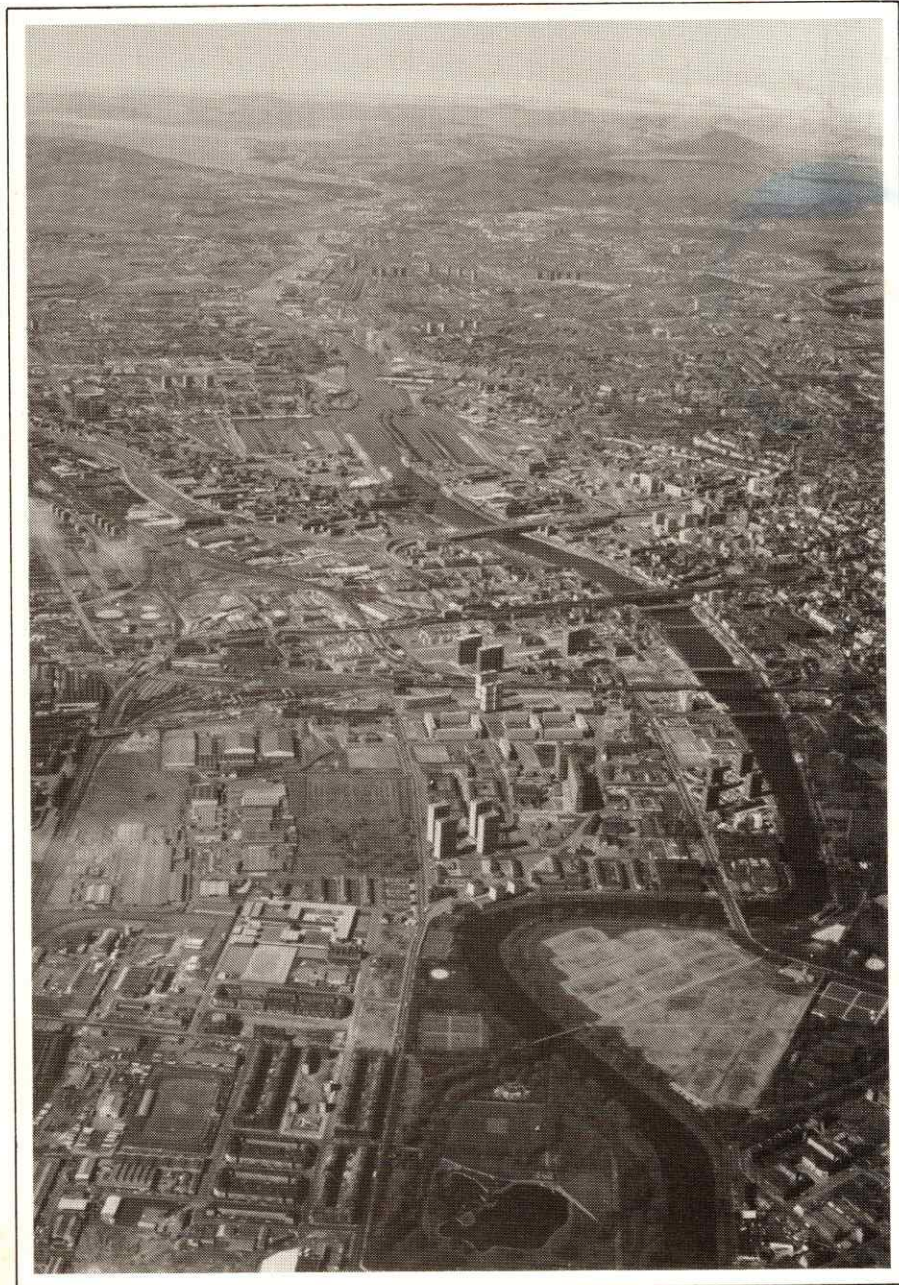


# **POLARIS AND TRIDENT**

## **THE MYTHS AND REALITIES OF EMPLOYMENT**



**A REPORT PRODUCED BY  
THE ALTERNATIVE EMPLOYMENT STUDY GROUP**

1985

## Contents

Introduction	P 2
Groups affiliated to AESG	P 3
<b>Part I</b>	
1. The US Development of Polaris, Poseidon and Trident	P 5
2. The British decision to purchase Polaris	P 5
3. The British decision to purchase Trident	P 8
Notes	P 11
<b>Part II</b>	
1. The Development of the Clyde Submarine Base	P 13
2. The Present Operation of the Clyde Submarine Base	P 13
3. The Proposed Operation of Trident	P 14
Notes	P 18
<b>Part III</b>	
1. The Changing Economy of the Clyde	P 21
2. The Clyde Submarine Base and Employment	
(a) <i>The Decline of Shipbuilding and Engineering</i>	P 22
(b) <i>The Increase in the Size of the Civilian Workforce at the Clyde Base.</i>	P 23
3. The Future Employment Prospects at the Clyde Base	P 26
Notes	P 30
<b>Part IV</b>	
1. Defence Expenditure and Unemployment	P 32
2. What Needs to be Done?	P 35
Notes	P 38

## INTRODUCTION

The Alternative Employment Study Group emerged as an idea at a Helensburgh C.N.D. meeting in 1982. It certainly was not an original idea but one that resulted mainly from the presence in the area of two of the largest nuclear weapons bases in Europe. Canvassing at political elections had often meant defensive arguments in the face of antagonistic questions about employment. No matter how powerful the moral case, it was obvious that many people whose livelihoods depended on working in nuclear bases needed to be convinced of the practicality and, indeed, the likelihood of alternative jobs being created if a policy of unilateral disarmament was adopted.

In 1983 a committee was formed representing a cross section of community groups and organisations with funding becoming the main objective to sustain the project. Eventually, it transpired that Scottish Education and Action for Development were interested in supplying funding through their "Development and Disarmament" fund, and in the Spring of 1984, we were able to appoint Russel Fleming as our full-time Organiser. The difference in our organisation was immediate! From a group of volunteers with a committed but hazy approach to alternative employment, we transformed into an organisation with a definite purpose. Offices were obtained from Dumbarton District Council and support was received from a variety of different sources allowing us to build up office accommodation and back up resources of various kinds.

In the Summer of 1984, a major conference was held in Dumbarton which marked the first real public appearance of the Group, and for many people helped to identify the objectives of the Group. Major speakers were in attendance and the number of delegates fully justified the work that was put in to organising the conference.

This report is in part a direct result of that conference. Although it is obviously not a report of the conference, it took its major impetus from that event. Those who attended the conference in Dumbarton will discover that this report contains many aspects of the discussions which took place during that day but in a more detailed form. I would like to take this opportunity to thank all those who were involved in the conference in the hope that they will see this report as a result of their work.

Can alternative jobs be created? I think all of us who have been involved so far think they can. However, it has taken two years to reach this stage, and we are now ready to take the plunge into identifying more precisely what employment is possible. To do this we will need the support and help of organisations right across the political spectrum. Civilian employment within the defence sector and military bases is likely to decrease whatever government is in power and therefore a major effort must be made to establish viable alternative sources of employment. I have been delighted with the way in which the Transport and General Workers Union in Scotland have co-operated in our project, hopefully others will follow.

I am convinced that we need the kind of information which is contained in this report to have a better understanding of the problems, and opportunities which lie in the future. We hope that all interested bodies will react to it -- in particular those involved in job creation -- and that as a result the Alternative Employment Study Group will be able to further define specific proposals for the creation of socially beneficial employment.

Iain Macdonald,  
*Chair.*  
*Alternative Employment Study Group.*  
*April 1985.*

The Alternative Study Group is based in Office premises supplied by Dumbarton District Council. Funding has been supplied by Scottish Education and Action for Development. Other affiliated organisations or individuals include:-

Scottish Education and Action for Development  
Strathclyde Regional Council  
Glasgow District Council  
Renfrew District Council  
East Kilbride Distirct Council  
Dumbarton Trades Council  
Scottish Churches Action for World Development  
Church of Scotland - Society, Religion and Technology Project  
Inverclyde Parents for Survival  
Workers Educational Association (Renfrew Division)  
Vale of Leven Branch TGWU  
Greenock Branch TGWU  
Dumbarton Justice and Peace Group  
Vale of Leven Branch SNP  
Dumbarton CND  
Helensburgh CND  
Dumbarton Constituency Labour Party  
Joint Shop Stewards Committee - John Brown Engineering (Clydebank)  
Norman Buchan MP  
Ian Campbell MP  
Hugh McMahon MEP  
Fife Alternatives to Defence Expenditure  
Norman Godman MP  
Mike Danson, Glasgow University  
Jim Milligan, Strathclyde University  
Clydebank CND  
Faslane Peace Camp  
Sharon Hanna  
Clydebank District Council

The AESG project would like to thank the following individuals for their help in the production of this report,  
Peter Southwood (Bradford University), Ken Goodwin, Robin Young, the late John Hardy (TGWU).

## **PART I**

- 1. The US Development of Polaris, Poseidon and Trident.**
- 2. The British Decision to Purchase Polaris.**
- 3. The British Decision to Purchase Trident.**

## **1. The US Development of Polaris, Poseidon and Trident.**

In 1955, the US National Security Committee agreed to the development of a revolutionary submarine launched ballistic missile system (SLBM). The US Navy were delighted as it strengthened their strategic nuclear role, boosted their budget and added to their influence in the continual inter-service infighting within the Pentagon. The decision was also a major coup for the Lockheed Corporation who were to develop the new missile. Between 1955 and 1960, the Polaris A1 Multiple Re-entry Vehicle was developed and by 1960 the first nuclear powered submarines armed with Polaris were on station. The US navy and Lockheed continued to develop the Polaris missile and by 1962 the A2 version was replacing the A1. This was superseded by the A3 missile in 1964 by which time Lockheed and the US Navy were developing a new SLBM which was to become the Poseidon Multiple Independent Re-entry Vehicle which went into service in the USS James Madison in March 1971

In its final stage of development, the Polaris A3 missile had a range of 2,500 miles and delivered three 200 Kiloton warheads from each missile. These warheads were not targeted independently like those of Poseidon or Trident, and therefore lacked the accuracy to hit 'hard targets' like missile silos. The Polaris warheads fall in a pattern and are intended for use against 'dispersed targets' such as cities.

Since 1955, SLBMs have become a major strategic arm of the US nuclear force. The developments include Polaris, Poseidon, Trident 1C4, sea launched cruise missiles and the Trident 11 D5 missile.

The Trident 11 D5 missile, rather than being an upgrading of the Trident 1C4, is in fact an almost entirely new missile. It is twice the weight of its predecessor, has a range of 6,500 miles and carries between 8 and 17 warheads per missile, each with a yield of between 300 and 475 Kilotons. If a considerable reduction in range is accepted, it is possible for the Trident 11 missiles to carry warheads of up to 800 kilotons, using a stellar inertial guidance system, (US satellites which relay target information to the missile,) the Trident 11 missile is hoped to achieve an accuracy of 300 feet circular error probability. (CEP is the radius of an area with a target at the centre within which 50% of all the warheads fall.)

The Trident 11 D5 missiles are to be carried in the new 'Ohio' class submarines of which five have been completed, and a further ten are planned. These new submarines are twice the size of any other US submarine with a displacement of 18,700 tons and a length of 560 feet. Although smaller than the Russian 'Typhoon' class submarines, the Ohio boats have 24 missile tubes compared to the Typhoon's 20 and like all US submarines the Ohio class has a longer patrol duration and a better service-ability record than its Russian counterparts.

Since the 1950s, the US has led the USSR and the rest of the world in the development of SLBM's and the related technologies of underwater listening devices and guidance systems. To-date, there is no indication that this lead is being seriously challenged, or that the pace of US developments is being restrained.

## **2. The British Decision to Purchase Polaris.**

In 1952, Britain exploded its first nuclear test at Monte Bello. During the 1950s, development went ahead to find a suitable delivery system. The reason that Britain wished to be a 'nuclear power' lay in the political perception of the nation's flagging prestige, which took a severe knock during the Suez Crisis in 1956, the climate of the 'cold war', and as recent disclosures have made clear, Churchill's distrust of US intentions in a period when they had a clear lead over the USSR and Britain in terms of nuclear weaponry.

Britain's search for a suitable delivery system for its nuclear warheads was hindered by two factors. Unlike the US, Britain lacked the technical 'head start' which ex-German rocketry scientists who had emigrated to the US, gave to the US guided missile programme. Secondly, Britain lacked the economic resource which allowed the US and the USSR to allow each of the armed services to develop its own strategic nuclear capability. Between 1952 and 1962, Britain's nuclear force

comprised of bombers equipped with either free fall, or air launched inter-mediate ballistic missiles. This form of delivery system was clearly becoming out of date, and the development of ground launched and submarine launched missiles in the US, pointed towards the future. In 1957, the so called 'Suicide' White Paper, recommended the replacement of manned fighter aircraft with unmanned guided missiles. While work continued on air launched missiles like Blue Steel, a new ground launched ballistic missile, known as Blue Streak, started to be developed. Dogged by technical problems and government uncertainty over financing the project it was finally cancelled, on the grounds that the pace of the development had been so slow (or the pace of funding had hampered the pace of development,) that the missile was obsolete, even before it had been completed. In spite of this failure, work was started on the Blue Water guided missile programme. This was cancelled in 1962. Having identified the need to develop an independent and credible nuclear weapons system, the British Government and the armed services were forced to recognise that through a combination of economic and technical restraints, Britain was unable to develop one of their own. This led to the decision to purchase an 'off the shelf' system from the US. It was believed that this would both prevent the problem of obsolescence which British programmes like Blue Streak had fallen foul of, and at the same time reduce the massive development costs which new weapons systems needed.

The first deal between the US and Britain concerned the purchase of the Skybolt ballistic missile which was under development in the US. Since Britain's failure to develop her own weapons system had been so conspicuous, the US was in a very strong bargaining position. The major attraction of the deal to the US was that as well as contributing to the research and development costs of Skybolt, and paying the purchase price, Britain agreed to hand over the Holy Loch to the US as an operational base for her submarines. In 1958, a further agreement between Britain and the US was signed. The agreement took into account the one way flow of revenue from Britain to the US, which was needed to pay for the Skybolt missile. It allowed for an exchange of technological information, mainly in the commercial and industrial rather than the military field, although as it turned out this was a mainly one way flow of military and civil nuclear developments from the US to Britain.

The US took up its option on the Holy Loch but to the alarm of the British Government, decided to cancel the Skybolt programme. This left Britain without the up to date delivery system which had now become an integral part of strategic thinking. In 1962, after further negotiations, Harold Macmillan and John F. Kennedy signed the Nassau Agreement, the major feature of which was the purchase of the US Polaris missile. Fearing that the Polaris A2 missile, which was in service in US submarines at the time would be obsolete, Britain decided to opt for the A3 version which was under development at the time. In fact the pace of SLBM development in the US was even faster than Britain appears to have realised as the Poseidon MIRV missile was soon to replace Polaris.

The cancellation of the Skybolt programme had made Britain even more desperate to acquire an up-to-date missile system, and this in turn insured that the US was in an even more advantageous position from which to bargain. The terms of the Nassau Agreement and the subsequent purchase agreement confirmed the right of the US to retain the Holy Loch as a submarine base, and in addition Britain agreed to align its existing, and future forces (ie Polaris) with NATO, in effect with US strategic policy. Once again, Britain was purchasing US technology, in the form of the missiles themselves, and the guidance systems. In addition Britain received assistance in the construction of the submarines which would carry the Polaris missiles. These would be built in Britain, as were the actual warheads. Due to the extent of British reliance on the US for the technology of the submarines, the missiles and their operational guidance systems, not to mention the US presence in the Holy Loch and the agreement over the British role in NATO, considerable doubts were expressed as to whether Polaris was truly an independent strategic force. The British desire to enter the ranks of those nations possessing nuclear weapons was based on the perception of Britain's role as a mediator between two armed camps, and as a replacement for what were considered old fashioned methods of national defence. The decision to purchase Skybolt and then Polaris appeared to have brought into question Britains ability to act independently as the US was now the major supplier of weapons technology, and the intelligence which dictated the strategic perceptions of how it might be used. Macmillan probably recognising that Britains new dependency on the US would be questioned, attempted to ensure that the right to independent strategic decisions was maintained. The right to British independence of action was added as a

fourteen word rider to the Nassau Agreement and states that the supreme national interests, as identified by Her Majesty's Government are to be the criteria for independent decisions. The practicality of this claim has been seriously placed in doubt by recent debates over the US bases on British soil and the dual key issue.

The decision to purchase Polaris from the US had two further effects. Firstly, the Royal Navy, rather than the Royal Air-Force became the major arm of Britain's strategic force. Secondly, Britain became reliant on the pace of US weapons developments, and the strategic perceptions which dictated them.

By 1968, the four Polaris nuclear powered submarines had been built, two at the Cammel Laird yard at Birkenhead, and two at the Vickers Yard at Barrow. Work had also gone ahead to develop the operational base for the new Polaris fleet at Faslane and Coulport. All four submarines had been on operational patrol by 1970, the same year that the US Navy test fired the first Poseidon C3 missile, which became operational in 1971. In effect, the Polaris missiles were in the process of becoming obsolete in the US, when they were being put into service by Britain.

Poseidon had been developed by Lockheed and the US Navy on the mistaken assumption that the USSR had developed an Anti-ballistic missile system which was in place round Moscow. To counter this, Poseidon had a number of independently targeted warheads contained within each missile. In fact, the USSR had not developed an ABM system, and US attempts to develop one demonstrated the futility of trying to do so. The proposed High Frontier/Star Wars technology is another attempt to provide immunity from missile attack. In the light of US developments, it is probable that research was going ahead in Britain to try and up-date the Polaris warheads as early as 1967, before they had even become operational. It is possible that the intention was to give the Polaris missiles independently targetable warheads similar to Poseidon. In 1972, an Anti-ballistic treaty was signed, outlawing a theoretical system which neither the US nor the USSR possessed or could develop. In spite of this, Poseidon went into service and Britain went ahead with the development of a new warhead for Polaris. The programme was kept secret from Parliament, and reasearch on what was to become Chevaline continued via the Antelope and Super-Antelope developments. If the original intention was to give the Polaris missile a MIRV capability, it appears that the technical ability to do so was lacking. In its present form, Chevaline has added additional 'dummy' warheads to the Polaris missile. Their function is to confuse ABM systems, and to allow the real warheads to reach their targets. Since no ABM system exists, the value of such an addition as Chevaline to the Polaris missile seems, to say the least, unnecessary!

The Chevaline programme was never debated in the House of Commons, even though it was almost as important a decision as the actual purchase of Polaris. The House of Commons only knew of the existence of Chevaline in 1980, at least six and possibly seven years after the decision to go ahead with it had been taken. If the Chevaline programme was strategically unnecessary, decided upon in an undemocratic manner, then the issue is further compounded by the fact that ten years after the decision to go ahead with it, at a time when Polaris is to be replaced with a new missile, and new submarines, the Chevaline up-date has not been completed on all four of the submarines or their missiles.

Since all of the decisions to purchase Polaris and develop Chevaline have been taken in almost total secrecy, it is not suprising that the costs of the purchase of Polaris and the development of Chevaline have been either hidden, or disguised from public view. The Government estimated the cost of the original Polaris programme at £2,300 million(1). As it is one of the frequently used arguments that nuclear weapons are a cheap way of ensuring national security, it is clearly in the Government's interest to produce figures which support that case. To achieve the appearance of value for money, the Government has used a variety of different accounting methods, spread over an eight year period. The cost of the Chevaline programme was disguised under a number of different headings, as it did not officially exist until 1980, and it seems likely that in an effort to minimise the real cost of Polaris, the published figures appearing in Defence Estimates are intended to reinforce the dogma of cost effectiveness, rather than give an accurate indication of genuine expenditure. The cost of the Chevaline programme, up to 1982, was estimated at £1,000 million, or about 50% of the Government's 1980 estimate of the original purchase cost of the entire Polaris system. (2). In addition to the £3,300 million the Government has stated that Polaris cost to



purchase, and Chevaline to develop, the actual operational costs on a yearly basis need to be added. The 1981-82 Defence Budget made the cost of maintaining Polaris look quite cheap; £270 million, or 2.2% of that year's total defence budget. The Centre for Defence Studies at Aberdeen University have produced a revised estimate which includes the cost of the Chevaline programme for that year. Their figure shows that the operational costs for Polaris were £855 million or 7% of the total 1981-82 'Defence Budget. (3). Clearly the decision to purchase an 'off the shelf' missile system from the US has not been a cheap one for Britain. Added to the original cost of purchase, the building of the submarines, work on the shore facilities at Faslane/Coulport and the Naval Dockyard at Rosyth where refits are carried out, yearly operational costs which include new missile motors and nuclear power plant modifications, the Chevaline programme should be seen as a further expensive and unnecessary outlay. The repeated attempts by successive governments to try and minimise the real cost of the over-all and yearly operational costs of Polaris, should indicate that the genuine figures are a source of embarrassment. Since the present government is now fully committed to purchasing a replacement missile from the US, in a deal which is almost identical to the original Polaris agreement of 1962, it is obviously important for them to foster the illusion that Polaris has been cost effective.

### **3. The British Decision to Purchase Trident.**

In the run up to the 1979 General election, the Conservative Party Manifesto stated that if elected it would replace the Polaris missiles with Trident. The decision was based on the argument that the Polaris submarines had reached the end of their working life, and that unless they were replaced, the expense of maintaining them would be prohibitive. Another reason was that the pace of SLBM development in the US had advanced considerably with the MIRVed Poseidon C3 and the new Trident 1 C4 Multiple Advanced Re-entry Vehicle (MARV). In the light of these developments, and ones at a slower pace in the USSR, the Polaris missile was deemed to be strategically out of date. This judgement is based on the view of Britain's strategic role rather than upon the criteria of national security or defence.

In 1980, the decision to purchase the Trident 1 C4 missile from the US was signed in Washington. The cost of the deal was announced as being between £4 billion and £5 billion. (4). The then Minister of Defence, John Nott, told the House of Commons that the decision would provide 35,000 jobs in British industry. At that time, it was projected that Polaris would be phased out by the early 1990s and that Trident 1 would be operational well into the next century. The deal was very similar to the Nassau Agreement of 1962. Britain would build the submarines and warheads, (with US technical Assistance,) and the US supplying the missiles. The similarity to the original Polaris deal is more marked if the British agreement to the US siting of cruise missiles on British soil is considered as part of the British side of the arrangement. March 1982, the British Government decided not to purchase the Trident 1 C4 missile, but to replace Polaris with the Trident 11 D5 which the US was, and still is, in the process of developing. As part of this new deal, Britain will contribute to the US development costs as well as paying the purchase price. A number of factors have affected the original cost estimate of the Trident purchase. These include development problems in the US. In Britain the programme has been hindered by the sacking of Greg Mott, the man who led British Shipbuilder's submarine development team and had the skills needed to build the massive new Trident submarines. (5). The most public defect of the Trident deal has been the falling rate of the pound against the dollar. The latest official estimate of the cost of the Trident II programme is £9285 million, (6). a jump of nearly 100% compared to the 1980 estimate. In fact the cost is even greater as this figure has been estimated on the basis of a pound dollar exchange rate of \$1.38 to the pound. Because of this fall in the exchange rate the cost of Trident is rising. Every drop of one cent in the value of sterling against the dollar, puts the cost of Trident up by at least £26 million, and in the past six months alone, the bill has risen by over £1 billion. Excluding operational costs, the price of Trident has risen at an alarming rate, even by the excessive standard of defence contracts. In less than five years, it has risen from £4 to £5 billion to £9 to £10 billion, according to Conservative Government estimates, many believe that the true purchase price will be over £15 billion at to-day's prices. In real terms the cost of the Trident programme has risen by at least 100% and could reach 200% before long.

On purely economic grounds, opposition to Trident has been growing. The defence Secretary, Michael Heseltine has been under pressure from the Treasury to cut the over-all defence budget which in 1983-84 stood at £17 billion. His problems are made worse by the fact that a number of major programmes are all running well over budget at the same time. The Tornado Multi-role aircraft have risen in cost from the 1970s price of £2.7 million a plane, to £17 million each. (7). The RAF have placed an order for 385. In 1977, eleven Nimrod Early warning aircraft were ordered, at a price of £300 million. The order is now 4 years behind delivery date due to GEC Avionics having problems with the development of the radar, and the price has risen to over £1 billion. (8). The new Type 23 Frigate has also been spiralling in price from an estimated £65 million for each ship, to nearer £200 million each. (9). The navy is hoping that ten will be built.

Against this back-ground of massive budget over-spending, (10). the escalation of the cost of Trident is the largest, both in percentage and real money terms. Alternatives have been suggested, for example the building of new submarines for the Polaris missiles would cost a very small proportion of the Trident price. (As the Trident submarines will be about 20% of the total cost of Trident, it is reasonable to assume that replacement Polaris ones will cost about the same, or less as they will be smaller.) If another missile system is wanted, the Poseidon missile has been in service in the US since 1971, and would require none of the expensive development of Trident II. The Trident I missile, which is already in limited service in the US would also be a cheaper alternative, as would sea-launch cruise missiles. If the criterion for the purchasing of a replacement for Polaris is to be defence based on strategic nuclear weapons, the Trident II missile has a capacity which far exceeds the Polaris, or for that matter any existing SLBM. (see chart on following page.) If, as appears to be the case, it is to be purchased regardless of the shift it brings to Britain's strategic position, it seems that either existing, conventional forms of defence must suffer, or that as a nation, we will continue to increase the already burdensome defence budget to the detriment of the rest of the economy. (11).

## A Comparison between Polaris and Trident.

In 1982, John Nott announced that at that time, it was envisaged that the Trident missiles would deploy 14 warheads rather than the maximum of 17. Since no firm statement has been issued about the number of warheads which will go into operation, the comparison is based on 14 warheads per missile, although the maximum as shown in brackets. Similarly, no definite statement has been made about the yield of the warheads, this could in theory be as high as 800 kilotons, but the reduction in range makes this unlikely. The most probable yield will be between 100 and 200 kilotons.

	<b>POLARIS A3</b>	<b>TRIDENT II D5</b>
<b>Number of Submarines</b>	<b>4</b>	<b>4</b>
<b>Number of Missiles Per Submarine</b>	<b>16</b>	<b>16</b>
<b>Total Number of Missiles</b>	<b>64</b>	<b>64</b>
<b>Number of Warheads Per Missile</b>	<b>3</b>	<b>14 (Max. 17)</b>
<b>Total Warheads Per Submarine</b>	<b>48</b>	<b>224 (Max. 272)</b>
<b>Total Warheads for Four Submarines</b>	<b>192</b>	<b>896 (Max. 1088)</b>
<b>Yield Per Warhead</b>	<b>200 Kilotons</b>	<b>100-200 Kilotons</b>
<b>Total Yield of all Missiles</b>	<b>38,400 Kilotons</b>	<b>89,600 - 217,600 Kilotons</b>
<b>Range</b>	<b>2,500 miles</b>	<b>4000 - 6000 miles</b>
<b>Accuracy</b>	<b>Triangular Fall Pattern of about 10 miles</b>	<b>300 Feet Circular Error Probability.</b>
<b>Type of Target</b>	<b>Dispersed Targets ie. Cities</b>	<b>Hard Targets like Missile Silos</b>
<b>Maximum Number of Potential Targets</b>	<b>64</b>	<b>Between 896 &amp; 1088</b>

## Notes to Part I

1. P 7 Fourth Report of The Defence Committee HMSO 1981 p.229.
2. P 7 Ninth Report of the Committee of Public Accounts HMSO 1982 p. 1
3. P 8 'Reshaping Britain's Defences' D. Greenwood. Aberdeen Studies in Defence Economics No.19 p.8.
4. P 8 'The Future United Kingdom Strategic Nuclear Deterrent Force', Defence Open Government Document 80/23 HMSO 1980. p. 25.  
As M. Chalmers noted in his book 'Trident' p. 54 this estimate *excludes* the operating cost of Trident which could be £30,000 million at to-day's prices.
5. P 8 Sir Robert Atkinson, the retired chairman of British Shipbuilders stated, "I regard him (Gregg Mott) and his team as the international authority on nuclear submarines, and they are irreplaceable over five or ten years. I think his sacking is a supreme disaster for the Trident programme."  
Statement in the Sunday Times, 22nd July 1984.
6. P 8 Jane's Defence weekly (JDW) Vol. 3 No.6. 9th February 1985. p. 209.
7. P 9 The Sunday Times, 6th January 1985.
8. P 9 JDW. Vol. 3 No.5 2nd February 1985 p. 164.
9. P 9 Capt. John Moore editor of Jane's Fighting Ships quoted from statement to Sunday Time. 6th January 1985.
10. P 9 For the implications of this of this see M. Chalmers-British Defence Spending in the 1980s. ADIU Report Vol. 6 No.3
11. P 9 Further Reading on This section:-

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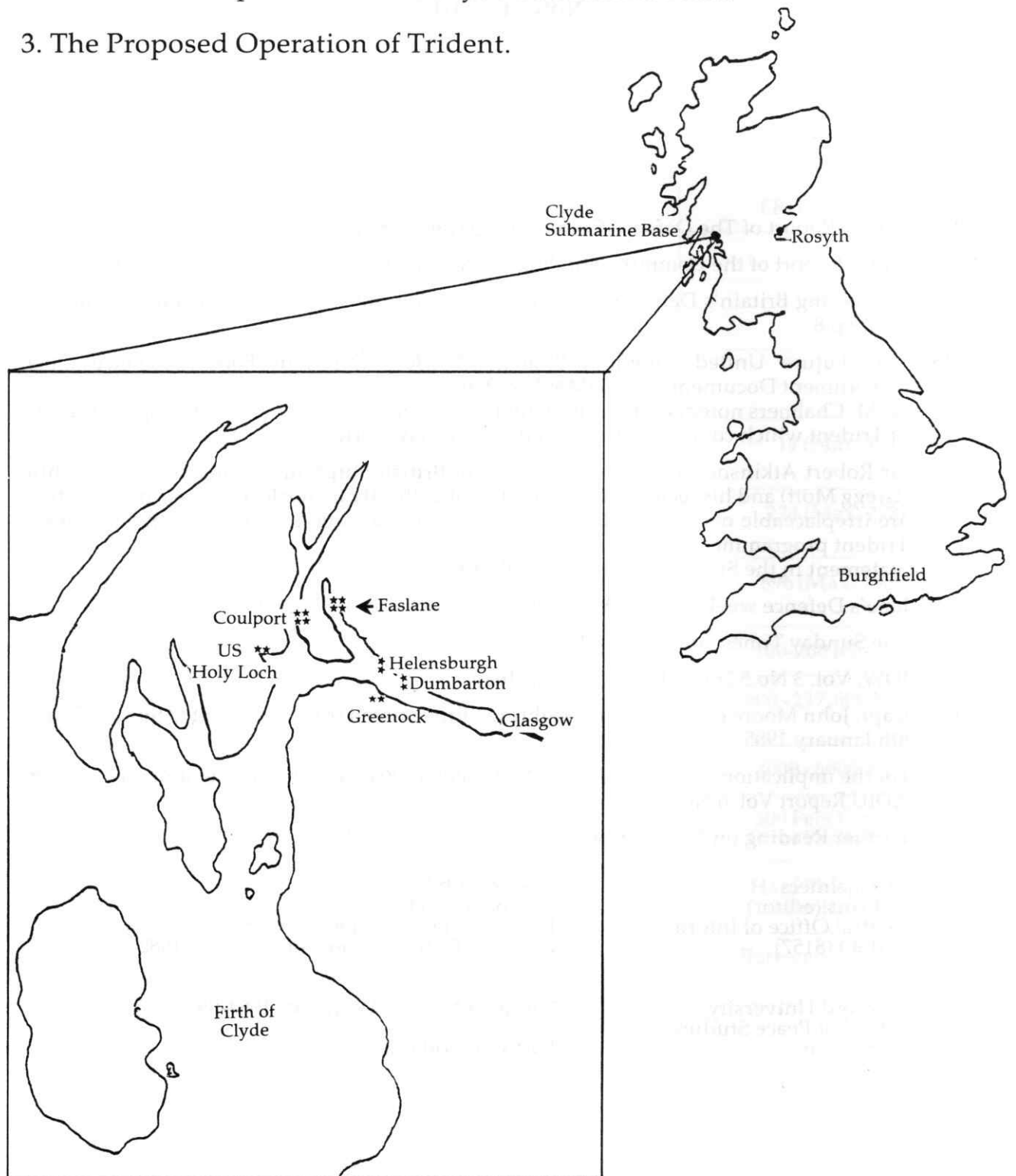
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# PART II

1. The Development of the Clyde Submarine Base.
2. The Present Operation of the Clyde Submarine Base.
3. The Proposed Operation of Trident.



## **1. The Development of The Clyde Submarine Base.**

### **(A). FASLANE**

During the Second World War, Faslane had been used as a base for the transportation of US troops to Europe. It offered deep water berthing facilities and with the exception of the Rhu Narrows, had few navigational problems. After the war, one part of the Faslane site became a shipbreaking yard. The relationship between the torpedo factory, at first in Greenock and then in Alexandria, combined with the torpedo testing range at Arrochar and the deep water berthing, made the Faslane site attractive for submarine operations. It became the operational base for the diesel-powered submarines of the 3rd Submarine Squadron and in 1962 for HMS Dreadnought, Britain's first nuclear powered submarine.

The Admiralty had extended its use of the area around Faslane in 1956 by purchasing land in Glen Douglas which by 1963 had been developed as a store for ammunition. At present the Glen Douglas site is being used by the US as a store and at least 20,000 metric tons of 'conventional' ammunition is stored in the hills at the back of Faslane.

Probably because of the existing naval installations in the Faslane area, and the US operations which existed in the Holy Loch, the decision to base Britain's proposed Polaris submarines at Faslane was announced to the House of Commons on Wednesday 23rd. of April 1963, by Ian Orr-Ewing, Civil Lord to the Admiralty.

### **(B). COULPORT.**

From the 1930s, Coulpport was used as a military research establishment and the War Office owned a considerable area of land which is still used today for training exercises. Coulpport, sited on Loch Long shared with Faslane the benefits of deep water berthing which make it attractive for submarine operations. During the mid 1960s, Coulpport was developed as an armaments depot to handle conventional torpedoes and the Polaris missiles.

Both the Faslane and Coulpport sites were attractive for other forms of development. The deep water facilities were suitable for the operation of the largest types of oil-tankers, and BP have been using the Finnart site as an oil terminal for the off-loading of crude since the late 1960s. Opponents of the Polaris developments in the early 1960s, pointed to the advantages of the site for oil-related development, but no action was taken, and it is possible that this was in part due to government pressure to ensure that the work at Faslane and Coulpport went ahead without any delays.

Although Faslane and particularly Coulpport have the appearance of remoteness, and have in fact a low population density, both sites are within a 40 mile radius of the centre of Glasgow. Both sites fall within the area of Strathclyde Region which has a population of about 2.3 million, the majority of which resides in or near to Glasgow. (The cover photograph shows the river Clyde from the outskirts of Glasgow, Clydebank, Greenock, Dumbarton and in the distance the hills above Faslane and Coulpport).

## **2. The Present Operation of the Clyde Submarine Base.**

In 1967, Faslane was commissioned as HMS Neptune and became the operational base for the four Polaris Submarines, all of which had been on Patrol by 1970. At present, Faslane is the service base for the four 'Resolution' class Polaris SSBNs (nuclear powered submarines armed with nuclear missiles) of the Tenth Submarine Squadron, the three nuclear powered 'Valiant' class hunter attack submarines and the four diesel powered 'Oberon' class submarines of the Third Submarine Squadron. In addition, Faslane is used as a service base for NATO submarines and surface craft.

Faslane provides servicing, storage and personnel facilities for all of these vessels, as well as having a number of other, related functions such as the Torpedo Trials Unit, a medical emergency monitoring team and boom defence vessels and tugs operating from Greenock, but controlled from Faslane.

Foot note: The term Clyde Submarine Base is used in this report to apply to the operational submarine base at Faslane and the Naval Armaments Depot at Coulpport. In some places it has been abbreviated to CSB.

In its present form, Faslane can undertake routine servicing for the submarine and surface craft but for major refits, such as the Chevaline programme, the work is done by the Royal Naval Dockyard at Rosyth. Certain emergency work has also been done at Faslane, possibly on US submarines, although any form of incident concerning the need for emergency repairs is a matter of considerable secrecy.

Coulport is a Royal Navy Armaments Depot. It prepares and services the Polaris missiles which need to be removed from their tubes in the submarine at regular intervals. The actual warheads are removed from their tubes in the submarine at regular intervals for servicing and sent to the Royal Ordnance Factory at Burghfield, near Reading. This used to be done by ship, but for many years warheads have been transported by road in a convoy. Considerable concern has been expressed about this convoy as it passes through, or near to major centres of population in both Scotland, and England, and its existence was denied by the Ministry of Defence until recently. In addition to the servicing of the Polaris missiles, the Coulport Base maintains and fits the conventional torpedoes which are carried by all classes of British submarines.

Under normal circumstances, at least one Polaris submarine is on patrol at all times. Due to the Chevaline up-date, each submarine has, or will have to spend a period of time at the Rosyth Dockyard for refit. Usually, one submarine is under-going routine servicing at Faslane.

The duration of a patrol is normally 60 days, after which time, a Polaris submarine unloads those missiles and torpedoes due for servicing at Coulport.

Both Faslane and Coulport operate under the highest levels of security, the Official Secrets Act is applied to both industrial and non-industrial civilian personnel. The sites are patrolled by Ministry of Defence Police whose jurisdiction extends to the Helensburgh area. In addition there is a detachment of Commachio Company Royal Marines stationed at Faslane.

### **3. The Proposed Operation of Trident.**

Since Trident was intended to be a replacement for the Polaris submarines and missiles, it was assumed by many people that the only operational changes at Faslane and Coulport would be an up-grading of facilities to handle the new missile and the larger Trident submarines. On the 2nd June, 1981 an MoD delegation led by Lord Trenchard revealed the extent of the new plans to an audience of district and regional councillors. The major change was expansion of the Coulport facilities which were to be increased from 294 acres to 2,894 acres. The result would be to reduce the area of civilian access on the Rosneath Peninsula to a narrow strip round the edge of MoD land enclosed by a security fence. Due to limited space at the existing Coulport site, the Trident missiles were to be serviced in a new complex which was to be built to the north of the present armaments depot. The proposals contained little or no reference to expansion at Faslane. The total cost, including new by-pass roads, was estimated in 1981 to be in the region of £365 million.<sup>(1)</sup>

In March 1982, the Government announced a change in their plans. Instead of purchasing the Trident 1 C4 missile, which was going into service in the US, they decided to opt for the Trident 11 D5 missile, which was still in the early stages of development.

On the 9th September 1982, a further change of plan was announced by John Nott the Secretary of State for Defence. In his Statement he said,

“Trident represents a major technical advance over Polaris. Components will be more reliable with a longer life. The intention is that the missiles should remain in their tubes in our submarines throughout their 7-8 year commission. This is a much longer period than in the case of Polaris, and such periodic servicing as is necessary will be carried out in the submarines themselves by British personnel. It will not therefore be normally necessary for us to remove our Trident missiles from our submarines during their commission. In the case of Polaris however, the missiles have to be removed from the submarines at more frequent intervals and maintenance carried out ashore.

This major difference between Trident and Polaris has accordingly enabled us to decide, in agreement with the US authorities, that we should use the planned US facilities at Kings Bay, Georgia for the initial preparation for service of our Trident missiles, and their refurbishment at the end of the 7-8 year commission our previous plans to build a full range of facilities for this purpose at Loch Long in Scotland, although some new facilities will be required. These revised arrangements will apply only to the missiles themselves: our nuclear warheads will be held in the UK. This decision will produce considerable savings for the defence programme, amounting to several hundred million pounds in capital costs, with additional savings in running costs." (2).

Two points emerged from this statement. Firstly, major missile servicing will be carried out in the US, and secondly, routine missile servicing will be carried out on-board the submarine by the crews, or other personnel.

Due to the scale of the original planning proposals for RNAD Coulport. Strathclyde Region between 20th and 24th June 1983 held a non-statutory Public Inquiry chaired by Professor John Reid. (3). As the MoD was in the process of drawing up a new notice of planning application to suit the changes in servicing requirements, they refused to participate in the Strathclyde Inquiry. On the 9th September, 1983, the findings of the inquiry were published. It expressed concern over two main aspects of the development as outlined in May 1981. Firstly, the report stated that the identification of Hazard in regard to new developments should be the concern of local authorities, and that the proposed new developments at RNAD Coulport did constitute an additional hazard. Secondly, the report identified harmful effects on local communities, particularly in respect of the general infrastructure, and specifically concerning road approaches.

On the second of May, 1984, the MoD indicated to the planning authority, Dumbarton District Council, that it intended to present a new notice of planning application. Possibly in the light of the opposition Dumbarton District Council had expressed when the first proposals had been made in May 1981, the MoD presented their new application 15 days after the Local Elections on 3rd May.

The consultation process began on the 8th June, 1984 and the MoD application was contained in a thick document with colour photographs and details of the proposals. Once again the extent of the expansion was considerable, but unlike the first application made, they included Faslane as well as Coulport. The area of the Coulport site is to be extended to 1,151 hectares, which are to be surrounded by a new perimeter fence. There will be new buildings, a floating jetty (155m long, 60m wide and 40m high) a helipad, storage facilities and security structures. At night the entire complex will be flood-lit. Contained within the new developments will be an area covering 69 hectares which has been designated as a 'special area'. This will probably be for the storage of missiles and warheads. (4)

The new developments at Faslane will all take place within the existing 81 hectare site, part of which includes the unused area of land once occupied by the shipbreaking yard. The new developments include buildings, workshops and storage facilities, these will include training premises related to the Trident missile and, a periscope workshop. In addition there is to be a new jetty, 185m long, a torpedo handling jetty extending 270m to the west, and 200m to the south, two 45m high cranes, and a ship lift which will extend 300m into Faslane Bay, with a superstructure 185m long, 50m wide and 40m high.

While part of these developments are related to the greater size of the Trident missiles, and the new submarines, (the approach to the Faslane site through the Rhu Narrows will have to be blasted to allow adequate clearance,) clearly a major expansion of all the facilities, including conventional submarine and surface vessels, is also contained within the proposals. The decision made in September 1982 to have part of the servicing for Trident handled in the US, removes from the Faslane and Coulport sites an as yet, undisclosed part of the servicing they at present carry out on the Polaris missiles and submarines. This fact points towards a general expansion of the capabilities of both sites to handle a wider range of non-Trident work.



Because of the changes in the proposals the MoD included in their new planning application, particularly in relation to the Faslane site and the servicing of Trident in the US, Dumbarton District Council asked for a separation between those parts of the application which related to Trident, and those parts which were a more general expansion of facilities. In addition, because of the scale of the new proposals, Dumbarton District Council asked for an extension of the consultation period, by two months. The MoD refused both requests, and on the 31st July 1984, Dumbarton District Council was informed that "in the absence of any further comments of substance from the District Council and in the light of the Council's failure to specify its planning objections (if any)". (5). the notice of planning application had been referred to the Scottish Secretary of State, in accordance with the SDD Circular 49/1977.

The Scottish Secretary of State has decided that there is no need for a public enquiry into the development of the Clyde Submarine Base. Although the consultation process was in effect over, Dumbarton District Council asked for objections to the proposals. Concern was expressed by wide range of individuals and organisations. The BP oil company which operates the Finnart Terminal stated, "From a very brief study of the MoD literature some of the proposals/restrictions being considered by the MoD for the Loch Long area could have serious consequences for this company's operations at Finnart Ocean Terminal" (6). British Rail expressed "disappointment" at their being no reference in the MoD proposals "to any alternative to road transport for the movement of construction materials," (7). and the Royal Fine Arts Commission for Scotland stated that "The scale and impact of the development, existing and projected, taken as a whole is truly daunting" They add that "unless the environmental team are given the power and resources to act, much of the detrimental development which has already taken place will remain in all its unpleasantness, and the new additions may be perceived as exacerbating an already deplorable scene." (8).

The MoD, probably recognising that their proposals would meet strong opposition, embarked upon an expensive public relations exercise to try and ensure that local objectors to their proposals would recognise that, as Lord Trenchard put it in the original presentation in May 1981, "the development was essential for the country, good for Scotland and on the balance good for the locality." (9). As the entire matter has now passed out of the control of the local planning authority, the MoD needs no further approval for their plans. Dumbarton District has, as one Councillor put it, "less planning control over one of the largest developments seen in the West Coast of Scotland than it does over an application to build a house extension or a garage," and only the Secretary for State or the Government can bring about changes to the plans.

Having observed the very limited legal requirement for local consultation the MoD has no other Statutory local planning requirements to meet. However one problem remains. Once the planning application had passed to the Scottish Secretary of State, the MoD announced that asbestos had been found on the site of the proposed development at Faslane. It appears while carrying out initial work on the area of the disused shipbreaking yard, in 1981, quantities of blue, white and brown asbestos were found. Either because the extent of the actual quantity was unknown at the time, or because it was felt that it would create concern, the MoD did not announce the discovery until after the planning application was outwith the limited remit of Dumbarton District Council. It now appears that the extent of the asbestos dump is considerable, in the region of 110,000 cubic feet. As it is buried in a dump, the potential hazard is hard to gauge although it has now been discovered that it extends into the Gareloch. Concern has been expressed by the Trade Unions representing the Faslane workforce, and Dumbarton District's Environmental Health Department.

The asbestos dump is located in one of the major areas of proposed development, and the MoD are attempting to find the methods of removing the material to allow building to start. To date, no details have been given of how this is to be done. One suggestion is that it would be removed from the site by road. Due to the close proximity of centres of population and the vast size of the dump, probably the biggest in Europe, if the proposed development is to be built at Faslane, a safe method of removing the asbestos will need to be found.

It has been necessary to out-line some of the salient details of the planning process in relation to the MoD's proposals for Faslane and Coulport as they constitute almost all of the information which is publicly available. The two notices of planning application, and the Environmental Impact Assessment which accompanied the second one plus Government statements concerning the decision to have Trident serviced in the US, only give a partial picture of the future operation of the Clyde Submarine Base.

As out-lined by the MoD, the four Trident submarines will replace the Polaris ones as they are commissioned. This means that there will be a period of over-lap between Polaris being phased out, and all four Trident submarines being on station. The over-lap has been projected for the early 1990s, with Polaris being completely replaced by Trident towards the end of the decade.

The second application of May 1984, as well as providing for the new Trident facilities, also makes provision for a considerable upgrading of conventional role of the Clyde Base. This applies particularly to Faslane, about which, the planning notice stated that "environmental conditions better suited to the need than any existing UK Dock," were to be found at the site. As a report produced by Dumbarton District Council's Planning Department, (DDC October 1984,) points out this statement requires a degree of further clarification as it could suggest "that the major servicing of nuclear powered submarines, involving the removal of fuel reactor rods from the hull might be carried out at Faslane". (10). In addition, the report draws attention to the scale of future operations to be carried out by the proposed ship-lift, and the question mark over the future of the Naval Dockyard at Rosyth where much of the major servicing of submarines takes place at present.

Since major servicing of the Trident system is to take place in the US, and as the Secretary of State for Defence pointed out in his statement of 9th September, 1982, Trident will have a different service pattern from Polaris and a longer patrol duration, it is clear that the frequency, and extent of shore based servicing at the Clyde Submarine Base for Trident, will be at a reduced level to the present Polaris operation. Therefore it is logical to presume that the Faslane and Coulport sites are to have an increased level of operation for other submarines and surface craft. This could be at the expense of other existing Naval Dockyards, such as Rosyth.

The Government has not issued a recent statement of how much the developments at Faslane and Coulport will cost. The last estimate, made in 1981 stood at £365 million. Due to the alteration of the Government's plans in 1982, the decision to have Trident serviced in the US has resulted in a considerable revision of the development at the Clyde Submarine Base. While the extent of Trident servicing has been reduced additional conventional capacity has been added. In the MoD's Notice of Planning Application of May 1984, all that has been said about the cost of the development is that 'The present facilities at the CSB represent an investment of at least £500 million taking account of buildings and infrastructure alone.' (11). One estimate of the cost of the development at the CSB suggests that it will account for 2% of the total cost of Trident. This represents a figure of £200 million. In the light of the MoD's own estimate that the facilities which exist at present have cost at least £500 million, and considering the extent of the proposed extension it is not unreasonable to consider £200 million as a very conservative figure. It would be more realistic to consider the original estimate of £365 million as a minimum cost, and to suggest that the development could cost closer to £500 million.

## Notes to Part II

1. P 14 Fortress Scotland. p 125 M. Spaven
2. P 14 Trident Public Announcement by John Nott, Secretary of State for Defence. 9th September 1982. (Office of Commodore Clyde, Faslane, Dunbartonshire.)
3. P 15 Strathclyde Regional Council, May 1984.
4. P 15 Notice of Proposed Planning Development and Environmental Impact Assessment MoD Property Services Agency, May 1984.
5. P 16 Report by Dumbarton District Council in response to MoD NoPD Trident October 1984. P 3.
6. P 16 *ibid* letter to DDC 25th June 1984.
7. P 16 *ibid* letter to DDC 27th June 1984.
8. P 16 *ibid* letter to DDC 25th July 1984.
9. P 16 Fortress Scotland. p 125.
10. P 17 Report by DDC October 1984. p 16.
11. P 17 MoD. NoPD. May 1984 Annex A. p. A-8



## **PART III**

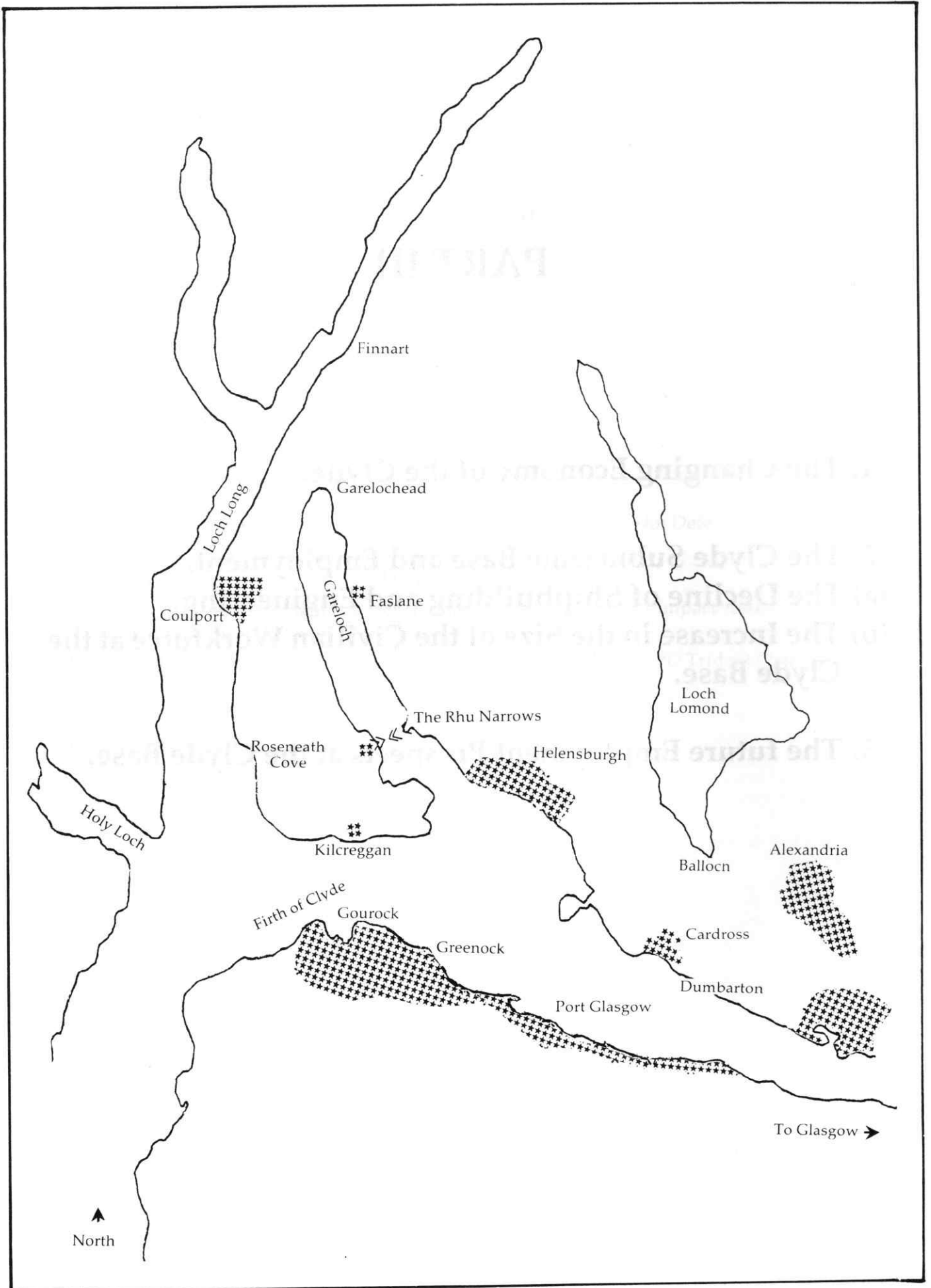
### **1. The Changing Economy of the Clyde.**

#### **2. The Clyde Submarine Base and Employment.**

##### **(a) The Decline of Shipbuilding and Engineering.**

##### **(b) The Increase in the Size of the Civilian Workforce at the Clyde Base.**

### **3. The future Employment Prospects at the Clyde Base.**



## 1. The Changing Economy of the Clyde.

Before giving an out-line of the way in which the Clyde Submarine Base has affected local employment opportunities, it is important to give a brief account of the changing economic fortunes of the area.

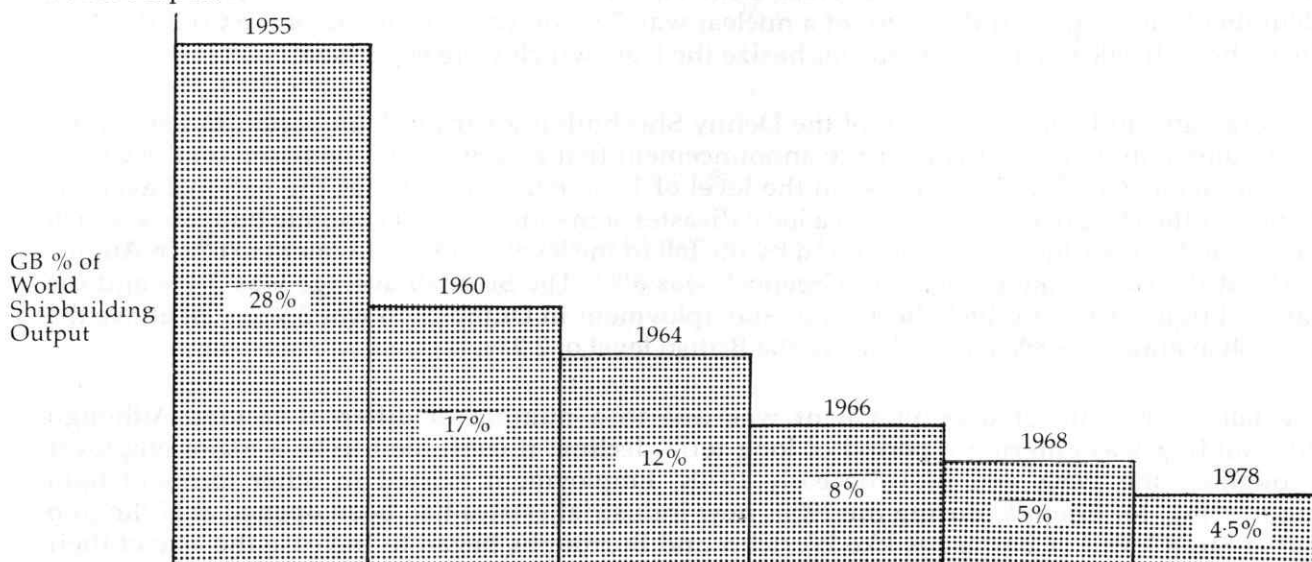
Like many parts of Britain, the origins of many of the industries which made the Clyde wealthy, can be found in the early years of the Industrial Revolution. Victorian entrepreneurs continued to make fortunes out of commerce and shipping just as an earlier generation had made theirs from the importing of tobacco. The accumulation of capital led to diversification. By the 1830s, one seventh of British cotton capacity was centred around the Glasgow area, notably in the fast developing satellite towns like Paisley. The concentration of capital and the employment it created, attracted the rural poor, many of them from Ireland, and the population of the area grew rapidly.

In many respects, the development of Glasgow and surrounding area, is a microcosm of the wider Industrial Revolution taking place in Britain from the early years of the last century. Commerce and shipping created the wealth which led to industrial development. This development was helped by the ease of transport afforded by the River Clyde and the new canal and railway networks built. Traditional industries, such as dyeing and chemical processing employed fewer people than newer industries, namely the manufacturing of cotton. The presence of coal-fields in Lanarkshire and Ayrshire helped to accelerate the diversification from these early industries into the new areas of light and heavy engineering. The traditional role of shipping and the fact that the River Clyde flowed into the heart of Glasgow made the rise of new and large scale shipbuilding industries possible.

Despite a fluctuating economic climate, and the industrialisation of the US and European nations, the wealth of the Clyde continued to rely mainly on shipbuilding and engineering. However as it is the case in other industrial parts of Britain; economic wealth did not disguise widespread social deprivation. Working conditions were harsh, and accidents frequent. The shipyard owners introduced demarcation within their own workforces, as it allowed them to hire specific groups of workers as their skills were needed.

The comparative boom period for shipbuilding which followed the Second World War, was followed by an accelerating decline. Fierce competition for new orders initially from the newly reconstructed German shipyards, and then Japan and Korea, allied with the reduction in the size of many merchant fleets, contributed to Britain's declining share of world shipbuilding output. (see graph below).

By the early 1960s Britain's position as a major shipbuilder was already declining in terms of total world output.



(Sources, UN Statistical Year Books, UK Annual Abstract of Statistics.)

In spite of Britain's declining share in the world shipbuilding market, the River Clyde had 31 yards or works handling shipbuilding, repair (ie dry docks,) servicing or engine construction. In 1962, the year that Britain decided to purchase Polaris, the Shipbuilding Employers' Federation listed all these facilities on the Clyde, between Greenock and the centre of Glasgow. In addition they published the list of associated companies. In the case of Lithgow's shipbuilders, this included 33 associated companies ranging from engineering to the fitting of kitchens, (1). Although some diversification of industry existed in the area, for example the blending of whisky in Glasgow and Dumbarton, the production of sewing machines at Singers in Clydebank, work in the docks or the usual range of smaller companies in the light engineering, electrical or chemical industries, the Clyde area was dominated by shipbuilding and related heavy engineering industries, and they were major employers. As the above chart shows, by 1960, Britain's share of the world market was already declining rapidly. The implications of this structural decline were recognised at the time, but little action was taken.

## **2. The Clyde Submarine Base and Employment.**

This section of the report considers the reasons why communities have become heavily dependent upon the Clyde Submarine Base for employment.

### **(a). The decline of shipbuilding and engineering.**

Between 1963, when it was announced that Polaris would be based on the Clyde, and 1985, the decline in manufacturing employment in the West Coast of Scotland has been accelerating rapidly. In the 1960s, although many of the larger shipyards, like John Brown's of Clydebank, continued to employ workforces of around ten thousand or more, signs of the difficulties which lay ahead were starting to become visible. Some of the smaller yards had already sold out or gone into liquidation. In general the level of unemployment in Scotland was about double the national average, in some parts of the Clyde it was even higher.

In Dumbarton in 1962, the level of unemployment stood at 6.6% at a time when the national average was under 3%. By January 1963, unemployment in the Dumbarton area had risen to 8.8% and the national average had fallen to 2.2%. The announcement that the Polaris fleet was to be stationed at nearby Faslane was greeted by the local paper with the following headline. "Permanent Jobs for Local Labour." The Polaris proposals stated that 400 new civilian jobs would be created, of which 200 would be filled from the immediate vicinity (Dumbarton, Greenock, Vale of Leven, Helensburgh and Alexandria). In addition, between 500 and 1000 temporary construction jobs would be required to prepare the new Polaris facilities. Many of those who opposed the siting of US Polaris missiles on the Holy Loch, also opposed the decision to use Faslane and Coulport as the British Polaris Base. The Town Councils of Dumbarton and the Vale of Leven were quoted in the local press criticizing the decision, which now made the area a "Number One Target" in the event of a nuclear war. The prevailing climate of the Cold War and the Cuban Missile Crisis served to emphasize the fears which were expressed.

The dramatic and sudden closure of the Denny Shipbuilding yard in Dumbarton in September 1963, came only five months after the announcement that Polaris would be based on the Clyde. Unemployment in Dumbarton rose to the level of 13%, nearly four times the national average. Although the closure of Denny's was a local disaster some idea of the economic buoyancy which still existed at the time, can be measured by the fall in the level of unemployment to 6% in August 1964, (at the same time the level in Greenock was 8%). The Scottish average was 3.4% and the national figure 1.4%. By 1967 the level of unemployment in Dumbarton was 3.9%, just above the Scottish average of 3.8% and still above the British level of 2.2%. (2).

The fall in the rate of unemployment was due to a number of different factors. Although shipbuilding was entering a period of long term decline, it continued to be a major employer throughout the 1960s and into the early 1970s. Employment existed in other forms of light engineering, for example during the 1950s new industrial estates had been opened at Hillington and at Strathleven. Companies like Westclox and Burroughs began to increase the size of their operations in the area. It was a very good time for the whisky industry and Ballantines Distillery in Dumbarton was expanding its plant. In Clydebank the Singer factory continued to be a major

employer. In general when jobs were lost in heavy engineering and shipbuilding, there was a good chance that employment could be found in one of a variety of new industries which existed in the area. It was still commonplace for school leavers to seek and find apprenticeships.

However times were changing, and by the mid 1970s the contraction of the shipbuilding and heavy engineering sector was making jobs far harder to find as competition increased for employment in the newer industries. Unfortunately, many of these companies were either subsidiaries of multi-national corporations, or large British companies with a number of geographically diverse plants. When markets began to contract, or new technology changed either the product, or the method of manufacturing, many rationalised their operations. In effect this meant that large scale closures usually followed a period of factory run-down. For a variety of reasons, companies like Diamond Power, Burroughs, Westclox, Wisemans, Plessey, Scottish Colorfoto, Singer's, Goodyear and the Linwood Car Plant, almost all of whom had supplied alternative employment for those who had been made redundant from the traditional industries, closed. The impact of such closures was not only felt on direct employment. Many small firms, whose existence relied either totally, or in part, have also been forced to close, and as a result indirect employment has also been drastically affected.

In the wider context of Strathclyde Region, 154,000 jobs have been lost since 1979, of which 134,000 have been in the manufacturing sector. Taking any of the last six months of 1984, this has meant that there has been an average ratio of one job vacancy for every twenty seven people unemployed. Some indication of the economic trend can be seen from the fact that 86% of jobs lost in Strathclyde Region have been in the manufacturing sector. The table below gives some indication of the comparative rates of unemployment as of October 1984.

Since these figures do not include certain categories of the unemployed such as married women, recent school leavers or those involved in job creation schemes, (an additional 88,000 people), the figures underestimate the extent of the problem. If these categories are included in the figures then the level of unemployment in Strathclyde Region rises to 25.5% and the figures in the table below could have as much as 10% added to them. (3).

	Males %	Females %	Total %
DUMBARTON	19.1	14.2	17.1
ALEXANDRIA	21.4	17.7	19.9
HELENSBURGH	8.1	14.1	10.2
PORT GLASGOW	23.5	13.7	19.7
GREENOCK	23.2	12.1	18.8
CLYDEBANK	20.4	10.9	16.5
GLASGOW (CITY)	26.7	13.4	21.2
STRATHCLYDE REGION	21.0	12.3	17.4
SCOTLAND	17.9	11.0	14.9
BRITAIN	15.1	9.5	12.8

(Source, Strathclyde Region's Economic Trends No.6 October 1984).

**(b). The increase in size of the Civilian Workforce at the Clyde Submarine Base.**

The original projection of the civilian workforce needed at Faslane and Coulport was 400, of whom 200 would be employed locally. Due to the large geographical area from which this workforce was drawn (Dumbarton, Greenock, Port Glasgow, Alexandria, Vale of Leven, Helensburgh and as far as Clydebank and Glasgow), the over-all impact on any one local rate of unemployment was very slight. More significant was the temporary employment which created about 1200 jobs during the construction phase between 1963 and 1968.

Once Polaris was in operation, the Base created three types of direct employment. The service personnel, of whom about 50% were shore based and therefore resided in the area, the remainder were ship-based (ie crew), and mostly spent their periods of leave out-with the area, many in England.



*Specialised Civilians*, with skills related to the weapons systems, mainly employed at Coulport, and residing in the area but the majority of whom had been recruited by the MoD out-with the area, mainly in England.

*Skilled, semi-skilled and un-skilled civilians.* This group, including a variety of trades, also included the lower grade clerical and administrative staff, (one of the areas of employment in the Base open to women). Almost all of this part of the civilian workforce lived, and were recruited locally. Compared with other sources of employment, the Clyde Base was far less significant in the late 1960s than it was to become in the late 70s. It was also the case that as a service, rather than a manufacturing industry, like shipbuilding, the Base created a very low level of secondary, or indirect employment. This situation was not helped by the policy of centralised purchasing, which usually tended to exclude local suppliers from the list of companies eligible to make tenders.

In many respects, the MoD during the late 1960s and early 1970s was the best employer in the area. The reason for the presence of the Base did not need to be justified on the basis of normal commercial practises. In addition to reasonable rates of pay and abundant overtime, the MoD paid travelling time to, and from the base as the majority of the workforce had to travel to work. (4). For those travelling from Greenock and the South side of the Clyde, the ferry took them from Gourrock to Kilcreggan, where the MoD laid on private buses for the journey to Coulport. For those travelling to Faslane, private buses were also supplied. In many respects, the period of the late 1960s and the early 1970s was the boom time for the local civilian workforce. Possibly, the Base was over-staffed as a matter of policy, or more probably due to the general level of inefficiency which appears to have been tolerated at the time. Unlike many of the declining traditional industries, it was possible to start at the bottom, and because of the specific nature of much of the work, particularly in the area of stores, to work up through the various grades. In many respects, employment at the Base, was seen as being an 'easy number' compared to the newer industries or shipbuilding.

Between the late 1960s and the early 70s, the size of the civilian workforce increased from about 400 to over 2000. The Chevaline programme brought temporary employment for the building trades, as it required the extension of the 'special area' at Coulport.

As industries closed, or contracted, the role of the Base as a major source of employment increased. As jobs became harder to find, the high level of civilian personnel turn-over, which had existed from the mid 1960s until the mid 1970s, slowed up, and as other sources of employment became even harder to find, the significance of the Base as the only major source of employment tended to replace its earlier role, as the easiest way to earn a living. Increasingly aware of the lack alternative employment, the unions in the Base, became more defensive of the levels of manning and the assessment of productivity. The civilian, and MoD management, were also conscious of the increased importance of the Base as a source of employment. The fact that queues of unemployed men and women, were prepared to stand outside job centres over-night, in the hope of getting a job, clearly demonstrated the new significance of the Base as a source of employment.

When the MoD presented its Notice of Planning Application in May, 1984, it contained some information about the present workforce of the Clyde Submarine Base. Due to the secrecy that surrounds the Base, no recent, independent figures are available. The three tables below are based on the information which was produced by the MoD in its Environmental Impact Assessment. (May 1984).

Two points need to be made. Firstly, the tables produced from it serve to give reasonable estimates of the breakdown of the present workforce at the Clyde Submarine base. Secondly, the MoD has always made a strong point of emphasizing the importance of the Base as a source of local employment. Traditionally, the announcement of new defence contracts, or the proposed siting of new military installations have always been hailed, either by the Government or the MoD, as being potential sources of employment. For example, the initial announcement of the decision to purchase Trident stated that the deal would bring 35,000 jobs to British industry. In fact practically no new jobs have been created as a result of the decision to opt for Trident II.

Clearly, when producing employment statistics concerning the present operation of the Clyde Base, the MoD seeks to demonstrate that it is a vital element in the local employment pattern, not only in relation to its present role, but also regarding the future operation of Trident. Compared to the original civilian workforce of 400 announced in 1963, the number of civilians employed in Faslane and Coulport was stated by the MoD in May, 1984, to have been 3,450.

### The Distribution of Civilian and Service Personnel at Faslane and Coulport.

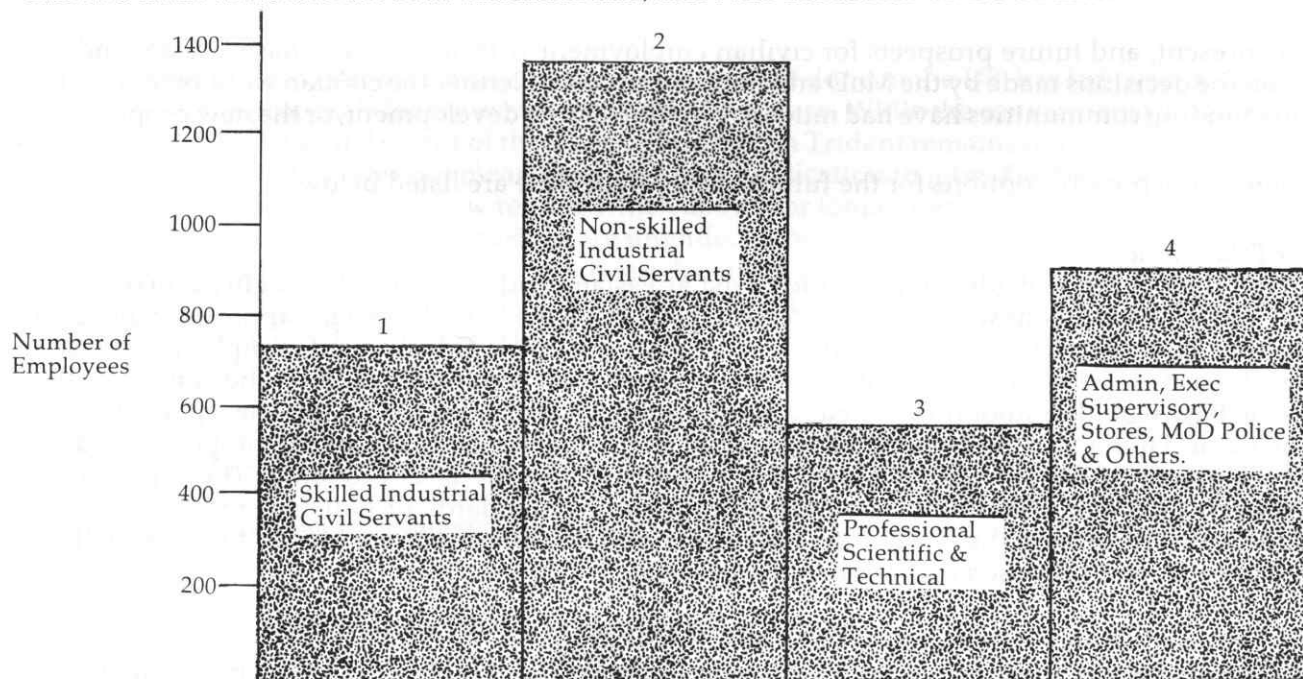
	FASLANE	COUPOINT	TOTAL PERSONNEL
Shore Based Service Personnel	1600	50	3300
Ship Based Service Personnel	1650	--	3300
Total Service Personnel	3250	50	3300
Civilian Personnel	1800	1650	3450
Civilian/Service Totals	5050	1700	6750

(Source: MoD EIA May 1984)

The rapid rise in the level of unemployment in the area, combined with the fall in the number of vacancies, has meant that the increase in the size of the workforce at the Clyde Submarine Base, and any decisions affecting its reduction in the present economic climate, could only be seen as a further blow to the area. The harmful effects of a reduction in the present level of the workforce could be minimised if an enlightened approach was taken by the Government to the opportunities of re-training, popular consultative planning and a re-allocation of existing resources. (5). However the decision to privatise the Royal Ordnance Factories and the closure of other MoD establishments, demonstrate that these opportunities have been ignored.

### Breakdown of Civilian Workforce at Faslane and Coulport.

The two main divisions are between Industrial, and Non-Industrial Civil Servants.



1. Skilled Industrial Civil Servants number 690 or 20% of total civilian workforce.
2. Non-skilled Industrial Civil Servants number 1380 or 40% of total civilian workforce.
3. Non-Industrial, Scientific, Technical and Professional Staff number 560 or 16% of total civilian workforce.
4. Non-Industrial Admin. Exec. Stores, MoD Police and others number 820 or 24% of total civilian workforce.

(Source MoD EIA May 1984)

### Estimated Distribution of the civilian workforce at Faslane and Coulport.

	COULPORT	FASLANE
GLASGOW AREA	75	190
DUMBARTON	240	320
ALEXANDRIA	380	520
CARDROSS	20	20
HELENSBURGH	240	260
RHU	50	40
GARELOCHEAD	50	80
PORT GLASGOW	70	10
GREENOCK	270	10
GOUROCK	75	20
ROSNEATH	170	60
KILCREGGAN	75	20
COVE	15	10
COULPORT	5	10
TOTAL ESTIMATE	1735	1570

*(Estimates based on the MoD EIA May 1984).*

These figures demonstrate the localised effect of employment in the two sites. For example, few of the workforce travel from the Glasgow area. Coulport is the site where the majority of those residing in the Greenock, Port Glasgow area travel to for work. Dumbarton District has the largest proportion of Base workers, (about 67%) and within Dumbarton District, Alexandria has the highest concentration, 27% of the total estimated civilian workforce of Faslane and Coulport.

### 3. The Future Employment Prospects at the Clyde Submarine Base.

The present, and future prospects for civilian employment within the Clyde Base, are dependent upon the decisions made by the MoD and the Government. Neither the civilian workforce, nor the surrounding communities have had much say in the existing development, or the new proposals.

Some of the possible options for the future of the Clyde Base are listed below.

#### *(a) Total Closure.*

Given the operational advantages which exist at Faslane and Coulport, it is highly unlikely that any future government would decide to completely close the Base. If, as has happened in the past in the Civil Service and other MoD establishments, the Government simply announced redundancies, without considering the impact upon local communities, then the closure of the Clyde Base would compound an already deteriorating level of unemployment. The worst effects of such a decision could be avoided, if part, or all of the money allocated for the proposed Trident development at Faslane and Coulport was redirected into the local economy. The injection of between £350 and £500 million pounds to improve the standards of housing, roads and other transport services and the wider infrastructure, could create many more jobs in the locality than the present, and proposed operation of the base. (6).

#### *(b) Decommissioning Polaris and the Cancellation of Trident.*

If the four Polaris Submarines were decommissioned and not replaced by Trident, or other new submarines, then the Base would continue to have a role in the servicing of existing conventional submarines and surface craft. In this case, the workload would be reduced by about 40%, and the worst effects of personnel reduction would be at Coulport. Probably the main impact of job loss would be among the scientific and technical staff handling the Polaris system. Many of this group transferred to the Clyde area from the other parts of the country, therefore it is difficult to estimate the real impact of job losses upon the local communities. As could be the case with total closure, the reallocation of resources and careful planning might be identified as an opportunity in the long term to attract employment for a wider section of the community at present unemployed.

In the Notice of Planning Application presented in May 1984, the MoD made it clear that they intended to use the replacement of Polaris as an opportunity to extend the facilities at Faslane. In part this was due to the Trident programme, but there was also a considerable extension of the facilities for conventional submarines and surface craft. If Trident was cancelled, the Navy would retain and probably expand its conventional submarine capacity and the Clyde Base would continue to be their operational centre. (7). If this was the case, the effect on local employment would possibly be an increase in the size of the present workforce, and certainly better job security than the Trident proposals appear to offer. (8).

*(c). Polaris Remaining in Service or another Missile apart from Trident Replacing it.*

Like total closure of the Base, this option seems unlikely in the present climate. It would be possible to build four new submarines for the Polaris missiles at a fraction of the cost of Trident. This would reduce the major cost of maintenance which critics of those who have advocated the retention of the present Polaris fleet have identified as being a long term objection. If this option was implemented, the effect on the present workforce at the Base would be minimal.

The other option which has been suggested is that Polaris could be replaced with a less expensive missile than Trident. Alternatives have included the Poseidon C3 missile, which is due to be phased out by the US in 1990, or the sea launched cruise missile. Neither alternative has been seriously considered by the MoD: Poseidon probably on the grounds of strategic obsolescence, and Cruise because of its limited range and slow flight speed. (9). The other option, which the Government has already ruled out, is the Trident 1 missile. In tests it has proved far more accurate than originally thought, although like all missiles based on high technology, its reliability remains suspect. Trident II by virtue of being even more advanced in its guidance system, will certainly share these problems.

*(d). Trident II Replacing Polaris.*

In spite of growing criticism, the Government has announced no alteration in its plan to purchase Trident II from the US. The 35,000 jobs which were originally announced as being the bonus for British industry have never materialised. British companies have failed to win any major order in the US where the development of Trident II is taking place.

The decision to have major servicing and refits for Trident done in the US, has led to considerable alteration in the proposals for the extension of the Clyde Base. While the conventional facilities are to be expanded, the actual extent of the work to be done on Trident remains unclear. The replacing of Polaris with Trident does not mean there will be a duplication in jobs. The fact that the Trident submarines are powered by a new reactor which allows for longer periods of patrol duration, and because three out of the four submarines are intended to be on patrol at the same time, their visits to the Clyde Submarine Base will be much less frequent than the the Polaris submarines which they will replace. If this proves to be correct, there will be less work for the civilian employees presently involved in the servicing of Polaris boats.

If the Trident proposals go ahead in their present form, there will be a period of construction work to extend the facilities at Faslane and Coulport, once the first Trident submarine is commissioned, there will be a period of change-over from the Polaris, to the Trident system. In their Environmental Impact Assessment the MoD supplied the information which appears in the table below.

**MoD Employment Projections for the Trident developments.**

	1983	1988	1990	1994	1998	2002
Construction Workers	0	1550	600	0	0	0
Naval Personnel	3300	3300	3900	4100	4000	3800
Civilian Personnel	3450	3450	3650	3950	3450	3450
<b>Total</b>	<b>6750</b>	<b>8300</b>	<b>8150</b>	<b>8050</b>	<b>7450</b>	<b>7250</b>

(source MoD EIA May 1984)

The table covers the period from the start of the construction period, the phasing out of Polaris, and the operation of Trident. The long term impact on civilian employment is that during the change-over period, an additional 400 civilians will be required. The MoD have stated that these jobs will mainly be skilled non-professionals who will be recruited from outwith Strathclyde Region. This means that during the change-over period an additional 100-150 non-skilled, semi-skilled a few skilled and some administrative personnel will be employed. However once Trident is fully operational, these jobs will become unnecessary, and the extra personnel will be made redundant. (10).

Of the construction workforce, the MoD estimates that about 70% will be recruited from within Strathclyde Region. (About 1100 workers.) The remaining 30%, or 450 jobs will be filled, for unknown reasons, from outside Strathclyde Region. This projection has been questioned by Dumbarton District Council in its Report on the Trident proposals. (11). The figures for the construction workforce are estimates of the peak requirements, not the general level of construction employment. For example the MoD has stated that out of the 1100 jobs which will be filled by Strathclyde residents, 390 jobs will be created in the area throughout the entire period of construction, but that this is the maximum projected number of vacancies which will be created during the peak period of construction.

If the MoD projections are accepted at their face value, the replacement of Polaris with Trident, and the expansion of the facilities at the Base, will create a number of temporary jobs in the area. In the long term the civilian workforce will remain at its present number. The cost of the expansion at Faslane and Coulport will be somewhere in the region of £500 million and very possibly even more than that. This money will create new long term jobs, either directly, or in secondary employment. The MoD has made estimates of the value of economic spin-off, mainly on the basis of the wage bill for the Base, and the beneficial effect of spending in the locality. Given the difficulty in assessing such a figure (12), it is a matter open to a number of different interpretations. Since 50% of the service personnel are ship-based, and many travel outside the area on leave, it is inaccurate to state that the total wage bill is spent in the locality. In general it is more accurate to consider the service personnel, and a large proportion of the non-industrial workforce as being immigrants to the area who have brought their jobs with them. The spin-off effect is most beneficial in the service and retail sector, especially in Helensburgh where the majority of the service personnel reside. (Interestingly, the MoD has stated that 50% of the service personnel are above the rank of senior rating),(13).

Almost all of this 'immigrant' population bring their family to the area. Therefore, while they are spending their money on local goods and services it is also the case that, wives, daughters and sons are competing for local employment, either full, or part-time.

The MoDs assurances about the future of the Clyde Base and the changes caused by Trident, are not universally accepted. The rise in the level of unemployment has meant that jobs in the Base have been harder to get, and harder to keep. In the past seven years, the attitude of the MoD towards its civilian employees, has changed. In line with Government cost cutting exercises, the number of civil-servants employed throughout the country has been reduced. Workers in 'key' establishments, like GCHQ at Cheltenham, have lost their right to trade union membership. Privatisation of nationalised industries has taken place, not just the large sales like Telecom, or Jaguar, but tenders have been placed for the warship section of British ship-builders Naval Dockyards (Rosyth being one example), and Royal Ordnance Factories like Bishopton have also been affected by privatisation policies.

Like other workers in the MoD establishment, those at the Clyde Base have become increasingly aware of Government policies and national cuts in the MoD civilian workforce. The key words for the Base are militarisation, privatisation and contractorisation. Militarisation involves replacing existing civilian workers with service personnel. Malcolm Spaven has suggested in his book, *Fortress Scotland*, that one of the results of a strike in 1981, when 41 members of the civilian staff halted Polaris documentation, was that the MoD decided to replace civilians in key areas, or jobs, with service personnel. In 1982, 400 civilian jobs were lost, and this could have been the start of this process. (14). The unions at the Base have opposed any job losses and although a recently negotiated productivity agreement states that up to 400 further civilians will be paid off, the MoD

has to date taken no action. This is probably due to the general unease which has been expressed over the Trident Proposals.

If the policy of militarising civilian jobs is now in operation it is highly unlikely that the MoD will make it public. More probably, vacancies will not be filled from the area and the general changes which will come about during the preparation for Trident, will be used as a screen to alter the pattern of employment from civilian to service. Clearly if this happens, it will not affect all civilian jobs, but it will certainly lead to an over-all reduction in the level of civilian employment.

Privatisation does not pose the same threat of job losses to the Clyde Base as it has, or will to other MoD establishments, for example the Bishopton ROF or the Rosyth Naval Dockyard, (15). It is unlikely that an operational military base, like the Clyde Submarine Base would be considered, either in whole or part for privatisation. However what might happen is that certain non-security rated functions could be put out to private tender. This contractorisation of certain functions, such as cleaning, would mainly affect the lower grades within the Base. (At present the Transport and General Workers Union represents the majority of unskilled, semi and skilled workers who fall mainly within the grades between 6 and 10. The grading scale ranges from 0 to 22 above which are the professional and non-industrial grades).

In spite of the assurances which the MoD has made to the civilian workforce, considerable doubts still remain over job security. This concern has been increasing due to the Government's industrial policies, growing unemployment, the Trident proposals relating to US servicing and MoD cuts in the size of the national civil service workforce in defence, and related establishments.

In general, the fortunes of the civilian workforce at the Clyde Base are dependant upon the decisions made by the Government and the instructions which it gives to the MoD. In the past Governments have cancelled defence contracts and entire programmes. Trident has already undergone major alterations in the 5 years since the decision to purchase it was announced. If the Government listens to the growing criticisms of the cost of the deal, further changes could take place. The wider debate over Britain's future strategic role and unilateralism, involving political parties, trade unions and the peace movement, which, dependant upon the outcome of a future general election, could see the removal of all nuclear missiles from the Clyde Base, makes the long term prospects of employment appear, at least to the workforce, even more uncertain.

In fact the Government's decision to have Trident serviced in the US has reduced the work which would have been carried out in the Clyde Submarine Base. No new long term jobs will be created by the replacement of Polaris. Contractorisation and militarisation of civilian jobs could lead to an over-all reduction in the size of the civilian workforce. Jobs are neither being saved nor created by the decision to base Trident on the Clyde. Significantly it was the decision to include an expansion of the conventional non Trident facilities at the CSB which allows the Government to claim that the servicing of Trident in the US will not lead to any short term job losses. The Government is correct in its claim that Trident will create jobs unfortunately the bulk of them will be in the US where both the development and the servicing of Trident will be paid for with money from Britain.

### Notes to Part III

1. P 22 *British Shipbuilding - Facilities and Services* 1961. p. 100
2. P 22 Source, *The Lennox Herald* for the years 1960-70.
3. P 23 Source, *Strathclyde Economic Trends*, No.6 October 1984.
4. P 24 As competition for jobs in the Base increased this travel payment became an anomaly which some received and others did not. After negotiations in 1983 the payment was removed in return for a once only lump sum in return. To-day the workforce receives no compensation for the time involved in travelling to and from their place of work.
5. P 25 For further discussions on this point see:-
 

M. Anderson.	<i>The Empty Pork Barrel.</i> eg report for 1982.
W. Leontief & M. Hoffenberg.	<i>The Economic Effects of Disarmament.</i> Scientific American April 1961.
P. Morrison & P. Walker.	<i>A New Strategy for Military Spending.</i> Scientific American October 1978.
Bradford University School of Peace Studies./ The Alternative Defence Commission.	<i>Threat or Opportunity: The Economic Consequences of Non-nuclear Defence.</i> Peace research reports No.6
M. Chalmers.	<i>The Cost of Britain's Defence.</i> Peace Studies No.10
A number of Trade Unions have also produced leaflets on this subject for example:-	
TGWU	<i>A Better Future for Defence Jobs.</i> 1983.
AUEW-TASS	<i>Defence and Jobs.</i> 1984.
6. P 26 See particularly M. Anderson. *The Empty Pork Barrel.*
7. P 27 *The Clyde Submarine Base and the Local Economy.* - T. Stone and D. Greenwood, Defence Studies Unit, Dept. of Political Economy. Aberdeen University, 1975, A Conference Paper for CND.
8. P 27 The circumstances upon which Stone and Greenwood argued that the decommissioning of Polaris would lead to a considerable reduction of civilian employment in their paper of 1975, have undergone considerable alterations with the decision to replace Polaris with Trident, the subsequent decision to have major Trident servicing handled in the US, and the extensive expansion of conventional facilities outlined by the MoD in their NoPD of May 1984. It appears that the significant role which Polaris played in creating civilian employment will not be duplicated by Trident and that the expansion of the conventional facilities at the Base could well offer better long term job security for the existing workforce.
9. P 27 For further discussion of this point see Chalmers, *Trident.*
10. P 28 MoD. EIA p. 115.
11. P 28 Report of DDC October 1984. p. 26.
12. P 28 *ibid* p. 26.
13. P 28 MoD. EIA p. 106.
14. P 28 Spaven. *Fortress Scotland.* p. 125.
15. P 29 Over the period December 1984 to January 1985, 2000 separate visits from individuals working for outside contractors were recorded at the gatehouse of Rosyth Naval Dockyard.

## **PART IV**

- 1. Defence Expenditure and Unemployment.**
- 2. What Needs to be Done?**



## 1. Defence Expenditure and Unemployment.

The MoD have stated that the past cost of developing the facilities at the Clyde Submarine Base have been "at least £500 million" (1). The cost of the Trident development was stated in 1982 to have been in the region of £350 million. The 1984 proposals have reduced the extent of the Trident related part of the development as a result of the decision to have servicing done in the US, but have added a large scale expansion to the non Trident facilities at the CSB. No detailed statement has been issued by the MoD which gives an estimate of the cost of the new proposals although the figure of 2% of the total Trident bill (which is increasing all the time) has been suggested (2). In the light of the cost of the past development at the CSB and the extent of the new proposals the figure of £500 million appears to be a reasonable estimate of the future costs.

What is Dumbarton District and the surrounding area which are dependant upon the CSB for employment going to get for this massive investment? According to the Ministry of Defence,

1. Strathclyde Region will get about 1500 temporary construction jobs. Of these Dumbarton District will supply 390.
2. No new long term civilian jobs will be created. The MoD estimates that 500 new jobs for service personnel will be required once Trident is fully operational. There are also some questions to be raised about the long term prospects of the civilian workforce which is employed at the CSB at present. In September 1982, the Commodore at the Base issued a letter to the workforce which announced the Government's decision to have Trident serviced in the US. In it he stated that "We have to be looking some way ahead in considering what changes there will be in employment opportunities as a result of this decision. What we can say is that the short and mid-term effects of this decision are nil." (3).

It is worth considering the effect which the decision to develop the CSB at a cost of £500 million in the past and an estimated £500 million in the future has had, and will have on the local economy, and placing it in the wider context of the debate over the relationship between economic development and high levels of defence expenditure.

For the last ten or fifteen years there has been a wide ranging debate carried out between politicians, trade unionists, the peace movement and academics about the economic effects of defence expenditure. (4). Those on one side have stuck firmly to the belief that defence expenditure is good for the economy, creates employment and should be increased in line with political/electoral credibility and strategic military requirements. The argument on the other side has been that defence expenditure starves the economy of investment, it absorbs needed skills and resources and because of the technological nature of the new generation of weapons, sustains less jobs than other types of investment. In short they argue that the case which states defence expenditure creates employment should be replaced with a widespread recognition that it only sustains certain jobs in an industry which has become capital rather than labour intensive.

Defence expenditure in Britain has risen from £7671 million in 1968 to £15,952 in 1983. With contracts like the Nimrod, the Type 23 frigate and the Tornado multi-role aircraft all running over budget at the one time, defence expenditure for 1985-86 has been estimated at the figure of £18,600 million, a rise of 2.8% over the previous year. (5).

The single most important and expensive part of projected Government expenditure is on Trident. The latest Government estimates of its cost stand at £9285 million but were based on 1983-84 average prices and a dollar pound exchange rate of \$1.38. With over 45% of the contract being carried out in the US the value of the pound is a key factor in pushing the price upwards. In September 1983, an article in *Armed Forces Journal International* stated that,

"There is a very good chance, based on past escalation in US missile and British Submarine and equipment costs, that the true program procurement cost will be 25 billion pounds, particularly if one adds in all the R/D related and 'minor' procurements that the US has always ignored in publicly costing its strategic programme.

Remember too, that these figures cover only procurement. The true life cycle cost of the entire Trident force including submarines, G31, etc, from the mid 1980s - when major investment must begin-to the year 2000, will almost certainly be well in excess of 50 billion in 1983/84 pounds." (6).

The Government in response to criticism that the Trident deal was not creating the employment which it stated it would, or for that matter contracts for British companies, announced in response that £14 million of contracts had been awarded to British companies. It now appears that this figure was deliberately inflated by the MoD. A contract worth £5.4 million for the submarine launchers was included in the £14 million total, but the company to which the contract went, Stanley Aviation, is a US subsidiary of the flight refuelling company. (7). In general, with the exception of the building of the actual submarines, British industry has had to compete for sub-contract work with prime contractor US companies. This is largely due to the failure of the British Government to negotiate any 'off set' deal with the US as a result of the high proportion of Trident work being carried out in the US.

Clearly the decision of the British Government in 1979 to purchase Trident from the US has serious implications for British defence contractors, other areas of the defence budget and the economy and employment in general. Within this wider context, the decision to spend about £500 million on the Clyde Submarine Base may appear less significant. However there are some interesting conclusions to be drawn from the development of the CSB and the proposed Trident development which might stand comparison with wider employment and economic prospects.

If we take the case of Dumbarton District where 67% of the civilian workforce at the CSB reside, the prospects for either industrial or economic regeneration appear bleak. The problems deserve to be studied in detail and this will obviously be part of the future work of the Alternative Employment Study Group. Even without the benefit of a study certain factors are already very clear. The first is that the employment prospects within the area have become worse over the last ten years rather than better and this trend appears to be getting worse rather than better. The general condition of the infrastructure is suffering from a lack of investment. Publically owned housing stock is deteriorating at a rate which outpaces the resources to either improve or to replace it. To date the area has failed to attract any of the new electronics companies or for that matter any company which would generate large scale employment. In part this is due to the competition from other regions which can offer better forms of government development grants which make attractive financial incentives for locating in their areas. Once established these companies attract others and service industries develop around them.

Like many other many parts of Britain, Dumbarton District needs investment to improve the standard of housing, roads, recreational facilities and health and social provision. Investment in these types of projects are labour intensive and beneficial to the community. It is this type of investment which the present government has been reducing, arguing that wealth has to be generated before revenue can be released for such schemes.

Taken from another angle, it could be argued that the investment should come first. By improving the general infrastructure of an area it becomes more attractive to industries which could supply the much needed employment. In the process of improving housing and other parts of the infrastructure employment is created which in turn increases the communities spending capacity, generates small service industry and most importantly, improves the general morale of communities.

The Trident investment will have very little beneficial effect on the community. It will continue to keep some of the civilian jobs which exist at the moment and are undeniably important to communities with few other sources of employment. What it will not do is create long term job prospects for the unemployed of the area. For example, the claims of the MoD (8) and a 1975 research paper (9) that the CSB generates about 2000 civilian spin-off jobs deserve a more detailed scrutiny, a project which the AESG will undertake in the future. Even if the figure of 2000 civilian spin-off jobs were to be accepted, the £500 million investment which the MoD has allocated to the CSB will not increase the spin-off effects into the surrounding communities which could generate an increase in indirect employment. One of the major reasons for this is that the Base produces nothing at present and the Trident proposals will only increase the extent of the MoD operation in the area, it will not radically alter the function of the Base.

The entire way in which the MoD and the Government have promoted the Trident proposals to the people of Dumbarton District has been based on the argument that the area is fortunate to have an operational military establishment which has created employment in the past and because of Trident plans, will continue to sustain civilian jobs. Rather than pointing out that no long term jobs will be created and that even those jobs which exist at present could be affected, the MoD have equated the Trident proposals with the retention of present levels of civilian employment and strongly played down the facts which point towards a reduction rather than an increase of the present level of employment.

The package which the MoD has presented to the community is that the Base is an essential source of local employment and that if it is to remain so, it is vital that the decision to purchase Trident goes ahead. Clearly those civilians who work in the Base at present, identify their future employment prospects with the purchase of Trident. The choice seems clear, nuclear weapons and jobs, or no nuclear weapons and unemployment. Given the other options which have been discussed in this paper, there are military alternatives which exist but which the MoD have been unwilling to discuss given the Government's desire to purchase Trident.

In this light the siting of Trident at the CSB will certainly ensure that at least a part of the present civilian workforce will continue to be employed. In the eyes of the Government and the MoD, Dumbarton District is fortunate to have the Base and the employment which it creates even if the Trident proposals will not alter the level of long term unemployment.

However, what tangible benefit will the wider community gain from the decision to invest up to £500 million in the Base? Such investment will not improve the prospects of those who are presently unemployed. The MoD have admitted that no new long term jobs will be created. The investment will not cause industrial diversification or change the over-all function of the Base in such a way as to bring about the creation of new service industries.

It is also important to note that the area in which the present Base is situated is one of considerable scenic beauty. The Clyde is a major yachting and cruising centre and the close proximity of Loch Lomond, The Trossachs and the countryside and mountains of the area have an underdeveloped potential for the tourist industry. The lengthy construction phase required for Trident development will not only visually detract from the landscape, it will also add to the existing congestion of the already unsuitable roads in the area.

At a national level, the decision to purchase Trident has been explained on the grounds of political and strategic perceptions and the costs and benefits are placed within the context of the need to maintain an up-to-date nuclear deterrence. The fact that British companies have been unsuccessful in tendering for major parts of the Trident contract and that new jobs which were to result from the deal have failed to materialise is a source of embarrassment to the Government. More damaging however has been the massive escalation of the cost of Trident and the threat which other areas of defence procurement have been placed under as a result of having to compete for increasingly scarce resources. This factor could threaten the defence contractors by reducing other parts of the equipment budget and in turn this would lead to fewer jobs being retained in the defence sector.

The decision to purchase Trident is placing other parts of the defence programme at risk, and thereby threatening an ever decreasing level of employment in the defence industry. It is also the case that the rise in the level of defence spending has reduced the resources which are available for education, healthcare and other Government departments.

If the decision to purchase Trident is having a number of damaging effects at a national level the impact on Dumbarton District which lacks the over-all diversity of the national economy is even more harmful. In an area which is starved of investment and combines high unemployment with poor standards of housing and a general decline of infrastructure and morale, the decision to invest £500 million in the CSB has been justified on the grounds of military need and packaged as being the only way in which existing jobs can be retained. Since the inhabitants of Dumbarton District were given no choice when the decision to expand the site at Faslane and to develop Coulport was originally taken over twenty years ago, it is not surprising that the MoD has been able to avoid effective local consultation over Trident. However, it is worth considering what reaction there would be if the Government had decided that the people of the area could choose the way in which the £500 million could be invested in their area?

## 2. What Needs to be Done.

Between 1963 and 1978, 253,000 jobs have been lost in the defence sector. (10). Between 1979 and 1984 the defence budget has risen by 29.6%, (11). and an increasing proportion of this money is being spent on a smaller number of very expensive weapons systems. (12). The long term future of employment in the defence industry in Britain is dependant upon Government policy. Even if future governments continue the policy of fostering a home based defence industry, the shift from a labour to a capital intensive mode of production will result in further job losses in the defence industries. This problem has been compounded by the decision to purchase Trident as British defence expenditure is now creating employment in the US.

In the response to the contraction of employment prospects within the defence industries, workforces at companies like Lucas Areospace and Vickers have attempted to save their jobs by producing detailed plans for the diversification of production into new product ranges. (13). One of the main criteria which the Lucas plan emphasised for these alternative products was that they should be 'socially useful'. In total the Lucas Plan listed about 150 alternative products which the workforce had the skills to produce and for which manufacturing capacity existed within the factories of the Lucas Company. The company refused to accept the alternative products, on the grounds that it was their right to choose what was produced, based on a proven record of defence manufacturing and because of responsibility to the shareholders. This policy has resulted in further factory closures and redundancies.

The Lucas Plan failed to achieve its objectives but it has had an important influence on the way in which workforces in the defence sector have adopted conversion planning as a positive response to job losses. The type of planning which is required to draw up a detailed conversion scheme involves variety of different approaches to the problems of redundancies and factory closure. Frequently workforces have adopted the approach of compiling a 'social audit' (14) to demonstrate the effects on a community.

Before planning for a range of possible alternative products, skill surveys and machinery audits are needed. If the skill to design new products does not exist within the work force, outside assistance has been sought and then allied with the shop floor skills in an effort to find viable products which can be manufactured with the skills and machinery on site.

The objectives of conversion planning are twofold. Firstly to retain jobs and secondly to bring about a diversification of production which could create a platform for economic regeneration and a general improvement in employment opportunities in areas of industrial decline.

Under-pinning these objectives is the argument that increasing levels of defence expenditure serve to act as a brake rather than an accelerator to the economy . The international implications of spiralling defence expenditures and their relationship to economic development have been highlighted by the United Nations (see The Relationship between Disarmament and Development) the Brandt North-South Report, the Palme Report, the European Trade Union Institute and a number of other organisations.

In general the conclusions follow the one which the UN came to in its report on the relationship between Disarmament and Development (study series 5).

"This investigation suggests very strongly that the world can either continue to pursue the arms race with characteristic vigour or move consciously and with deliberate speed toward a more stable and balanced social and economic development within a more sustainable international and political order. It cannot do both." (page 154)

"The historical and empirical evidence analysed by the group has made it take a position that military outlays, by definition, fall into the category of consumption and not investment. Consequently, steadily high or increasing military outlays are likely to have depressing effect on economic growth, directly through displacement of investment and indirectly through constraints on productivity. The coexistence of high levels of military spending and high rates of economic growth in the past cannot be taken as evidence of a causal relationship between the two." (p. 160.)

The report from which these statements have been taken was supported by research which was carried out in 16 different countries including the USSR, Poland, the USA and the UK. While the UK had reservations about the effect of military expenditure on inflation (15) no comment was made about the overall conclusion that high levels of military expenditure retard the rate of economic development. In addition no comment was made about the section (Chapter V) which concentrates on the need for conversion planning and the mechanisms to achieve it.

In the light of these statements, there clearly exists a strong case for governments to establish a frame-work within which conversion planning can take pace. To date the reaction of the British Government has been to ignore these recommendations and to continue to increase the level of defence expenditure.

Based on the experience of workforces like those at Lucas and Vickers, a number of national conversion schemes have been proposed. Probably the best known are of those of Bill Niven and the Transport and General Workers Union. (Niven An Approach to Defence Industry Conversion END papers 5 and the TGWU pamphlet A Better Future for Defence Jobs 1983.) Both these plans call for the establishing of a National Conversion Committee (or Alternative Use Committee) which would co-ordinate conversion throughout the country. In addition each region would have a similar committee and each defence contractor or military establishment which employed civilians would have a work-place conversion committee. The emphasis to be placed on the need for forward planning rather than upon the kind of rearguard actions which have had to be planned by workforces facing job loss or factory closure in the past. In this context conversion planning becomes an opportunity to improve employment prospects for a wider community.

Plans like those prepared by Niven place the initial emphasis for conversion planning on the Government. Clearly if a future government was to adopt an approach like this the prospects of a conversion scheme succeeding would be increased considerably. Niven argues that as the Government is responsible for formulating the defence policy and making available the resources to pay for it, they are in an ideal position to plan for transition of skills and resources required for conversion. The first step in the creation of a national conversion body was taken in September 1984 when the National Trade Union Defence Conversion Committee was formed with the support of the TGWU, GMBATU, ASTMS, AUEW-TASS, IPCS and UCATT. One of the major objectives of this committee is to begin the detailed work of planning how conversion can be made to work in practise.

The formation of the NTUDC Committee was in part a reponse to the problems which individual workforces found in attempting to get their own detailed conversion schemes adopted. The need for this kind of detailed planning at the workplace level remains as one of the crucial factors if a national conversion scheme is to work successfully. While it has been feasible for a number of workforces to produce conversion plans they have almost all been aimed at the transition from armaments manufacturing to the production of socially useful products. For this to take place it is obvious that a manufacturing capacity must exist. While it is the case that a large proportion of civilian employment in the defence sector is geared to the manufacturing of specific products, others are employed in a service capacity to support the armed forces. Employees in this sector include the workforces at Royal Dockyards and the Clyde Submarine Base. Clearly in cases such as these where little or no manufacturing capacity exists, there is a problem in converting the establishment from a service to a manufacturing capacity although a wide range of skills are contained within the workforces.

Because of these problems, the need for a detailed study of establishments like the CSB is increased rather than reduced. However certain obstacles continue to make research very difficult. The first is that the CSB is the operational naval base for Polaris and therefore has a top security grading. The workforce within the Base are made very conscious of the need for security and few will discuss the details of their jobs even with friends and relations. The majority of the upper management are naval personnel who have little obvious interest in the problems of the communities from which the civilian workforce is drawn. One demonstration of the kind of problem which the Trade Unions in the Base have to face can be seen in the response which was given to the TGWU when it attempted to carry out a skill audit of their membership. In spite of the fact that a similar survey was carried out at the Naval Dockyard at Rosyth, the MoD in the CSB confiscated the questionnaires which shop stewards were distributing and a warning was issued that the exercise was not to be repeated.

Against this background it is difficult to see a way in which a workplace conversion committee could be established. Without a detailed understanding of the skills which exist in the CSB and an audit of the machinery which could be used to create either a productive or a different service capacity, the possibility of planning for total conversion is made more difficult. In spite of this, some proposals have been produced.

In 1964, Scottish CND held a "Swords into Ploughshares" Conference in Dumbarton in response to the recently announced plans to use Faslane and Coulport as the operational base for the Polaris fleet. A number of papers were produced to demonstrate the potential for alternative uses and they included forestry, recreation, tourism and the use of the site as an oil refinery. At that time the number of jobs which the Polaris development was to have created locally was 400 and it is possible that some of the schemes suggested in 1964 would have had more beneficial long term effect on employment than the Base. In the light of the developments which have taken place in other parts of Scotland as a result of the exploitation of the North Sea, the proposals made in 1964 to build a refinery or petro-chemical plant on the sites occupied by the present Clyde Submarine Base appear far from fanciful. The opportunity has now been lost as this capacity has been created in other regions. In 1974 a Scottish newspaper suggested that the Navy had brought pressure to bear on Dumbarton and Argyll County Councils to prevent the possible development of sites for the production of oil platforms (16). The development for Polaris went ahead in spite of these alternative proposals. The Clyde missed out on the kind of oil related development which has mainly taken place on the East coast.

During the 1970s the department of Political Economy (Defence Studies) at Aberdeen University conducted a number of studies of the CSB. In 1975 one of these papers (17) suggested a number of alternative uses for the Base. The two preferred alternatives were the development of submerged oil production systems and electrical instrument engineering. Although there is less likelihood that these schemes would be viable to-day, there still remains a strong case for a fuller investigation of the possibility of converting the orientation of the CSB from a servicing to a manufacturing capacity.

However, as the workforce within the CSB has already experienced some difficulties in getting a skill audit carried out, it appears that they will face even more opposition from the MoD if they attempt to establish a conversion committee. The problem of employment and the wider implications of the Trident proposals not only affect the workforce within the Base, they also have important consequences for the communities surrounding the Base. It was in response to concern about the impact of the Trident plans and the wider consequences of defence related employment that the Alternative Employment Study Group was formed.

This report has no conclusion because the members of the AESG consider it to be the first stage of their work. However, one important factor has already emerged. The MoD have attempted to sell the Trident developments to the communities surrounding the Clyde Submarine Base by stating that if the present level of civilian employment is to be maintained, Polaris must be replaced. The cost of the development at the CSB could be as high as £500 million, but the MoD has stated that no new long term employment will be created. In spite of this, the MoD continues to argue that the presence of the Base is economically beneficial to the area.

In fact the communities surrounding the Base have suffered a widespread contraction of manufacturing employment which has not been replaced by the creation of new industries. This view has been confirmed in a paper produced by Aberdeen University which stated that, "The Clyde Submarine Base..... may now stand in the way of the locality's full participation in major growth activity." (18).

The decision to spend £500 million on improving the facilities at the CSB is not intended to generate new industries or employment. It will not improve the infrastructure nor will it help to meet the growing demand for better health care, education or housing. It will not help to attract tourists to the area nor will it increase the recreational facilities.

If the Government is going to spend such a large amount of money on the CSB and justify it on their perception of the strategic needs of the nation and also argue that it will create employment, then it should at least consider the fact that similar investments in the past have done little or nothing for the economic fortunes of the area. In spite of their continued claims to the contrary the very tangible needs of the community have not been benefited from the presence of the Base.

## Notes to Part IV

1. P 32 MoD NoPD May 1984 Annex A. p. A-8
2. P 32 Chalmers Trident p. 15
3. P 32 Commodore Clyde's Statement to the Clyde Submarine Base workforce. 9th September 1982.
4. P 32 There has been a wide range of writing on this subject, some examples of which have already been mentioned. Political statements can be found in various party manifestos or Government publications. Others include:
  - JP Dunne & RP Smith *The Economic Consequences of Reduced UK Military Expenditure*. Birbeck College Discussion Paper No 144 1983.
  - European Trade Union Institute. *Disarmament and the Conversion of the Arms Industry to Civilian Production*. 1983.
  - Sir E Maddock *Civil Exploitation of Defence Technology*. Report to the Electronics EDC.
5. P 32 JDW Vol. 3 No.5 February 1985.
6. P 32 A. Cordesman 'British Defence; A Time for Hard Choices' *Armed Forces Journal International*. September 1983.
7. P 33 JDW Vol 3 No. 1 5th Jan 1985 p3
8. P 33 MoD EIA p 103-109.
9. P 33 Stone & Greenwood CND Conference Paper 1975
10. P 35 C. Pite. *Statistical News*, Nov 1980.
11. P 35 *The Government Expenditure Plans 1983-1984 to 1985-86*. Cmnd 8789-1.
12. P 35 M. Kaldor "The Characteristics of Technical Change in the Defence Sector' in *Technical Innovation and British Performance* ed K. Pavitt 1980.
13. P 35 H. Wainwright & D. Elliot *The Lucas Plan*. 1982. 'A Farewell to Arms.' Report by the Vickers Elswick Shop-stewards Committee and the North East Trade Union Studies Information Unit
14. P 35 For an example see *The Upper Clyde Shipbuilders - The Social Audit*. - *The Institute for Workers Control*. pamphlet No.26. 1971.
15. P 36 *United Nations Centre for Disarmament. Study Series. 5. The Relationship Between Disarmament and Development*. 1982. Comments p. 185
16. P 37 *The Scotsman* 22nd July 1974.
17. P 37 Stone and Greenwood CND Conference Paper 1975.
18. P 37 Aberdeen Studies in Defence Economics No.5 p 58.

The Alternative Employment Study Group has already started using the broad base of support it has within the communities around the CSB and its links with Trade Unions, Academic bodies and researchers as a platform for continuing its studies into the effects of defence expenditure on local economies and employment.

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Price £1.50



*Front Cover:* The River Clyde from Glasgow to the hills above Faslane and Coulport  
*Above:* Royal Naval Armaments Depot Coulport