

PART 6:

STATUS OF NUCLEAR WEAPONS

6.1 Background to the State of Nuclear Weapons in the World

There are eight known nuclear weapon states in the world: the **United States, Russia, Britain, France, China, India, Pakistan and Israel**. South Africa has now admitted that it did have nuclear weapons but it has now scrapped them. Three states, the **Ukraine, Belarus and Kazakhstan**, formerly part of the Soviet Union, did have nuclear weapons but have now either scrapped them or sent them back to Russia. **Iraq, Iran and North Korea** have had, and may still have nuclear weapons construction programmes. **Belgium, Germany, Greece, Holland, Italy and Turkey as well as Britain**, as members of the North Atlantic Treaty Organisation (NATO), have US nuclear weapons based on their soil. Since many nuclear weapons are installed on submarines, they can in practice be found **almost anywhere in international waters**.

6.2 Inventories of Nuclear Weapons

The US and Russia have by far the largest numbers of nuclear weapons. Even though they are scrapping many of their warheads under the terms of recent treaties they still have around 11,500 warheads (US) and 7,500 (Russia) in active service and they both have more in reserve. Although both the US and Russia have some free-fall bombs most are ground- or submarine-launched Intercontinental Ballistic Missiles (ICBMs). Britain's nuclear weapons consist of the

Trident nuclear missile submarine system, probably 185 warheads in all. France has submarine-launched intercontinental missiles as well as shorter-ranged air-launched missiles, likely to number around 450 warheads. China's nuclear forces are difficult to estimate but they have very little in the way of long-range delivery systems. They have 100+ obsolete Russian-designed bombers, a few very long range and rather more intermediate-range, land-based missiles. They are also building between four and six missile firing submarines and are modernising fast. They may have up to 500 warheads. It is not known how many warheads India or Pakistan have. A reasonably informed estimate for Israel is around 200.

For those requiring more detailed information on numbers of warheads and delivery systems please contact CND but remember that the details are very variable due to the secrecy of the sources. No-one knows for sure exactly how many warheads there are at any particular moment in time and when you start comparing different data and tables the figures are always different.

The most authoritative estimates of the total number of nuclear warheads in the world (including those actively deployed, those in reserve and those withdrawn but not yet scrapped) is approximately 30,000.

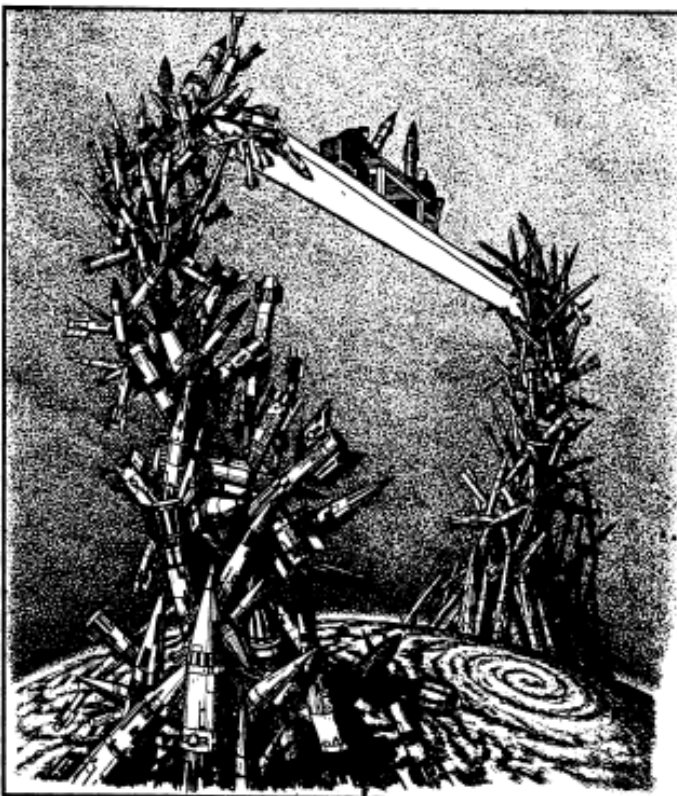
6.3 The British Nuclear Arsenal

Britain's strategic nuclear force is now the Trident submarine-launched intercontinental ballistic missile system. This replaced the old Polaris system, the last submarine of which was scrapped in 1996. Britain has had other nuclear weapons but all of these have been withdrawn and are being dismantled at Burghfield.

Trident is a submarine-launched ballistic missile system consisting of four submarines. At any one time three of these submarines are operational. There is a total of 42 operational missiles and it is assumed that there are 14 missiles on each submarine. Each of the three operational submarines carries 48 100 kiloton nuclear warheads, each of which can hit a different target.

One Trident warhead is 8 times more powerful than the Hiroshima bomb. It is estimated that 140,000 people lost their lives as a result of the Hiroshima bomb.

One Trident submarine is at sea at all times - 24 hours a day, 365 days a year. Commander Jeffrey Tall (Captain of the nuclear submarine HMS Repulse from 1989 - 1991) described what these patrols are like - "there is no doubt that when we went to sea, we went to war". Both Commander



Tall and his successors have said that they would fire their missiles without ever knowing where the targets were. The coordinates would all be relayed by computer.

Although Trident is known as Britain's independent nuclear defence system the missile that carries the warhead is not a British missile; it is leased from the US. This has two important consequences: Trident is not a fully independent weapon, as the US could refuse to return the missiles when they are handed back for maintenance and repair; and a British Trident missile is indistinguishable in flight from a US Trident missile. The significance of the latter is that Washington has long been pursuing and has not yet renounced the acquisition of a First Strike capability - the capacity to launch a devastating first nuclear strike that destroys virtually all of the enemy's nuclear weapons before they can be launched, thus 'winning' a nuclear war. If even one British Trident missile is fired, it could be mistaken for the cutting edge of a US First Strike, and Russia might respond with a full-scale 'retaliation' in order not to be disarmed by the strike (a 'use them or lose them' situation).

The first Trident submarine, HMS Vanguard, conducted its first patrol in December 1994. HMS Victorious followed in 1996 and HMS Vigilant in 1998. The fourth Trident submarine, HMS Vengeance, is now due for its first patrol in early 2001.

CND estimates that the annual running costs of Trident is around one and a half thousand million pounds. Several thousands of tonnes of intermediate level military nuclear waste are in storage at the three main nuclear sites of Rosyth, Devonport and Aldermaston, with some 750 tonnes added each year. These figures do not include the decommissioned nuclear powered submarines (11 so far) awaiting disposal decisions. The problems associated with the safe disposal of the toxic and radioactive wastes associated with the military nuclear programme have still not been solved.

Nuclear weapons were first introduced into Britain by the Attlee Government in secrecy and without consulting Parliament or

the British people. There has been a lack of any significant level of democratic accountability ever since. There has always been a significant part of the British population who have opposed nuclear weapons and this has been much greater in Scotland than in England or Wales. The Scottish National Party, The Scottish Trade Union Congress, 13 Scottish local authorities, the general Assembly of the Church of Scotland, the Roman Catholic Bishops in Scotland, are amongst the many in Scotland who oppose Trident. And yet, Trident has been forced upon the Scots. The National Steering Committee for Nuclear Free Local Authorities commissioned a Gallup Opinion Poll from 5th-10th September 1997 to find out the attitudes of British citizens as a whole. 59% of British citizens polled thought it would be best for the security of their community if Britain did not have nuclear weapons - only 36% thought it would be best to have them. 54% thought that Trident's nuclear warheads should be withdrawn from deployment at sea and placed in storage and 87% agreed that Britain should help negotiate a global treaty to eliminate nuclear weapons.

6.4 British Nuclear Defence Policy

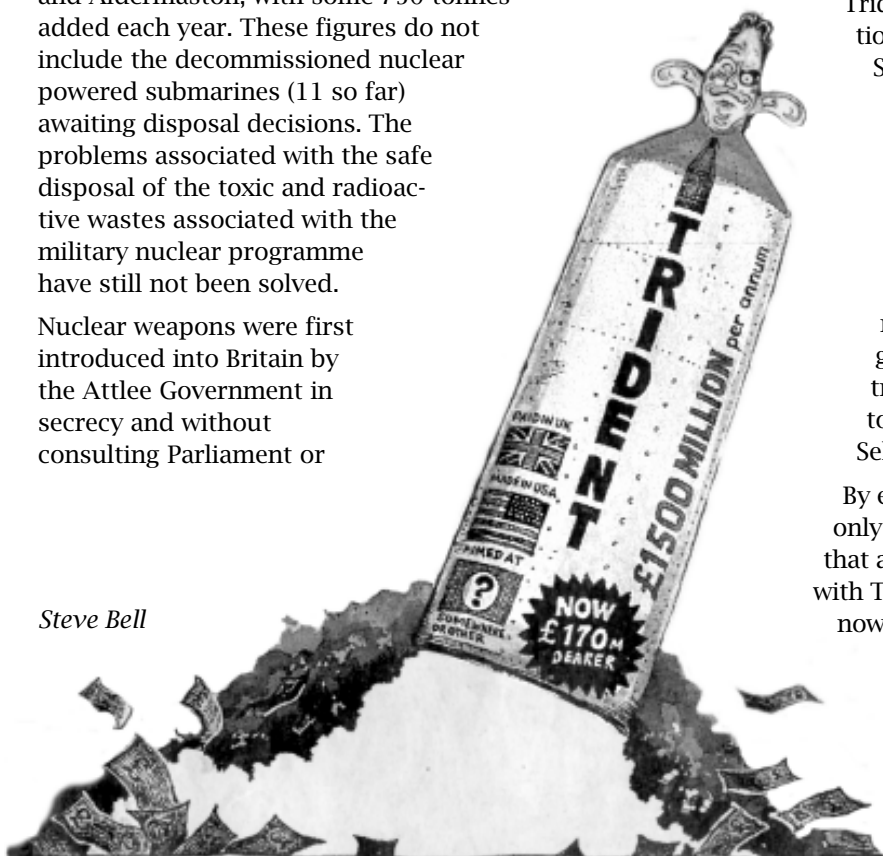
Britain claims to be committed to a world free of nuclear weapons, saying that Trident is now Britain's only nuclear system, with 21% fewer warheads and with 59% less explosive power than during the 1970s. However, this is a distortion of reality. Although there will be fewer warheads and less explosive power in Britain as a whole (the Government figures disingenuously include the withdrawal of US weapons from Britain!).

Trident is, nonetheless, a massive escalation in Britain's nuclear capability.

Similar in explosive power to Polaris, it has three times the range, is faster, far more accurate and, because each of the warheads on any missile is independently guided, it can hit up to eight times as many targets. In addition there is growing evidence that Britain continues to research and develop a further generation of nuclear warheads. New tritium-producing reactors are likely to be built at both Chapelcross and Sellafield.

By escalating its nuclear capabilities, by only getting rid of those weapons systems that are out of date and by replacing them with Trident, even though the Cold War is now over, Britain is not committing itself to disarmament but committing itself to rearmament.

Britain has said it will not consider putting Trident into arms control negotiations until a parity of numbers has been reached



Steve Bell

between all nuclear weapons states. Yet this attitude of maintaining and escalating British nuclear capability is seen as pure hypocrisy by most of the non-nuclear weapons states. They continually ask why they should abide by the provisions of the Non-Proliferation Treaty when clearly Britain and the other nuclear weapon states have no intention of abiding by their obligations.

In July 1998 the Government announced the results of its Strategic Defence Review. This leaves the nuclear weapons policy virtually unchanged. Those carrying out the review were not allowed to consider recommending that Trident be scrapped, this option was ruled out by Defence Secretary George Robertson at the start of the process. The decision to keep Trident is described in the review in the following terms: "The Government's General Election Manifesto therefore promised to retain Trident as the ultimate guarantee of the United Kingdom's security" (SDR Essay 5).

The decision to keep Trident was in direct contrast with the threat assessment in the Review which stated that "... there is today no direct military threat to the United Kingdom or Western Europe. Nor do we foresee the re-emergence of such a threat". (SDR Chapter 1, para 3). The Government has also said that "We do not see any immediate nuclear threats to the United Kingdom" (Hansard 10/6/98).

The Review decided not only to keep Trident but to "maintain continuous-at-sea patrols" with one submarine on patrol at all times.

Britain also opposes any attempt to change NATO nuclear doctrine. When the German Government suggested that NATO switch to a 'no first use' doctrine, Britain and the US forced the Germans to recant from what was regarded as a nuclear heresy.

During the Cold War, Trident was justified as a deterrent to the Soviet Union. The Ministry of Defence is now desperately seeking an additional role for Trident. Britain has therefore attempted to adapt its

rationale for Trident to the new strategic situation by redefining Trident as a strategic and sub-strategic or tactical deterrent to a 'potential aggressor' who might wish to threaten UK 'national interests'. This could be any country who by aggression or other means threatens Britain's interests. This aggression need not be nuclear, it could be conventional if the aggressor has an alliance with a state that possesses nuclear weapons.

Britain's national interests have been listed specifically in the 1995 Defence White Paper as being British trade, the sea routes used by such trade, raw materials from abroad, and British investments abroad worth an estimated \$300 billion.

Britain's nuclear defence policies fall into two categories: **national doctrine** and **alliance doctrine**. In Alliance doctrine, we have to consider the nuclear weapons alliances that Britain is a part of - NATO and the Western European Union (WEU).

The WEU set out a 'Platform on European Interests' in October 1987 which stated that, "To be credible and effective, the strategy of deterrence and defence must continue to be based on an adequate mix of appropriate nuclear and conventional forces, only the nuclear element of which can confront a potential aggressor with an unacceptable risk". This formula left open the possibility of the use or threat of nuclear weapons against enemies who had not themselves used nuclear weapons, or who did not even possess nuclear weapons.

Britain's NATO commitments can be divided into two areas: explicit Alliance commitments on the one hand, and integration into US planning on the other hand. As for **Alliance commitments**, NATO's policy has always permitted the First Use of nuclear weapons. The classic formula of 'Flexible Response', set out in 1967, permits, "a flexible and balanced range of appropriate responses, conventional and nuclear, to all levels of aggression or threats of aggression". This actually permits the use of nuclear weapons in



response to the threatened use of conventional weapons, and before aggression has taken place. In recent years, NATO has sought a less bellicose appearance, and now has a policy of Last Resort use of nuclear weapons. This policy, however, still permits First Use, whenever NATO thinks that the time has come to resort to the Last Resort.

Because Britain has been the only non-U.S. nuclear power integrated into NATO **strategy** (France for many years preserving its independence), British nuclear weapons have been 'dedicated' to NATO, with Britain having the option of pulling out of its NATO commitments to use them 'independently' whenever its national interests were under threat and not defended by the rest of the Alliance. British nuclear weapons are given targets by the US as part of the US Single Operational Plan (SIOP) for waging nuclear war. SIOP has changed dramatically over the years - one new option is SIOP Echo, an option for despatching "a Nuclear Expeditionary Force ... primarily for use against China or Third World targets" according to a top-level Pentagon study leaked in early 1992 - but it continues to govern nuclear warfare plans on both sides of the Atlantic. In other words there are circumstances in which British nuclear weapons could be fired according to a pre-determined US plan which may or may not have been agreed with the rest of NATO.

Britain's national nuclear doctrine has now evolved into two categories: strategic deterrence and sub-strategic deterrence. The main difference between the two doctrines is that the former is concerned with all-out nuclear attacks, and the latter with smaller-scale nuclear attacks. In the 'strategic' field, we are talking about firing off all 16 Trident missiles, with all their warheads; in the 'sub-strategic' field we are talking about firing off a single Trident missile carrying a single warhead. Both strategic and sub-strategic deterrence are concerned with Britain's 'interests', as Malcolm Rifkind, the then Defence Secretary, made clear on 16th November, 1993 when he defined 'deterrence' as follows:- "Deterrence is about sustaining in the mind of the potential aggressor a belief that our use of the weapons could not prudently be altogether discounted; and this in turn requires that the hypothetical use should be credibly proportionate to the importance to us of the interests which aggression would damage."

'Sub-strategic deterrence' was defined slightly differently. Rifkind conceded that an all-out nuclear attack might not always be an appropriate response to an international crisis, and a threat to carry out such an attack might not be believed by the enemy. "It is therefore important for the credibility of our deterrent that the United Kingdom also possesses the capability to undertake a more limited nuclear strike in order to induce a political decision to halt aggression by delivering an unmistakable message of our willingness to defend our vital interests to the utmost."

Quite what this meant was spelled out in an article in International Defence Review the following Septem-



Accepting nuclear weapons as the ultimate arbiter condemns the world to live under a dark cloud of perpetual anxiety.

ber: "At what might be termed the 'upper end of the usage spectrum, [single warhead 'Tactical Trident' missiles] could be used in a conflict involving large-scale forces to reply to enemy nuclear strikes. Secondly, they could be used in a similar setting, but to reply to enemy use of weapons of mass destruction, such as bacteriological or chemical weapons, for which the British possess no like-for-like retaliatory capability. Thirdly, they could be used in a demonstrative role: i.e. aimed at a non-critical, possibly uninhabited area, with the message that if the country concerned pursued its present course of action, nuclear weapons would be aimed at a high-priority target. Finally, there is the punitive role, where a country has committed an act, despite specific warnings that to do so would incur a nuclear strike."

The targets would, we are informed, always be 'counter-force' targets - "such as nuclear weapons facilities, missile-testing grounds or hardened leadership bunkers" - never population or industrial centres. It is not explained how the effects of blast, heat, radiation and fall-out are to be kept from population or industrial centres which might lie near the 'hardened leadership bunkers' etc.

On the 5th April, 1995 the British representative at the Conference on Disarmament in Geneva restated an existing commitment by the British government not to use nuclear weapons against non-nuclear weapon states who had signed the NPT: "The United Kingdom will not use nuclear weapons against non-nuclear-weapon States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons except in the case of

Trident in the 1990s

Several developments in Britain during the 1990s served to give the impression that Britain had embarked on a substantial programme of nuclear disarmament that amounted to a fundamental change in its nuclear posture.

There certainly was a process of partial de-nuclearisation, but whether that amounted to a real change in posture was much more debatable.

During the Cold War years, Britain had diverse nuclear forces and was also a base for numerous US deployments. At the height of the Cold War tensions of the early 1980s, Britain maintained a force of four Polaris submarines, and a mixed fleet of around 200 Tornado, Jaguar, Vulcan and Buccaneer nuclear strike aircraft, all carrying British-made nuclear warheads. The Royal Navy maintained Sea Harrier nuclear-capable strike aircraft and scores of helicopters that could deliver nuclear depth bombs. The RAF deployed Nimrod anti-submarine aircraft that could deliver American nuclear depth bombs, and British Army units were equipped with nuclear-capable 155 mm and 203 mm howitzers and Lance battlefield missiles, all intended to use US nuclear shells or warheads. Britain was also used by the United States for basing ballistic missile submarines, nuclear-capable strike aircraft and cruise missiles.

By the mid-1990s, all of the US systems except a small number of nuclear bombs had been withdrawn, as had the US warheads for use by British forces. Furthermore, all of the British tactical nuclear weapons had been withdrawn, with the exception of a small number intended for Tornado strike aircraft. This process was conducted under the Conservative administration of John Major, prompting the ironic notion that it was a singularly unilateralist government - while Russia was also withdrawing many nuclear forces, none of the changes in Britain, apart from the removal of cruise missiles, was covered by arms control treaties.

The Labour Government after 1997 took some further modest steps. It speeded up the removal of the last of the tactical nuclear bombs, introduced a greater degree of transparency concerning the level of nuclear forces, eased the alert status of the Trident missile submarine force, and stated a commitment to maintain loadings of nuclear forces on Trident submarines at substantially below the design capability. Even so, while the withdrawal of the last of the tactical nuclear bombs, meant that Trident became the sole British nuclear weapon system, it had, in the process, been developed into a highly versatile system, capable of being deployed in 'sub-strategic' (tactical) and 'strategic' roles.

To take on the sub-strategic role previously undertaken by bombers, a proportion of the missiles on a Trident submarine, perhaps 6 out of 16, will be equipped with small single warheads with a destructive power of about 5 to 10 kilotons, compared with the standard Trident warhead of about 100 kilotons. As well as

being available for independent use by Britain, these sub-strategic Trident missile warheads will also be available to NATO.

There are interesting nuances in the history of British nuclear attitudes that are particularly relevant in the coming decades. Although most aspects of British nuclear strategy have related to the Cold War strategic and NATO contexts, a significant subsidiary thread has been the perceived value of nuclear weapons as counterbalancing relative weaknesses in conventional forces, not just in relation to the Soviet Union during the Cold War era, but also in regional confrontations outside the NATO area.

Tactical and strategic nuclear weapons were deployed during the Falklands War of 1982, and Britain had a regional nuclear capability, and indicated a willingness to consider nuclear use, during the Gulf War of 1991, as it apparently had had during the much earlier Indonesian confrontation in the early 1960s. This should not come as any great surprise, since it forms part of a continuum in military thinking about nuclear weapons that has parallels in the United States, the Soviet Union, post-Soviet Russia and France, as well as being clearly represented in NATO's planning for early first use of nuclear weapons.

Britain reserves the right to deploy Trident independently of NATO. According to one of the more detailed assessments of the range of options for sub-strategic Trident warheads: "At what might be called the 'upper end' of the usage spectrum, they could be used in a conflict involving large-scale forces (including British ground and air forces), such as the 1990-91 Gulf War, to reply to an enemy nuclear strike. Secondly, they could be used in a similar setting, but to reply to enemy use of weapons of mass destruction, such as bacteriological or chemical weapons, for which Britain possesses no like-for-like retaliatory capability. Thirdly, they could be used in a demonstrative role: i.e. aimed at a non-critical uninhabited area, with the message that if the country concerned continued on its present course of action, nuclear weapons would be aimed at a high-priority target. Finally, there is the punitive role, where a country has committed an act, despite specific warnings to do so would incur a nuclear strike."

It is worth noting that three of the four circumstances envisaged would involve the first use of nuclear weapons by Britain, but such scenarios resemble aspects of United States and Russian nuclear targeting and strategy at present and for the foreseeable future. Britain's Trident missile system is due to remain in service for the first quarter of the 21st Century and it is seen as a versatile nuclear system capable of operating in diverse conflict environments. The idea of withdrawing Trident, and with it Britain's commitment to nuclear forces, is not currently on the UK political agenda.

by Professor Paul Rogers

an invasion or any other attack on the United Kingdom, its dependent territories, its armed forces or other troops, its allies or on a State towards which it has a security commitment, carried out by such a non-nuclear-weapon State in association or alliance with a nuclear-weapon State." This is not worth a lot. If a state is deemed by Britain to be 'associated' with a nuclear weapons state, and its troops fire on British troops - or even on US troops - Britain reserves the right to use nuclear weapons in such circumstances. The last government also said that if a signatory to the NPT fell foul of the International Atomic Energy Authority (IAEA), and was judged to be 'in material breach' of its non-proliferation obligations, it could also be treated as a nuclear weapon state. 'Material breach' could just mean not reporting all the information or permitting all the access that the IAEA judges necessary - it does not necessarily mean that the country concerned has a nuclear bomb or even a nuclear bomb programme.

British nuclear policy is assumed to be defensive, concerned with protecting this country against nuclear attack. But in both its own national policy and the policies of the alliances to which it is party, Britain has expressed its willingness to use nuclear weapons in other ways, and has not ruled out the use or threat of nuclear weapons against non-nuclear weapon states (note that three of the four scenarios for using Tactical Trident do not require the enemy to possess or use nuclear weapons).

In the light of the above we can see that nuclear weapons are not just defensive, they are not just for defence of the UK, they are not just for retaliation against nuclear attack and they are not just for use against nuclear weapon states.

Britain seems determined to maintain a nuclear capability. A core assumption of British nuclear weapons policy seems to be that it enhances Britain's international standing. By this logic as long as Britain faces adversaries armed with virtually any kind of weapons and as long as Britain wishes to retain its seat at the UN Security Council, the government will continue to justify having Trident as the only way to "guarantee this country's future security".

The security challenges facing Britain and the rest of the world include social, economic and ethnic instability and environmental degradation. Nuclear weapons cannot help us with the solution to these problems - indeed they only add to the general instability of the world as well as contributing to economic and environmental problems.

6.5 The Use of British Trident in War

Although there are few details of British nuclear targeting policy in the public domain, it is possible to indicate the effects of an attack by a Trident-sized nuclear force if it was conducted against a country such as Britain. By using Britain as an example, it is easier to appreciate the effects of a nuclear force such as Trident.

Direct information on British nuclear targeting is available from some declassified sources and from occasional government statements. There is more substantial information available on alliance nuclear

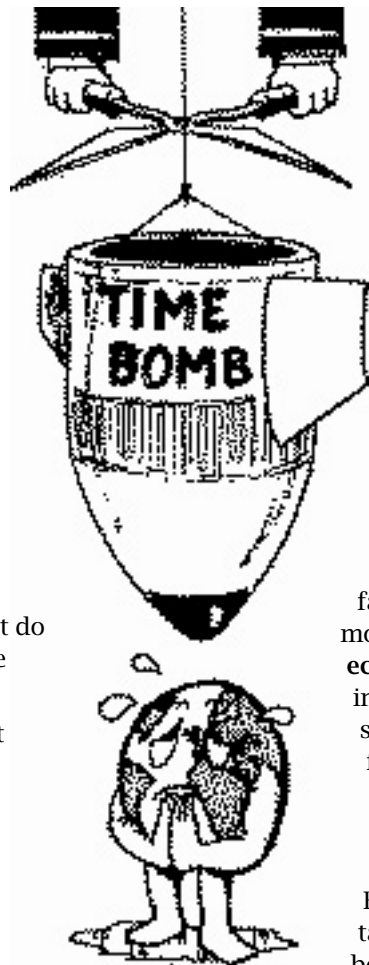
targeting strategy, and there are indications of the manner in which Britain would be targeted by an opposing state stemming from civil defence exercises especially the 'Square Leg' exercises of the Cold War years.

Alliance targeting is known to have been made up of four groups of targets. **Nuclear and related facilities comprised 5%** of the total and **conventional military targets**, including naval and air bases, barracks and supply depots made up 50%. About 8% of targets concerned the **political and military leadership** including command bunkers and key communications and intelligence facilities. The remaining targets, rather more than a third of the total, comprised **economic and industrial targets**, including war-supporting industries such as munitions and weapons factories, transport and energy facilities and industries that might contribute to economic recovery after a nuclear war.

Because British independent nuclear targeting has placed a premium on being able to destroy the Greater Moscow region, there would be a

concentration on the targeting of this centre, but this would form part of a wider targeting process analogous to the alliance targeting just described.

The British Trident fleet is theoretically capable of providing four boats each with 16 missiles each carrying three 100 kiloton warheads. In practice, government statements and data on missile orders from the United States indicates that there is provision for missiles sufficient to arm three boats. Some missiles might carry single 'sub-strategic' (tactical) warheads, but such a limitation could be countered by arming other missiles with more than three warheads. Assuming a Trident capability amounting to 144 warheads, each of 100 kilotons, is a reasonable indication of the power of the Trident force.



The September 1980 'Square Leg' civil defence exercise was based on an attack on Britain involving 130 Soviet warheads. Knowledge from that exercise, from a Soviet map of UK military locations, and from material on alliance targeting makes it possible to indicate the range of targets that a nuclear force of the size of Trident fleet might attack, if applied to Britain.

Nuclear Bases

The main targets would be the Trident base at Faslane and the nuclear armaments site at Coulport, both close to Glasgow. Supporting facilities at bases including Rosyth (near Edinburgh) and Devonport (near Plymouth) would also be attacked. US nuclear facilities at Lakenheath in Suffolk would be targeted, as would the support base and possible forward-operating base for B-2 nuclear bombers at Fairford in Gloucestershire. Communications facilities directly related to Trident, including the ELF transmitting station near Rugby, would be targeted, as would the Ballistic Missile Early Warning Station at Fylingdales near Scarborough. The nuclear weapons production centre at Aldermaston/Burghfield, close to Reading and west of London, would be a key target.

Conventional Forces

A range of some scores of conventional military facilities would be targeted, with this including civilian facilities available to the military in time of war. Included in this would be RAF and RN Aviation bases throughout the UK, including RAF Leuchars, RNAS Lossiemouth, several RAF bases in the East Midlands and East Anglia and transport bases such as Brize Norton near Oxford and Lyneham in Wiltshire. In addition to Faslane, Rosyth and Devonport, Portsmouth would be a direct naval target, and ports available to the navy including Hull and Aberdeen would also be targeted.

Army bases throughout Britain, most notably the larger bases such as Aldershot and Catterick would be targeted, as would supply depots. Civil airports, especially those with substantial facilities and long runways, would be targeted, including Heathrow, Stanstead, Gatwick, Birmingham, Manchester, Glasgow, Prestwick and Edinburgh. Most are necessarily close to large centres of population.

Command and Control and Political and Military Leadership.

Major military command centres would include Northwood (Navy) and High Wycombe (RAF) near London, Dunfermline (Navy) near Edinburgh and Portsmouth (Navy). District army centres include London, Colchester, Brecon, York, Preston and Edinburgh. Intelligence centres include MI5, MI6 and Defence Intelligence Staff in Central London, GCHQ at Cheltenham and Menwith Hill near Leeds and Bradford. Political leadership is in London, Edinburgh, Cardiff and Belfast.

Economic and Industrial Targets

Commercial and industrial centres would include London, Edinburgh, Glasgow, Belfast, Cardiff, Swansea, Bristol, Birmingham, Coventry, Manchester, Leicester, Nottingham, Derby, Middlesbrough, Newcastle, Dundee and Aberdeen.

Energy resources would be particularly significant and would include refineries and petrochemical complexes such as Grangemouth, Teeside, Stanlow/Ellesmere Port, Milford Haven, Fawley and the Thames Estuary. North Sea oil and gas facilities, especially those in Scotland, would be prime targets, as would the remaining large coal-field at Selby in North Yorkshire and major power stations such as Drax and Tilbury.

Transport concentrations would include the Severn, Forth and Dartford river crossings, major rail junctions and motorway interchanges, and communications facilities would include the more powerful radio and TV transmitters and microwave towers, many of them in or close to centres of population.

Casualties

The targeting outlined above gives no more than a limited indication of the total target list if a Trident-sized force was targeted on Britain, but the Trident force itself would have a broadly similar targeting capability against another state. Total casualties are very difficult to estimate, but the 'Hard Rock' and other civil defence exercises of the Cold War years presupposed many millions of immediate deaths with many more millions in the days and months afterwards.

The Hiroshima bomb was rated at about 13 kilotons and killed over 100,000 people. Each Trident warhead is about eight times as powerful. Many of the targets attacked would be in or adjacent to large centres of population and casualty figures would be of the order of those expected if Britain was similarly attacked, measured in many millions.

6.6 The Effects of Nuclear Weapons

An atomic bomb has certain special characteristics distinguishing it from a conventional weapon, which were summarised by the United States Atomic Energy Commission in these terms: "It differs from other bombs in three important respects: first, the amount of energy released by an atomic bomb is a thousand or more times as great as that produced by the most powerful TNT bombs; secondly, the explosion of the bomb is accompanied by highly penetrating and deleterious invisible rays, in addition to intense heat and light; and, thirdly, the substances which remain after the explosion are radio-active, emitting radiation capable of producing harmful consequences in living organisms."

The following more detailed analysis is based on materials presented to the International Court of Justice and which were not contradicted at the hearings, not even by the States contending that the use of nuclear weapons is not illegal. They constitute the essential factual foundation on which the legal arguments rest, and without which the legal argument is in danger of being reduced to mere academic disputation.

(a) Damage to the environment and the ecosystem

The extent of damage to the environment, which no other weapon is capable of causing, has been summarised in 1987 by the World Commission on the Environment and Development in the following terms: "The likely consequences of nuclear war make other threats to the environment pale into insignificance. Nuclear weapons represent a qualitatively new step in the development of warfare. One thermonuclear bomb can have an explosive power greater than all the explosives used in wars since the invention of gunpowder. In addition to the destructive effects of blast and heat, immensely magnified by these weapons, they introduce a new lethal agent - ionising radiation - that extends lethal effects over both space and time."

(b) Damage to future generations

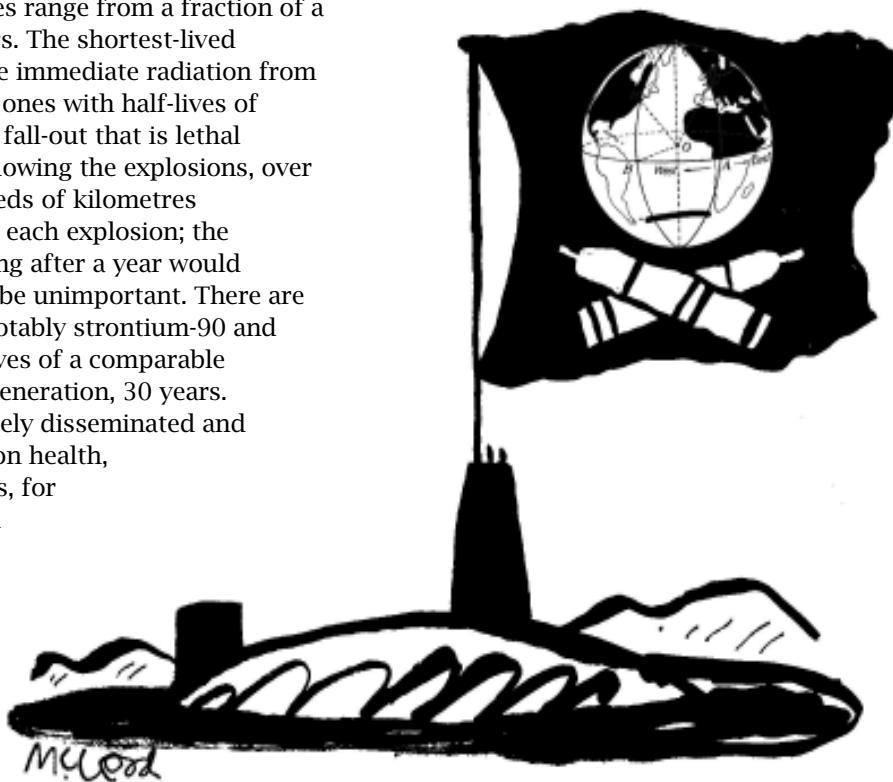
The radioactive products of nuclear explosions, called 'fall-out', are a mixture of short-lived and long-lived radioactive elements, usually called isotopes. Each isotope has a characteristic time period called its half-life. In one half-life the radioactivity falls to one half of its original level, in 10 half-lives it falls to approximately one thousandth, and in 20 half-lives to one millionth. Half-lives range from a fraction of a second to billions of years. The shortest-lived isotopes contribute to the immediate radiation from the bomb explosion. The ones with half-lives of hours and days form the fall-out that is lethal during the few weeks following the explosions, over an area extending hundreds of kilometres principally down-wind of each explosion; the amount of these remaining after a year would usually be so small as to be unimportant. There are a few fission products, notably strontium-90 and caesium-137, with half-lives of a comparable duration to one human generation, 30 years. These would become widely disseminated and have deleterious effects on health, including causing cancers, for several generations. Even in small amounts, radioactivity increases the mutation rate in humans and all living species.

In addition, a large proportion of the initial fissile material

is not consumed in the explosion, but is vapourised, and condenses as dust. The older nuclear bombs use uranium-235; newer designs and fusion bombs (hydrogen bombs) use plutonium-239 for the initial explosion, and uranium-238 fission as a supplement to the fusion stage. The uranium isotopes, with half-lives of many millions of years, are not radioactive enough to do serious damage. Plutonium-239 has a half-life of 24,000 years, and can cause cancer if it is inhaled or gets into the food chain. It causes effectively permanent and worldwide contamination of the environment, in terms of the time-scale of human history.

(c) Damage to civilian populations

This needs no elaboration, for nuclear weapons surpass all other weapons of mass destruction in this respect. But perhaps an eye-witness from Michihiko Hachiya who was in Hiroshima will drag us out of our complacency: "It was a horrible sight. Hundreds of injured people who were trying to escape to the hills passed our house. The sight of them was almost unbearable. Their faces and hands were burnt and swollen; and great sheets of skin had peeled away from their tissues to hang down like rags on a scarecrow. They moved like a line of ants. All through the night they went past our house, but this morning they had stopped. I found them lying on both sides of the road, so thick that it was impossible to pass without stepping on them... And they had no faces! Their eyes, noses and mouths had been burned away, and it looked like their ears had been melted off. It was hard to tell front from back. One whose features had been destroyed and was left with his white teeth



sticking out, asked me for some water but I didn't have any... I clasped my hands and prayed for him. He didn't say anything more... His plea for water must have been his last words."

(d) The Nuclear Winter

One of the possible after-effects of an exchange of nuclear weapons is the nuclear winter, a condition caused by the accumulation of hundreds of millions of tons of soot in the atmosphere, in consequence of fires in cities, in forests and the countryside, caused by nuclear weapons. The smoke cloud and the debris from multiple explosions blots out sunlight, resulting in crop failures throughout the world and global starvation. Starting with the paper by Turco, Toon, Ackerman, Pollack and Sagan (known as the TTAPS study after the names of its authors) on "Nuclear Winter: Global Consequences of Multiple Nuclear Explosions", an enormous volume of detailed scientific work has been done on the effect of the dust and smoke clouds generated in nuclear war. The TTAPS study showed that smoke clouds in one hemisphere could within weeks move into the other hemisphere. TTAPS and other studies show that a small temperature drop of a few degrees during the ripening season, caused by the nuclear winter, can result in extensive crop failure even on an hemispherical scale. Such consequences are therefore ominous for non-combatant countries also.

There is now a consensus that the climatic effects of a nuclear winter and the resulting lack of food aggravated by the destroyed infrastructure could have a greater overall impact on the global population than the immediate effects of the nuclear explosions. The evidence is growing that in a post-war nuclear world Homo Sapiens will not have an ecological niche to which he could flee. It is apparent that life everywhere on this planet would be threatened.

(e) Loss of life

The WHO estimate of the number of dead in the event of the use of a single bomb, a limited war and a total war vary from one million to one billion, with, in addition, a similar number of injured in each case.

Deaths resulting from the only two uses of nuclear weapons in war - Hiroshima and Nagasaki - were 140,000 and 74,000 respectively, according to the representative of Japan, out of total populations of 350,000 and 240,000 respectively. Had these same bombs been exploded in cities with densely-packed populations of millions, such as Tokyo, New York, Paris, London or Moscow, the loss of life would have been incalculably more.

An interesting statistic given to the International Court of Justice by the Mayor of Nagasaki is that the bombing of Dresden by 773 British aircraft followed by a shower of 650,000 incendiary bombs by 450 American aircraft caused 135,000 deaths - a similar result to a single nuclear bomb on Hiroshima - a 'small' bomb by today's standards.

(f) Medical effects of radiation

Nuclear weapons produce enormous blast and heat, much more intense than ordinary high explosives, and blindingly bright light. Their additional factor, absent from ordinary explosives, is their more energetic radiation, i.e. ionising radiation. Part of this is an instantaneous burst of very high-energy electromagnetic radiation called X-rays and gamma rays. The explosion also produces radioactive isotopes that form the 'fall-out' in the form of dust and coarser particles. Radioactive isotopes emit fast-moving and ionising sub-atomic particles called alpha-particles and beta-rays, as well as more gamma-rays. Neutrons are another type of ionising sub-atomic particle formed in the explosion.

The ionising X-rays, gamma-rays, and fast particles are what cause 'radiation effects' by splitting molecules (ionising them) within the cells and tissues of the body. These chemical changes are harmful to living cells. The severity of damage to the body as a whole depends very much on the number of cells affected in a given time, because the damage can be partly counteracted by limited natural powers of repair. Some organs and tissues of the body are more sensitive to radiation than others.

People within a few hundred metres of a nuclear explosion, unless screened from it by thick metal or masonry, would receive a lethal dose of radiation, and would die within hours from irreparable damage, mainly to the brain. However, in the case of 'strategic' bombs that are much larger than ones dropped on Hiroshima and Nagasaki, say 100 kiloton and up, nearly everybody within that lethal range for radiation would be killed by the effect of the blast. A little further away there would be some survivors of the blast, and those survivors would have received enough radiation to reduce the body's ability to heal wounds and burns.

The biggest impact of radiation on the population attacked would be on those people who received radiation from the fall-out, in the days and weeks following the attack. Whole-body radiation accumulated from gamma-rays of radioactive isotopes affects the gastro-intestinal system (stomach and intestines), the bone marrow and other blood-forming organs, and the kidneys. Early symptoms are nausea, vomiting, and diarrhoea, which may go on to haemorrhage. Later there is anaemia, and a generalised bleeding tendency. The natural defences against infection - the white blood cells and the immune response - are diminished or abolished. According to the dose received and to the individual victim's resistance, death may occur within a few days with predominantly gastro-intestinal symptoms, or later, after a partial recovery followed by deterioration due to anaemia, haemorrhages, and infection. An incidental conspicuous symptom is the hair falling out.

The effects of radioactive fallout absorbed into the body from the air and from food and water, are broadly similar but influenced by the route of

absorption and by the chemical properties of the radioactive material and the tendency of some substances to concentrate in particular body areas. A unique property of the thyroid gland is to concentrate the element iodine (whether radioactive or not) very highly. Radioactive iodine in sufficient quantity gradually destroys the function of the gland; there is also a tendency later for a radiated thyroid gland to form tumours, some of which can be malignant.

Victims who survive the combined trauma of burns, blast injuries, and the initial effects of radiation, will have their health impaired over a long period and, at least to some extent, permanently. They will always be at increased risk of leukaemia, and of many forms of cancer. The long-lived strontium-90 is incorporated into bone and can cause bone cancer. Airborne plutonium particles can be deposited in the lungs, where they are believed (from the results of animal experiments) to have a high probability of causing lung cancer; or they can be absorbed and carried by the blood stream to bones and to other organs. This increased risk of cancer had been a persistent reason for anxiety among the long-term survivors of Hiroshima and Nagasaki.

Other impairments of health in survivors include diminished immune response and thus diminished resistance to infection of all kinds, and impaired healing, for example of burns and bone fractures incurred at the time of the bombing. These injuries were inadequately treated in the disasters of Hiroshima and Nagasaki, as they would be after any nuclear explosion because of the numbers of injured; the radiation also impaired natural powers of healing. Prominent problems have been keloid scars and limb deformities.

A sinister long-term effect of radiation, that also affects subsequent generations, is to increase the frequency of mutations in the reproductive cells of the body. This has been a major cause of anxiety and social problems.

The effects of radiation are not only agonising, but are spread out over an entire lifetime. Deaths after a long life of suffering have occurred in Hiroshima and Nagasaki, decades after the nuclear weapon hit those cities. The Mayor of Hiroshima gave the International Court of Justice some glimpses of the lingering agonies of the survivors - all of which is amply documented in a vast literature that has grown up around the subject. A reference was made to Antonio Cassese's *Violence and Law in the Modern Age* (1988), which draws attention to the fact that "the quality of human suffering ... does not emerge from the figures and statistics only ... but from the account of survivors".



(h) Heat and blast

The distinctiveness of the nuclear weapon can also be seen from statistics of the magnitude of the heat and blast it produces. The representative of Japan drew the International Court of Justice's attention to estimates that the bomb blasts in Hiroshima and Nagasaki produced temperatures of several million degrees centigrade and pressures of several hundred thousand atmospheres. In the bright fireball of the nuclear explosion, the temperature and pressure are said indeed to be the same as those at the centre of the sun. Whirlwinds and firestorms were created approximately 30 minutes after the explosion. From these causes 70,147 houses in Hiroshima and 18,400 in Nagasaki were destroyed. The blastwind set up by the initial shockwave had a speed of nearly 1000 miles per hour, according to figures given to the Court by the Mayor of Hiroshima.

(i) Congenital deformities

The intergenerational effects of nuclear weapons mark them out from other classes of weapons. Apart from damage to the environment which successive generations will inherit far into the future, radiation also causes genetic damage and will result in a crop of deformed and defective offspring, as proved in Hiroshima and Nagasaki (where those who were in the vicinity of the explosion - the hibakusha - have complained for years of social discrimination against them on this account), and in the Marshall Islands and elsewhere in the Pacific.

According to the Mayor of Nagasaki: "the descendants of the atomic bomb survivors will have to be monitored for several generations to clarify the genetic impact, which means that the descendants will be forced to live in anxiety for generations to come". The Mayor of Hiroshima told the Court that children "exposed in their mothers' womb were often born with microcephalia, a syndrome involving mental retardation and incomplete growth". In the Mayor's words: "For these children, no hope remains of becoming normal individuals. Nothing can be done for them medically. The atom bomb stamped its indelible mark on the lives of these utterly innocent unborn babies."

In Japan the social problem of hibakusha covers not only persons with hideous keloid growths, but also deformed children and those exposed to the nuclear explosions, who are thought to have defective genes which transmit deformities to their children. This is a considerable human rights problem, appearing long after the bomb and destined to span the generations.

Mrs. Lijon Eknilang, from the Marshall Islands, told the Court of genetic abnormalities never before seen on that island until the atmospheric testing of nuclear

weapons. She gave the Court a moving description of the various birth abnormalities seen on that island after the exposure of its population to radiation. She said that Marshallese women “give birth, not to children as we like to think of them, but to things we could only describe as ‘octopuses’, ‘apples’, ‘turtles’, and other things in our experience. We do not have Marshallese words for these kinds of babies because they were never born before the radiation came... Women on Rongelap, Likiep, Ailuk and other atolls in the Marshall Islands have given birth to these ‘monster babies’... One woman on Likiep gave birth to a child with two heads... There is a young girl on Ailuk today with no knees, three toes on each foot and a missing arm ... The most common birth defects on Rongelap and nearby islands have been ‘jellyfish’ babies. These babies are born with no bones in their bodies and with transparent skin. We can see their brains and hearts beating. ... Many women die from abnormal pregnancies and those who survive give birth to what looks like purple grapes which we quickly hide away and bury ... My purpose for travelling such a great distance to appear before the Court today, is to plead with you to do what you can not to allow the suffering that we Marshallese have experienced to be repeated in any other community in the world.”

From another country which has had experience of deformed births, Vanuatu, there was a similar moving reference before the World Health Assembly, when that body was debating the reference to the International Court of Justice on nuclear weapons. The Vanuatu delegate spoke of the birth, after nine months, of “a substance that breathes but does not have a face, legs or arms”.

(j) Transnational damage

Once a nuclear explosion takes place, the fall-out from even a single local detonation cannot be confined within national boundaries. According to WHO studies, it would extend hundreds of kilometres downwind and the radiation exposure from the fall-out could reach the human body, even outside national boundaries, through radioactivity deposited in the ground, through inhalation from the air, through consumption of contaminated food, and through inhalation of suspended radioactivity. Such is the danger to which neutral populations would be exposed.

All nations, including those carrying out underground tests, are in agreement that extremely elaborate protections are necessary in the case of underground nuclear explosions in order to prevent contamination of the environment. Such precautions are manifestly quite impossible in the case of the use of nuclear weapons in war - when they will necessarily be exploded in the atmosphere or on the ground. The explosion of nuclear weapons in the atmosphere creates such acknowledgedly deleterious effects that it has already been banned by the Partial Nuclear Test Ban Treaty.



The transboundary effects of radiation are illustrated by the nuclear meltdown in Chernobyl which had devastating effects over a vast area, as the by-products of that nuclear reaction could not be contained. Human health, agricultural and dairy produce and the demography of thousands of square miles were affected in a manner never known before. On 30 November 1995, the United Nation's Under-Secretary-General for Humanitarian Affairs announced that thyroid cancers, many of them being diagnosed in children, are 285 times more prevalent in Belarus than before the accident, that about 375,000 people in Belarus, Russia and Ukraine remain displaced and often homeless and that about 9 million people have been affected in some way. Ten years after Chernobyl, the tragedy still reverberates over large areas of territory, not merely in Russia alone, but also in other countries such as Sweden. Such results, stemming from a mere accident rather than a deliberate attempt to cause damage by nuclear weapons, followed without the heat or the blast injuries attendant on a nuclear weapon. They represented radiation damage alone - only one of the three lethal aspects of nuclear weapons. They stemmed from an event considerably smaller in size than the explosions of Hiroshima and Nagasaki.

(k) Potential to destroy all civilisation

Nuclear war has the potential to destroy all civilisation. Such a result could be achieved through the use of a minute fraction of the weapons already in existence in the arsenals of the nuclear powers. As Former Secretary of State, Dr. Henry Kissinger, once observed, in relation to strategic assurances in Europe: “The European allies should not keep asking

us to multiply strategic assurances that we cannot possibly mean, or if we do mean, we should not want to execute because if we execute, we risk the destruction of civilisation.”

So, also, Robert McNamara, United States Secretary of Defence from 1961 to 1968, has written: “Is it realistic to expect that a nuclear war could be limited to the detonation of tens or even hundreds of nuclear weapons, even though each side would have tens of thousands of weapons remaining available for use? The answer is clearly no.”

Stocks of weapons may be on the decline, but one scarcely needs to think in terms of thousands or even hundreds of weapons. Tens of weapons are enough to wreak terrible destruction. Such is the risk attendant on the use of nuclear weapons that no single nation is entitled to take it, whatever the dangers to itself.

(l) Social Institutions

All the institutions of ordered society - judiciaries, legislatures, police, medical services, education, transport, communications, postal and telephone services, and newspapers - would disappear together in the immediate aftermath of a nuclear attack. The country's command centres and higher echelons of administrative services would be paralysed. There would be social chaos on a scale unprecedented in human history.

(m) Economic Structures

Economically, society would regress to the levels of man's most primitive past. One of the best known studies by Jonathan Schell, examining this scenario summarises the situation in this way: “The task ... would be not to restore the old economy but to invent a new one, on a far more primitive level. ... The economy of the Middle Ages, for example, was far less productive than our own, but it was exceedingly complex, and it would not be within the capacity of people in our time suddenly to establish a medieval economic system in the ruins of their twentieth-century one. ... Sitting among the debris of the Space Age, they would find that the pieces of a shattered modern economy around them - here an automobile, there a washing machine - were mismatched to their elemental needs. ... they would not be worrying about rebuilding the automobile industry or the electronics industry: they would be worrying about how to find non-radioactive berries in the woods, or how to tell which trees had edible bark.”

(n) Cultural treasures

Another casualty to be mentioned in this regard is the destruction of the cultural treasures representing the progress of civilisation through the ages. The nuclear bomb is no respecter of such cultural treasures and will incinerate and flatten every object within its radius of destruction, cultural monument or otherwise. Despite the blitz on many great cities during World War II, many a cultural monument in those cities stood through the war. That will not be



the case after nuclear war. Together with all other structures, they will be part of the desert of radioactive rubble left in the aftermath of the nuclear bomb.

(o) The electromagnetic pulse

Another feature distinctive to nuclear weapons is the electromagnetic pulse. This effect was not predicted, and was discovered by accident early in the days of atmospheric testing. A weapon was detonated at a very high altitude over the Pacific Ocean, and caused massive failures of electrical equipment in Hawaii.

In the near-vacuum at high altitude, high-speed electrons from the explosion travel great distances (which electrons in air at low levels do not) and are deflected in spirals by the magnetic field of the earth. The electrons are travelling at nearly the speed of light, and they cause a very sharp pulse of electromagnetic radiation, that induces an instantaneous high voltage in all electrical conductors within its range.

War plans include detonating a small number of nuclear weapons high above enemy territory with the purpose of disrupting electrical communications and all electronic equipment. A single detonation at a great height can disrupt equipment over distances of hundreds of kilometres. This would be done at the start of an attack, and the fact that the military need to retaliate before it happens is one of the reasons for the very dangerous policy of 'launch-on-warning'.

With added complexity and at considerable expense, military electrical equipment is partially protected against the EMP. Civil equipment is normally not protected, so this initial salvo of a nuclear attack would drastically disrupt all civilian activities involving electrical or electronic equipment (including computers). The disruption would not be limited to the belligerent countries, as it extends

radially in a circle hundreds of kilometres in radius, from each high-altitude detonation. As modern societies are so dominated by electronic communications such disruption would prove to be a very serious and unwarranted interference in the normal functioning of such neutral states.

(p) Damage to nuclear reactors

The enormous area of devastation and the enormous heat released would endanger all nuclear power stations within the area, releasing dangerous levels of radioactivity apart from that released by the bomb itself. Europe alone has over 200 atomic power stations dotted across the continent, some of them close to populated areas. In addition, there are 150 devices for uranium enrichment. A damaged nuclear reactor could give rise to, "lethal doses of radiation to exposed persons 150 miles downwind and would produce significant levels of radioactive contamination of the environment more than 600 miles away".

A nuclear weapon used upon a country in which any of the world's current total of 450 nuclear reactors is situated could leave in its wake a series of Chernobyls. The effects of such radiation could include anorexia, cessation of production of new blood cells, diarrhoea, haemorrhage, damage to the bone marrow, convulsions, vascular damage and cardiovascular collapse.

(q) Damage to food productivity

Unlike other weapons, whose direct impact is the most devastating part of the damage they cause, nuclear weapons can cause far greater damage by their delayed after-effects than by their direct effects. The detailed technical study, *Environmental Consequences of Nuclear War*, while referring to some uncertainties regarding the indirect effects of nuclear war, states: "What can be said with assurance, however, is that the Earth's human population has a much greater vulnerability to the indirect effects of nuclear war, especially mediated through impacts on food productivity and food availability, than to the direct effects of nuclear war itself."

The nuclear winter, should it occur in consequence of multiple nuclear exchanges, could disrupt all global food supplies. After the United States tests in the Pacific in 1954, fish caught in various parts of the Pacific, as long as eight months after the explosions, were contaminated and unfit for human consumption, while crops in various parts of Japan were affected by radioactive rain. These were among the findings of an international Commission of medical specialists appointed by the Japanese Association of Doctors against A- and H-bombs. Further: "The use of nuclear weapons contaminates water and food, as well as the soil and the plants that may grow on it. This is not only in the area covered by immediate nuclear radiation, but also a much larger unpredictable zone which is affected by the radioactive fall-out."

(r) Multiple nuclear explosions resulting from self-defence

If the weapon is used in self-defence after an initial nuclear attack, the eco-system, which had already sustained the impact of the first nuclear attack, would have to absorb on top of this the effect of the retaliatory attack, which may or may not consist of a single weapon, for the stricken nation will be so ravaged that it will not be able to make fine evaluations of the exact amount of retaliatory force required. In such an event, the tendency to release as strong a retaliation as is available must enter into any realistic evaluation of the situation. The eco-system would in that event be placed under the pressure of multiple nuclear explosions, which it would not be able to absorb without permanent and irreversible damage.

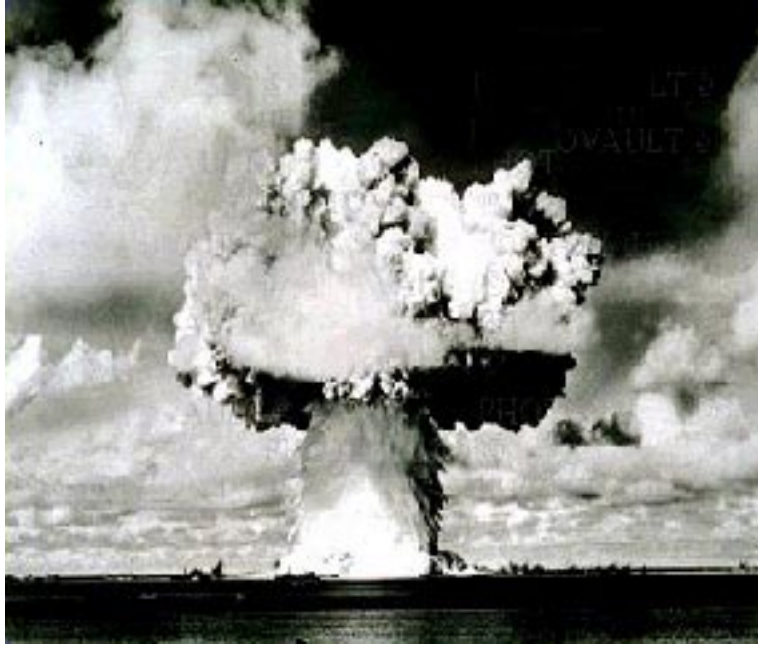
(s) 'The Shadow of the Mushroom Cloud'

As pointed out in the Australian submissions to the International Court of Justice the entire post-war generation lies under a cloud of fear - sometimes described as the 'shadow of the mushroom cloud', which pervades all thoughts about the human future. This fear, which has hung like a blanket of doom over the thoughts of children in particular, is an evil in itself and will last so long as nuclear weapons remain. The younger generation needs to grow up in a climate of hope, not one of despair that at some point in their life, there is a possibility of their life being snuffed out in an instant, or their health destroyed, along with all they cherish, in a war to which their nation may not even be a party.

(t) Distortion of mentality

A nuclear strategy requires a genocidal mentality according to Lifton and Markusen. They argued in their book 'The Genocidal Mentality' that there are important parallels between nuclear strategies and the Nazi policies that led to the gas chambers. In particular, after conducting interviews with nuclear physicists and senior military strategists, they concluded that there were many underlying traits shared with the professionals who conceived and carried out the policies of Nazi extermination. This 'genocidal mentality' consists of dissociative processes of the mind such as 'psychic numbing' and the 'language of non-feeling' and together with distancing, ideological ethics and a passion for problem-solving have the effects of allowing people to remain sane whilst carrying out insane policies.

Governments also have to psychologically prepare their populations for the idea that such insane and evil strategies are rational and necessary. This requires demonising the enemy. During the Cold War for example, the Russians were demonised in order to try to make it acceptable that in some circumstances it would be justifiable to kill millions of them within minutes, in retaliation for something their government may or may not have done.



This body of information shows that, even among weapons of mass destruction, many of which are already banned under international law, the nuclear weapon stands alone, unmatched for its potential to damage all that humanity has built over the centuries and all that humanity relies upon for its continued existence. Professor Joseph Rotblat, a member of the British team on the Manhattan Project in Los Alamos, a Rapporteur for the 1983 WHO investigation into the Effects of Nuclear War on Health and Health Services, and a Nobel Laureate said in his statement to the International Court of Justice: "I have read the written pleadings prepared by the United Kingdom and the United States. Their view of the legality of the use of nuclear weapons is premised on three assumptions: a) that they would not necessarily cause unnecessary suffering; b) that they would not necessarily have indiscriminate effects on civilians; c) that they would not necessarily have effects on territories of third States. It is my professional opinion that on any reasonable set of assumptions their argument is unsustainable on all three points."

After this factual review, legal argument becomes almost superfluous, for it can scarcely be contended that any legal system can contain within itself a principle which permits the entire society which it serves to be thus decimated and destroyed - along with the natural environment which has sustained it from time immemorial.

The words of the General Assembly, in its 'Declaration on the Prevention of Nuclear Catastrophe' (1981), aptly summarise the entirety of the foregoing facts: "all the horrors of past wars and other calamities that have befallen people would pale in comparison with what is inherent in the use of nuclear weapons, capable of destroying civilisation on earth".

In summary, nuclear weapons:

- cause death and destruction;
- induce cancers, leukaemia, keloids and related afflictions;
- cause gastro intestinal, cardiovascular and related afflictions;
- continue for decades after their use to induce the health-related problems mentioned above;
- damage the environmental rights of future generations;
- cause congenital deformities, mental retardation and genetic damage;
- carry the potential to cause a nuclear winter;
- contaminate and destroy the food chain;
- imperil the eco-system;
- produce lethal levels of heat and blast;
- produce radiation and radioactive fall-out;
- produce a disruptive electromagnetic pulse;
- produce social disintegration;
- imperil all civilisation;
- threaten human survival;
- wreak cultural devastation;
- span a time range of thousands of years;
- threaten all life on the planet;
- irreversibly damage the rights of future generations;
- exterminate civilian populations;
- damage neighbouring States;
- produce psychological stress and fear syndromes as no other weapons do;
- distort our perceptions.

'If it's useful it's not legal. If it's legal it's no use'
World Court Project

6.7 The Criminality of British Trident

This section is an extract from Angie Zelter's first submission to the High Court in Edinburgh at the Lord Advocates Reference Proceedings Part 1, held from October 9th-13th 2000. The full submission plus the full transcripts can be found on the website.

International Law and Nuclear Weapons

The July 8th 1996 Advisory Opinion of the International Court of Justice (ICJ)¹ outlines the sources of international law as they relate to nuclear weapons.

Advisory Opinions are intended to provide UN bodies guidance regarding legal issues and are not *directly* binding on the UN or its member States. However, the ICJ has authoritatively interpreted laws which States, including the UK, acknowledge they must follow, including humanitarian law and the UN Charter. I further contend, as I did at Greenock, that the Advisory Opinion is *controlling* because it is the authoritative articulation of customary international law on the legality of the use or threatened use of nuclear weapons. It is thus of exceptional relevance to this Court, providing guidance on whether and in what circumstances the 100 kiloton nuclear warheads on Trident are in breach of international law.

In my opinion the Advisory Opinion of July 8th 1996 makes it quite clear that nuclear weapons would generally breach all of the following:

- **The Declaration of St. Petersburg, 1868** because unnecessary suffering would be caused;²
- **The Martens Clause, 1899** because humanity would not remain under the protection and authority of the principles of international law derived from established custom, from the principles of humanity and from the dictates of public conscience;³
- **The Hague Conventions, 1907** because unnecessary suffering would be caused and there would be no guarantee of the inviolability of neutral nations;⁴

1. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.75.

2. Ibid, para 77.

3. Ibid, paras 78 and 87.

4. Ibid, para 77.

- **The UN Charter, 1945** because such a use of force would not be proportionate;⁵
- **The Universal Declaration of Human Rights, 1948** because long-lasting radioactive contamination would interfere with innocent people's inherent right to life and health;
- **The Geneva Conventions, 1949** (which has been brought directly into UK law through the 1957 Geneva Conventions Act) because protection of the wounded, sick, the infirm, expectant mothers, civilian hospitals and health workers would not be ensured;⁶
- **The Protocols Additional to the Geneva Conventions, 1977** (which have also been directly brought into UK law through the 1995 Geneva Conventions (Amendments) Act) because there would be massive incidental losses of civilian lives and widespread, long-term and severe damage to the environment.⁷

Serious violations of these treaties and declarations are defined as criminal acts under the **Nuremberg Principles**⁸, in that Principle 6 defines crimes against peace, war crimes and crimes against humanity. Specifically, Nuremberg Principle VI (a) defines Crimes against Peace as:

"Planning, preparation, initiation or waging of ... a war in violation of international treaties, agreements or assurances ... Participation in a common plan or conspiracy for the accomplishment of any of the acts mentioned."

Nuremberg Principle VI (b) defines War Crimes as

"violations of the laws or customs of war"

and Nuremberg Principle VI (c) defines Crimes against Humanity as

"murder, extermination ... and other inhumane acts done against any civilian population ... when ... carried on in execution of, or in connection with any crime against peace or any war crime".⁹

In addition **The Non-Proliferation Treaty (NPT), 1968** is being violated now, in that the United Kingdom is not fulfilling its obligation to negotiate in good faith a nuclear disarmament.

Cardinal Principles

Charles Moxley has analysed the various rules of international law applicable to a consideration of whether Trident is in breach of international law.¹⁰

5. Ibid, para 42.

6. Ibid, para 81.

7. Ibid, para.84 and also look closely at Part IV, Article 48 of Protocol 1.

8. Principles of the Nuremberg Tribunal, 1950.

9. Ibid.

10. Charles.J.Moxley, Nuclear Weapons and International Law in the Post Cold War World, Austin and Winfield, 2000, p39-40.

These can be summarised thus:

(a) **Rule of Proportionality**

“The Rule of Proportionality... prohibits the use of a weapon if its probable effects on combatant or non-combatant persons or objects would likely be disproportionate to the value of the anticipated military objective.”¹¹

(b) **Rule of Necessity:**

“The Rule of Necessity provides that, in conducting a military operation, a State, even as against its adversary’s forces and property, may use only such a level of force as is “necessary” or “imperatively necessary” to achieve its military objective and that any additional level of force is prohibited as unlawful. The State must have an explicit military objective justifying each particular use of force in armed conflict and there must be a reasonable connection between the objective and the use of the particular force in question. If a military operation cannot satisfy this requirement, the State must use a lower level of force or refrain from the operation altogether.”¹²

(c) **Rule of Moderation:**

“The law of war recognises a general principle of moderation, expressed in the Hague Regulations by the maxim that ‘the right of belligerents to adopt means of injuring the enemy is not unlimited’ (Article 22). This principle is a basis of and generally overlaps with the principles of necessity and proportionality.”¹³

(d) **Rule of Discrimination including the Requirement of Controllability:**

“The Rule of Discrimination prohibits the use of a weapon that cannot discriminate in its effects between military and civilian targets. This is a rule designed to protect civilian persons and objects. The law recognises that the use of a particular weapon against a military target may cause unintended collateral or incidental damage to civilian persons and objects and permits such damage, subject to compliance with the other applicable rules of law, including the principle of proportionality. However, the weapon must have been intended for – and capable of being controlled and directed against – a military target, and the civilian damage must have been unintended and collateral or incidental.”¹⁴

As to the requirement of controllability:

“On the question of the controllability of nuclear weapons, the issue becomes central as to whether the controllability element of the discrimination rule requires only that the attacking State be capable of delivering the weapons accurately to a particular military target, or whether it also requires that the State be able to control the weapon’s effects, including radiation, upon delivery.”¹⁵



The Peace Palace, The Hague, home of the International Court of Justice

(e) **Rule of Civilian Immunity**

“Occupying much the same ground as the Rules of Discrimination and Proportionality is the Rule of Civilian Immunity. The law of armed conflict prohibits ‘the directing of attacks against civilians, making them immune from such attack’.”¹⁶

Moxley’s analysis of these fundamental principles of international law and the ICJ advisory opinion clearly show that Trident, as a high yield nuclear weapon system, is in breach of all of these rules. Moreover, Trident is also in breach of the two cardinal principles of international law that the ICJ¹⁷ details as being contained in the above “fabric of humanitarian law”. It explains that:

“The first is aimed at the protection of the civilian population and civilian objects and establishes the distinction between combatants and non-combatants. States must never make civilians the object of attack and must consequently never use weapons that are incapable of distinguishing between civilian and military targets. According to the second principle, it is prohibited to cause unnecessary suffering to combatants: it is accordingly prohibited to use weapons causing them such harm or uselessly aggravating their suffering. In application of that second principle, States do not have unlimited freedom of choice of means in the weapons they use.”

The United Kingdom confirmed these fundamental, intransgressible rules as customary laws at the Nuremberg International Military Tribunal and the

11. Ibid, p39.

12. Ibid, p52.

13. Ibid, p63.

14. Ibid, p64.

15. Ibid, p66.

16. Ibid, p69.

17. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.78.

Tokyo Tribunals in which it was involved, and supported them strongly in the United Nations Security Council creation of the International Criminal Tribunal for the former Yugoslavia and in the International Criminal Tribunal for Rwanda.

In other words the international humanitarian principles used to assess the legality of nuclear weapons are well established in the international legal order. These customary rules are binding on all states at all times. Moreover many of these customary law principles have now been brought directly into UK Statute Law through the Geneva Conventions Act 1957 and the Geneva Conventions (Amendments) Act 1995.

General Illegality

The whole text and tenor of the ICJ Advisory Opinion make it arguable that even *in extremis*, any threat or use of nuclear weapons is likely to be unlawful.

- The ICJ held that the

“fundamental rules [of humanitarian law] are to be observed by all States whether or not they have ratified the conventions that contain them, because they constitute *intransgressible* principles of international customary law”¹⁸ (emphasis added).

- The ICJ specified that,

“the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law”¹⁹.

- The ICJ also envisioned no circumstances in which the use of nuclear weapons would be compatible with international law saying,

“none of the states advocating the legality of the use of nuclear weapons under certain circumstances, including the ‘clean’ use of smaller, low yield, tactical nuclear weapons, has indicated what, supposing such limited use were feasible, would be the precise circumstances justifying such use; nor whether such limited use would not tend to escalate into the all-out use of high yield weapons”²⁰.

- The ICJ acknowledged the

“unique characteristics of nuclear weapons, and in particular their destructive capacity, their capacity to cause untold human suffering, and their ability to cause damage to generations to come”²¹.

- The ICJ refers to

“the principles and rules of law applicable in armed conflict at the heart of which is the *overriding* consideration of humanity” and states “In view of the unique characteristics of nuclear weapons, ... the use of such weapons in fact seems *scarcely reconcilable* with respect for such requirements”²² (emphasis added).

In conclusion, the ICJ Advisory Opinion, as a whole, gives a strong presumption of illegality. Of the fourteen Judges sitting, ten determined that the use of nuclear weapons would generally be unlawful.

Further, six judges were of the view that all uses of nuclear weapons would be unlawful *per se*.

Possible Lawful Use?

The only possible loophole that *may* have been left by the ICJ was when the Court stated in para 105, 2E:

“However, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an

extreme circumstance of self-defence, in which the very survival of a State would be at stake.”²³

However, it is clear that this possible exception cannot apply to the British Trident 100 kiloton nuclear warheads. If a nuclear weapon existed that was of low yield and where its effects could be confined to a particular military target then it might be that its use would not be unlawful under this exception of self-defence. The point is well put by the dissenting opinion of Judge Shahabuddeen where he says,

“An ‘extreme circumstance of self-defence, in which the very survival of a State would be at stake’ ... is the main circumstance in which the proponents of legality advance a claim to a right to use nuclear weapons. This is so for the reason that, assuming that the use of nuclear weapons is lawful, the nature of the weapons, combined with the limitations imposed by the requirements of necessity and proportionality which condition the exercise of the right of self-defence, will serve to confine their lawful right to that ‘extreme circumstance’. It follows that to hold that humanitarian law does not apply to the use of nuclear weapons in the main circumstances in which a claim of a right of use is advanced is to uphold the substance of thesis that humanitarian law does not apply at all to the use of nuclear weapons. That view has long been discarded; as

18. Ibid, para 79.

19. Ibid, para 105, 2E.

20. Ibid, para 94.

21. Ibid, para 36.

22. Ibid, para 95.

23. Ibid, para 105, 2E.

the court itself recalls, the NWS [Nuclear Weapons States] themselves do not advocate it. I am not persuaded that a disfavoured thesis can be brought back to an exception based on self-defence.”²⁴

What is beyond doubt is that Trident could never be justified in an “extreme circumstance of the self-defence” because 100 kiloton warheads would always fail the test of proportionality, necessity, controllability, discrimination, and civilian immunity. Most important of all it breaches the cardinal, or intransgressible, rule of humanitarian law in its inability to discriminate between military and civilian targets. I will return to the question of “extreme circumstances of self-defence” in more detail later.

Paragraph 2E of 105 cannot be detached from the other five paragraphs 2A, B, C, D and F and the ICJ’s formal conclusions in this paragraph must be read in the light of the Advisory Opinion as a whole. Paragraph 104 states,

“the Court emphasises that its reply to the question put to it by the General Assembly rests on the totality of the legal grounds set forth by the Court above (paragraph 20 to 103), each of which is to be read in the light of the others. Some of these grounds are not such as to form the object of formal conclusions in the final paragraph of the Opinion; they nevertheless retain, in the view of the Court, all their importance”.

Paragraph 2E of 105 was agreed only with the casting vote of President Bedjaoui which made the vote 8 to 7. Judge Bedjaoui, President of the ICJ, specifically wrote his Declaration to explain why he used his casting vote for the adoption of paragraph 105 2E. He states,

“I cannot sufficiently emphasise that the Court’s inability to go beyond this statement of the situation can in no way be interpreted to mean that it is leaving the door ajar to recognition of the legality of the threat or use of nuclear weapons.”²⁵

“...at no time did the Court lose sight of the fact that nuclear weapons constitute a potential means of destruction of all mankind.”²⁶

“By its very nature the nuclear weapon, a blind weapon, therefore has a destabilising effect on humanitarian law, the law of discrimination which regulates discernment in the use of weapons.”²⁷

It is essential to assess the Court’s replies in the light of the judges appended statements, many of which were very detailed and closely reasoned. A good summary can be found in Chapter 3 of Charles

Moxley’s useful book ‘Nuclear Weapons and International Law in the Post Cold War World’. As he points out,

“Three of the dissenting judges – Judges Shahabuddeen, Koroma and Weeramantry – did so on the basis that the Court’s decision did not go far enough: They concluded that all uses or threatened uses of nuclear weapons would be per se unlawful. This brings to ten the number of judges determining that the use of nuclear weapons would generally be unlawful, a substantial majority on this overriding point.”²⁸

‘It seems we are asked to believe that the only purpose of the possession and deployment of hundreds, and in some cases, thousands, of existing nuclear weapons is the use or threat of use of weapons of extremely low yield in the middle of the desert or in the oceans in a desperate situation of the impending destruction of the state itself.’

Pax Legalis, 8th July 1997

Illegality of the United Kingdom’s Nuclear Weapons

The ICJ was asked to consider a *general* question and did not have the “elements of facts at its disposal” to enable it to be more specific. However, if we apply the principles and rules of international law confirmed by the ICJ to the Trident system presently deployed, along with the current U.K. deterrence policy as outlined in the Strategic Defence Review of 1998 and the NATO Strategic Concept Document, and place this within the context of the destructive capacity of the warheads and their likely targets then it is quite clear that Trident is unlawful.

As we established at Greenock through the expert witnesses, British Trident nuclear warheads are 100 to 120 kilotons each – that is around 8 to 10 times larger than the ones used at Hiroshima and Nagasaki,²⁹ and have military targets in and around Moscow.³⁰

Such use of these particular nuclear weapons could not distinguish between civilian and military targets,

28. Charles J.Moxley, Nuclear Weapons and International Law in the Post Cold War World, Austin and Winfield, 2000, p.158.

29. Transcript i.c. H M Advocate v. Zelter, Roder and Moxley. October 1999, see Professor Paul Roger’s evidence on pp6-9 where he explains the present structure of British nuclear forces.

30. Ibid, see Professor Paul Roger’s testimony on p10 and pp14-15, also, Greenock Defence Production - No.5 - “Trident, Britain’s Weapon of Mass Destruction”, John Ainslie, p.1. March 1999, and Written Parliamentary Answer 28/11/91, and Strategic Nuclear Weapons Policy, House of Commons Defence Committee Minutes 17/3/82 on replacement of Chevaline with Trident.

24. Dissenting Opinion of Judge Shahabuddeen, p34-35. Appended to the Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996.

25. President Judge Bedjaoui’s Declaration, para 11. Appended to the Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996.

26. Ibid, para 9.

27. Ibid, para 20.

nor are they intended to do so. Indeed it is a nonsense to suggest that a nuclear bomb 8 times larger than the Hiroshima bomb could possibly do so. The reason nuclear weapons are targeted in this way is to try to deter war by threatening mass destruction. The tragic flaw in this logic being that if nuclear deterrence fails and the United Kingdom's bluff is called, the threat of mass destruction must be carried out. It follows that the purpose of Trident is to terrorise and to create "incalculable and unacceptable" risks, just as the NATO Strategic Concept Document specifies.³¹ Whilst politicians and others fudge the issue, the very point of 'nuclear deterrence' is to threaten mass destruction.

It was submitted at Greenock that the British Trident system is an immediate and ongoing danger to life on Earth, a threat to international peace and specifically unlawful as a breach of the intransgressible rules of humanitarian law as expressed by the ICJ. I continue to submit that we are all still in imminent danger of extinction. As our expert witness, Professor Jack Boag, so graphically explained at Greenock, the sword of Damocles remains perilously over our heads.

Self-Defence

The ICJ held that,

"a use of force that is proportionate under the law of self-defence must, in order to be lawful, also meet the requirements of the law applicable in armed conflict which comprise in particular the principles and rules of humanitarian law".³²

The main stumbling block for the United Kingdom can be found by examining the oral presentation given by Sir Nicholas Lyell to the ICJ on November 15, 1995. This illustrates the mind-set of a state so used to the thinking behind nuclear deterrence that it has forgotten what international humanitarian law is about. After admitting that:

"there is no doubt that the customary law of war does prohibit some uses of nuclear weapons, just as it prohibits some uses of all types of weapons",³³

he then undermines this by elaborating a situation in which states are faced with invasion by overwhelming enemy forces:



"If all other means at their disposal are insufficient, then how can it be said that the use of a nuclear weapon must be disproportionate? Unless it is being suggested that there comes a point when the victim of aggression is no longer permitted to defend itself because of the degree of suffering which defensive measures will inflict."³⁴

Yet this is the point of international humanitarian law. It is intended to limit the terrible effects of war and to ensure that there is a world left after a conflict ends. This means self-restraint even in the midst of justified self-defence.

According to the President of the Court, Judge Bedjaoui,

"self-defence - if exercised in extreme circumstances in which the very survival of a State is in question - cannot engender a situation in which a State would exonerate itself from compliance with 'intransgressible' norms of international humanitarian law. In certain circumstances, therefore, a relentless opposition can arise, a head on collision of fundamental principles, neither one of which can be reduced to the other. The fact remains that the use of nuclear weapons by a State in circumstances in which its survival is at stake risks in its turn endangering the survival of all mankind, precisely because of the inextricable link between terror and escalation in the use of such weapons. It would thus be quite foolhardy unhesitatingly to set the survival of a State above all other considerations, in particular above the survival of mankind itself."³⁵

As Professor Christopher Greenwood QC who represented the United Kingdom at the hearings before the ICJ, has observed,

"To allow the necessities of self-defence to override the principles of humanitarian law would put at risk all the progress in that law which has been made over the last hundred years or so".³⁶

The 'Humanitarian Law' as it is known as - that States must never make civilians the object of attack and must consequently never "use weapons that are incapable of distinguishing between civilian and military targets"³⁷ is reflected in Article 48 of the Additional Protocol 1 of 1977 to the Geneva Conventions of 1949, and various Commentaries of the International Committee of the Red Cross. These

31. 1991 NATO Strategic Concept Document, Article 38.

32. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.42.

33. Nicholas Lyell's November 15th 1995 Oral Statement, CR 95/34, p45. Appended to the Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996.

34. Ibid, pp45-47.

35. President Judge Bedjaoui's Declaration, para. 22. Appended to the Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996.

36. Christopher Greenwood, International Committee of the Red Cross No.316, p.65-75, January 1997.

37. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para. 78.

sources have been recognised by the House of Lords.³⁸

Article 48 requires that parties to any conflict,

“shall at all times distinguish between civilian populations and combatants and between civilian objectives and military objectives”.³⁹

The International Committee of the Red Cross 1987 commentary states,

“The basic rule of protection and distinction is confirmed in this article. *It is the foundation on which the codification of the laws and customs of war rests:* the civilian population and civilian objects must be respected and protected in armed conflict, and for this purpose they must be distinguished from combatants and military objectives. The *entire system* established in The Hague in 1899 and 1907 and in Geneva from 1864-1977 is founded on this rule of customary law.”⁴⁰

The significance of the Humanitarian Rule for the deployment of British Trident Nuclear weapons is not that all nuclear weapons are prohibited as such, though they *will* generally be contrary to international law; nor, *necessarily*, that there can be no use of smaller, low yield, tactical nuclear weapons yet to be invented; or that there could be no policy of some kinds of nuclear deterrence; or no reservation for use in an extreme circumstance of self-defence in which the very survival of the State would be at stake. The point is that the Humanitarian Rule *governs* any such weapons or uses. Any low yield weapon, or deterrence/self-defence policy must comply with the Humanitarian Rule; any weapon or use which cannot comply is unlawful. For the Rule is a ‘cardinal’, ‘intransgressible’ rule.



38. R v. Ministry of Defence, ex p Walker [2000] 1 WLR 806, 812B.

39. Additional Protocol 1 of 1977 to the Geneva Conventions of 1949, Article 48.

Note: When ratifying these protocols in 1998 the UK stated that the rules “do not have any effect on, and do not regulate or prohibit the use of nuclear weapons”. However, this Reservation is clearly incompatible with the object and purpose of the protocols, which is to protect civilians in armed conflicts. All Reservations are covered under Article 2(i)(d) of the Vienna Convention on the Law of Treaties and Article 19(c) states that Reservations are invalid if they are incompatible with the object and purpose of the Treaty. Moreover, the statements put out by the Foreign Office on this not being a Reservation but a ‘Statement of Understanding’ which ‘reflects a widespread position’ is misleading in that it is only the Nuclear States and their allies that have this ‘understanding’. Treaties cannot be abused in this way. Interestingly no Reservation or Understanding seems to be included in the 1995 Act that directly incorporates these Protocols into UK law. If you look at para.85 and 86 of the ICJ Advisory Opinion you can see it states that “there can be no doubt as to the applicability of humanitarian law to nuclear weapons”.

40. Commentary of the International Committee of the Red Cross, 1987, para.1863.

If you take into account the blast, heat and radioactive effects of the detonation of a 100 kiloton nuclear warhead, especially in view of the fact that radioactive effects cannot be contained in either space or time, the use of even a single British Trident warhead in *any* circumstance, whether a first or second use and whether targeted against civilian populations or military objectives, would inevitably violate the prohibitions on the infliction of unnecessary suffering and indiscriminate harm as well as the rule of proportionality including with respect to the environment. Further, since the UK deploys its nuclear forces in a state of readiness for use pursuant to a declared policy contemplating use of nuclear weapons in a variety of circumstances, including first use, the deployment of Trident warheads is a threat in violation of humanitarian and other international law.

There is extensive literature on the intransgressible rules of humanitarian law, nuclear weapons and the ICJ Advisory Opinion. I am presenting only a summary here. But I would like to bring to your attention a useful recent paper prepared in 1999 by the International Committee of the Red Cross which clearly equates “the use of indiscriminate weapons with a deliberate attack upon civilians”.⁴¹

The *categorical* nature of the principle protecting civilians was recently affirmed by the Trial Chamber of the International Criminal Tribunal for the Former Yugoslavia in a decision reconfirming Milan Martić’s indictment for ordering rocket attacks on Zagreb which killed and wounded civilians. Applying humanitarian law including Article 1 common to all Geneva Conventions, which sets forth minimum standards of customary international law, the Trial Chamber stated that,

“no circumstances would legitimise an attack against civilians even if it were a response proportionate to a similar violation perpetrated by the other party”.⁴²

Many citizens and organisations have asked for examples of what the Government would consider to be a *lawful* use of its Trident nuclear weapons. They have never been given a straight answer. This is not surprising since, simply put, each Trident warhead is a potential holocaust. Instead, the government states that:

“Maintaining a degree of uncertainty about our precise capabilities is a key element of a credible minimum deterrent. It is precisely to retain this degree of uncertainty and so sustain our minimum deterrent that secrecy must be maintained in this area.”⁴³

41. Preparatory Commission for the International Criminal Court, PCNICC/1999/WGEC/INF2/Add.1(30 July 1999) p14.

42. Prosecutor v. Milan Martić (Rule 61 Decision), Case No. IT-95-11-1 (8 March 1996), para.15.

43. Letter of 3rd July 2000 from Alan Hughes, Directorate of Nuclear Policy, MoD, to Angie Zelter, para.4.

But hiding behind this veil of secrecy allows the fudging and crooked thinking to continue.

The fact remains that Trident nuclear weapons are being used to frighten and intimidate and to threaten mass destruction. This is unlawful. There *might* conceivably be some uses of a *one*-kiloton nuclear warhead targeted on military forces in the middle of an ocean, or at a tank in the middle of a desert, which *might* be lawful, but conventional weapons would suffice for such objectives without carrying the unconscionable risk of nuclear escalation. This is because according to the ICJ's Advisory Opinion, the use and threat of nuclear weapons are illegal, save possibly in an extreme circumstance of self-defence in which the very survival of a State is at stake; in other words, where the State is facing annihilation. Unless such *in extremis* circumstances exist, the use and threat of nuclear weapons are illegal.

Besides which, this is *not* what Trident is configured to do. If one looks at the warheads currently deployed on British Trident submarines then you can see that the United Kingdom has not reduced all its warheads to one kiloton or below, nor has it separated itself from joint NATO and US plans and strategies and their integrated targeting structures. Moreover, most, if not all, targets envisaged by the Ministry of Defence are in the vicinity of towns and cities with civilian populations. Any targeting of these places with the warheads currently deployed on Trident would lead to large-scale loss of *civilian* life in violation of humanitarian law.

Moreover, present United Kingdom policy statements show that the United Kingdom does not limit its use of nuclear threats to "extreme circumstances of self-defence". The government clearly recognises that the United Kingdom is not in danger of a threat to its "very survival".

The Strategic Defence Review conducted by the government states,

"The end of the Cold War has transformed our security environment. The world does not live in the Shadow of World War. There is no longer a direct threat to Western Europe or the United Kingdom as we used to know it, and we face no significant military threat to any of our Overseas Territories".⁴⁴

Given that the survival of the United Kingdom is not presently in question, the current *deployment* of Trident nuclear submarines is an unlawful threat even if the government vouches that there is only one nuclear warhead of below one kiloton deployed, let alone the 144 warheads of up to 120 kilotons each that could be deployed.

Moreover, in a recent letter of 28/9/00 that I received on behalf of Trident Ploughshares from Stephen Willmer, the Ministry of Defence stated that the UK,

"will not use nuclear weapons [against non-nuclear-weapon States party to the NPT] ... except in the case of

One probable target of the British Trident system is Yulyamy, a town in Northern Russia, close to the border with Norway. It has a population of over 28,000 and it is close to several Russian Navy shipyards which are used to repair nuclear powered submarines. A Trident warhead exploding in the air above the shipyard would create a fireball 870 metres across. The town would be completely flattened. Around 90% of the population would be killed by a combination of radiation, extreme heat and collapsing buildings. The death toll would probably include around 7000 children. The explosion would destroy schools, hospitals and churches - as at Hiroshima and Nagasaki. The few survivors would all be seriously injured. Even 4.5 kms from the explosion, anyone in the open would suffer from third degree burns. There would be extensive blast damage and hundreds of casualties in the town of Severomorsk, 10 km away. All this is to say nothing of the extensive secondary radiation which would effect the inhabitants of Norway. On any interpretation of international law it is perplexing to see how this could be legal.

John Ainslie, Scottish CND

[an] ... attack on ... its armed forces, its Allies, or on a State towards which it has a security commitment".⁴⁵

This is hardly consistent with the ICJ, at para.105 2E, which states that there is only one situation when the use of nuclear weapons *might* be conceivable, and that is "in an extreme circumstance of self-defence, in which the very survival of a State would be at stake".

Defence of Vital Interests

It is clear that the United Kingdom's nuclear weapon deployment and policy are not purely concerned with self-defence or even with retaliation against a nuclear attack from another NWS, but are also "to defend our vital interests to the utmost" as expressed in the Rifkind Doctrine.⁴⁶

The Strategic Defence Review specifically sees military power as "a coercive instrument to support political objectives"⁴⁷ which the rest of the report explicitly identifies as economic and oil-related.⁴⁸ The government says in the Review that Trident must perform a "sub-strategic role" stating that the,

"credibility of deterrence also depends on retaining an option for a limited strike that would not automatically lead to a full-scale nuclear exchange".⁴⁹

45. Letter of 28/9/00 from Stephen Willmer, Proliferation and Arms Control Secretariat of the Ministry of Defence, to Angie Zelter, p.1, para.3 and p.2, para.2.

46. "UK Defence Strategy: A Continuing Role for Nuclear Weapons?", Malcolm Rifkind, Speech, London, November 1993. Para.31.

47. UK Strategic Defence Review, Ch.5.87, July 1998.

48. Ibid, Ch.2.19 & 2.40, July 1998.

49. Ibid, Ch.4.63, July 1998.

44. UK Strategic Defence Review, Ch.2, para.23, July 1998.

There has been a great deal of confusion and a certain amount of scepticism about what Trident's sub-strategic role might look like in practice. The Secretary of State for Defence for the previous Conservative Government, Malcolm Rifkind, referred to a "warning shot" or "shot across the bows". More recently, British officials have described a sub-strategic strike as,

"the limited and highly selective use of nuclear weapons in a manner that fell demonstrably short of a strategic strike, but with a sufficient level of violence to convince an aggressor who had already miscalculated our resolve and attacked us that he should halt his aggression and withdraw or face the prospect of a devastating strategic strike".⁵⁰

For a sub-strategic role there has been speculation that some of the 100 kiloton MIRVed warheads would be replaced with single 1 kiloton or 5 or even 10 kiloton warheads⁵¹ or that commanders could choose to detonate only the unboosted primary, resulting in an explosion with a yield of just a few kilotons. There are three core problems with the concept of a warning shot to deter further aggression:

- i) it cannot be used against non-nuclear parties to the NPT without violating Britain's security assurances, most recently enshrined in the UN Security Council Resolution 984 (1995).⁵²
- ii) it is not clear where such a warning shot could be fired so that civilians are not endangered; and
- iii) it is not apparent how, in the uncertain context of a hotting-up conflict, Britain would ensure that the adversary interpreted such a nuclear shot from Trident as a warning rather than a nuclear attack. Since pre-emption requires fast decision-making, it would be likely that a sub-strategic nuclear use would cause nuclear retaliation and possibly all-out nuclear war. British planners tend to duck the questions rather than address the dilemma, leaving the impression that they hope the bridge will never have to be faced, never mind crossed.

As Lord Murray (a former Lord Advocate of Scotland) pointed out, even a one-kiloton bomb,

"would flatten all buildings within 0.5 km with up to 50 per cent fatalities up to 1 km. A prevailing wind could carry fallout as far as 25 km downwind".⁵³

As Professor Paul Rogers agreed, in his testimony at Greenock,

50. The Bulletin of the Atomic Scientists, September/October 2000, p 71.

51. See Professor Paul Rogers' testimony on pages 12 and 30-31 in Transcript i.c. H M Advocate v. Zelter, Roder and Moxley. October 1999.

52. UN Security Council Resolution S/RES/984/(1995), 11th April 1995, 2nd Preambular para, and 1st para.

53. Nuclear Weapons and the Law, Lord Murray, Medicine, Conflict and Survival, Vol.15, 126-137, 1999, p.134.

"the lowest British nuclear bomb ... (is) ... a weapon of mass destruction".⁵⁴

The deployment of nuclear weapons is perceived as an imminent ever-present threat by most States in the world, which in times of crisis is specifically backed up by verbal threats. This view is corroborated by Judge Schwebel when he reports on testimony from Ambassador Ekeus in the Senate Hearings on the Global Proliferation of Weapons of Mass Destruction which shows that Iraq perceived there to be an active threat to use nuclear weapons against it in 1990. In Schwebel's section headed Desert Storm, he starts off,

"The most recent and effective threat of the use of nuclear weapons took place on the eve of Desert Storm"

and he then continues for several pages describing how the threat was communicated.⁵⁵

In the February 1998 Iraq Crisis there was also talk of the possible use of nuclear weapons against Iraq. Any such use would have been unlawful because neither the United Kingdom nor the United States were under threat of obliteration by Iraq. It is worth remembering that the only possible window of legality left undecided by the ICJ was "an extreme circumstance of self-defence, in which its very survival would be at stake".⁵⁶

And yet in the Commons Debate of February 17, 1998, Foreign Secretary Robin Cook said of Saddam Hussein,

"As in 1991, he should be in no doubt that if he were to do so [use chemical weapons against joint British-US air strikes] there would be a proportionate response".⁵⁷

Interviewed on BBC Radio 4 on February 18, 1998, Defence Secretary George Robertson was given an opportunity to deny the nuclear option and he did not do so. All these were signals suggesting that nuclear weapons could be considered. They were also intended to be understood as such.

If you refer to Moxley's book in Chapter 20 you may well find it useful to see the other active crisis threats that have been made over the years by the nuclear power with whom we are so closely linked, namely the US. In it he states,

54. Transcript i.c. H M Advocate v. Zelter, Roder and Moxley. October 1999, p.12.

55. Dissenting Opinion of Vice-President Judge Schwebel, p.9-12. Appended to the Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996.

56. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.97.

57. Hansard, House of Commons Debate, February 17th 1998, 906.

Note. The reason for bringing in the United States so often is because of the interconnected nature of the British and US Trident systems - both hardware and software - systems and policies - see Professor Boyle's testimony on pages 8-10 and 85 -90 in Transcript i.c. H M Advocate v. Zelter, Roder and Moxley. October 1999.



“In addition to the ongoing threat that is inherent in the policy of deterrence, the US explicitly threatened to use nuclear weapons on at least 5 occasions during the Cold War, including in Korea in 1950-3, Suez in 1956, Lebanon in 1958, Cuba in 1962, the Middle East in 1973 and after the Cold War, in Iraq during the Gulf War”.⁵⁸

He goes on to say that Desmond Ball, Head of the Strategic and Defence Studies Centre in Australia reported there had been some twenty occasions during which,

“responsible officials of the United States government formally considered the use of nuclear weapons”.⁵⁹

The whole purpose of nuclear deterrence is to create uncertainty about intentions. This means that the British Government has to persuade its ‘enemies’ that it might be willing to break international law without actually saying it this clearly. For instance the 1991 NATO Strategic Concept Document asserts that nuclear weapons are essential and permanent because they,

“make a unique contribution in rendering the risks of any aggression incalculable and unacceptable”.⁶⁰

If the effect of a nuclear weapon is incalculable and unacceptable then it also follows that it is unlawful. Nuclear weapons are useful only in so far as they can be used to make threats that are themselves in breach of international law. Nuclear deterrence may be official British policy but that does not make it lawful.

To stress again the words used in the ICJ, at para.105 2E, given that nuclear weapons are *generally* illegal there is only one situation when the use of nuclear weapons *might* be conceivable, and that is “in an extreme circumstance of self-defence, in which the very survival of a State would be at stake”.

58. Charles.J.Moxley, Nuclear Weapons and International Law in the Post Cold War World, Austin and Winfield, 2000, p515.

59. Ibid, p517.

60. 1991 NATO Strategic Concept Document, Article 38.

That does *not* include protecting cheap oil supplies overseas or ensuring the survival of its troops in a foreign land.

War Crimes

Any individual who ordered the use of the United Kingdom’s nuclear weapons which are currently deployed on Trident submarines would have committed a war crime as determined by the International Criminal Court Statute. This Statute sets forth offences under which individuals would be prosecuted once that court is in operation. Its substantive provisions were explicitly negotiated on the basis that they would reflect the present state of law binding on all States. While the Statute is not yet in effect, as the required number of States (60) has not yet ratified the instrument (the UK are preparing to ratify it in this new Parliamentary session), the Statute nonetheless stands as a consensus-based statement of presently binding law defining war crimes.⁶¹

Article 8 (2) (b) parts (iv) and (v) of the International Criminal Court Statute state,

“War crimes means ... serious violations of the laws and customs applicable in international armed conflict, within *the established framework of international law*, namely, any of the following acts; ... (iv) Intentional launching an attack in the knowledge that such an attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long term and severe damage to the natural environment which would clearly be excessive in relation to the concrete and direct overall military advantage anticipated, (v) Attacking or bombarding, by whatever means, towns, villages, dwellings or buildings which are undefended and which are not military objectives.”⁶²

Article 25 of the Rome Statute contemplates criminal responsibility not only in the case of those who personally commit offences, but also in the case of those who order them.⁶³ Article 28 has far-reaching provisions on the responsibility of commanders and

61. Note. The New Zealand Government in its Instrument of Ratification made the following interpretative declaration:- “The Government of New Zealand notes that the majority of the war crimes specified in article 8 of the Rome Statute ... make no reference to the type of the weapons employed to commit the particular crime. The Government of New Zealand recalls that the fundamental principle that underpins international humanitarian law is to mitigate and circumscribe the cruelty of war for humanitarian reasons and that, rather than being limited to weaponry of an earlier time, this branch of law has evolved, and continues to evolve, to meet contemporary circumstances. Accordingly it is the view of the Government of New Zealand that it would be inconsistent with principles of international law to purport to limit the scope of article 8, in particular article 8(2)(b), to events that involve conventional weapons only”.

62. UN Doc. No.A/CONF.183/9 Rome Statute of the International Criminal Court, Article 8.

63. UN Doc. No.A/CONF.183/9 Rome Statute of the International Criminal Court, Article 28.

other superiors who may be liable in some situations for not giving appropriate orders.

In relation to this responsibility it is important to note that the British government have always refused to answer our question of how the crew of Trident can take personal responsibility for their actions when their targets are coded and they do not know where their nuclear warheads will explode? The Law of Armed Conflict states,

“Military personnel are required to obey lawful commands. There is no defence of ‘superior orders’. If a soldier carries out an illegal order, both he and the person giving that order are responsible”.

The Nuremberg principle is binding. If Trident crews do not know what the targets of their weapons are, how can they know if they are legal targets or not? Trident crews fire blind. This is a criminal procedure.⁶⁴

The 100 kiloton warheads on Trident are each *eight* times more powerful than the bomb used against Hiroshima.

Hiroshima bomb had killed approximately 140 to 150 thousand people, including thousands of innocent children, by the end of 1945, and devastated an entire city, destroying 18 major hospitals, 14 high-schools, colleges, and a university, many historic and deeply revered Shinto shrines, 13 Christian churches, 4 major factories - *a whole city*.⁶⁵ Moreover, when I was in Hiroshima this March I met survivors of that bomb who told me of the continuing suffering and took me to the Museum. One of the books I was given there states,

“The damage caused by the A-bomb failed to heal normally with the passage of time. Over the years and decades, the horrors of radiation grew more conspicuous. Research into radiation effects, strictly suppressed during the occupation (by the US) proceeded rapidly when Japan was once again independent. This research gradually brought radiation after-effects and the plight of the survivors into the open.”⁶⁶

That destruction in Hiroshima was ruled a war crime in the Shimoda Case. It says that the,

64. Ministry of Defence, UK. Crown, 1981. The Law of Armed Conflict, p 38, Section 10, Service Discipline: 1.rt, Article 25(3.b).

65. A-Bomb: A City tells its Story, Yoshiteru Kosakai, 1972, p.8,47,48 (30a) and Hibakusha, Nihon Hidankyo, 1982, p.9 (30b).

66. The Outline of Atomic Bomb Damage in Hiroshima, Hiroshima Peace Memorial Museum, June 1999, p.20 & 25.

“act of dropping such a cruel bomb is contrary to the fundamental principles of the laws of war that unnecessary pain not be given”.⁶⁷

According to the ICJ, at para.105 2D, which was adopted unanimously, a threat or use of nuclear weapons must “be compatible with the requirements of the international law applicable in armed conflict”. It also states that,

“States must never make civilians the object of attack and must consequently never use weapons that are incapable of distinguishing between civilian and military targets ... States do not have unlimited freedom of choice of means in the weapons they use”.⁶⁸

The threat to target civilians with nuclear weapons, whether as an unprovoked attack or as a reprisal, is therefore unlawful. In the oral statement that the United Kingdom gave to the ICJ on November 15, 1995, Sir Nicholas Lyell admitted that,

“... even a military target must not be attacked if to do so would cause collateral civilian casualties or damage to civilian property which is excessive in relation to the concrete and direct military advantage anticipated from the attack”.⁶⁹

However, as the ICJ points out,

“By its very nature ... nuclear weapons as they exist today, release(s) not only immense quantities of heat and energy, but also powerful and prolonged radiation ... These characteristics render

the nuclear weapon potentially catastrophic. The destructive power of nuclear weapons cannot be contained in either space or time. They have the potential to destroy all civilisation and the entire ecosystems of the planet.”⁷⁰

This general statement about nuclear weapons is equally true when applied to British nuclear weapons in particular.

Faslane in Scotland is the primary base used by the United Kingdom’s four nuclear-armed Trident submarines. There is *at least* one Trident submarine on 24-hour patrol at all times. Each Trident submarine has 48 warheads of 100 to 120 kilotons

67. Ryuichi Shimoda *et al* vs. The State, Tokyo, December 1963, pp234-242.

68. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.78.

69. Nicholas Lyell’s November 15th 1995 Oral Statement, CR 95/34, p.46 & 47. Appended to the Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, p.47.

70. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.35.



each. A 100 kiloton warhead is too powerful to distinguish between civilian and military targets and its long lasting effects cannot be contained within space or time and therefore violates international law.

“Today the scale of Britain’s nuclear capability and the way it is deployed suggest that it remains oriented principally against Russia. An attack using the warheads on one submarine against likely targets in the Moscow area would result in over 3 million deaths”

and,

“there would also be massive nuclear fallout over urban areas. Thousands of people would die over a 4 to 12 week period from this fallout”.⁷¹

Other potential targets are Russian Northern Fleet submarine bases. In the United Kingdom there are towns and villages close to every key submarine facility as is the case with Faslane, which is near the civilian population in Glasgow. There are also civilian populations close to Russian bases near Murmansk. Trident warheads exploding above these bases would cause devastation over a wide area and in each case would result in thousands of civilian casualties in urban areas. The areas affected would also be dangerous to rescue and medical staff and civilians who would want to use the area in future.

When I asked Professor Paul Rogers to use the actual specifications of the UK Trident Force along with UK targeting policies and to model this against Britain itself in order to more easily understand the effects of the Trident system, he produced a paper stating that,

“The main targets would be the Trident base at Faslane and the nuclear armaments site at Coulport, both close to Glasgow. Supporting facilities at bases including Rosyth (near Edinburgh) and Devonport (near Plymouth) would also be attacked”

as would Fairford, Fylingdales, Aldermaston, and civil airports with long runways at

“Heathrow, Stanstead, Gatwick, Birmingham, Manchester, Glasgow, Prestwick, and Edinburgh”.

“Major military command centres would include Northwood ... High Wycombe ... Dunfermline ... Defence Intelligence Staff in Central London...”

and energy resources,

“such as Grangemouth, Teeside, Stanlow/Ellesmere Port”⁷² etc.

He concludes that many of the targets are necessarily close to population centres and that the casualty figures would be measured in “many millions”.

In Part 10.2, there is a map of Manchester with one of its many military targets in the centre. This has been

overlaid with the damage which would be caused if one of Trident’s warheads was exploded at 1,100 kiloton above the target. It makes grim viewing and brings home to us all how integrated the military have become in many cities and towns around the UK.⁷³

The upshot of it all is that any Trident sized nuclear warhead, even if targeted accurately, at any of these ‘military objectives’ would cause millions of civilian deaths. I am sure that we would all agree that such use of such nuclear weapons against Britain would be a war crime even if our leaders were invading another State and that State thought they were fighting for their very existence, in self-defence. And if such use would be a war crime if done against Britain then to be consistent it would also be a war crime if perpetrated against any other country in the world.

Preparations for War Crimes

The preparation for war crimes is itself a war crime, as made most explicit in the International Criminal Court Statute.

“In accordance with this Statute, a person shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the Court if that person: ... (c) For the purpose of facilitating the commission of such a crime, aids, abets or otherwise assists in its commission or its attempted commission, *including providing the means for its commission*.”⁷⁴

This is a culmination of various precedents such as the last paragraph of Article 6 of the Charter of the International Military Tribunal at Nuremberg on,

“instigators and accomplices participating in the formulation ... of a common plan or conspiracy”.⁷⁵

The Prime Minister and other officers of the state are engaged in the planning and preparation for use of nuclear weapons, in that they are actively deploying nuclear weapons, of such a size that they could never be used lawfully. These are activities that incur individual criminal responsibility in international law. Any use of current British nuclear weapons would be manifestly unlawful and thus policy makers, state employees, researchers and technicians are engaged in the planning and preparation of gross violations of humanitarian law, itself a crime under international law.

Nuclear Policy

Just as the use of British nuclear weapons would be illegal and criminal so is the *threat to use* them,

73. Note: Scottish CND can be contacted to make up a map detailing the effects of a nuclear bomb on a military target near wherever someone may have a trial. This can have quite an impact on the jury, and quite literally ‘brings it home’ to them.

74. UN Doc. No.A/CONF.183/9 Rome Statute of the International Criminal Court, Article 25 (3c).

75. Charter of International Military Tribunal at Nuremberg, Articles 6.

71. Greenock Production - 5 - “Trident, Britain’s Weapon of Mass Destruction”, John Ainslie, March 1999, p.1.

72. The Use of Trident in War, Professor Paul Rogers, September 2000, p2.

which is what Trident deployment and the British Government's reliance on nuclear deterrence is all about. And this is not just a belief of mine, but a fact. If we look at the statement given to the International Court of Justice by Japanese lawyers in 1995 it states,

"The world's citizens are in actuality being threatened at this very moment... Since Hiroshima and Nagasaki the nuclear powers have always hinted at the possibility that they might use nuclear weapons and have continued saying that it is legal. Nobody on earth can live their lives while putting their trust in this 'humanity' of the nuclear powers. This is because resigning oneself to a condition of servility, in which one's very existence as a human being is controlled by the intentions of a handful of nuclear-armed states, goes against the nature of human being, and jeopardises our supreme and inalienable right to life, which is universally affirmed in the Universal Declaration of Human Rights and the International Covenant on Human Rights. This state of nuclear servitude also jeopardises our enjoyment of other human rights and basic freedoms, and therefore means that 'human dignity' is violated."⁷⁶

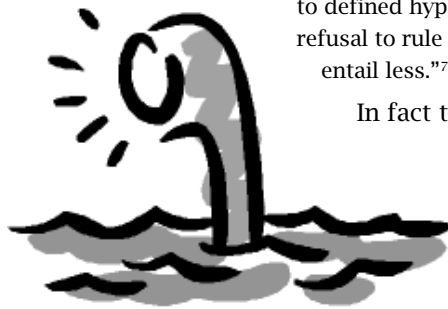
The ICJ argues that a credible deterrent is a threat. I quote,

"Possession of nuclear weapons may indeed justify an inference of preparedness to use them. In order to be effective, the policy of deterrence ... necessitates that the intention to use nuclear weapons be credible. Whether this is a 'threat' contrary to Article 2, paragraph 4, [of the UN Charter] depends upon whether the particular use of force ... would necessarily violate the principles of necessity and proportionality. In any of these circumstances the use of force, and the threat to use it would be unlawful under the law of the Charter."⁷⁷

Even US Judge Schwebel explains that states have threatened to use their nuclear weapons,

"by the hard facts and inexorable implications of the possession and deployment of nuclear weapons; by a posture of readiness to launch nuclear weapons 365 days a year, 24 hours of every day; by the military plans, strategic and tactical, developed and sometimes publicly revealed by them; and, in a very few international crises, by threatening the use of nuclear weapons. *In the very doctrine and practice of deterrence, the threat of the possible use of nuclear weapons inheres.*"

And on page 3 he re-iterates the point,



"If a threat of possible use did not inhere in deterrence, deterrence would not deter".⁷⁸

U.K. government policy is that Britain has a "credible nuclear deterrent". This means far more than possession. A credible deterrent requires that the other side is convinced that the weapons would be used. So to have a credible deterrent means that preparations have been made to use the weapons and there is an intention to use them in some circumstances. One strand of strategic thinking is that there can be "existential deterrence". This approach says that the possession of nuclear arms is in itself sufficient to constitute a deterrent. Existential deterrence is not currently practised by any of the main nuclear weapons states.

The former Permanent Under Secretary at the MoD, Michael Quinlan, has dismissed this approach. He said of existential deterrence,

"We cannot however infer from this that our own armoury will be durably effective in contributing to deterrence, especially in times of pressure when it is most needed, if there are no realistic concepts for its use or if we have a settled resolve never to use it. ... Deterrence and use in logic can be distinguished, but not wholly disconnected. We cannot say that nuclear weapons are for deterrence and never for use, however remote we judge the latter possibility to be. Weapons deter by the possibility of their use, and by no other route; the distinction sometimes attempted between deterrent capabilities and war-fighting capabilities has in a strict sense no meaningful basis ... The concept of deterrence accordingly cannot exist solely in the present - it inevitably contains a reference forward to future action, however contingent. The reference need not entail automaticity, or even a firm intention linked to defined hypotheses; it need entail no more than a refusal to rule out all possibility of use; but it cannot entail less."⁷⁹

In fact the UK goes much further than this. According to one of the more detailed assessments of the range of options for sub-strategic Trident warheads, David Miller, for the International Defence Review in 1994, outlined four different uses, in the third one of which he says,

"they could be used in a demonstrative role: i.e. aimed at a non-critical uninhabited area, with the message that if the country concerned continued on its present course of action, nuclear weapons would be aimed at a high-priority target".⁸⁰

76. Non Governmental Statement to be Submitted to the International Court of Justice, May 3 1995, Japan Centre of World Court Project, p.25.

77. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.48.

78. Dissenting Opinion of Vice-President Judge Schwebel, p.1, 12. Appended to the Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996.

79. Thinking about Nuclear Weapons, Michael Quinlan, MoD, RUSI Whitehall Paper Series 1997, p.14-15.

80. Britain Ponders Single Warhead Option, International Defence Review (September, 1994), David Miller, p.50.

This is backed up by a recent letter of 28/9/2000 received from the Ministry of Defence which talks of sending a “signal” and which also leaves open the possibility of firing “all the nuclear weapons at its disposal”.⁸¹ However, even a limited warning shot would not be lawful because its ‘purpose’ would be to warn that much worse will come and that worse would be a high-yield bomb that would be indisputably illegal and therefore the warning shot itself would be an illegal threat. I come back once more to the simple underlying purpose of the British nuclear deterrent – to threaten awful destruction. It is that awful destruction, that crime, that we three women were trying to prevent by our action.

The Advisory Opinion makes it clear that it is illegal to threaten to do an act if the act itself is illegal,

“If the envisaged use of force is itself unlawful, the stated readiness to use it would be a threat prohibited under Article 2, paragraph 4 [of the UN Charter]”.⁸²

The United Kingdom possesses nuclear weapons, of a size that cannot be used discriminately, which are constantly deployed on submarines, ready to be used, and has made statements of conditional willingness to use them in British policy documents. This “stated readiness to use” its nuclear weapons is exactly the kind of threat that is prohibited under Article 2(4) of the UN Charter.

British nuclear warheads of 100 kilotons could never be used in conformity with the principles of necessity and proportionality and the requirements of international law. Therefore continuous active deployment combined with a stated readiness to use them constitutes an illegal threat to use nuclear weapons and as such is illegal.

Refusal to Negotiate under Article VI of the NPT

The ICJ appreciated,

“the full importance of the recognition by Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons of an obligation to negotiate in good faith a nuclear disarmament”.⁸³

It ruled unanimously,

“There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control”. At para. 99 it stated, “The legal import of that obligation goes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result nuclear disarmament in all its aspects by adopting a particular

course of conduct, namely, the pursuit of negotiations on the matter in good faith”.⁸⁴

The United Kingdom has made clear it has no *immediate* intention of eliminating its Trident system. The Strategic Defence Review specifies plans for upgrading Trident in the medium term and keeping options open for a replacement in the long term. Recent press revelations and a report by Alan Simpson MP present evidence of the new refurbishment programme at the Atomic Weapons Establishment at Aldermaston costing one hundred and fifty million pounds sterling and of a linkage with the US ‘son of Trident’ programme to upgrade nuclear warheads. There is also proof of increased scientific collaboration between the United Kingdom, France and the US. Simpson’s report concludes,



“there is strong evidence that Britain is currently involved in the development of prototype designs to replace the current Trident nuclear warhead”.⁸⁵

Nor has the United Kingdom been working in good faith within the UN for nuclear disarmament resolutions. For instance, in 1998 the United Kingdom voted against the resolution, “Towards a Nuclear Weapon-Free World: The Need for a New Agenda”. Ian Soutar, the British ambassador to the UN, said that the resolution contained measures that were “inconsistent with the maintenance of a credible minimum deterrent”.⁸⁶ The United Kingdom also voted, for the third consecutive year, against the 1999 UN Resolution on “Follow-up to the ICJ Advisory opinion”.⁸⁷

The United Kingdom’s refusal to stop deploying Trident and to start its practical disarmament of Trident flouts Article VI of the NPT as interpreted by the ICJ in paras.99 and 105(2F) of the Advisory Opinion. The continuing development of new nuclear weapons is also a breach of Article VI and constitutes a violation of international law. At the recent Review Conference of the NPT in New York in May this year, although the United Kingdom joined in the consensus “unequivocal undertaking by the nuclear

81. Letter of 28/9/00 from Stephen Willmer, Proliferation and Arms Control Secretariat of the Ministry of Defence, to Angie Zelter.

82. Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, General List No. 95, July 8th 1996, para.47.

83. Ibid, para 99.

84. Ibid, para 105 (2F).

85. “The Next Chevaline Scandal?” Alan Simpson MP and CND, August 11th 1999, p.1 & 17.

86. UNGA 53, First Committee, UK Explanation of Vote, L48/Rev 1: Towards a Nuclear-Weapon-Free World: The Need for a New Agenda, 13 November, 1998.

87. UN Resolution A/RES/54/54Q on ‘Follow-Up to the Advisory Opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons’.

weapon states to accomplish the total elimination of their nuclear arsenals,”⁸⁸ nevertheless they have not done anything practical to put this into effect. The original NPT promises by the nuclear weapons states were not fulfilled. We must look at the facts on the ground. The United Kingdom continues to fund research into new nuclear weapon systems, continues to deploy armed nuclear missiles and continues to state that it relies upon nuclear deterrence. In this context it is not surprising that ordinary citizens have felt the necessity to try to begin the disarmament themselves.

Conclusion

The Government has frequently been asked but has never explained to the ICJ or to the British public how it could possibly use its nuclear weapons legally. It has not even been able to outline *one* hypothetical example. The government has, in fact, been very careful to say that it could never foresee the precise circumstances and could therefore not determine the legality until the time came to use them. It is hard to see how, with no criteria apparently available to use as guidance, any responsible Commander could make a decision to unleash Trident missiles within the probable fifteen minutes time frame that would be available in a particular instance. It is clear that the British Government has to date been unable and unwilling to open itself to independent legal scrutiny.

The form of words the government usually uses is:

“the legality or otherwise of any specific use of any nuclear weapons ... can only be determined in the light of all the circumstances applying at the time such use is being considered. It is impossible to anticipate in advance with any confidence the exact circumstances which might arise, and to speculate on particular hypothetical cases would serve no purpose”.⁸⁹

It is absurd to think that, if no such legal scrutiny and exercises had taken place before, any thorough legal scrutiny of an

actual use of nuclear weapons could take place in the heat of a war of self-



88. Final Document Issued By 2000 NPT Review Conference, May 20th 2000, p.19.

89. Letter to Angie Zelter from Hazel Finch, Ministry of Defence, October 23rd 1997.

defence in which the very survival of the United Kingdom might be at stake. According to the ICJ this is the only possible circumstance in which the use of nuclear weapons might conceivably be used. The fact that the British Government cannot identify a single hypothetical case that could be presented into the public domain for independent legal scrutiny suggests there are none.

“The Martens clause reminds us that the dictates of public conscience are a creative source of international humanitarian law, as the existence of the International Red Cross bears witness. Each of us is a keeper of the public conscience. We can, if so minded, help to build the future development of international humanitarian law on the foundation of the ICJ advisory opinion so as to promote the rule of law among nations. If governments too could be persuaded to join in this endeavour the rule of international law would be a realistic prospect for the coming millennium.”

Lord Murray, 1998

6.8 Multicultural and Religious Background to Issues of Peace, War and Humanitarian Laws

Humanitarian laws of war are not a recent invention, nor the product of any one culture or religion. The concept is of ancient origin, with a lineage stretching back at least three millennia. It is deep-rooted in many cultures - Hindu, Buddhist, Chinese, Christian, Islamic and traditional African. These cultures have all given expression to a variety of limitations on the extent to which any means can be used for the purposes of fighting one's enemy.

Hinduism

Of special relevance in connection with nuclear weapons is the ancient **South Asian tradition** regarding the prohibition on the use of hyper-destructive weapons. This is referred to in the two celebrated Indian epics, the Ramayana and the Mahabharata, which are known and regularly re-enacted through the length and breadth of South and South East Asia, as part of the living cultural tradition of the region. The references in these two epics are as specific as can be on this principle, and they relate to a historical period around three thousand years ago.

The Ramayana tells the epic story of a war between Rama, prince of Ayodhya in India, and Ravana, ruler of Sri Lanka. In the course of this epic struggle, a weapon of war became available to Rama's half-brother, Lakshmana, which could “*destroy the entire race of the enemy, including those who could not bear arms*”. Rama advised Lakshmana that the weapon could not be used in the war “*because such destruction en masse was forbidden by the ancient*

laws of war, even though Ravana was fighting an unjust war with an unrighteous objective”.

These laws of war which Rama followed were themselves ancient in his time. The laws of Manu forbade stratagems of deceit, all attacks on unarmed adversaries and non-combatants, irrespective of whether the war being fought was a just war or not. The Greek historian Megasthenes makes reference to the practice in India that warring armies left farmers tilling the land unmolested, even though the battle raged close to them. He likewise records that the land of the enemy was not destroyed with fire nor his trees cut down.

The Mahabharatha relates the story of an epic struggle between the Kauravas and the Pandavas. It refers likewise to the principle forbidding hyper-destructive weapons when it records that: *“Arjuna, observing the laws of war, refrained from using the ‘pasupathastra’, a hyper-destructive weapon, because when the fight was restricted to ordinary conventional weapons, the use of extraordinary or unconventional types was not even moral, let alone in conformity with religion or the recognised laws of warfare.”*

Weapons causing unnecessary suffering were also banned by the Laws of Manu as, for example, arrows with hooked spikes which, after entering the body would be difficult to take out, or arrows with heated or poisoned tips.

The Hindu doctrine of ahimsa promotes the avoidance of physical or mental harm to other creatures. *“O Goddess Earth, the consort of Vishnu, you whose garments are the oceans and whose ornaments are the hills and the mountain ranges, please forgive me as I walk on you this day.” - Manu.*

Judaism

The environmental wisdom of **ancient Judaic tradition** is also reflected in the following passage from Deuteronomy (20:19): *“When you are trying to capture a city, do not cut down its fruit trees, even though the siege lasts a long time. Eat the fruit but do not destroy the trees. The trees are not your enemies.”*

The Torah speaks of the stewardship role of humankind in relation to the planet: *“to work in and to look after it” - Genesis 2:15.*

“The world stands on three things, on justice, on truth and on peace” - Ethics of the Fathers. “The Torah was given to establish peace.” - Midrash.

African Cultures

Recent studies of warfare among **African peoples** likewise reveal the existence of humanitarian traditions during armed conflicts, with moderation and clemency shown to enemies. For example, in some cases of traditional African warfare, there were rules forbidding the use of particular weapons and certain areas had highly developed systems of etiquette, conventions, and rules, both before

hostilities commenced, during hostilities, and after the cessation of hostilities - including a system of compensation.

War and the Christian Tradition

“But I say to you: Love your enemies; do good to them that hate you; and pray for them that persecute and calumniate you; That thou may be the children of your Father who is in heaven, who maketh his sun to rise upon the good and the bad, and raineth upon the just and unjust” - Matth. 5:44-45.

For the first three centuries Christians took these words of Jesus at their obvious literal meaning, and almost universally refused to serve in the Roman army. They believed that Jesus’ message of human liberation and salvation was incompatible with military service. Killing could not be squared with the primary Christian law of love. *“We who used to kill one another, do not make war on our enemies”* writes Justin Martyr. The theologian Tertullian tells us *“The Lord, in disarming Peter, ungirded every soldier”*. Likewise Origen says: *“We Christians do not bear arms against any country; we do not make war anymore. We have become children of peace, and Jesus is our leader.”*

Many Christians who refused military service were executed. *“My service is to my God. I cannot be a soldier for this world”*, said the martyr Maximilian shortly before he was executed.

Christian pacifism prevailed until the Emperor Constantine ended the prohibition against Christianity and made it a permissible religion, by the Edict of Milan in 313. Under Theodosius the Great (346-395) Christianity became the official religion of the Roman Empire.

Because the state was now nominally Christian, many began to argue that they had a duty to defend this Christian empire against attacks from the barbarian tribes that threatened it. St Augustine of Hippo was the first Christian theologian to put into a coherent logical form a Christian rationale for war. He tried to help a young Roman officer, newly arrived in Africa, with some advice on peace and war. The officer, Boniface by name, had the task of keeping the Saharan tribes out of Christian North Africa. Augustine provided him with some practical advice on waging war (Letter 189). War should be waged only when it is necessary to peace, and then with the minimum necessary violence; truth should be observed even towards the enemy; mercy towards the vanquished precludes the use of the death penalty. *“Love does not exclude wars of mercy waged by the good”* he wrote.

The efforts of St Augustine and others to reconcile the cause of justice with the restraints of the Gospel came to dominate the mainstream of Christian theology as the Just War theory.

The barbarians finally did topple the Roman Empire and themselves adopted Christianity. War remained a firm part of their tradition; they substituted for their

old Gods of war the Christian saints; George killing the dragon, Michael driving Satan from Heaven, Peter with the sword and so on.

St Thomas Aquinas, the greatest of the mediaeval theologians, draws together in a single article in his monumental *Summa Theologica*, the main points of Augustine's teaching on the

Just War. 1) It must be waged by a legitimate authority: 2) There must be a just cause: 3) There must be a right intention, ie. to promote good and avoid evil. These questions deal with having

just cause to go to war in the first place - *ius ad bellum*. As regards the conduct of soldiers in war - *ius in bello* - we can deduce from what Aquinas says elsewhere that he believed it is never in any circumstances legitimate deliberately to kill an innocent person.

Besides pacifism and the idea of the Just War, the third principal attitude that characterised Christian approaches to organised violence was the no-hold barred attack on God's enemies known as the Crusades. Infidels in the East - Muslims and Jews - were enemies on whom Christians could let loose the full fury of their feelings, because "God wills it", and God - of course - was on our side. The Crusades were a shameful episode in religious history, and no theologian today would defend the idea of a religious war or crusade. It may be observed, however, that much of the rhetoric and underlying psychology - not to say psychosis - of the Cold War was at times strongly reminiscent of the crusading mentality, with widespread denial of Western responsibilities in initiating (Hiroshima/Nagasaki) and fuelling nuclear war plans and the arms race, as well as the extensive dehumanisation of the enemy - 'Godless' Russians fulfilling the role of latter day 'infidel' Muslims.

Two of the most important contributors in the developing doctrine of the Just War were Francisco de Vitoria and Hugo Grotius. These lived at the time of the Reformation and the emergence of the nation states of Europe under absolutist rulers. It was only at such a time that a real international law became necessary and possible. These jurists moved the just war theory from a religious basis to a secular one, founded on natural law and humanitarian principles, such that could be universally applicable. This is the origin of modern international law.

However, at this time we also see the state abrogating to itself the role of judge in its own cause. In the words of the 37th Anglican Article of the Church of England, "it is lawful for Christian men at the command of the magistrate to wear weapons and to serve in the wars". Notice the fatal omission of the word "just". The war is justified because the state declares it. The Christian's duty is defined as simple blind obedience. It is now in effect, a case of "my country right or wrong". This negation of the citizen's inescapable moral duty to decide whether a

war is just or not, has led to the tragic paradox of - for example - Christians fighting against Christians to further the blatantly anti-Christian racist theories of Nazi Germany, just as it led them to fight in wars to impose opium on China, or for colonial land-grabbing in Africa and elsewhere. This denial of individual

responsibility is completely unchristian. State worship is fundamentally pagan.

The Industrial Revolution led to an enormous increase in efficiency in the mechanised killing of human beings. This

development culminates with the blanket bombing of WW 11, and the indiscriminate slaughter of ABC (atomic, biological and chemical) warfare. Under these conditions, the principle of civilian immunity and proportionality - essential aspects of *ius in bello* - are clearly impossible.

If modern warfare is incompatible with the laws of war, there are two possible reactions. One is to abandon the notion of rules of war altogether, and to adopt the idea of total or genocidal war. This was the road taken by Nazi Germany, and is inherent in the threatened use of nuclear weapons. The other solution is to recognise that war is no longer an acceptable way of solving disputes between nations - if it ever was.

The largely indiscriminate nature of modern weaponry has compelled Christians to rethink the whole question of war. Thus, although addressed primarily to Roman Catholics the document *Gaudium et Spes*, issued by the Second Vatican Council, reflects a growing attitude among Christians of all denominations when it call for a "wholly new attitude" - *omnino nova mente* - to war. We see this new attitude powerfully illustrated in the statement issued by the Catholic Bishops of America in June 1998, when they declared that "*nuclear deterrence as a national policy must be condemned as morally abhorrent*".

It must be remembered that the original pacifist position of the early Church never completely disappeared. It lived on in the lives of many individuals - eg. St Francis of Assisi, Dorothy Day, Martin Luther King, etc. - as well as in the life of religious and monastic communities.

The pacifist position was also maintained in the historic peace Churches that have developed over the years; the Waldensians, the Moravian Brethren, the Mennonites and the Quakers etc, as well as by individual pacifists. Though small in number these have had an enormous influence in putting peace back where it should be - at the very heart and centre of Christian life.

Islam

In the **Islamic tradition**, the laws of war forbade the use of poisoned arrows or the application of poison

"How can you say 'our Father' when you are thrusting the sharp steel into the body of your brother?"

Erasmus of Rotterdam.

on weapons such as swords or spears. Unnecessarily cruel ways of killing and mutilation were expressly forbidden. Non-combatants, women and children, monks and places of worship were expressly protected. Crops and livestock were not to be destroyed by anyone holding authority over territory. Prisoners were to be treated mercifully in accordance with such Qur'anic passages as "*Feed for the love of Allah, the indigent, the orphan and the captive*". So well developed was Islamic law in regard to conduct during hostilities that it ordained not merely that prisoners were to be well treated, but that if they made a last will during captivity, the will was to be transmitted to the enemy through some appropriate channel.

Muslims believe that Allah has handed the planet over to humankind to be cherished and protected. "*It is he who has made you custodians, inheritors of the earth.*" - **Surah 6:165**. The strict conditions for the conduct of a justified war, including the last resort principle, that it should not be fought to gain extra territory, that killing should not be indiscriminate or involve innocent people, and that the natural environment should not suffer, all make the use of weapons of mass destruction abhorrent to Islam.

Buddhism

The **Buddhist tradition** went further still, for it was totally pacifist, and would not countenance the taking of life, the infliction of pain, the taking of captives or the appropriation of another's property or territory in any circumstances whatsoever. Since it outlaws war altogether, it could under no circumstances lend its sanction to weapons of destruction - least of all to a weapon such as the nuclear bomb. "*According to Buddhism there is nothing that can be called a 'just war' - which is only a false term coined and put into circulation to justify and excuse hatred, cruelty, violence and massacre. Who decides what is just and unjust? The mighty and the victorious are 'just', and the weak and the defeated are 'unjust'. Our war is always 'just' and your war is always 'unjust'. Buddhism does not accept this position.*"

Buddhism sees love as the ultimate weapon against human problems. The Noble Eightfold Path provides the guidance to overcome negative human emotions including aggression. "*To begin with, of course, we must control the anger and hatred in ourselves, and as we learn to remain in peace, then we can demonstrate in society in a way that makes a real statement for world peace. If we ourselves remain always angry and then sing about world peace, it has little meaning.*" - **HM Dalai Lama**.

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6.7 The Criminality of British Trident

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6.8 Multi-Cultural and Religious Background to Issues of Peace, War and Humanitarian Law

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