

CALL FOR INVESTIGATION AFTER DEATHS OF BALKANS VETS

LONDON, January 9, Graphic News: EUROPEAN members of NATO are demanding an investigation into depleted uranium ammunition and a possible link to so-called “Balkan Syndrome” after 17 soldiers died of leukaemia or other cancers following exposure to the spent weapons while serving in the former Yugoslavia.

NATO, the United States and Britain say there is no evidence of a link -- a position backed by the World Health Organization -- but the United Nations announced on January 5 that it had found evidence of radioactivity at eight of 11 sites tested in Kosovo. The 11 sites were among 112 targets in Kosovo hit by depleted uranium (DU) rounds. A U.N. report in May 2000 warned that Kosovo’s water could be so contaminated as to be unfit to drink.

Cancers have claimed the lives of six Italian soldiers, five Belgians, two Dutch nationals, two Spaniards, a Portuguese and a Czech, after tours in the Balkans. Four French soldiers and five Belgians are also suffering from leukaemia -- cancer of the blood.

Radiation levels from depleted uranium are much lower than natural uranium, a U.S. Defence Department report said last month. The Agency for Toxic Substances and Disease Registry, quoted in the report, said: “No human cancer of any type has ever been seen as a result of exposure to natural or depleted uranium.”

But scientists remain divided on the issue, and worry about the risk from breathing dust from the exploded munitions. Yugoslav experts and officials claim the depleted uranium will remain in the soil, filtering into ground water and moving into the food chain.

DU is the waste residue made from the uranium enrichment process. The most radioactive isotopes of uranium are extracted for use in nuclear weapons and civilian reactors. Left behind is the less radioactive isotope 238: depleted uranium.

The killing punch comes from a solid, depleted uranium metal rod in the shell which is 1.7 times as dense as lead. A 120 mm tank round contains about 4kg (10 lbs) of solid DU.

Many physicists and physicians believe that uranium-oxide dust inhaled or ingested by troops in the Gulf War is the cause, or a contributing cause, of “Gulf-War Syndrome”. Over 100,000 European and U.S. Gulf War veterans complain they suffer from the syndrome. Cancer rates in southern Iraq have also increased dramatically, with ovarian cancer in women increasing 16-fold.

U.S. warplanes fired 31,000 rounds of depleted uranium ammunition against Serb targets during NATO’s 1999 campaign to drive the Yugoslav army out of Kosovo. Some 10,000 rounds were fired in neighbouring Bosnia in 1994-5.

In Iraq the U.S. Airforce A-10 “Tankbuster” aircraft fired approximately 940,000 armour piercing incendiary rounds during “Operation Desert Storm.” In addition 14,000 large calibre 105mm DU tank rounds were fired. By the end of the war over 270 tonnes (600,000 lbs) of uranium from spent rounds lay scattered across Iraq and Kuwait.

The scale of the threat posed by depleted uranium is hotly disputed. But experts agree the toxic and radiological hazard is heightened by the tendency of depleted uranium to be pulverised on impact into a fine radioactive and toxic dust which can be ingested into the body.

One theory, by scientists at Los Alamos National Laboratory, suggests some DU particles dissolve and enter the bloodstream, but most uranium is excreted from the body through the kidneys.

However, a fraction of the particles find their way to the bones. It is within the red bone marrow of the sternum, ribs, vertebrae, skull and pelvis that stem cells form red and white blood cells and platelets.

Here, weak alpha radiation -- which is normally stopped by the skin -- ionises oxygen, forming “free radicals.” These oxygen radicals can penetrate stem cells and cause DNA damage which can result in leukaemia -- uncontrolled growth of mutated white blood cells.

The marrow often can no longer produce enough normal red and white blood cells and platelets. The lack of normal white cells impairs the body’s ability to fight infections and a shortage of platelets results in bruising and easy bleeding.

Spain, Portugal, Finland, Belgium, Britain, Greece, Bulgaria, the Czech Republic and Turkey have announced plans to screen peacekeepers, but some don’t believe the screening is worth the effort. Wendla Paile of the Finnish Center for Radiation and Nuclear Safety in Helsinki said such screening is “pointless.”

“The radiation from uranium depleted ammunition is so little that it could not explain these extra cases (of leukaemia),” Paile said.

Paul Beaver, an analyst at Jane’s Defence Weekly, said the countries screening their troops have no idea what to look for.

“The problem is there hasn’t been any really good work done on it,” Beaver said. “There is no concrete information. There has been research carried out by the U.S. Army, the British and the French as well, but it seems inconclusive. I’ve read all the literature I can find on it, but I have no straight answer.”

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Sources: International Action Centre, Jane’s Defence Weekly, Reuters, Associated Press

Hidden threat of the “silver bullet”

Depleted uranium (DU) shells are the wonder weapons used in the 1990 Gulf War and the conflicts in Bosnia and Kosovo. But now many veterans from the Gulf and Kosovan wars believe that radioactive DU dust has made them seriously ill and may be causing deadly cancers

PGU-14/B Armour Piercing Incendiary
Calibre: 30mm
Length: 285mm
0.8mm-thick aluminium casing
Propulsive charge

A-10 Tankbuster
1,174 rounds of DU shells

High-density penetrator
Titanium alloy containing 300g of DU. In addition to penetrating capability DU also enhances incendiary effects

Radiation
DU is only 70% as radioactive as naturally-occurring uranium. Mainly emits low-level alpha particles but also more hazardous beta and gamma radiation

Types of radiation
Alpha particles: Unable to penetrate paper or skin, but will damage soft internal tissues
Beta particles: Can pass through 1-2 cm of human tissue

Gamma particles: Can only be stopped by thick lead or concrete

Ingestion: DU dust enters lungs and passes via blood to kidneys, liver and bones. **Skull, ribs, sternum, vertebrae and pelvis are the source of blood cells**

Bone marrow: Red and white blood cells are formed from stem cells which reside in marrow

1. Cancer theory: Alpha rays from DU ionise oxygen molecules in bone marrow, becoming “free radicals”

2. Oxygen radicals migrate through walls of stem cells

3. Free radicals break chemical bonds between DNA strands in stem cells

4. Stem cells: Damaged stem cells produce mutated white blood cells

5. Cancer: Mutant white cells “take over” body’s marrow, preventing production of normal blood cells

Leukaemia: Cancer of the blood. Spreads throughout body, interfering with functions of other organs and disabling immune system

Lack of platelets: Causes headaches, gum bleeding and frequent bruising

Lack of white blood cells: Repeated chest, throat infections, shingles, skin and other infections

Lack of red blood cells: Anaemia – exhaustion

Abnormal white cells: Tenderness in bones

Sources: Depleted Uranium Education Project, Jane’s Weapon Systems, U.S. Department of Defense, Reuters, Associated Press

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ISSUED: JANUARY 9, 2001

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CATEGORY: Science and Technology
IPTC CODE: NUC,OVR :Nuclear
SUBJECT: SCIENCE: Depleted uraniumDuncan Mil, Phil Bainbridge, Adrian Dean, Jordi Bou, Julie Mullins (research)GRAPHIC
ARTISTS: NEWS
ORIGIN: Colour / Adobe Illustrator version 8.013 columns by 215mm deep9/1/2001
TYPE: Reuters, Associated Press, Depleted Uranium Education Project, Jane’s Weapon Systems, U.S. Department of Defence
SIZE: 11954
DATE:
SOURCES:
GRAPHIC #:

STANDARD MEASURES (SAU)		
Width	Picas	millimetres
1 col	12p5	52.3
2 col	25p7	107.7
3 col	38p9	163.2
4 col	52p	219.0
5 col	65p1	274.4
6 col	78.p3	329.7