

Submarines and simulators

31 10 91

October 24.
 Sir,—I read with some interest Mr Ross's letter regarding the use of simulators in training submariners and fully endorse his opinions (October 26).

The use of simulators in the aviation industry is a well proven and accepted means of air crew training and its effectiveness for training in other fields is rapidly becoming accepted. This is witnessed by the number of high fidelity dynamic simulators currently in use, or being developed, for production personnel training for North Sea oil production platforms.

The systems used on a submarine can easily be duplicated with micro chip technology, the only limitation being how much money the Admiralty is prepared to spend.

Not only can such simulators be used for training purposes but performance, be it of production operator, aircraft pilot, or submarine commander, can be assessed and validated. Given the will, as Mr Ross so rightly observes, the "Perisher" with its attendant risk to our fishing vessels could be a thing of the past together with such worthy naval traditions as keel-hauling, the press gang, and the rum ration.

H. Scott Smith,
 58 Great Northern Road,
 Aberdeen.

COLLISION WITH NUCLEAR WASTE DUMP

SUBSTORY

Peace News
 25 5 84

Last September, a US Poseidon nuclear submarine collided with a nuclear waste dump 175 miles south-west of Land's End. It burst waste containers, contaminating its hull and then spent five months touring British waters before entering the US Navy base at Holy Loch on the Clyde for a clean-up.

The submarine, the *USS Sam Rayburn*, first attracted attention when it appeared at Holy Loch in mid-January. The Scottish Campaign to Resist the Atomic Menace (SCRAM) has pieced together its movements and cut through the misinformation and feeble denials about it. Local submarine spotters noticed the

Sam Rayburn's arrival because it is a rare visitor to the Loch and because it arrived accompanied by Royal Navy tugs and the spy-ship, the *USS Vanguard*. When unusual activity began around the submarine, questions were put to the US Navy. *Andrew Jackson* had not been into base and that there had been no radioactive leak, impressed no-one.

The *Sam Rayburn* left on February 18, returned at the end of the month, and went into drydock to have its paintwork scraped off by 200-300 civilian workers in protective suits and with radiation badges. Water was sprayed over the work area to

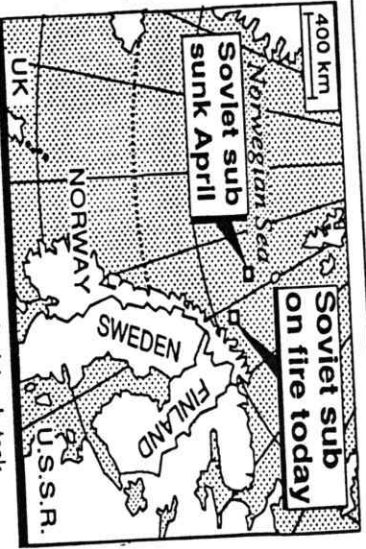
keep radioactive dust down. This activity attracted some national attention, and more reassurances that there was no danger.

Then, a reporter with the Plymouth *Sunday Independent* received information that at 6.15am on September 2, the submarine had collided with nuclear waste barrels on the seabed 175 miles south-west of Land's End. As we went to press the Ministry of Agriculture, Fisheries and Food were checking their records to see whether there have been officially authorised waste dumps there.

Why the submarine was on the seabed there is unclear. An intriguing possibility—one which may also explain the *Sam Rayburn's* unique catwalk around its conning tower—is that the submarine was involved with the US submarine-detection microphones in the area.
 Contract: SCRAM, 11 Forth Street, Edinburgh EH1 (tel 031-557 4283).

Fire hits Soviet sub

AN accident has crippled a Soviet nuclear-powered submarine off Norway, Tass news agency said today. Tass did not make clear whether there had been any radiation leak but quoted the Defence Ministry as saying the submarine's reactor had been shut down and that all the crew were safe.
 "According to the report of the commander of the nuclear submarine, there was a failure of the air-tight seal of the first cold circuit of the reactor," Tass said, without elaborating.
 It was the second fire involving a Soviet nuclear-powered submarine off Bear Island in less than three months.



THE route the crippled Soviet sub took

EVENING NEWS 26 6 89

* The Nuclear Arms Race at Sea, Gre Ilalngton Green, London, E3 50.

deploying missiles, torpedoes, and bombs says that "some one-third to on of the world's nuclear arsenals nuclear weapons; over 15 000 warheads are earmarked for na Arkin cites a number of increased tension, especially Pacific. Coupled with this, he s is a widespread belief among n ners that naval nuclear we somehow different than nuclear weapons, and that nuclear weapons at sea might to the seas. In addition, a deci naval nuclear weapons would a unilateral basis and not as a alliance decision."