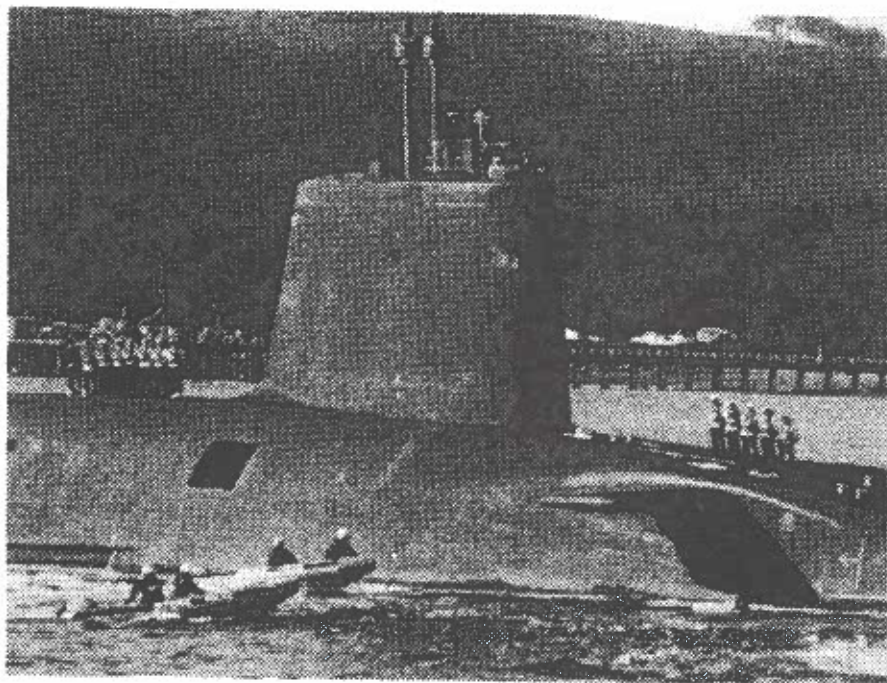


**TRIDENT**

*in*

**SCOTLAND**



*not*

**SAFE  
ECONOMIC  
WANTED**

# FOREWORD

BY CAMPBELL CHRISTIE

General Secretary  
Scottish TUC

In the post Cold War world it might have been assumed that the nuclear arms race would be over, that the threat of mass destruction would be withdrawn and that the world would turn its attention to the real challenges of our era: the elimination of poverty; the protection of our environment and the beginnings of a global switch from military to civil production.

But it has not been so. In fact, for the people of Scotland the last five years have seen a bigger nuclear weapons presence than ever before. Just as the Berlin Wall has come down, so Trident has been deployed in the Clyde. This pamphlet aims to highlight the real costs of that Trident weapons system - a system which threatens both our safety and economic well-being.

Since it was first developed in the late 1970s, vocal opposition to Trident has rung out from many headquarters: from the Shetland Isles to the Borders, from the peace camps to the ex-Service men's clubs. Defence workers, even those employed on building and fitting out Trident, have recognised the costs too. They also understand all too well that the vast majority of jobs associated with Trident are temporary, whilst opportunities to generate long-term secure employment are being squandered.

Our clarion call is that Trident is not wanted in Scotland. But our horizons are much broader than that. We do not simply wish to see Trident move from one part of the British Isles to another. Our aim is to see Trident scrapped altogether - unilaterally - but as part of an accelerated nuclear disarmament programme on a global scale, and for the resources released to be invested to tackle the problems of poverty, health and education in a way which would create lasting, challenging jobs for our people.

For politicians from all parties the important message is this: *"It is not too late"*. It is not too late to pull back from the nuclear nightmare. It is not too late to re-allocate the billions of pounds of public money earmarked for Trident. **They must act now and save the future.**

# INTRODUCTION

BY TONY SOUTHALE

Secretary  
SCOTTISH LABOUR CND

In 1977 a secret committee was established by the then Labour Government of Callaghan. Its job was to discuss a successor to the Polaris nuclear submarine fleet. This was done despite the Party having a long-time commitment to opposition to the so-called "independent" British nuclear deterrent. The final decision to purchase Trident missiles from the US was taken by the Conservative Government of Thatcher in 1980. It was simultaneously announced that submarines and bombs would be built here.

This decision was part of the escalating nuclear arms race of the time. US President Reagan, with enthusiastic support from Thatcher, was continually proclaiming his determination to defeat the supposedly menacing forces of Communism. A first strike nuclear strategy was posed with the arrival of Cruise missiles.

The new British weapon with its eight fold increase in nuclear strike capacity was a part of this. The British, and particularly the Scottish, response to this was immediate. Massive demonstrations of a size unknown since the Vietnam war took place. The Scottish Campaign Against Trident led a march of 30,000 to Glasgow Green at Easter 1982.

For the past twelve years there has been overwhelming opposition in Scotland to Trident. The STUC, most unions and the Scottish Labour Party have continually reaffirmed this position. The Faslane Peace Camp has maintained a vigil that has drawn constant attention to the preparations for Trident arriving.

Unfortunately since the collapse of the Warsaw Pact four years ago and removal of the supposed "Russian Threat", the level of public opposition to Trident has massively declined. This is despite the arrival in 1994 of the second of the four submarines and the maintenance of an overwhelming majority in Scottish public opinion against the weapon.

STUC and SCND responded on March 5th 1994 by organising a conference in Glasgow designed to revive Scottish Labour Movement campaigning against Trident. We are reproducing here two of the main contributions: on safety considerations and on the economic benefits for Scotland of abandoning Trident. We hope these will receive a wide audience not just in the Labour Movement but amongst individuals and organisations that share our concern.

Both authors are very willing to introduce discussions on their respective themes to any organisation wishing to hear them. Please contact:

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Glasgow G41 1QH  
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# THE SAFETY OF TRIDENT

BY JOHN AINSLIE  
Administrator  
SCOTTISH CND

## THE TRIDENT SUBMARINE

A Trident submarine is designed to destroy a continent and to kill 200 million people. Each missile-carrying submarine will contain 800 tonnes of high explosive in the rocket fuel and around 100 nuclear warheads and is powered by a nuclear reactor. The Trident system is therefore inherently dangerous.

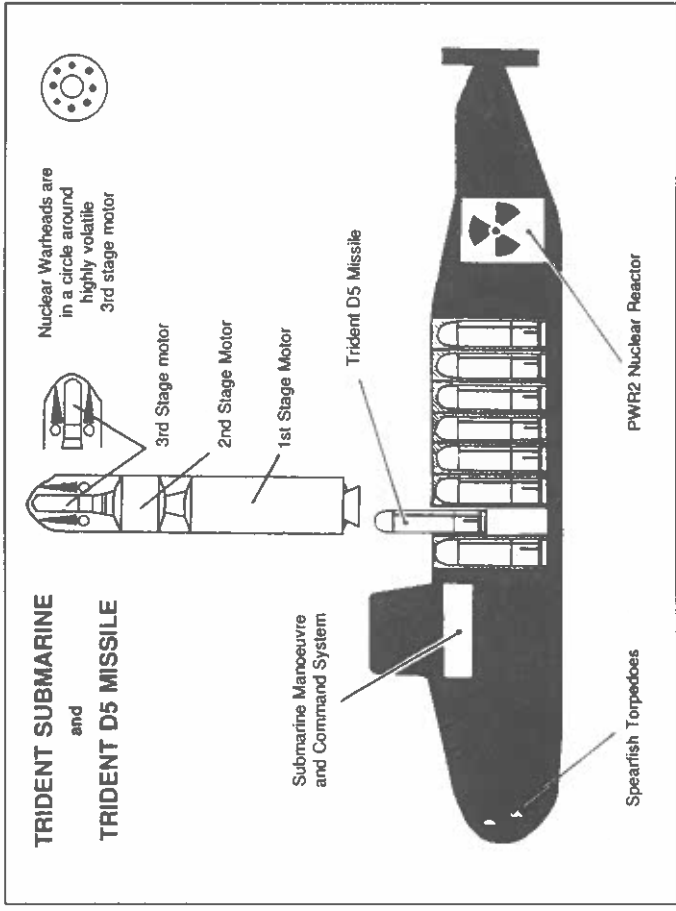


Figure 1. Trident submarine, showing reactor and missiles on the port side. Detail shows 3 stage trident D5 missile and nuclear warheads around the 3rd stage.

The dangers of an accident on a land based reactor were revealed when a reactor at Chernobyl exploded in April 1986. It is possible for an accident on a similar scale to Chernobyl to happen on a submarine reactor. There are known to be problems with the earlier reactor designs used on British submarines. Five submarines have been decommissioned because of concern that there were hair-line cracks in the reactor cooling circuit. If the cooling circuit failed there could be a series of explosions in the reactor compartment.

This is not just a hypothetical scenario. On 10th August 1985 the reactor on a Soviet Victor class submarine exploded while it was being refuelled near Vladivostok. Radioactive byproducts were released into the atmosphere and into the sea. The accident resulted in extensive contamination over a wide area. An eye witness said:

*"The submarine looked as if it had been trampled by a large beast".*

An accident on a submarine is in many ways more likely than an accident on a land based reactor. The crew are in a more isolated and abnormal situation than their counterparts in a civilian power station. Missile submarines are at sea for 10 weeks at a time; the crew cannot speak to their families; they live in a cramped environment and are cut off from the normal cycles of day and night. In an emergency they have to rely on the skills of those on board. Ultimate authority is in the hands of the Captain, who, unlike his American counterpart, is not a reactor expert.

Submarines are subject to hazards which do not apply on land. They can and do collide with other vessels. There have been numerous encounters with surface vessels including fishing boats. Operational practice means that collisions with other submarines at sea are a real possibility. Submarines from Western Navies and their Soviet/Russian counterparts have been damaged in such encounters.

The most minor fire on a submarine can develop into a major disaster because of the confined space and the effects of smoke and fumes. There are many hazardous materials carried on board. The Spearfish torpedoes on a Trident submarine are armed with a very powerful explosive and are propelled by a particularly dangerous fuel. The 16 missiles contain very large quantities of high explosives which under certain circumstances could detonate.

In order to carry out maintenance work at Faslane the MoD have chosen not to use a traditional dry dock but a shiplift. This will be used to lift a Trident submarine out of the water, with missiles and nuclear warheads on board. The Americans do not use shiplifts for this purpose and the whole procedure is suspect. The risk of an accident is particularly great because it is known that many of the piles which support the structure are not properly fixed.

In the event of an accident at sea or on land, radioactive material could be scattered over a wide area, and dispersed both in the atmosphere and into the sea. A large part of Scotland could be contaminated. Radioactive contamination leads to increased occurrence of cancer. The number of fatalities from an accident could be in hundreds or thousands, depending on the circumstances and the weather. There would be severe long term damage to plant, bird and animal life.

The effects of a major reactor accident in which the containment of the reactor fails are illustrated in Figure 4 on pages 12 and 13. The risk of fatal cancer rises from 1 in 5,000 for those 112 kms from the scene to 1 in 6 for those only 1 km away.

This is not the worst possible scenario. It takes no account of the dispersal of lethal plutonium from the nuclear warheads which could occur in a complex accident. If one of the Trident missiles exploded this could result in the dispersal of plutonium from the warheads and at the same time trigger a reactor accident. Conversely a reactor accident could lead to a fire which could cause a missile explosion. The vast amount of explosives in the rocket fuel means that a major explosion is possible. In these circumstances the radioactive cloud would contain plutonium dust as well as byproducts from the reactor and there is also the risk that a nuclear explosion could take place.

In addition to the risks of an accident at sea there are shore based facilities which could be the scene of a disaster. The nuclear warheads are to be placed on board each Trident submarine inside a floating Explosives Handling Jetty at Couliport on Loch Long. While these warheads are being manoeuvred by crane they could collide with the top section of the missile.

This is one of the most dangerous of all Trident accidents and some American experts are concerned that this could result in an accidental nuclear explosion.

## NUCLEAR WARHEAD CONVOYS

The nuclear warheads for Trident are assembled at Burghfield near Reading. They are transported by road across Britain to Couliport. Since November 1992 convoys have been seen almost every month carrying this lethal

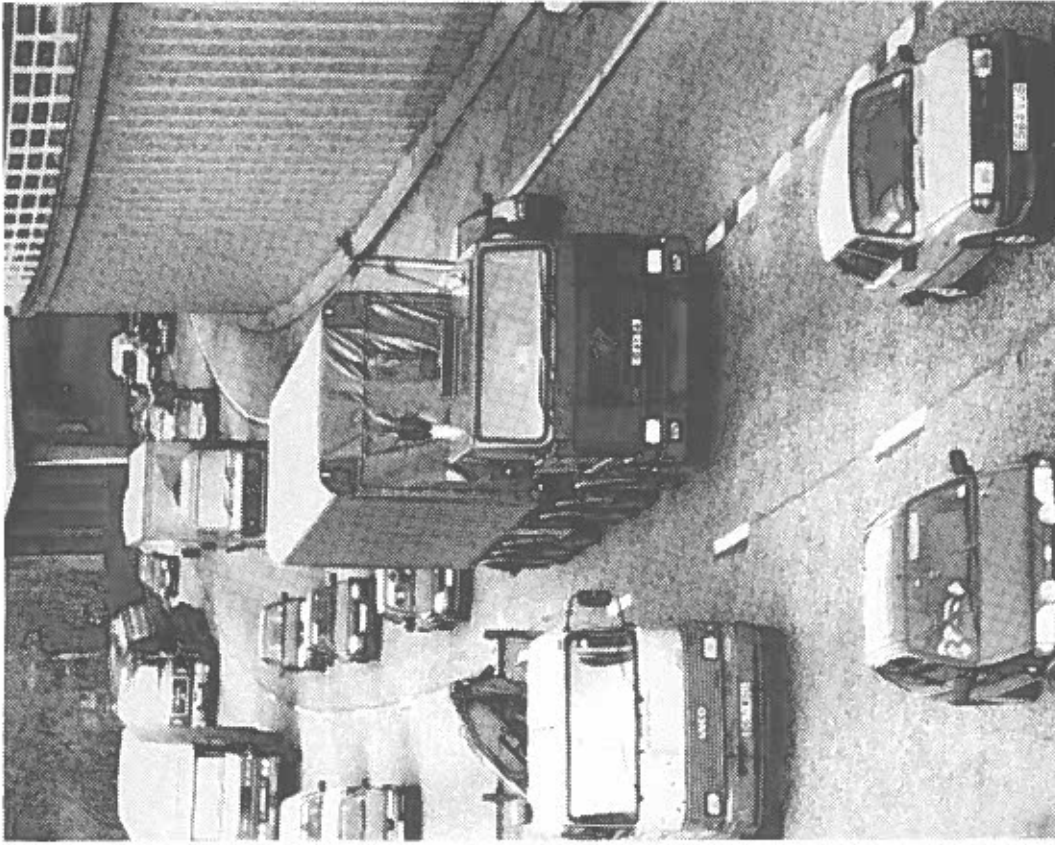


Figure 2.

Vehicle carrying Trident nuclear warheads on the M8 in Glasgow in February 1993. There had been an accident here 30 minutes earlier.



load. Most convoys consist of 5 articulated lorries plus a substantial escort and can transport a total of 10 Trident nuclear warheads.

In March 1994 it was revealed that there had been 21 breakdowns involving these vehicles in the previous 18 months. Some of these involved failures in the synchronisation of the tractor unit and trailer brakes. On three occasions it was necessary to exchange tractor units on a carrier. One such breakdown was on the exit ramp from the Erskine Bridge on 18th May 1993 when the carriers were stationary for 4 hours at the side of a major road.

In the past there have been several serious accidents. In June 1985 two older Mammoth Major vehicles transporting nuclear weapons collided in the centre of Helensburgh. In 1987 a similar carrier containing nuclear weapons slid off an icy road in Wiltshire and landed on its side. In 1988 a Mammoth Major was involved in a head on collision with a sports car. The driver of the sports car was killed and petrol was spilt on the road around the carrier. There was also an incident in 1983 when a gas main exploded in the Dunbartonshire village of Cardross. It is believed that it had been weakened by a convoy of Mammoth Majors which had passed by earlier.

The carriers travel in convoy for reasons of security rather than safety and the way in which they travel has in the past been the cause of accidents. The escorting motorcycles are particularly likely to become involved in incidents. The articulated lorries are heavier than the maximum permitted limit in the UK. Each vehicle weighs 48 tonnes. From November 1992 to March 1994 all convoys travelling to Coulpport passed over the Kingston Bridge in the centre of Glasgow. It is now known that there are serious structural problems with the bridge. There are now restrictions on heavy vehicles using the bridge and convoys in April and June 1994 were diverted via Stirling. If an accident had occurred in the centre of the city the results would have been catastrophic.

A Trident nuclear warhead contains a ball of plutonium surrounded by explosives. In an accident the explosive could detonate. This could lead to a nuclear explosion, or more likely, to the dispersal of lethal plutonium into the atmosphere. Even if there was no nuclear yield, the plutonium would be pulverised into dust and then be dispersed downwind of the accident. Minute particles of plutonium can cause cancer if they are absorbed and retained in the body. If the plutonium from one warhead is dispersed in average weather conditions then the risk of fatal cancer might vary from 1 in 2000 for those

12 kms away from the accident to 1 in 29 for those 400m from the scene. Plutonium is very difficult to detect and a large area would be contaminated for thousands of years.

## OTHER ASPECTS

The British Nuclear Fuels reactors at Chapelcross in Dumfriesshire have been used to produce plutonium for nuclear weapons including Trident. This is also the only plant in Britain which produces tritium which is a radioactive gas used in Trident nuclear warheads. Large quantities of tritium are dispersed into the atmosphere from Chapelcross. There are some concerns that tritium could be a cause of health problems which have been detected around similar sites in North America.

Both Chapelcross and Sellafield discharge radioactive waste into the sea. Sellafield has played a central role in Britain's nuclear weapons production programme and continues to do so today. There are facilities to produce weapons-grade plutonium and to process it. The radioactive waste from Sellafield has been detected around the coast of Scotland, including on the Western Isles. There are many radioactive hot spots on the shore of the Solway Firth, here both Chapelcross and Sellafield are probably to blame.

While most of the nuclear complex at Dounreay is being wound down there is one part of the site which carries on regardless. This is the MoD establishment at HMS Vulcan. Here a full scale prototype Trident submarine reactor has been in operation since 1987. An accident here could have similar consequences to those described in Figure 4 on pages 12 and 13. Spent fuel from HMS Vulcan is transported by rail from the North of Scotland to Sellafield in Cumbria. These consignments are probably the most dangerous nuclear material which is transported in Britain. Rail movements have been suspended for several years but are due to be resumed shortly. There are serious grounds for concern about the integrity of the containers in which this spent nuclear fuel is transported.

A massive amount of nuclear waste is also produced during the course of the Trident programme. The total of nuclear waste from all MoD sources accounts for around one sixth of all nuclear waste produced in Britain. Much of this is related to the Trident programme. Low level waste from Faslane and

other sites is transported by road to Drigg near Sellafield. Intermediate level waste is stored on site. The spent fuel taken from HMS Vulcan is High level waste.

Around 10,000 people are monitored for radiation because of their work for the MoD, this does not include those at Sellafield and Chapelcross. Many are involved in work related to Trident. There is evidence that exposure to radiation in the workplace can lead to problems of cancer and in particular to specific types of cancer and genetic abnormalities amongst the children of those who are exposed.

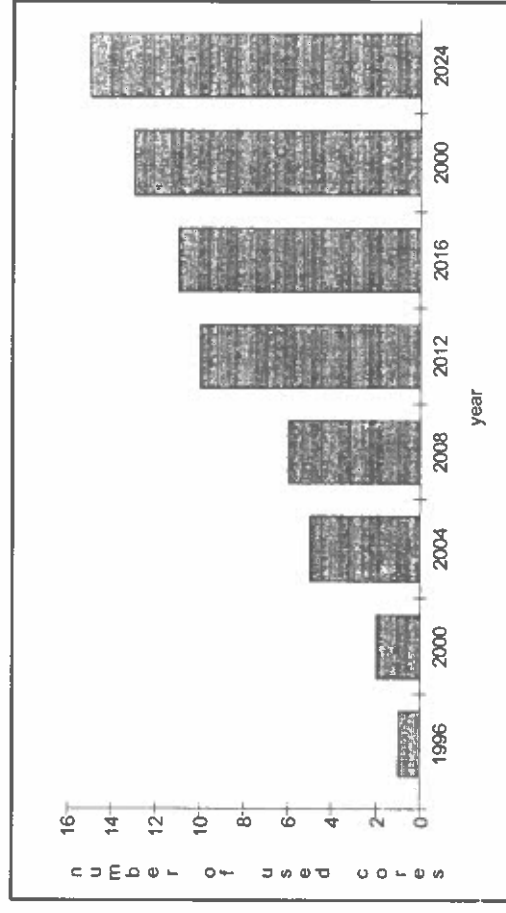
## THE RISKS: WHERE AND WHEN

The area around Faslane and Coulport is the most likely scene of a major nuclear accident involving Trident. This is the site of the Explosives Handling Jetty where missiles and nuclear warheads are mated and also of the Shiplift. The submarines will spend a high proportion of their time here. They will regularly train in the Clyde estuary around Arran and use the noise range at Loch Goil. They will also regularly exercise around the Western Isles using the sonar range North East of the Isle of Skye. When on patrol the submarines could be anywhere at sea; at present Polaris submarines are frequently deployed to the North West of Scotland.

An accident at HMS Vulcan at Dounreay could have most impact on the North of Scotland and also Orkney and Shetland. Convoys of Trident warheads travel through Southern and Central Scotland. They pass close to Edinburgh and Glasgow, through Stirling and through Dunbartonshire. They travel over the border either via the A1, the A74 or by the A68 through Jedburgh. The border area would also be most affected by an accident at the plutonium and tritium production reactors at Chapelcross.

Unless Trident is stopped the people of Scotland will continue to be at risk for decades to come. The greatest danger, from fully armed submarines on the Clyde, could be present for almost 30 years from 1994. The volume of high level nuclear waste from used reactor cores will increase at a rate of almost one used core every two years (see Figure 3 on page 11).

While around 100 nuclear warheads have been assembled by mid 1994, many more are planned. The MoD probably intend to make 400 warheads and to transport them all by road across Scotland. Even if there is no major accident, the nuclear waste produced by Trident will present a threat to the environment for thousands of years to come.

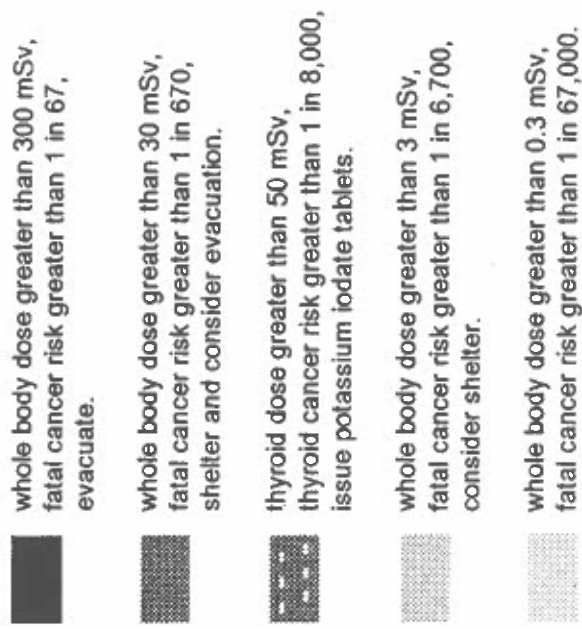


**Figure 3.** The graph shows the amount of High Level Nuclear Waste which could result from the operation of 4 Trident submarines & the Trident reactor at Dounreay, measured in number of used reactor cores.

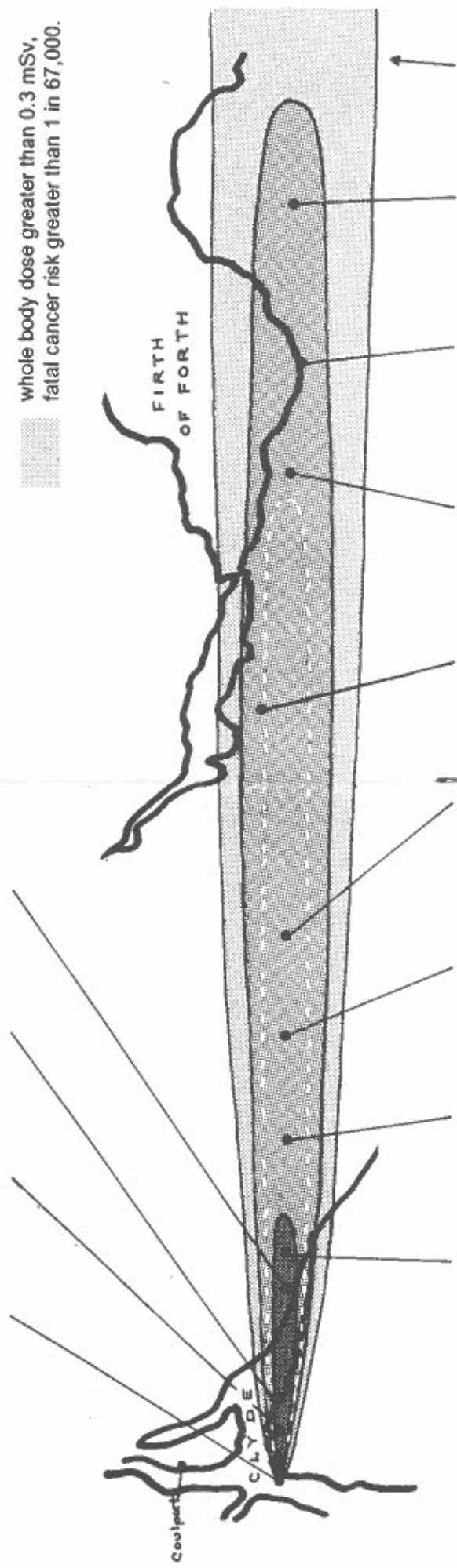
A more detailed analysis of the hazards of Trident can be found in: ***"The Safety of Trident: an assessment of the radiation risks associated with the UK Trident programme"***,

SCND, Feb 1994,  
available from Scottish CND price £6.00.

Figure 4. Effect of a reactor containment failure accident on a Trident submarine in the Clyde.



	McInroy Point	Gourock	Greenock	Daireoch
Distance	1 km	5 km	9 km	17 km
Whole Body Dose	3300 mSv	250 mSv	110 mSv	50 mSv
Fatal Cancer Risk	1 in 6	1 in 80	1 in 180	1 in 400



	Dumbarton	Milngavie	Kirkintilloch	Cumbernauld	Linlithgow	Edinburgh	Musselburgh	Haddington	Dunbar
Distance	21 km	36 km	47 km	56 km	80 km	100 km	112 km	127 km	140 km
Whole Body Dose	40 mSv	20 mSv	14 mSv	11 mSv	6 mSv	5 mSv	4 mSv	3.3 mSv	2.3 mSv
Fatal Cancer Risk	1 in 500	1 in 1000	1 in 1429	1 in 1818	1 in 3333	1 in 4000	1 in 5000	1 in 6061	1 in 8696



# THE ECONOMIC CONSEQUENCES OF TRIDENT

BY RICHARD LEONARD

Assistant Secretary  
SCOTTISH TUC

## THE FULL COST OF TRIDENT

Trident's development and deployment has come at a huge financial cost to the British tax-payer, but it also comes at a heavy price to the environment and our economic, social, democratic and moral integrity too. It is misleading, therefore, to consider the financial and broader economic consequences of Trident in isolation. Indeed, the Scottish TUC for one would oppose Trident, even if scrapping it did not return a single penny to the public purse.

However, the present Government concerned with the PSBR and the mismatch between tax revenue and public expenditure must consider scrapping Trident and thereby saving substantial running costs as an option in the fight for a balanced budget. A more progressive Government keen to rebuild public services and invest in the nation's infrastructure must also consider cancellation of Trident as a serious option in the search for extra resources.

The introduction of Trident provides an insight into the political and economic priorities of the British State. Tenable - even to the New Right - only because of the bonanza of North Sea Oil during the period of its development Trident is a triumph of the military complex over the needs of the impoverished. It is a triumph of foreign policy over social and industrial policy.

In an era of tax re-distribution, widening income and wealth and inequalities, and austerity in public spending, the Government openly admits to spending £11.6 Billion (the real cost is nearly three times higher) on a weapons system which no sane person would consider using and whose military target has now disintegrated. For the rich, whom the present Government serve, the

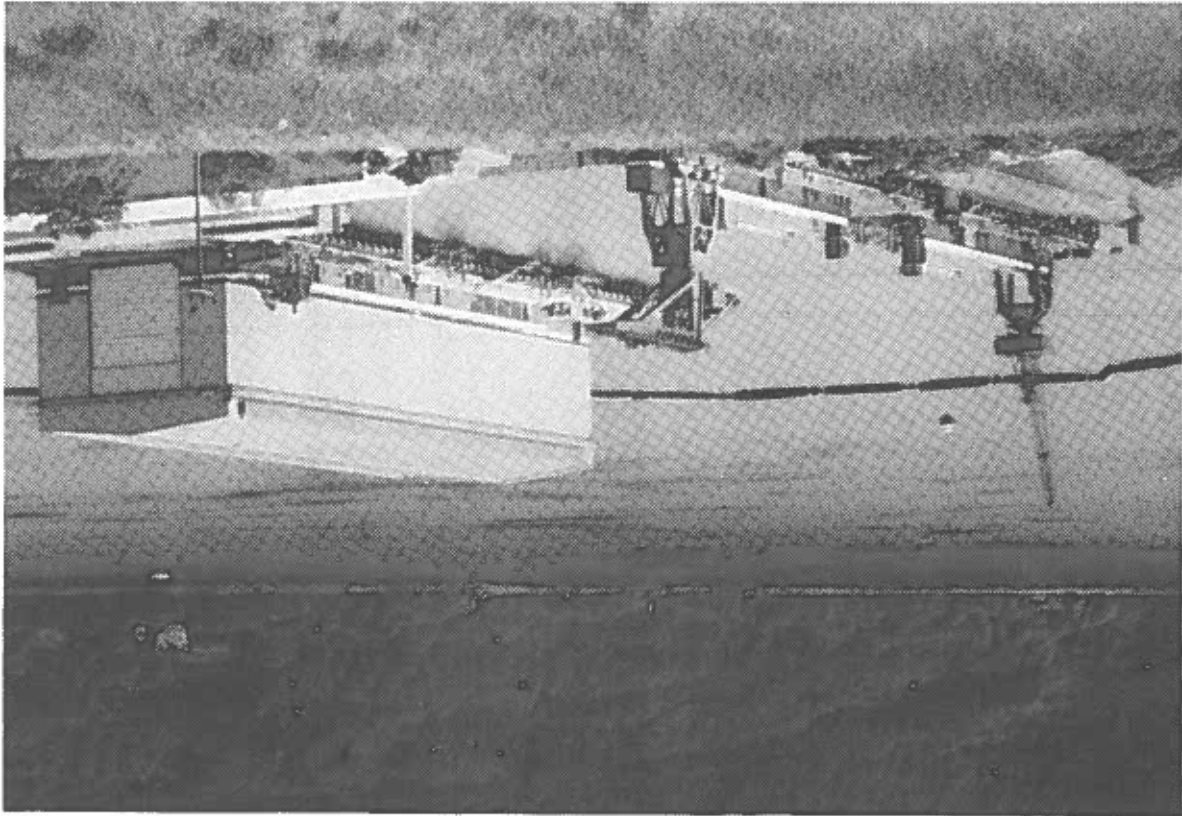


Figure 5. The giant submarine Shiplift at Faslane (on the right) is now expected to cost £177 million more than estimated. HMS Vanguard is moored at the Finger Jetty on the left. This jetty is now expected to cost £51.7 million more than estimated.

consequence of this is largely escapable. Ever rising tax relief means they can buy their way into private health care, private education and private sports and recreation clubs - even private security arrangements whilst for the majority of people the public provision of these services is run down.

A National Audit Office report published in the summer of 1994 revealed a staggering £800 million overspend on the Trident Works Programme in Scotland. Even a simple cost benefit analysis shows Trident to be a liability. A fuller economic assessment of Trident shows it to be one of the greatest mistakes of the 20th century

## THE TRIDENT PROGRAMME

The Trident programme has three major elements:

(a) submarines; (b) missiles/warheads; (c) infrastructure.

### (a) Submarines

Submarines are principally built at VSEL Barrow, with sub contract work in Scotland (see next section). They will probably now be refitted at Devonport.

### (b) Missiles/Warheads

The UK will import the missiles from the US. Fissile components for the warheads are designed and produced at Aldermaston, with some components supplied from Scotland (see next Section).

### (c) Infrastructure

Onshore facilities are being constructed at Faslane/Coulport with refitting facilities at Devonport.

## TRIDENT IN SCOTLAND

Expenditure on Trident has created employment and capital investment in a number of local economies in Scotland - from Dounreay in the north to Chapelcross in the south. These include the production of submarine periscopes at Barr and Stroud's (Glasgow), of hulls at Babcock International

(Renfrew), of navigation systems at GEC Marconi Avionics (Edinburgh), nuclear plant and reactor testing at Rolls Royce's HMS Vulcan (Dounreay), and tritium for warheads (Chapelcross).

In addition, capital expenditure of £120 million was made for RD57, the infamous "hole in the ground" at Rosyth and £1,900 million on the development of docks and infrastructure at Coulport/Faslane on the Clyde.

Undoubtedly then money from the Trident programme has generated some direct and indirect jobs in Scotland at the development and construction stage. These are the supposed economic benefits.

But note that this is considerably less than was originally forecast. Moreover, it has fluctuated wildly over the course of the programme, reflecting the temporary nature of much of the work generated. Further, though some employment will be maintained at the deployment stage, it will be considerably reduced. So, HMS Vulcan Dounreay which employed 400 at its peak is now being run down. Babcocks have now completed all their work on the submarines. After the MOD's decision to relocate submarine refit work to DML at Devonport, Rosyth will not have significant future employment benefits from Trident. Faslane/Coulport will be the only site where big employment levels will be maintained - stabilising at 2,700 civilian jobs by 1996 after peaking at 5,900. We can estimate that total civilian employment in Scotland resulting from Trident would be in the region of 3,500. Nuclear weapons are a hi-tech investment with limited manufacturing spin-off and low associated employment.

## THE FINANCIAL COST OF TRIDENT

The history of Trident is the history of cost escalation. According to official figures, the budget for the project has risen from £4-5 billion in 1980; to £11.6 billion in 1994. This, despite savings identified by the House of Commons Defence Select Committee, due to cuts in the US part of the programme and due to the relative improvement in the pound/dollar exchange rate which has cut the cost to Britain in cash terms.

Much of the increase in official cost calculations is due to a big over-run in infrastructure spending, particularly at Faslane and Coulport where overall

capital costs are exceeding initial estimates by at least 72 per cent in real terms. On some particular projects the over-run is much greater. The projects worst affected are:

**the giant submarine Ship-lift at Faslane** - now expected to cost £314 million, not £137 million;

**the Explosives Handling Jetty at RNAD Coulport** for loading nuclear warheads - now expected to cost £274.6 million - £155 million more than expected;

**Trident Finger Jetty for Faslane** - originally expected to cost £25.3 million, but will now cost £77 million;

**The Northern Utilities Building at Faslane** is expected to cost £110 million, not £47 million as initially estimated.

In addition to these attributed costs of £11.6 billion, Government estimates of Trident's financial implications fail to take into account significant components, like Trident's running costs and decommissioning costs. Greenpeace have conducted an audit of Trident costs and calculate that **£22 billion worth of public expenditure is missing from the official estimates.**

These are set out below:

<b>TRIDENT costs NOT included in Government estimates (1991/92 prices)</b>	<b>Not Included (£ millions)</b>
<b>Submarines (less weapon systems equipment)</b>	
Development of PWR 2 Nuclear Propulsion Plant	535
Lifetime (30 years) Running Costs	11,415
12 Refits for the 4-boat Fleet at £158 million each	1,896
Decommissioning Costs	77
<b>Weapon System Equipment (including Tactical Systems)</b>	
VLF Communications Improvements	33

**Shore Construction**

Faslane Works	397
Clyde Submarine Base External (Roads and Services)	3
Coulport Works	1
Rosyth Works	285
Works elsewhere	2

**Warheads, Miscellaneous and Unallocated Contingency**

Aldermaston Works	1,431
Trident's Share of AWE Running Costs from 1980 to 2030	6,492

**TOTAL** **22,567**

Since these figures were calculated, the Government have decided to recast refit work. On the basis of DML's tender, this would cut the nuclear onshore construction costs by £49 million to £236 million. However, as the STUC has consistently argued, DML's bid price is likely to be a gross under-estimate which will need significant upward revision before the capital project is completed.

Two over-riding points emerge from these calculations.

Firstly, that cancelling Trident, even at this stage, or at the time of the next General Election, would save substantial sums of public money, as running costs would be eliminated. Indeed, if the Government was prepared to write off the £135 million spent to allegedly save £11 million by reneging on the commitment to refit Trident at Rosyth, why not write off the £10 billion now spent and save at least £17 billion in the future?

Secondly, there is a major cost to future generations in decisions taken by us now.

Why should the next generation pay for Trident's running costs and why should successive generations pay for its decommissioning and storage - remembering that no disposal solution has yet been found?

Significant savings could be made if the whole Trident programme were to be immediately cancelled. £17 billion could be spent on either tax cuts, defraying the PSBR or raising public spending in other socially useful areas. The STUC has consistently argued for the latter option because of the crying need in Scotland and some other regional economies for job generating investment in civil infrastructure and public services.

## THE OPPORTUNITY COST OF TRIDENT

**So how does the £17 billion Trident bill - yet to come, and the £33 billion total Trident bill compare to existing public expenditure in Scotland?**

Last December the Secretary of State for Scotland announced Public Expenditure in Scotland for 1994-95. This included:

**£3.9 billion on the health service**  
**£1.3 billion on education**  
**£679 million on housing**  
**£427 million on road and transport**

In the run up to the November 1993 Budget the STUC called for a boost to public spending on socially useful public goods which would generate employment:

**A national programme of energy efficiency** aimed at improving insulation, energy conservation, and building design in both dwellings and public buildings. Support, including partial funding for this, should come from the Utilities and should be backed up with more extensive energy advice.

**Cost £500 million**  
**Direct jobs created 17,000**

**A programme of support for childcare provision**, recognising the major changes that are occurring in recruitment and employment patterns. This could be funded in part by parental contributions.

**Cost £350 million**  
**Direct jobs created 20,000**

**Environmental improvements.** Tackling industrial dereliction and improving the infrastructure and amenities on Scotland's urban housing estates.

**Cost £200 million**  
**Direct jobs created 10,000**

Direct Government aid could also be given to stimulate:

**A programme of public housing investment** to tackle the shortage of suitable housing of a tolerable standard. Homelessness in Scotland rose to 45,000 last year.

It is estimated that there are over 94,000 homes below the tolerable standard in Scotland.

**Cost £100 million**  
**Direct jobs created 6,000**

**Transport investment**, like the electrification of the railway line from Edinburgh to Aberdeen and the upgrading of the West Coast mainline South from Glasgow.

Improving standards of service on Scotland's transport system by increasing levels of frontline staff, particularly on the railway network, where unstaffed stations have become no-go areas at night.

**Cost £200 million**  
**Direct jobs created 2,500**

In addition to the direct jobs generated by these proposals, many more would be generated in supplier firms and in local economies as the positive multiplier feeds through. Local multipliers can vary enormously. If we fixed the multiplier at a mid point - say 0.35 - these investments would create a further 19,000 jobs.

It is estimated that each unemployed person costs the Exchequer £9,000 per annum. The Government has a choice. It can increase the PSBR to pay for higher unemployment. Or it can increase the PSBR to stabilise and subsequently reduce unemployment. Therefore, generating employment for 74,000 people is a net revenue benefit to the Exchequer in the region of *half a billion pounds*.

If Trident were to be cancelled, we would expect specially targetted measures to retrain and generate new work for the 3,500 workers in Scotland directly affected. This should be part of a new industrial policy with a clear regional bias - and part of the remit for a well resourced Scottish Defence Diversification Agency, which would aid commercial firms, their workers and MOD employees alike in finding alternative work.

After all, the abandonment of Trident should be just one part of a significant reduction in all defence spending which demands a managed approach to change aimed at providing alternatives to unemployment and waste.

## CONCLUSION

The Government has consistently under-estimated the financial cost of Trident. This is not just about mismanagement or miscalculation, but the result of quite deliberate misinformation and deception.

£17 billion of expected running costs still in the pipeline could be saved if Trident was cancelled immediately. Any Government, including the present Conservative Administration, interested in "sound public finances" must give this option serious consideration.

Resources freed by axing Trident could be applied to rebuilding our crumbling infrastructure, improving public services, and supporting diversification in the military industrial complex. The STUC's Emergency Jobs Package (see table on page 24), for example, could create over 55,000 direct jobs and 19,000 indirect jobs (with a 0.35 standard multiplier) for an investment of £1,350 million. This might approximate to Scotland's share of a redistribution of spending should Trident be axed and not replaced.

This would more than offset the loss of 3,500 civilian jobs secured in Scotland by Trident in the long-term.

It would also save the costs of Trident for future generations and would avert the incalculable cost of destruction, should the Trident nuclear weapons system ever be used in combat or be hit by an accident.

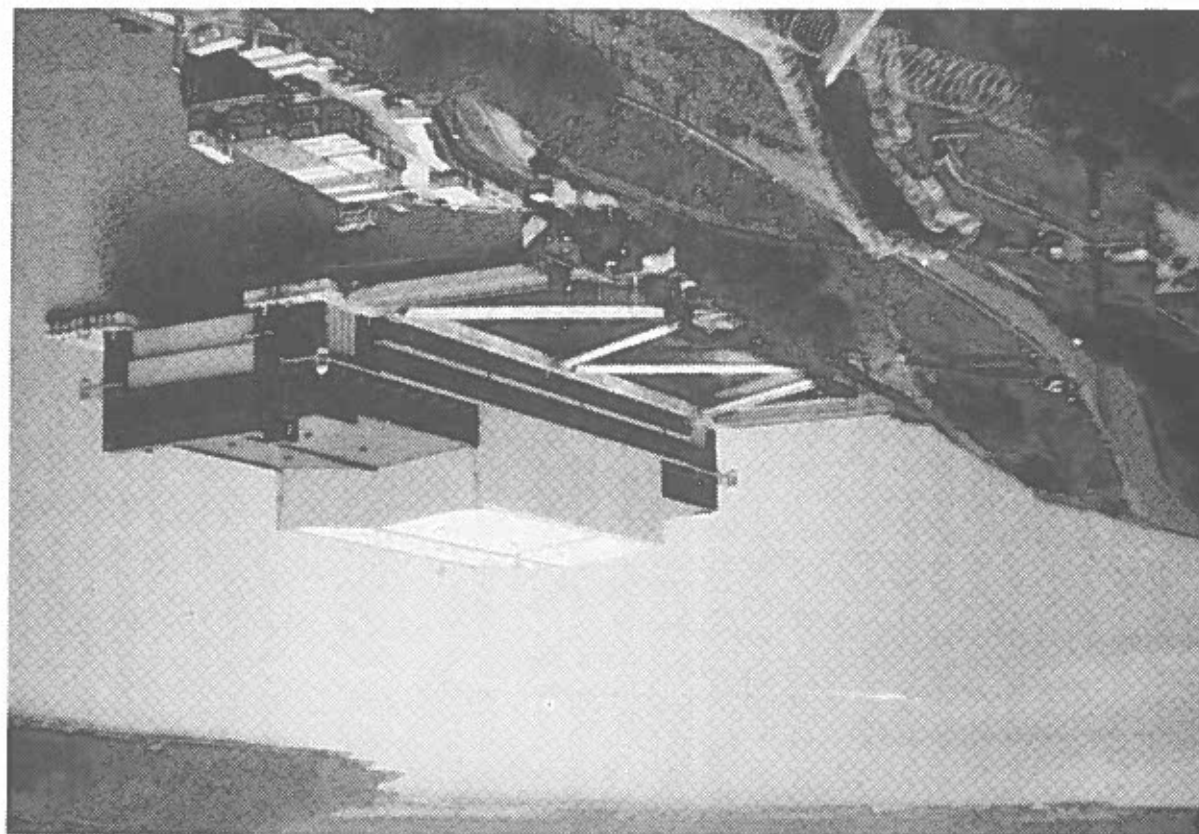


Figure 6. The Explosives Handling Jetty at Coupar where nuclear warheads will be placed on Trident. This jetty is now expected to cost £156 million more than estimated (see page 18)

## THE STUC'S EMERGENCY JOBS PACKAGE

National programme of energy efficiency	17,000 jobs	£500m
National programme of childcare	20,000 jobs	£350m
Environmental improvements	10,000 jobs	£200m
Investment in public borrowing	6,000 jobs	£100m
Investment in transport	2,500 jobs	£200m
<b>Total</b>	<b>55,000 jobs</b>	<b>£1,350m</b>

In addition to the direct generation of these 55,000 jobs, 19,000 jobs would be indirectly generated in suppliers and other firms in the local economy.

Figure 6. STUC's Emergency Jobs Package

## REFERENCES

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