

Submarines of all the NATO countries operate in U.K. territorial waters. Britain and America have bases for ballistic submarines, the U.K. at Faslane, and the U.S. at the Holy Loch, on the Clyde. Faslane, Plymouth and Portsmouth are bases for diesel-electric submarines, which carry conventional torpedoes, and generally patrol the seas near our coasts, and Hunter-Killer submarines - nuclear powered submarines which also carry conventional torpedoes, and whose main function is to escort and protect Polaris submarines from attack by hunting out and harrasing enemy submarines.

This leaflet has only been able to scratch the surface of some of the issues. Further information is available from the following organisations, among others:

The Celtic League (incidents involving trawlers)
General Secretary: Bernard Moffatt 24 St Germans Place,
Peel, Isle of Man.

CND Janet Convery 22-24 Underwood Street, London N1 7JG
Faslane Peace Camp, Shandon, by Helensburgh, Dunbarton-
shire.

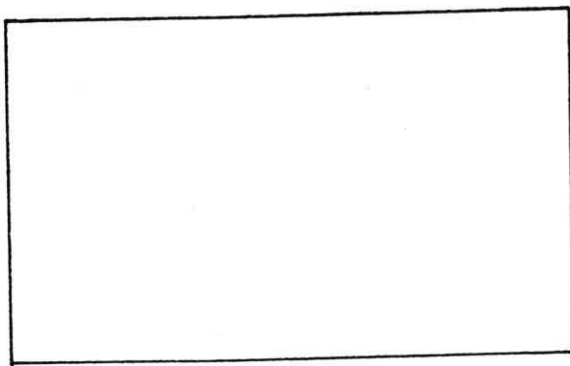
Greenpeace UK, 30-31 Islington Green, London N1 8XE.
North Atlantic Network c/o Scottish CND, 420 Sauchiehall
Street, Glasgow G2.

Nuclear Transport Information Group, 11 Oxford Avenue,
Southampton.

SCRAM(Scottish Campaign to Resist the Atomic Menace),
11 Forth Street, Edinburgh.

SCANN (South Coast Against Nuclear Navies), 119 Orchard
Road, Southsea, Hampshire PO4 0AD.

Local Contact:



DID YOU KNOW Nuclear powered vessels make regular visits to Barrow-in-Furness, Barry, Brodick Bay (Arran), Campbeltown, Cardiff, Coulport, Devonport, Faslane, Firth of Forth, Glen Mallan, Lamlash Bay, Lerwick, Shetland Isles, Liverpool, Loch Ewe, Loch Fyne, Loch Goil, Loch Striven, Portland, Portree, Portsmouth, Raasay, Rosyth, Rothesay, Southampton, Spithhead, Thurso Bay, Torbay, Plymouth, Swansea and there are proposals for visits to Tilbury, London!

Over 700 incidents involving submarine nuclear reactors since 1964 - about one a week.

6 nuclear powered subs are decaying on the ocean bed as a result of nuclear accidents.

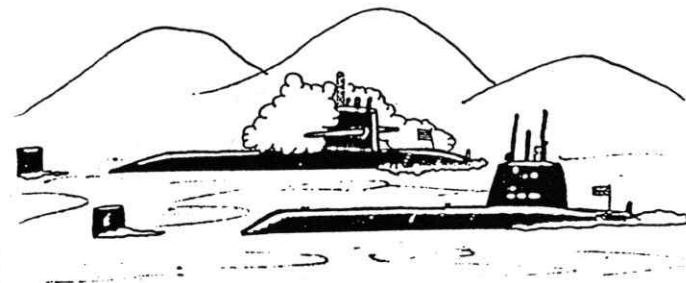
Trawlermen in the Irish Sea live in fear of being sunk by submarines.

Radioactive pollution dumped in our coastal waters.

No one knows how to get rid of old nuclear submarines safely...

... AND WE'RE BUILDING STILL MORE!

SUBMARINES -THE DANGERS



Questions and Answers

-Q1 Dangers? - What dangers?

-A The dangers of civilian shipping being damaged or sunk. The dangers of a submarine itself being damaged in a collision, or suffering another type of accident. The dangers to us, the public, from the pollution from such an accident, where a nuclear-powered submarine is involved, and the dangers from radiation given off during a submarine's normal working life. In addition, ballistic missile submarines carry highly explosive rocket fuel, and explosives, plutonium and other highly poisonous radioactive elements in the nuclear warheads - if there was a fire on board a sub, it is possible that a conventional explosion could result, scattering fallout over a wide area.

-Q2 But these risks must be minor, or we would have heard of accidents involving subs before now, wouldn't we?

-A You underestimate the secrecy which surrounds these warships. An internal Royal Navy study leaked last year said that there had been over 700 "incidents", some routine, some serious, involving sub-reactors between 1964 and 1978. Trawler workers have been trying to get the government to act for years to stop trawlers being towed, and sometimes sunk, by submarines. Many lives are believed to have been lost in this way since the 60s in the Irish Sea alone, but until now the Royal Navy and the U.S. Navy have denied most incidents unless proof has been found which they cannot hide.

-Q3 What is this radiation you say submarines give off during their normal working life?

-A Royal Navy and U.S. nuclear powered submarines rely on water to cool their reactors and make steam to provide power - like a small nuclear power station. Spillages of coolant water can happen, especially when the reactors are started up after being in dock for a time. "Primary coolant" - which has been in closest contact with the reactors' moving parts - can pick up small pieces of metal and radioactive elements such as cobalt 60. Captain James Bush, who served as a submarine commander at the Holy Loch, has admitted with regret that the US regularly dumped primary coolant water onto the loch over several years in the 60s. Greenpeace recently surveyed the area around the submarine bases in this country and found radioactive pollution in the silt on the sea bottom, especially at the Holy Loch and Faslane. Some of these bases are in areas where there are high levels of rare and childhood cancers, which could be a result.

-Q4 Don't the authorities monitor this radiation to make sure it's safe?

-A There is no "safe" level of radiation. When the authorities set safety standards they take into account how much it would cost to reduce emissions, and weigh this against the estimate of risk to the population at large. New research leads to these standards being made stricter year by year.

-Q5 Doesn't the need to have these submarines to keep us safe from attack mean these risks are worth taking?

-A That must be a matter for debate, but we can only make sensible decisions if we have all the facts. If the authorities keep the risks secret, they don't let the public weigh the dangers of accidents against the fear of attack. Even some Naval strategists have doubts about the role of submarines. The great appeal of subs to the military mind is that they can hide in the sea, ready to attack intruding enemy subs or surface ships, in the case of Diesel-Electric and Hunter-Killer subs, or launch nuclear missiles in the case of ballistic subs like Polaris, or the U.S. Navy's Poseidon or Trident. East and West have been trying to outdo each other for years in making their subs undetectable, and finding ways to track enemy subs. The fact that subs "play cat and mouse", especially in the North Atlantic area could too easily lead to an accidental nuclear attack leading to all-out war. Surface ships, aircraft and satellites can take over the role of finding subs which may threaten us, but if we continue to deploy more submarines at sea, the risks of accidental war could outweigh any value of "deterrence". A surer way to safety, certainly one worth considering, might be to try to do away with these weapons altogether.

-Q6 Haven't we started on the road to disarmament by getting rid of Cruise missiles from Greenham, while the Russians got rid of their SS20 missiles? Doesn't the government's strategy of "bargaining from strength" seem to be paying off?

-A It would be comforting to think so. Sadly, the present government seems to have no intention of bargaining at all, and there are no negotiations on sea-based weapons, the fastest-growing area of expansion. The warheads and guidance systems dismantled under the INF treaty could well reappear on Sea-Launched Cruise missiles, which the US is fitting to most of its surface fleet, and many of its Attack submarines. The U.S. and U.K. are building Trident II submarines, with increased range and much greater destructive power; the French are also increasing their capability, as are the Russians and most other Naval countries.

"Bargaining from strength" could be seen as building vastly expensive and dangerous weapons and deploying or threatening to deploy them, in order to negotiate them away (if you agree to negotiate!). It's a bit like taking two steps forward and two steps back. Meanwhile we are building more and more nuclear subs and no-one has found a way to dispose of even the subs that already exist.

-Q7 What about the Russians? There are all these stories about the accidents their subs have had, their shoddy workmanship... and isn't their Navy really aggressive?

-A The media have covered recent Russian incidents in depth. Whether that means the Russians have more or worse accidents than other nuclear Navies is difficult to judge. Accidents do happen on both sides, but both blocs are prone to excessive secrecy. It would be reassuring to us in the West to think that "our" subs are safer, but there have been cover-ups in the past. We could be the last to know if there was an accident on a NATO sub, on past experience, but ownership of the sub won't matter much - the fallout doesn't recognise nationalities! In terms of aggression, this year the Warsaw Pact has unilaterally withdrawn all its submarines from the Baltic Sea, on its doorstep. Shortly beforehand, the U.S. practised a seaborne invasion of Russia, using Scotland as a practice-ground.

-Q8 So what do you suggest doing?

-A Make up your own mind. The MoD will no doubt give you its side of the story, while the many organisations opposed to the arms race at sea are listed overleaf. The action you then take is up to you, but the better informed you are the better able you will be to decide whether submarines, nuclear weapons at sea, or wherever they are based are worth the risks they pose.

The arms race at sea is accelerating - unless we can act to stop it.