

Whither Hovercraft?



Oakland to San Francisco: crossing the Bay by hovercraft.

Beil

The hovercraft is a curious beast.

It crosses the water but does not swim. It supports itself on air but does not fly. There are those who say it is both boat and plane, and those who are equally convinced that it is neither.

This would be merely a subject for idle speculation, were it not that in seven countries the air-cushion vehicles have already seen commercial service. When the hovercraft began evolving from a vehicular freak into public transportation, it became subject to government regulations.

But by whom? Is the thing a boat? A plane? A train? No one knows just who should regulate the craft, and the temporary measures that have been taken are different in almost every country in which hovercraft have been commercially used.

In England they are treated as aircraft, licensed by the Air Registration Board, even though they can rise only a few feet off the ground. At the same time, the Inter-governmental Maritime Consultative Organization is trying to lay out safety standards as though they were ships.

Canada has a similar double standard for hovercraft. The Air Transport Board gives out the licenses, but inspections are required by the National Harbors Board and the marine division of the Department of Transportation.

Officials close to the program believe that full control in Canada may end up

with the maritimers, however, and that the country will decide that the craft are less like low-flying planes and more like high-riding ships.

The United States is even more confused. In 1964, more than a year before scheduled hovercraft service began between San Francisco and Oakland, Calif., seven Federal agencies tried to straighten out the anticipated mess. Included were the Maritime Commission, the Commerce Department, the Federal Aviation Agency, the Interstate Commerce Commission, the Civil Aeronautics Board, the Coast Guard and the Bureau of Customs.

The final decision was that control should be in both the Coast Guard, since the craft were traveling over water, and the CAB, since they operated over a route usually served by helicopters. In addition, the Customs Bureau got its hand in by saying that as long as they were on water, hovercraft could be defined as "vessels," and were thus subject to all of Customs' rules relating to "vessels generally."

Today the situation in the U.S. is no closer to solution. The San Francisco-Oakland run was a one-year experiment, now finished, so that direct pressure to untangle the jurisdictional snarl has been removed. Last year, and again in the present Congress, Representative Samuel N. Friedel (D-Md.), chairman of the transportation subcommittee of the House Commerce Committee, in-

troduced a bill to simplify things by forming a Joint Commission on Hovercraft Affairs. Its members would be taken from the CAB, the FAA, the ICC and the Maritimers.

"The bill probably won't be needed now, though," says a subcommittee staff member, "since the whole thing may come under the Department of Transportation." Perhaps, but at least one possibly involved agency, the Maritime Administration, is not a part of the Transportation Department.

Other countries that have tried out commercial hovercraft service include Norway, Scotland, Japan and West Germany. The head of England's Board of Trade, Douglas Jay, plans to introduce legislation in Parliament to untangle some of that country's legal hovercraft knots, and similar moves may well be necessary in other countries as the strange vehicles assume a larger role in public transportation.

COMMUNICATIONS

Satellites at War

Since the time of Marconi's first wireless, the radioman's most repeated phrase has been, "do you read me?" And all too often, especially on the battlefield where communications can win wars, the answer isn't the traditional "loud and clear."

So military engineers are always looking for lighter, more powerful and more reliable radio equipment for use on the field.

One of the most promising ideas is to use a satellite as a relay station for radio signals between troops and field commanders. A prototype system is already being tested by Army communications engineers at Fort Monmouth, N.J., using a satellite launched in July. Last week, the Army hired the Radio Corporation of America to build an advanced system, with hardware deliveries to begin within 12 months. An operational system will presumably follow.

The great advantage to satellite systems is that, despite the immense increase in distance that the signal has to travel, such interfering details as hills, trees and weather are eliminated as significant obstacles. This means the transmitter doesn't have to put out so much power, and the receiver doesn't have to be as sensitive. Both factors reduce the size of the field equipment.

The new system will come in five sizes, ranging from a truck-trailer unit through a jeep-mounted system and a team-sized unit to a one-man pack. All but the individual unit include both transmitter and receiver; the single-soldier pack has only a receiver.

The satellite used with the tactical