manner that **exceeds** the level of safety afforded to the user under the current requirement of a PFD (worn or not) and no board leash.

It is my belief that this study has clearly demonstrated that the use of a surf-style board leash in combination with a standup paddleboard, not only meets, but undeniably exceeds the criteria required by Transport Canada to be considered as an acceptable safety equipment device substitution for the current PFD requirement while standup paddleboarding. Therefore, I would request that as allowed under section 4 of the Small Vessels Regulation, that I be permitted to employ the use of a standard surf-style board leash while standup paddleboarding in Canada instead of the current requirement of **carrying** a PFD on board their vessel.

APPENDIX 1 : RISK ANALYSIS

Risk measurement formula

When conducting a risk analysis, the risk index is based on an evaluation of the following three factors:

- Probability that a sequence of events will occur and result in a specific consequence.
- Severity of the consequence to the decision maker.
- Exposure to the opportunity for the sequence of events to occur.

The risk index is expressed as **PROBABILITY x SEVERITY x EXPOSURE = RISK**

Probability (P)

What is the probability of that sequence of event happening, including the consequence?

0 – Extremely Improbable	<ul style="list-style-type: none"> • Mishap impossible • 10^{-9} and above
1 – Extremely Remote	<ul style="list-style-type: none"> • Postulated event. (Has been planned for, and may be possible, but not known to have occurred) • $10^{-7} - 10^{-9}$
2 – Remote	<ul style="list-style-type: none"> • Has occurred rarely. (Known to have happened, but a statistically credible frequency cannot be determined) • $10^{-5} - 10^{-7}$
3 – Reasonably Probable	<ul style="list-style-type: none"> • Has occurred infrequently. (Occurs on order of less than once per exposure interval and is likely to reoccur within this interval) • $10^{-3} - 10^{-5}$
4 - Frequent	<ul style="list-style-type: none"> • Has occurred frequently. (Occurs on order of one or more per exposure interval and is very likely to reoccur within the this interval) • $10 - 10^{-3}$

Severity (S)**The sequence of event has happened. How serious is the impact of the consequences?**

0 Negligible	No risk of injury to user
1 Minor	Minor risk of injury to user if not resolved in appropriate amount of time
2 Moderate	Moderate risk of injury to user if not resolved in appropriate amount of time
3 Major	Major risk of injury to user if not resolved in appropriate amount of time
4 Catastrophic	Major risk for injury and potentially fatal consequences to user.

Exposure (E)

How often are we exposed to the opportunity for the event sequence to occur ?

0 – No Exposure	No Exposure.
1 – Seldom Exposed	Seldom exposed to the opportunity for the event sequence to occur.
2 – Occasionally Exposed	Occasionally exposed to the opportunity for the event sequence to occur.
3 – Frequently Exposed	Frequently exposed to the opportunity for the event sequence to occur.
4 – Constantly or Continuously Exposed	Constantly exposed to the opportunity for the event sequence to occur.

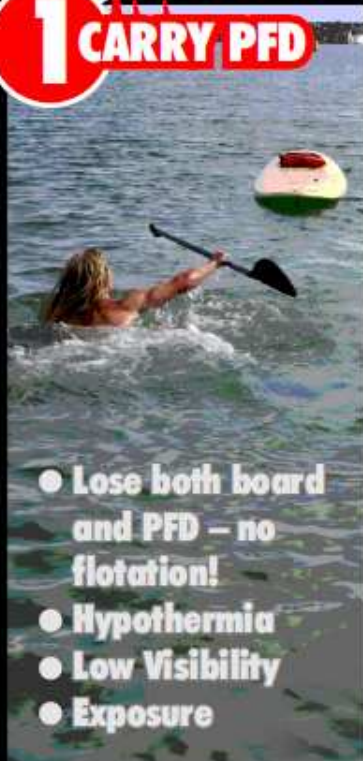
Risk Index ($P \times S \times E = Risk$)

Risk Index	Risk Level	Action
0 - 10	Level One	<i>Minimum Risk.</i> Proceed after considering all elements of risk.
11 - 30	Level Two	<i>Moderate Risk.</i> Continue after taking action to manage overall level of risk.
> 30	Level Three	<i>High Risk. STOP: > 30:</i> Consideration should be given to the following: <ol style="list-style-type: none">1. Immediate Threat to Safety - STOP THE Risk Management process, USE DELEGATION AND TAKE ACTION.2. If dealing with a request for exemption for example; STOP, consider proceeding to STEP 5 to mitigate this particular scenario then continue with the process.3. STOP, highlight this scenario and consequence as a priority to determine if the risk can be reduced to an acceptable level when looking at mitigating the Risk. Do not proceed until sufficient control measures have been implemented to reduce risk to an acceptable level.

SUP SAFETY ALERT



1 CARRY PFD



- Lose both board and PFD – no flotation!
- Hypothermia
- Low Visibility
- Exposure

2 WEAR PFD



- Lose board
- Hypothermia
- Impeded swimming
- Low visibility
- Poor flotation
- Exposure

3 LEASH



Paddle on!

Do not depend on a PFD! ALWAYS WEAR A LEASH!

The **Human Powered Watercraft Association** is leading a national petition to the United States Coast Guard to change the "vessel" status of stand up paddle boards and replace the PFD requirement with a safety leash. Contact the HPWA at www.LetsPaddle.org for free membership and complete information.