



SHIP SAFETY BULLETIN

Bulletin No.: 02/2011
RDIMS No.: 6760572
Date: 2011-09-15
Y - M - D

Ship Safety Bulletins provide safety-related information to the marine community.
All bulletins are available at: www.tc.gc.ca/marinesafety

Subject: Wearing And Using Flotation Devices
Small Non-pleasure Craft & Small Commercial Fishing Vessels

No one plans to fall overboard. Wearing flotation devices saves lives. If you wear either a lifejacket or a personal flotation device (PFD) when you are on the water you will be safer than if you simply have it on board.

Purpose:

This bulletin:

- explains which flotation devices meet the regulatory requirement to carry a properly-sized, approved¹ lifejacket for each person on board a small non-pleasure craft or a small commercial fishing vessel;
- advises which PFDs **must be replaced by June 30, 2012**; and
- provides information that will help you choose devices that provide the right level of safety when on board non-pleasure craft.

Scope:

- Commercial fishing vessels less than 15 metres in length overall.
- Vessels other than pleasure craft that are no more than 15 gross tonnage and carry no more than 12 passengers. This includes work boats and vessels operated by government agencies and police and fire departments.

Background:

The law requires that all vessels carry an approved flotation device for each person on board and that it is properly sized for the person who will wear it. Small non-pleasure vessels and small commercial fishing vessels must carry approved lifejackets.

¹ In this bulletin, approved means approved by Transport Canada, Canadian Coast Guard, or Department of Fisheries and Oceans.

Keywords:

1. Lifejacket
2. PFD
3. Inflatable

Questions concerning this Bulletin should be addressed to:

AMSRE
shipshape-batimentforme@tc.gc.ca
613- 991-3160

Transport Canada
Marine Safety
Tower C, Place de Ville
11th Floor, 330 Sparks Street
Ottawa, Ontario K1A 0N8

To add or change your address, contact us at: marinesafety-securitemaritime@tc.gc.ca or 613-991-3135.
Owners of affected commercial vessels automatically receive Bulletins.

Although this has been the law for many years, some operators of non-pleasure craft still carry PFDs. In such cases, it has been Transport Canada's policy to allow the continued use of PFDs aboard certain vessels until they need to be replaced at the end of their serviceable life.

Transport Canada has revised this policy. The revised policy:

- promotes the wearing of flotation devices by accepting PFDs that meet specific conditions in lieu of approved lifejackets; and
- sets a deadline for replacing the PFDs on non-pleasure craft where approved lifejackets are not carried.

This revised policy makes use of section 4 of the new *Small Vessel Regulations*, which allows acceptance of alternatives to the safety equipment required by regulation if the alternatives offer an equivalent level of safety. Similar authority has been proposed in the draft *Fishing Vessel Safety Regulations*.

The regulations require that lifejackets be carried on small non-pleasure craft and small commercial fishing vessels because they provide greater protection than PFDs if you have to abandon the vessel. You can provide an even higher level of protection, however, if you:

- equip your vessel with PFDs in addition to the required lifejackets; and
- require everyone on board to wear the PFDs when there is a risk of falling overboard.

You will not always have time to locate and put on your lifejacket when you need it. That is why you will want to be wearing a device, especially if you are alone, or in cold water. Some operators have already made the decision that, although lifejackets are carried, everyone on board will wear a PFD. Transport Canada agrees and encourages all operators to adopt this safer option.

If you want just one device that you can wear at all times,

Transport Canada will now accept a PFD as the sole flotation device **if** it meets the following conditions. The PFD must:

- a) be worn when the Master or Operator deems there is a risk that can be decreased by wearing it;

Note: If it is an inflatable PFD, it must be worn at all times in an open vessel and when on deck on a vessel of closed construction as required by the *Small Vessel Regulations*;

- b) be approved by Transport Canada, Canadian Coast Guard or Department of Fisheries and Oceans;
- c) provide a minimum 100 newtons buoyancy unless it is an approved suit or jacket designed to offer thermal protection as well as buoyancy;
- d) be of a highly visible colour (yellow, orange, or red); for inflatable PFDs, it is the internal bladder (the part that pops out when activated) that must be a highly visible colour, not the external cover;
- e) be fitted with retro-reflective tape and a whistle, and (for vessels going beyond the limits of a Near Coastal voyage, Class 2) a personal locator light; and



Sample inflatable PFD acceptable as a lifejacket



Devices designed for both buoyancy and thermal protection

f) be self-righting, unless it is an approved suit or jacket designed to offer thermal protection as well as buoyancy.

If the PFD is designed to offer thermal protection as well as buoyancy, it must be a full worksuit or a coat that covers the body at least down to the thigh.

How does the policy affect me?

If you are required to carry approved lifejackets but you have only PFDs that do not meet these conditions, you may continue to use your PFDs only until they need replacing or until June 30, 2012, **whichever comes first**. At that time, you must replace them with:

- approved lifejackets, or,
- approved PFDs that meet the conditions set out in the policy.

Note: If you would like to keep a PFD because you will wear it but it does not meet the conditions in a) to f) above, you may do so as long as you also have the required approved lifejackets on board.

Transport Canada strongly encourages all owners to choose their flotation devices carefully, guided by the following information.

Things to Consider When Choosing a Flotation Device

Lifejacket or PFD?

When choosing a flotation device, there are four important things to consider: approval, fit, performance, and wearability.

- Approval indicates the device meets the criteria for the standard shown on the label.
- Proper fit is needed for optimum performance. Every centimetre that the device slides up brings your mouth a centimetre closer to the water.
- Performance refers to how well the device will keep your mouth out of the water. See Buoyancy on the next page for more information.
- Wearability matters because you don't always choose to go in the water. If you put a device on when you get on the vessel and keep it on at all times, except when below deck, you will have extra protection if you fall overboard unexpectedly.

Overviews of the performance and wearability of traditional (inherently buoyant) flotation devices follow. Recent changes in technology and standards mean that the differences between lifejackets and PFDs are not as pronounced when comparing inflatable and hybrid devices, meaning you can now have devices that provide both high performance and wearability. Do your research or have a knowledgeable salesperson explain the features of the devices you are considering.

Lifejackets are designed for wear when abandoning the vessel in an emergency situation. They generally provide more buoyancy and give the wearer more freeboard (distance between the mouth and the water) by inclining the person onto their back to keep their face—mouth and nose—further from the water. Lifejackets are designed to help turn and keep the wearer face up even when unconscious. Higher buoyancy lifejackets provide the most support in turbulent waters and extended periods of time. There are no approved lifejackets that provide thermal protection on the market at this time.

Personal Flotation Devices (PFDs) are designed for comfort and constant wear. As a result, most models provide less buoyancy than lifejackets and will not roll wearers face up or incline them onto their backs. The wearer must be able to move arms and legs to avoid rolling forward. When worn, PFDs provide the wearer with a high degree of safety if he or she falls overboard. The buoyancy the device provides makes it easier to stay afloat, and if the water is cold (less than 15 °C), because it gives the body a chance to recover from cold shock—gasping and shallow, rapid breathing that occurs the first few minutes following immersion—and provides protection against the rapid failure in swimming ability that follows. Some PFDs have added thermal protection to delay the onset of hypothermia if in the water for an extended period of time.

Buoyancy

Buoyancy is what supports you in the water. More buoyancy generally means greater freeboard, stability and self-righting capability. It also reduces the risk of being submerged by waves in rough conditions. Make sure that your device will support you by trying it out while wearing the heaviest load (clothing, boots, tools) likely to be worn by people on board. The following descriptions of the performance provided by devices with different levels of buoyancy will help you understand their limitations or advantages.

Inherently buoyant PFDs (Buoyancy 69 N [newtons] or 15.5 lbs [pounds])

These PFDs are generally more comfortable to wear, but because they have limited, if any, ability to turn the wearer face up and have less freeboard, they are not suitable if you will be in the water so long that you lose consciousness due to hypothermia or fatigue, or if the water is rough. They are also not suitable for people who are unable to help themselves, as movements of arms and feet may be needed to keep the body in a position with the mouth out of the water. They are intended for use when a means of rescue is close at hand.

Small Vessel and Class 2 Lifejackets (Buoyancy 100 N or 22.5 lbs)

These lifejackets have more flotation than a PFD. However, they may not be suitable in rough water. Tests in swim suits show that they have some ability (when fully inflated, if inflatable) to turn you to a position with your mouth and nose clear of the water (more freeboard). As with inherently buoyant PFDs, they may not be suitable for people who are unable to help themselves, as movements of arms and feet may be needed to keep the body in a position with the mouth out of the water.

SOLAS and Class 1 Lifejackets (Buoyancy 150 N or 34 lbs)

These lifejackets are intended for use even offshore and in rough water. The same tests in swim suits show that they will (when fully inflated, if inflatable) turn the wearer so that the mouth and nose are clear of the water, even if the person is unconscious. They should keep a fully clothed user in this position without the person having to make an effort.

Thermal Protection

If you operate in water colder than 15°C, consider wearing a device that offers thermal protection to reduce the risks of cold shock and hypothermia.

Note: Operators of passenger-carrying vessels must have procedures or equipment to address the risk of cold shock and hypothermia. This could be achieved with lifejackets that offer thermal protection, or by other means.