but also a very inappropriate one.

The closures have kept hundreds of young offenders in the community. Essex is now saving £750,000 annually from the closures. Yet the new residential care order, asserts Hawker, 'basically ignores all the research about how we should treat and care for juvenile offenders in favour of a straight justice approach - namely, hit 'em hard, take 'em away from home, lock 'em up. I don't agree with any of that.' What about the dangers of offenders left on the loose? 'Essex police,' answers Hawker, 'will be able to say that there has been no significant rise in juvenile crime and indeed there has been a continuing fall, albeit 1 or 2 per cent, for the last five

Home Office research has already firmly indicated that 'the offences committed by children made subject to care orders are in the main extremely trivial.' The offenders were also 'younger and appeared considerably less delinquent than were children committed to approved school prior to 1971.' More than 30 per cent commit more offences within nine months. Children, the evidence repeatedly shows, are sent into care as an early, not a last resort.

THE NETTLE to be grasped after considering much of the recent research is: should we leave them alone? Maurice Hawker replies: 'I would dearly love to be involved in a system which leaves them alone and I passionately believe that is more likely to achieve the very aims that

Mr Public is looking for.'

The experience of Scotland and Northern Ireland is helpful. There are no juvenile courts in Scotland and since the Kilbrandon Report in the '60s juvenile offences have been sifted by a 'reporter' who decides which are suitable to go before the somewhat more informal children's hearings. Seventy-five per cent of first time offenders' cases go no further than the 'reporter' (and these offences may already have been preceded by police cautions), and numbers being sent to detention centre have been significantly reduced.

In Northern Ireland the present government accepted the recommendations of the Black Report on juvenile offenders. Two of the key Black principles were 'diminished responsibility resulting from immaturity' and 'providing room to reform.' It also stressed that most delinquency is of a minor and limited nature and prosecution and conviction should be avoided as far as is compatible with the protection of the public. One concrete recommendation was to run down the number of custodial places to 120. The present government fully endorses the Black Report.

For English and Welsh juvenile offenders, however, the route to fairly rough justice remains the same, caught as they are between magistrates, police, social workers, the law and order lobby and a

pusillanimous Home Secretary.

Rutter and Giller allow themselves to stray briefly from their academic rigour as they conclude their report: 'It would be a foolish politician indeed who was not concerned with the factual evidence on what actions are most likely to be effective. Stand up William Whitelaw.

WEAPONS

## British army prepares for chemical warfare

In the United States, President Reagan is expected soon to authorise a new manufacturing programme for nerve gas bombs and shells for use in Europe and elsewhere. In Britain, soldiers have been secretly trained to handle nerve gas and other chemical weapons for more than ten years. **DUNCAN CAMPBELL** reports.

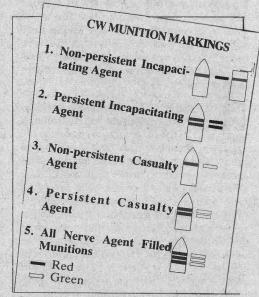
BRITISH SOLDIERS have been learning to handle nerve gas and chemical warfare munitions, even though Britain is popularly supposed not to have any stocks of these weapons. According to Army documents shown to the New Statesman, Britain has stocks of 14 chemical warfare agents which might at some stage be used on the battlefield.

We have seen official army training documents which include instructions on the recognition and handling of chemical warfare shells and bombs. 'It is important', one of these explains, 'that . . . personnel know their own nation's markings [for chemical weapons] . . . two systems shown are the old and new standard (STANAG) signs.' An attached diagram, reproduced here, shows the standard British and NATO codes\* for nerve gas shells and similar weapons. Nerve gas shells are identified by three green rings, anti-riot gasses such as CS by a single red ring. Such markings have been seen on CS munitions in use in Northern Ireland, confirming that the NATO code is in current use.

Official government statements have never denied that Britain possesses chemical warfare stocks, but have stressed instead that we have no 'offensive chemical warfare capability'. Eighteen months ago, Mrs Thatcher explained:

We have no present plans to build up an offensive chemical warfare capability The Soviet Union has a substantial capability, and we have only a defensive capability.

This, and many similar official statements, are ambiguous about whether Britain has any stocks of chemical weaponry which could be used defensively, as a deterrent. An MoD spokesman said this week that Britain didn't have a 'retaliatory capability'. We might be able to fight a chemical war in Europe using American stocks, he claimed, but British troops were not being trained in how to use them. He was 'surprised' to hear about the issue of training implied reference to British nerve gas stocks.



British soldiers are taught to recognise and handle nerve gas and other chemical warfare agents from this recognition chart extracted from a NATO standardisation agreement.

BRITAIN captured large stocks of German World War II nerve gas and other chemical weapons, which are said to have been stored at the former Chemical Defence Establishment at Nancekuke in Cornwall, and then destroyed. During the 1950s, Nancekuke also produced 20 tonnes of 'GB' nerve gas which, it is officially suggested, has been destroyed. During the same period Britain was supplied with US nerve gas, about which no official comment has been made.

The nerve agent GB is only one of a range of exotic chemical warfare agents stocked in the UK, according to other official training documents. The full range includes three nerve gases, two blood poisons, one choking agent, five blister agents similar to the World War I mustard gas, CS and another anti-riot gas, and the hallucinogenic powder known as BZ, which has effects similar to the drug LSD.

The three nerve gases in the UK are GA and GB, both invented in Nazi Germany, and VX, invented by ICI in 1954. The blood poisons are two gases called AC (or Hydrogen Cyanide) and CK (or Cyanogen Chloride). Both kill very rapidly - indeed a hydrogen cyanide spray gun has sometimes been used as a silent assassina-

tion weapon.

The mustard agents, some of which may be very old stocks, are known as HD, HN1, CX, L and HL. None of them is much considered in contemporary debates on the battlefield use of chemical warfare. The remaining deadly gas on the list shown

Based on a NATO Standardisation Agreement, or STANAG, No. 2321, entitled 'NATO code of colours for the identification of ammunition\*.



British 'defensive' CBW preparations include providing these suits, respirators, and detectors to all troops.

to the *New Statesman* is CG, or Phosgene, a colourless gas smelling of new mown hay whose rate of killing is described as 'immediate to 5 hours'.

The well-known CS tear gas is listed, along with DM or Adamsite, which causes its victims to vomit rather than burning the eyes as with CS. Since the list was prepared about 13 years ago, a new anti-riot gas called CR has been added to the arsenal, and has seen occasional use.

This list has continued to be handed out to soldiers in training during the 1970s. The Ministry of Defence admitted this week: 'we've got most of the CW agents at Porton Down — but for testing defensive equipment only.'

THE RECENT ROW over the United States' intention to store nerve gas bombs and shells in Britain has been a timely reminder of the accelerating pace of chemical rearmament. These developments started with the voting of funds to reopen the Pine Bluff, Arkansas, plant in order to manufacture 'binary' GB nerve gas. (Two separate chemicals in the bomb or shell are brought together only when the weapon is used. This binary construction is less efficient than ordinary nerve gas, but safer in transport and storage.)

There are already massive US stocks of chemical weapons – principally nerve and mustard gases – in Germany and elsewhere. These include about three million nerve-gas-filled shells and hundreds of thousands of other devices including aircraft spray tanks. The European part of this stockpile – amounting to some 1,000 tonnes of nerve gas – is believed to be stored at a US army depot at Fischbach, near Pirmasens. Both the British and US governments firmly deny the presence of US chemical weapons in Britain.

Until new arrangements for 'forward basing' of chemical warfare equipment in Britain were publicly suggested, NATO has always been assumed to have access to nerve gas stocks in Germany, or to US stocks which might be transported to Europe in a crisis. A full statement of ar-

rangements for NATO's access to weapons was made in 1976 by General George Brown, during that year's defence appropriations hearings:

Our NATO allies have weapons capable of delivering chemical munitions and develop requirements which are submitted to NATO headquarters on the assumption that the US would provide CW munitions for retaliatory purposes. NATO countries train their troops in the methods of planning, the execution of chemical attacks, and defending against them.

The overall United States stock of chemical warfare agents, which would undoubtedly dwarf whatever stocks Britain has, is about 42,000 tonnes. Estimates of the Soviet stocks vary between 30,000 tonnes, and 700,000 tonnes.

THE BRITISH possession of some chemical warfare agents is a key part of an extensive international effort to develop new biological and chemical weapons — a search that has continued unabated since the end of World War Two. Official statements (like the current policy claim of 'no offensive capability') have been at best disingenuous, and on occasion untruthful.

The principal site of most such research has always been the centre at Porton Down, near Salisbury. According to a 1977 official history of Porton Down, released by the Defence Ministry public relations department: 'In 1957, work on the offensive aspects of chemical warfare was abandoned'. This public claim rests uneasily beside recently declassified US reports of the Chemical Corps (which works closely with Porton Down) and its Canadian equivalent. In January 1960, the Chemical Corps reported on the results of the latest 'Tripartite Conference on Toxicological Warfare' held in September 1958, and noted that everyone present, including the British representatives, had agreed on joint objectives which included that:

(a) research should be continued on organophosphorus compounds (i.e. nerve gases or similar), specifically in areas where there is a possibility of marked enhancement in speed of action and resistance to treatment (our italics); (b) all three countries should concentrate on the search for incapacitating and new type lethal agents . . .

It is also now documented that a worker at the Nancekuke nerve gas factory was injured handling nerve gas plant in 1958.

The 20 tonnes or more of GB nerve gas which were produced at Nancekuke during the 1950s are officially stated to have been destroyed at the same site between 1960 and 1967. In 1970, journalists visiting the site were told that all that remained was about 100lb of five different gases, including GB and VX.

INFORMATION to the press on Porton Down's Microbiological Research Establishment (MRE), which has now been transferred to the DHSS as a civilian laboratory, has suggested that 'the Government's research into biological warfare has always been directed towards finding means of detection and defence against it, not waging it against others'. Such reports (this one was in the Guardian) are contradicted by ample documentation now available in the Public Records Office, as post-1945 papers concerning Porton Down have become declassified. An epic commentary written for the British Chiefs of Staff in December 1945 noted that:

Biological warfare need not remain a method of warfare repugnant to the civilised world . . . a certain amount of informed guidance of the public might result in it being regarded as very humane indeed by comparison with atom bombs. Its use in minor wars in which it was not worth using atom bombs . . . is not impossible. To some extent the atom bomb and the BW bomb are complementary.

The same calibre of 'informed guidance of the public' has sought to create the impression that no work on biological organisms continued after the MRE ceased to be run by the Ministry of Defence. In fact, a group of over 30 scientists merely transferred into the Chemical Defence Establishment (retained by the MoD) to form its Defence Microbiological Division, which continues to research into biological warfare pathogens (although these cannot be stockpiled for war use under the terms of the Biological Warfare treaty, which Britain has ratified).

Besides the defence staff at Porton, microbiological research is guided by an outside panel of academic specialists on the Chemical/Biological Defence Advisory Group, whose identity has not previously been revealed: Professor Gardiner of Liverpool University, Professor O'Grady of Birmingham University, and Professor Lowther of St Bartholomew's Hospital.

More recently declassified British material on biological and chemical warfare research reveals that Britain field-tested both modes of warfare in Africa during the 1940s and 1950s. A series of tests on a cattle disease called Rinderpest and its antidotes were begun under cover in Kenya shortly after the end of the second world war. In Nigeria, the Ministry of Supply constructed a chemical warfare test station at Sobo near Benin. The station was used to test the effectiveness of nerve gases under hot tropical conditions.

Public Records research by Andy Thomas