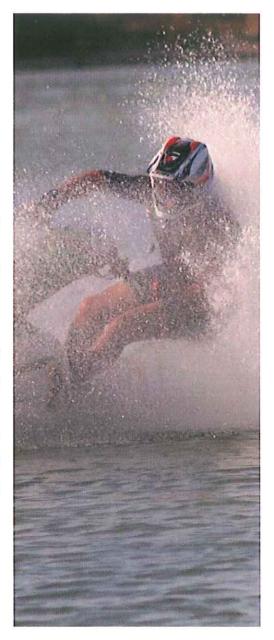
## Skimming the surface of safety

The personal watercraft industry has done as little as possible to address well-known hazards of these popular vessels, and the government is steering a slow course to regulation.

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emorial Dayweekend is meant to be a time to remember those who died while serving our nation. But for a mother named Cindy, that weekend marks a time to remember the death of her son, Scott. He did not die at war. Rather, Scott died in the middle of a Texas lake at the age of 16.

On Memorial Day weekend 2003, Scott and three of his friends borrowed four Sea-Doo personal watercraft (PWC) to ride around the lake, celebrating the end of the school year. It was only a matter of minutes before his friend Corey headed his Sea-Doo toward Scott, who was sitting on his idle craft. Corey instinctively released the throttle to slow the vessel and then attempted to turn away. But Corey's Sea-Doo would not

turn or appropriately slow down, and it struck and fatally injured Scott.

Unfortunately, this accident is not unusual. And while the PWC industry would have the public believe that these small vessels are no more dangerous than other recreational watercraft, in reality PWC operators are injured 8.5 times as often as those operating other motorized watercraft.1 Despite these staggering statistics, the industry remains poorly regulated, and manufacturers continue to stall any serious progress in improving PWC design.

PWCs are the only recreational watercraft associated with a leading cause of death in recreational boating accidents other than drowning.<sup>2</sup> In 2004, only 25 percent of PWC fatalities were due to drowning; all other deaths were the result of other injuries,3 many caused by an off-throttle steering (OTS) hazard. Many PWC users die because of injuries caused by blunt force trauma, typically involving a collision with another vessel, a floating object, or a swimmer.4

One of the most serious PWC dangers is the possibility of steering loss when either the throttle is released or the vessel is in an off-power position. The PWC design requires the operator to react in a way that is contrary to human nature. When facing an imminent collision, an operator's natural instinct-especially if he or she is a novice—is to release the throttle in order to reduce speed, and then alter course, instead of engaging the throttle and turning. But these distinctive vessels-with a movable water jet, no rud-



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der to control steering, and no brakesdo not respond the way many operators expect.5 Counterintuitively, once the throttle is released, the operator loses the ability to control the vessel.

The popularity of PWCs—what most people know as Jet Skis, Sea-Doos, and WaveRunners—has skyrocketed over the past two decades. At the end of 2004, the National Marine Manufacturers Association estimated that nearly 1.5 million PWCs were in use in the United States.6

This should come as no surprise in light of PWC manufacturers' marketing, which depicts riders wake-jumping, turning sharply, and operating the vessels close to one another at high speeds. The four major manufacturers still making PWCs-Bombardier (Sea-Doo), Kawa-

saki (Jet Ski), Honda (AquaTrax), and Yamaha (WaveRunner)-target thrillseekers looking to have a good time on the water.7 While highly skilled drivers may expertly whip their watercrafts around each other in promotional advertisements, such maneuvers-and others much less daring-have seriously injured and killed operators for the past 20 years.

## Inadequate government response

The dangerous nature of PWCs is not news to the industry or federal regulatory agencies. In a 1998 study, the National Transportation Safety Board (NTSB) found that although PWCs constituted merely 7.4 percent of all recreational boats in 1998, an astonishing 51 percent of all reported boating accidents and 41 percent of all boating injuries involved PWCs. The study found a "high risk of injury associated with PWC operations" and noted that a significant number of PWC accidents involve operator error and inexperience. Almost one-third of all operators involved in collisions had used a PWC fewer than 10 times before the accident.9 Moreover, the NTSB found that close to one-fourth of PWC accidents are linked to the hazards of steering loss in off-throttle and offpower situations.10

These results prompted the NTSB to

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