

## **NOT EXACTLY TAKING OFF**

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s a boy and wannabe engineer, I was impressed by cool technologies I first saw in science fiction, especially communicators, jetpacks, and hovercraft. Communicators we have. Jetpacks and hovercraft, though, never quite made it into the consumer marketplace, although designs for them have been patented.

Patent No. 2,509,603 dated May 30, 1950, depicts a jet nozzle on a belt worn by a guy on skis. Four years later, Stanley Hiller Jr. filed for a patent (No. 2,943,816) covering a jet propelled little platform the pilot stands on.

But, the first patent I could find for a device which actually looks like a jetpack is No. 3,023,980 dated March 6, 1962, based on an application filed Oct. 13, 1958.

One application filed just a little earlier described a jet belt but it is only for "reducing the effective weight of a person so as to enable

the person to walk or run more rapidly and to jump or climb with more facility than would normally be the case." See Patent No. 3,039,718.

Alas, the aforementioned '980 patent actually describes a turbo-fan construction as opposed to an actual "jet" drive. The first "real" jetpack patent I could find, then, is No. 3,021,095 based on a June 10, 1960, filing. There, the propelling medium is hydrogen peroxide and the pressurizing gas is

nitrogen. The nozzles are

at the distal ends of a pair of control handles. The inventor, W.F. "Wendy" Moore, worked at Bell Aerospace and engi-

neered several operable jetpacks.

He is also listed as an inventor on several more jetpack patents.

Today, of course, no one is regularly flying around using a jetpack. But, interest in this technology refuses to die. Patent No. 7,900,867 dated March 8, 2011, discloses a pack tethered to a little boat equipped to produce pressurized water transmitted to the pack and used as the jet propulsion medium. This idea from Jetlev.com is intended to be used for recreation—sort of like parasailing. Will you be able to rent one of these "jetpacks" in the near future? Maybe.

Unlike jetpacks, there are a few hovercrafts flying around for specialized uses including ferries.

The first U.S. hovercraft patent I uncovered is No. 2,955,780 dated Oct. 11, 1960. Two rotors are used driven by the exhaust gases of a turbojet engine.

Reports of hovercraft technologies go back way further than 1960 so maybe this is a case of U.S. patents lagging the real development of a certain technology.

For example, Sir Christopher Cockerell's hovercraft Patent No. 3,188,513 dated June 21, 1964, admits the existence of previous vehicles supported by a cushion of pressurized fluid. But, the patents cited as "prior art" in this patent mostly concern aircraft with ducted fans for propulsion instead of true hovercraft designs.

An exception may be Patent No. 1,016,359 dated Feb. 6, 1912, for an "airship" rendered airborne by a series of fans forcing air downward to lift the vehicle. But, in this patent there is no skirt containing the "air cushion" as is the case with true hovercraft.

A few companies such as Neoteric Hovercraft, Inc. still make personal hovercraft. You can buy a used one for between \$20,000 and \$30,000. You can also review the history and patenting of hovercraft on the company's website at neoterichovercraft.com.

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