US releases chemical and nuclear information

Chemical weapon figures

On 22 January, the US Department of Defense (DoD) released data on the types and quantities of chemical agents used in the country's chemical weapons programme. A summary of the data, given for 15 December 1995, is reproduced in page 2.

Readers should note that the DoD measures unitary operational stockpile in tons, while the non-operational stores are measured in pounds.

At many of the listed locations there are munitions or containers with contents that have yet to be analysed. Thus, the total figure for the stockpile will rise as these items are added to the total once their contents are determined.

Plutonium figures

On 6 February, the US Department of Energy released information on the grades and quantities of stockpiled plutonium. A summary of the data is reproduced on page 3.

The figures for plutoniumwere specified in kilogrammes and metric tons.

According to the documentation released there remains roughly 0.1 metric ton for which no information is given 'due to transactions that remain classified for national security reasons'.

US-UK exchanges

This release gives the first official figures for the scale of the fissile materials swaps between the US and the United Kingdom. The report states that the UK exchanged 5360 kg of plutonium for 6.7 kg of tritium and approximately 7500 kg of highly enriched uranium.

Confidence and security-building measures for Bosnia

On 28 February, the first meeting of the Joint Consultative Commission, established by the Dayton Accord, took place in Sarajevo.

This had followed the agreement reached on 26 January on a series of confidence and security-building measures (CSBMs) for Bosnia and Herzegovina. These measures, which fulfill the provisions set forth in the Agreement on Regional Stabilization (Article 2 of Annex 1-B of the Dayton Accord), were finalized under the auspices of the Organisation for Security and Co-operation in Europe (OSCE) in Vienna.

The implementation of these CSBMs (which draw heavily on the provisions of the 1994 Vienna Document) will also fall under OSCE supervision, especially the Personal Representative of the (Swiss) Chairman-in-Office, US diplomat Robert Frowick. As with previous OSCE CSBMs, information exchange is given a high priority. Under the measures, the three parties (the Republic of Bosnia and Herzegovina, the Federation of Bosnia and Herzogovina and the Republika Srpska) shall annually exchange information on the military organization, manpower and major weapons systems of their forces. The first exchange of information (which comprised baseline data) was 15 February. A list of inspectors was exchanged on 16 February. This aspect of the Mission's work is overseen by Danish General Per Skov-Christensen.

Under the agreement, the Federation of Bosnia and Herzegovina and the Republika Srpska have reciprocally allowed Military Liaison Missions to be set up in their headquarters. These Missions will keep in close contact with the OSCE Personal Representative. This arrangement is designed to increase transparency, facilitate information exchange and allow for the smooth implementation of a wide range of CSBMs. As part of these CSBMs, the Parties are bound to demonstrate new types of major weapons and equipment to each Party and the Personal Representative. They must also exchange annually information on their plans for

the deployment of major weapon and equipment systems, provide a list of all weapons manufacturing facilities, give notification of any changes in command structure or equipment holdings, and give prior notification of training exercises. These training exercises are limited by specific constraining measures and restricted to certain geographical areas. In addition, under the agreement the Parties may not reintroduce foreign forces into the territory of Bosnia and Herzegovina, must withdraw their heavy weapons to designated areas and must disband special operations and armed civilian groups. The last point may be difficult to enforce as the term 'armed civilian group' is defined as any group of three or more armed persons not wearing uniforms.

To reduce risk, a mechanism for consultation and co-operation as regards unusual military activities (already an OSCE standard) has been introduced. Under this a party, or the Personal Representative, may request an explanation about the activities of another party which must be provided in no more than 48 hours.

To build confidence between the former belligerents the Agreement suggests that the militaries initiate a series of contacts, joint exercises and visits to military bases. In addition, the Joint Consultative Commission was created to act as a forum for discussion and oversight of CSBM implementation. This Commission is composed of one high-level representative of each Party as well as the Personal Representative. Its meetings will be chaired by the members on a rotating basis.

Verification is crucial to ensure that the abovementioned commitments are carried out in good faith. The Agreement includes an extensive Protocol on Verification. Verification teams will be made up of the Parties and the OSCE and may contain both a military and civilian component. Parties wishing to carry out an inspection must notify the inspected party of their intention no less than 36 hours in advance of the estimated time of arrival of the inspecIssue 65 April 1996

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tion team. Inspection teams may consist of up to nine members. These teams will be accompanied by an escort team made up of individuals from the inspected party. Upon leaving an inspection site the inspection team must provide the escort team with a written report, to which the latter is entitled to add its comments. There are limits to the amount of materiel that can be inspected.

During the initial baseline validation period the passive inspection quota is a maximum 20 per cent of a party's declared formations and units while in the following period and subsequent years the limit is 15 per cent. The first inspections were conducted in the second week of March on the territory of the Federation and the Republika Srpska. Several OSCE countries have provided inspectors.

The inspection process in being overseen by a Coordinator for Monitoring and Verification, Gen. Francois Rozec of France.

The overall Agreement is of unlimited duration. The Parties do not have the right to withdraw during 1996 and 1997. The CSBM aggreement will be the subject of a Review Conference on 15 February 1998.

The US military and anti-personnel mines

Gen. John Shallikasvilli, Chairman of the US Joint Chiefs of Staff, was quoted in the *New York Times* of 17 March as being 'inclined to eliminate all anti-personnel mines'. He was said to have made this statement during a meeting at the Pentagon, which was discussing land mines fol-

lowing the return of Madeline Albright, US representative to the UN, from a visit to Angola, where she was moved by their impact.

	operational stockpile					operational stockpile			
Location	Agent type	Quantity (tons)		Quantity (pounds)	Location	Agent type	Quantity (tons)		Quantity (pounds)
Anniston, AL	HT	532.30	HD/HT	31.25	Pine Bluff,	HT	3124.55	HD	535.68
	HD	456.08	GB	1413.50	AK	HD	94.20	H	3872.77
	GB	436.51	VX	122.25		GB	483.69	H	TBD
	VX	828.74				VX	147.27	L	TBD
	Total	2253.63	Total	1567.00				CG	6.17
								GB	740.32
Edgewood, MD	HD	1624.87	GB	126.00				TBD	TBD
			TBD	TBD		Total	3849.71	Total	> 5154.94
	Total	1624.87	Total	> 126.00					
					Pueblo, CO	HT	59.11	HT	35.00
Blue Grass, KY	HD	90.63	H	15.00			2551.94	HD	187.00
	GB	305.64	GB	1433.00				TBD	TBD
	VX	127.15	VX	10.00		Total	2611.05	Total	> 222.00
	Total	523.41	Total	1458.00			J.7 0.55.		
					Tooele, UT	HT	181.51	H	197.34
Dugway, UT	-	-	H	20.91		HD	5694.64	L	0.04
			L	TBD		H	319.77	GA	0.07
			GB	27.97		L	12.96	GB	0.07
			BZ	0.09		GA	1.41	VX	1.67
			TBD	TBD		TGA	0.64		
	_		Total	> 48.97		TGB	3.48		
						GB	6045.26		
Johnston Island	HD	164.86	TBD	TBD		VX	1356.33		
	GB	617.48				Total	13616.00	Total	199.19
	VX	351.83	-						
	Total	1134.17	Total	TBD	Umatilla,	HD	2339.52	GB	3830.00
Newport, IN					OR	GB	1014.01	VX	1024.00
	VX	1269.33	_			VX	363.86		
	Total	1269.33				Total	3717.38	Total	4854.00
					All Sites	Total (tons)	30599.55	Total (pounds)	>13630.10

Note: 1 ton=2000 pounds; totals are subject to rounding errors.

A total of 680.19 tons of binary munition agent components are stored at: Edgewood (1.30 tons); Pine Bluff (174.72 tons); Tooele (33.58 tons); and Umatilla (470.59 tons).

'Research, development, test and evaluation' (RDTE) agents are stored at Edgewood (9408.21 pounds) and at Dugway (289.29 pounds).

Key: BZ=incapacitating agent; CG=Phosgene; GA=Tabun (nerve agent); GB=Sarin (nerve agent); H/HD/HT=Mustard agent; L=Lewisite agent; TGA=Thickened GA; TGB=Thickened GB; TBD=to be determined after analysis; VX=persistent nerve agent

However, in the 4 April edition of the Washington Post, Gen. Shallikasvilli is quoted as saying that the 'tragedy' produced by land mines should be stopped. He continued:

But I don't think I get paid to just look at it from that aspect without

also understanding what impact it will have on American younsters on some battlefield tomorrow ... I owe it to them and their parents

He concluded that 'the issue is, for us in the military, every bit as difficult as for everyone else'.

In an address at Georgetown University, Washington, DC, on 18 April, US Secretary of Defense, William Perry, said that elimination of land mines was 'a longer-term objective' and that 'it is going to take some time to achieve'.

UK and ballistic missile defences

At the end of March, the Select Committee on Defence of the UK House of Commons produced a report entitled NATO's Southern Flank. The report contained the following conclusions:

We recommend that NATO countries should pay close attention to the long term threat of terrorist use of biological and chemical weapons and should develop appropriate countermeasures [para. 26].

It is though the strict enforcement of international treaties that the formal and informal transfer of these types of weapons [i.e., weapons of mass destruction] can best be halted. We recommend that NATO members should continue to play a leading role at a diplomatic level in the process of promoting accession to and enforcement of international treaties on weapons of mass destruction [para. 32].

If NATO is to be ready to counter the potential threat posed by long range ballistic missiles from the southern Mediterranean when the capability materialises, serious consideration of ballistic missile and theatre defence options must begin now. ... We recommend that the Government continues its own work on ballistic missile defenceand seeks to promote the consideration of a multi-national approach within the NATO forum [para. 34].

The UK Ministry of Defence told Parliament in January that it considers it 'unlikely that any nation aspiring towards a ballistic missile capability will be able to develop systems capable of threatening the UK mainland within the next 10 years.'

Radar data wanted to verify Itavia aircraft's last moments

On 27 June 1980 a civilian passenger aircraft operated by the Itavia airline, crahed near the island of Ustica while flying over the Mediterranean to Palermo. All 81 passengers and crew on board the aircraft died.

Many investigations have been carried out into the accident, none coming to any firm conclusions.

Allegations have been made that the aircraft was shot down by an air-to-air missile. The credibility of these

allegations has been enhanced as there has been little evidence from available wreckage of any form of mechanical failure.

The Italian judge now holding further investigations into the accident has recently requested access to radar recordings from that day, which it is alleged, show NATO and Libyan aircraft in the area.

As the radar systems were joint NATO property, this request has been sent to the NATO Secretary-General, Javier Solana. NATO sources have expressed concern that releasing the recordings would also allow certain other classified material into the public domain, although the sources have not been specific as to the nature of this material.

It is understood that the President of Italy, Oscar Luigi, raised the subject of the recordings with President Clinton on a recent visit to Washington, DC.

Box 2 — US plutonium declaration Acqusitions Government production reactors 103.4 Government non-production reactors 0.6 1.7 US civilian industry 5.7 Imports Total acquisitions 111.4 Removals Expended in wartime and tests 3.4 2.8 Inventory differences Waste (normal operating losses) 3.4 Fission and transmutation 1.2 Decay and other removals 0.4 US civilian industry 0.1 0.7 Exports 12.0 Total removals Total acquisitions 111.4 -12.0 Total removals Classified transactions and rounding 0.1 **Actual Inventory** 99.5

In the News

BWC PrepCom

The Preparatory Committee (Prep-Com) for the Fourth Review Conference of the Biological Weapons Convention met in Geneva on 9–12 April.

The PrepCom decided that the Review Cconference should take only two weeks (25 November–6 December 1996), rather than the previously scheduled three. This will reduce the cost of attendance and therefore may encourage more states to participate. This may also allow the following week to be used by the Ad Hoc Group to continue its work on verification, if its work has not been concluded by then.

As is normal with such preparatory meetings, few substantive decisions were taken. It was agreed that Amb. Michael Weston (UK) would be President of the Conference. The question of NGO participation remains open.

Korea armistice violations

The Republic of Korea has reported that the Democratic People's Republic of Korea has violated the terms of the armistice agreement by allowing greater than permitted

From Moran to Elborn

Following her betrothal to the dashing young Keri, Nicola Moran has now become Nicola Elborn.

Notification of the event was circulated to interested parties beforehand with the primary purpose of allowing the ceremony to be verified by them. VERTIC can confidently declare that all conventions were complied with.

numbers of troops into the demilitarized zone.

UK CWC ratification progress

The UK's implementing legislation for the Chemical Weapons Convention — the Chemical Weapons Act — received Royal assent on 3 April.

The dates of its passage through the House of Commons were: First Reading – 16 November; Second Reading – 23 November; Committee, Report and Third Reading – 6 December.

The dates of its passage through the House of Lords were: First Reading – 7 December; Second Reading – 30 January; Committee – 27 February; Report – 18 March; Third Reading – 2 April.

The deposit of the United kingdom's instrument of ratification is expected in the very near future.

African NWFZ signed

The African Nuclear-Weapon-Free Zone was signed on 11 April at a ceremony in Cairo. Over 40 states became initial signatories.

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The ceremony was so stressful that the happy couple were forced to escape to the Maldives for a few weeks to recover.

In accordance with tradition, Nic's and Keri's change of status has been marked by the appearance of unique tags on the third finger of their left hands. These tags (known in verification jargon as 'wedding rings') are available for inspection at short

It will enter into force on the date of the deposit of the 28th instrument of ratification

Military aircaft to carry data recorders

Following the accident on 3 April involving a US military aircraft in Croatia that included US Commerce Secretary Ron Brown amongst its victims, a decision has been taken to install data recorders in certain military aircraft.

The installation of such recorders would have greatly assisted the accident investigators in their attempts to verify the causes of the crash.

Military aircraft from other countries are also often not fitted with data recorders, making accident investigation difficult. A recent example of this was the crash of a British Royal Air Force Chinook helicopter in southwest Scotland.

This accident has now been the subject of at least two large-scale inquiries which have reached conflicting conclusions. The investigators in this case were greatly hampered by the lack of data recorders.

notice, in accordance with the relevant protocol requirements.

[Following consultations it has been decided that the use of the terms 'verification' and 'inspection' could be mis-construed in this context and that therefore these terms should be replaced with 'implementation and review mechanisms' and 'visits' – Ed.]

Trust & Verity

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VERTIC is the Verification Technology Information Centre, an independent organization aiming to research and provide information on the role of verification technology and methods in present and future arms control and environmental agreements.

VERTIC is the major source of information on verification for scientists, policy makers and the press.

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Other publications

In addition to Trust & Verify, VER-TIC publishes the Verification (formerly Verification Report) series of yearbooks and a variety of research reports each year. Details of VERTIC publications are available on request.