

UK nuclear deterrent crippled by Polaris sub faults

Exclusive

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CRACKS IN THE nuclear reactors of at least two of the Royal Navy's four Polaris submarines are threatening Britain's ability to maintain an independent nuclear deterrent.

HMS Revenge and HMS Renown suffer from cracks found in pipes in their primary cooling systems which lead from the main reactors of the submarines, according to information given to Labour MP John McFall and confirmed to *The Observer* by defence and industrial sources.

A further question mark hangs over a third Polaris, HMS Repulse, which in the last two years, has spent only a month on patrol.

Now sources in the defence industry believe that when the remaining Polaris submarine, HMS Resolute, returns from patrol later this month, there may be no boat ready to replace her.

Met admits racism has kept blacks out of police force

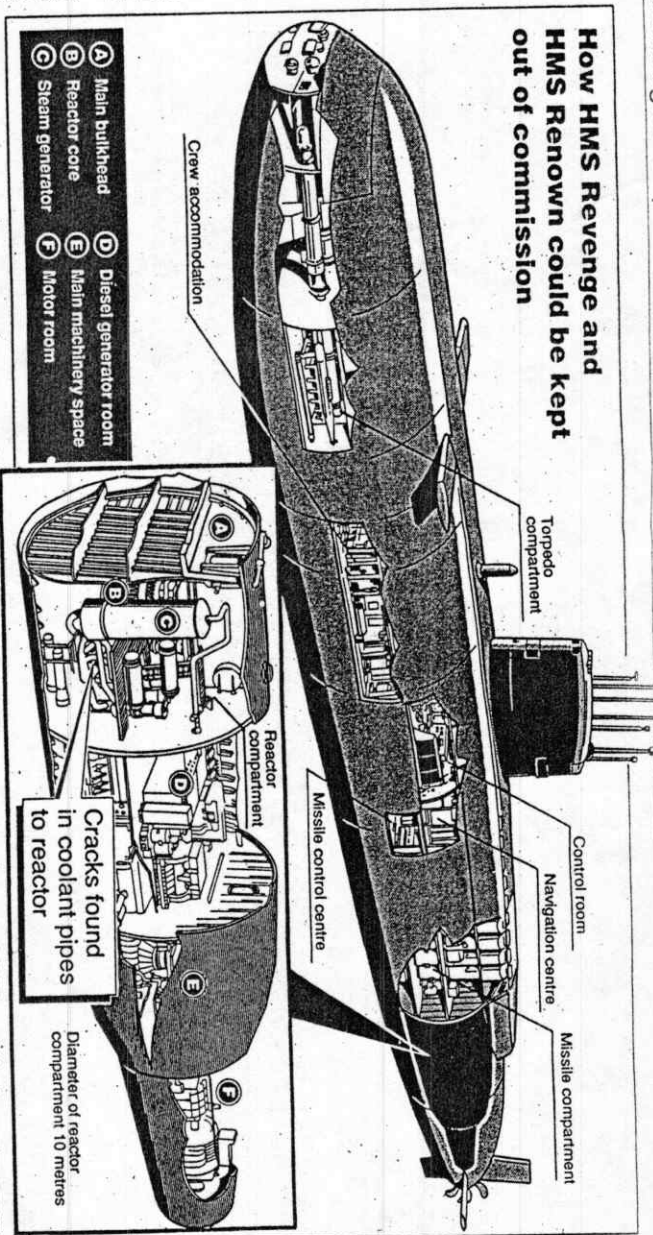
David Rose

Home Affairs Correspondent

THE Metropolitan Police force has admitted for the first time that its failure to attract and keep black recruits stems from the racism of white officers.

The Met now plans to tackle the problem by reversing its policy of dispersing black officers evenly, and will instead concentrate them in designated stations.

How HMS Revenge and HMS Renown could be kept out of commission



But with two submarines laid up and one other apparently out of commission, the system is in danger of failure.

Mr McFall, a Labour member of the Commons Defence Select Committee, yesterday called for an immediate inquiry into why Britain has been operating without a fully effective deterrent.

Serious problems exist in three of the four Polaris submarines and this has resulted in the UK operating without an effective deterrent for the past two years, he said.

The discovery of the cracks in the latest embarking crisis for Britain's troubled nuclear submarine fleet. With the Trident programme — up to three years behind schedule, and its weapon system beset by problems, the Royal Navy has been forced to keep its 20-year-old mid-Nineties, when the first Trident is due to come into service.

When the Polaris programme was initiated in 1967, it was planned to keep one boat on patrol, one in refit, one ready to go on patrol and one in reserve.

Some senior officers were reluctant to take action, and when black officers sought recourse to the Met's grievance procedure, this had been implemented with a disappointing lack of vigour.

According to defence sources, Rolls-Royce, which built the PWR1 reactors, has been working flat out to repair the fault after promising the MOD earlier this year that it could keep the boats in service.

But some experts fear that repairs are no more than a 'patch-up job' that could threaten the safety of submarines and repair workers. The cracks were discovered in pipes leading to and from the twin steam generators, which run beneath the dashboard-sized reactor core situated near the back of the submarine.

The problem is caused by neutrons irradiating the steel of the reactor, making it brittle and liable to crack at high temperatures.

In the case of HMS Revenge, it is understood that the only way of repairing the fault has been to grind down the pipe below the diameter originally specified as safe for the design.

work in the reactor compartment is delayed as long as possible during a standard refit to allow the radiation levels to decay to more manageable levels.

He added: 'The Ministry of Defence has been caught short by running a very tight replacement programme. With Polaris coming to the end of its life and Trident not yet ready, it looks as though there may be a gap.'

The problems in HMS Renown, which is already two years late in its refit, are more severe. Defence and industrial sources say the reactor has had to undergo a major overhaul.

The Royal Navy said it could not comment on the deployment of nuclear submarines.

For parrots, wild orchids and

and watching his young fill grammies such as Grange Hill, which are specifically made for them, but also *Neighbours* and, more surprisingly, ITV's *The Bill*, broadcast at 8pm and often containing violence.

The children were asked about their viewing habits at home, and then shown specific programmes at school for detailed questioning. It emerges that children's comprehension of TV drama is low, particularly when it comes to following plots. Frequently they become lost.

They also tend to take personalities, particularly those in authority, at face value, finding it difficult to evaluate how characters can change and develop within a story.

For example, the youngsters in the BSC survey were confused that a policeman became a 'bad' person, assuming all policemen are good. They could not understand how a policeman in *The Bill* turned out to be a criminal. They also failed to comprehend how a school caretaker in *Grange Hill* became a thief.

There is some evidence that the blandness and niceness of a programme like *Neighbours* influences children to assume that the world is primarily a good place. *Neighbours*, though not originally made for children, has a devoted audience among youngsters from the age of three upwards.

The BSC survey found that children aged six and seven thought *Neighbours* was realistic, so much so that they did not appreciate that the characters were being played by actors. The children were, however, able to tell the difference between reality and fantasy in cartoons.

They were questioned in particular about *Breastmilk*, an American-made cartoon shown on BBC Children's Television which is about cowboys in outer space. The youngsters realised the cowboys were not really floating in the heavens.