International Coalition to Ban Uranium Weapons – post conflict lessons and the international response

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Berlin, Apr 2011

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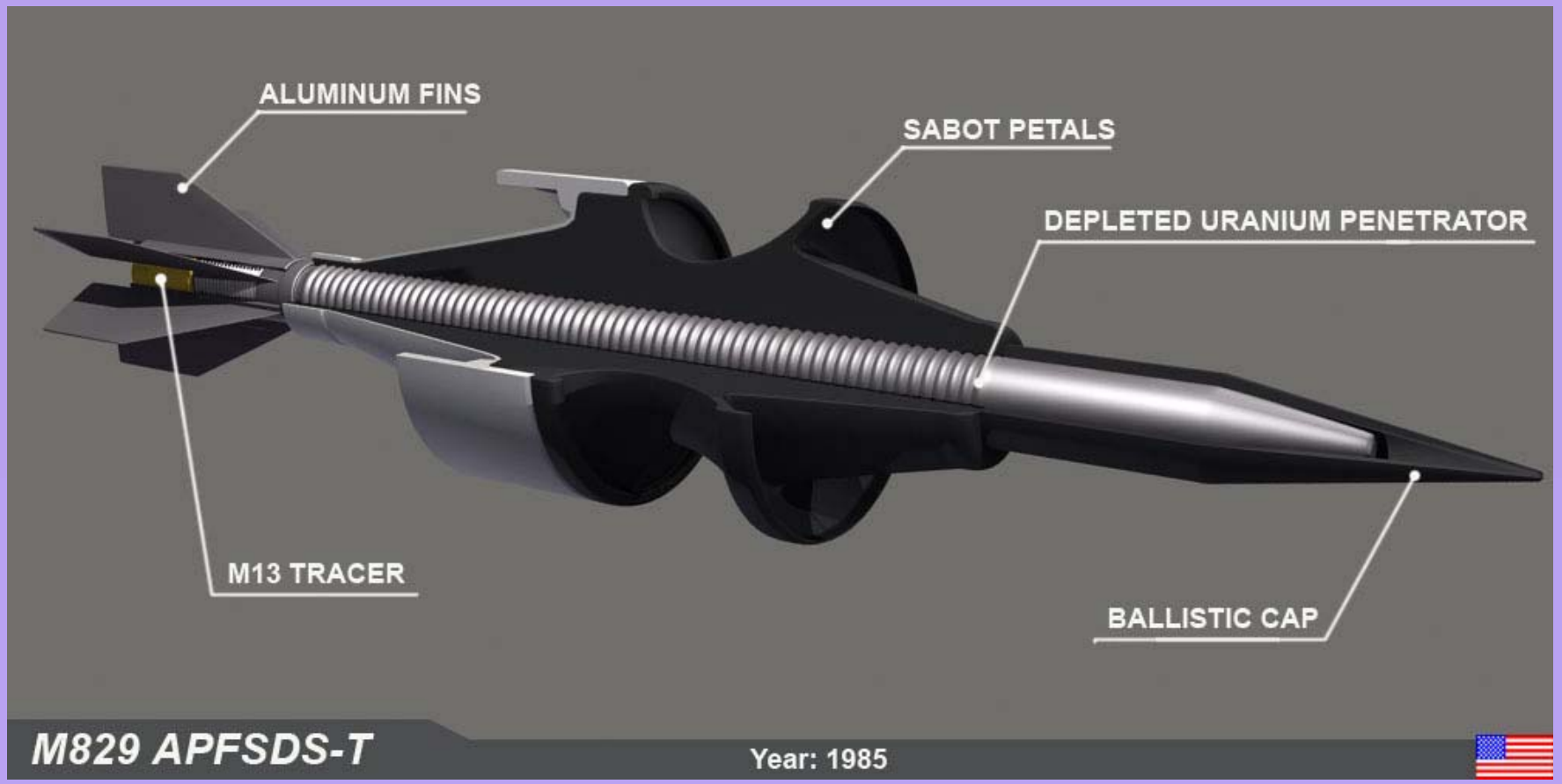

- DU is dense
- DU is pyrophoric
- Kinetic energy penetrators use kinetic energy instead of chemical explosive to pierce armour

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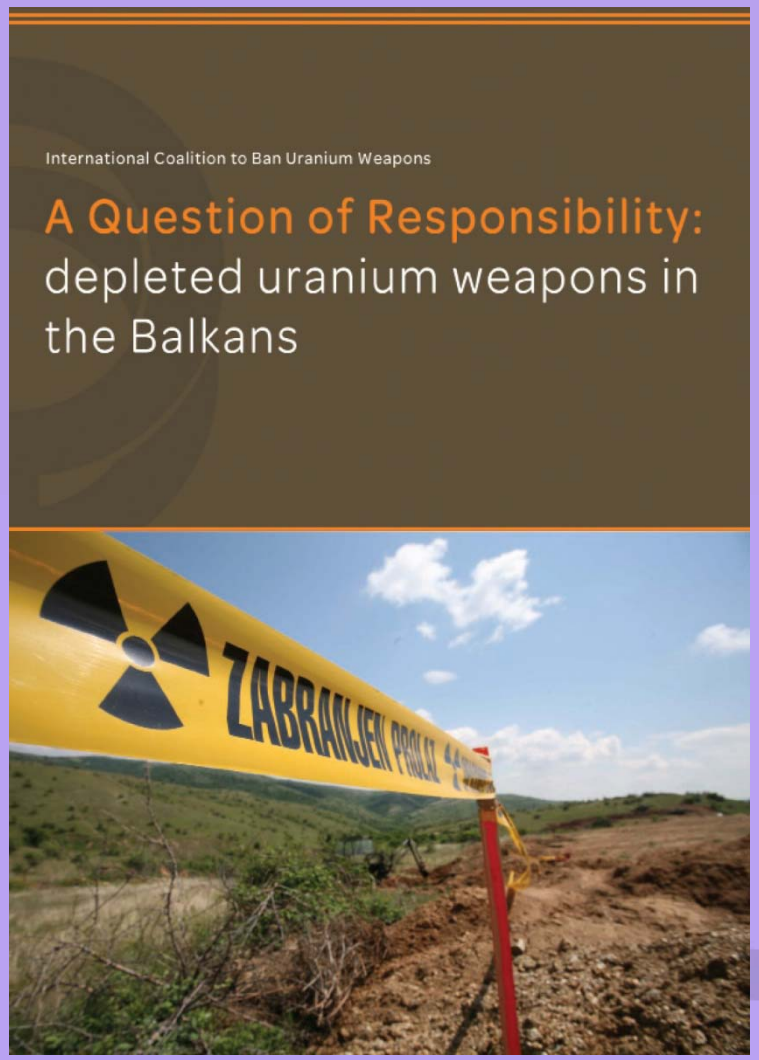
PGU-14/B 30mm API Round: The most frequently fired DU ammunition, fired by A-10 aircraft, penetrator contains 300g of DU



Debate stuck in arguments over scientific data over risk

2010: Norwegian government funds ICBUW research trip to the Balkans to investigate post-conflict response to contamination.
E.g. are states capable of putting UNEP's recommendations in place after conflicts?

ICBUW's final report entitled:
A Question of Responsibility

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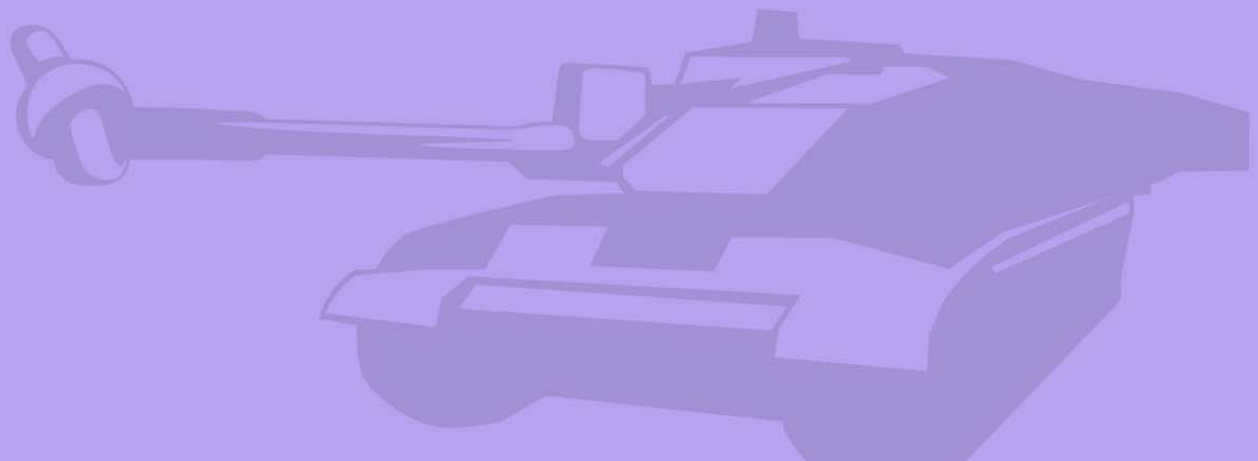
Bosnia & Herzegovina

Date used: 1994 & 1995
Number of targeted sites: 19
Number of rounds fired: more than 4,327
Volume of DU: at least 1,271kg
Coordinates revealed: 2001



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Bosnia & Herzegovina: Hadžići

Steel peg marking buried 30mm penetrator under asphalt track within facility – radiation is 40x background.

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Bosnia & Herzegovina:

Conclusions

- Without swift release of target coordinates unnecessary civilian exposures are unavoidable

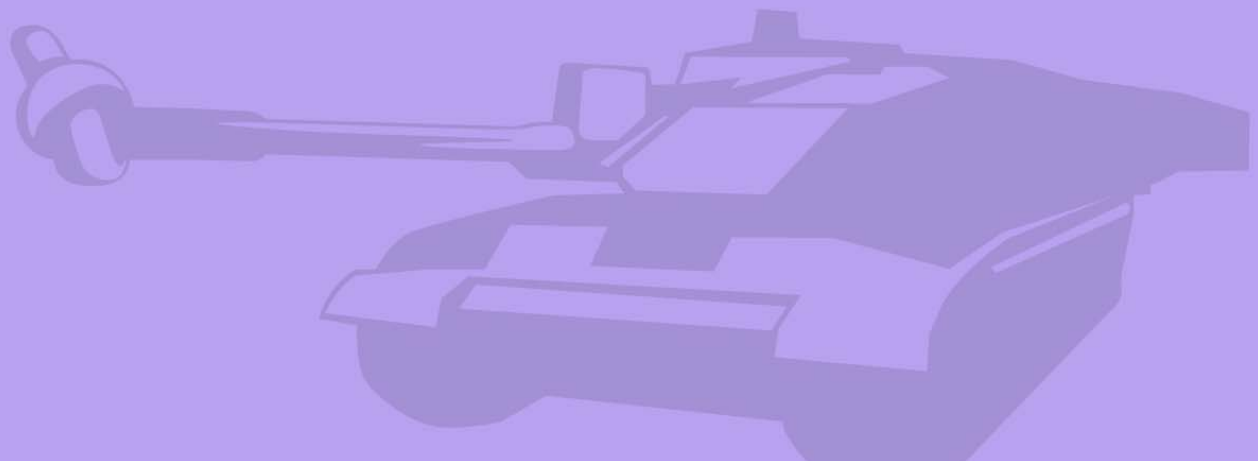
- DU contamination interferes with economic recovery and spreads fear amongst civilian population

- Hazards highly dependent on many factors but fear of DU is inevitable – in spite of claims of no risk from authorities

- The term ‘clean-up’ is relative – facility still contains hot spots of radiation

Kosovo

Date used: 1999
Number of targeted sites: 107
Number of DU rounds fired: more than 17,000.
Volume of DU: more than 5,000kg
Coordinates revealed: Inadequate ‘general map’ released in 1999 after intervention by Kofi Annan, coordinates released in 2000 after second intervention.



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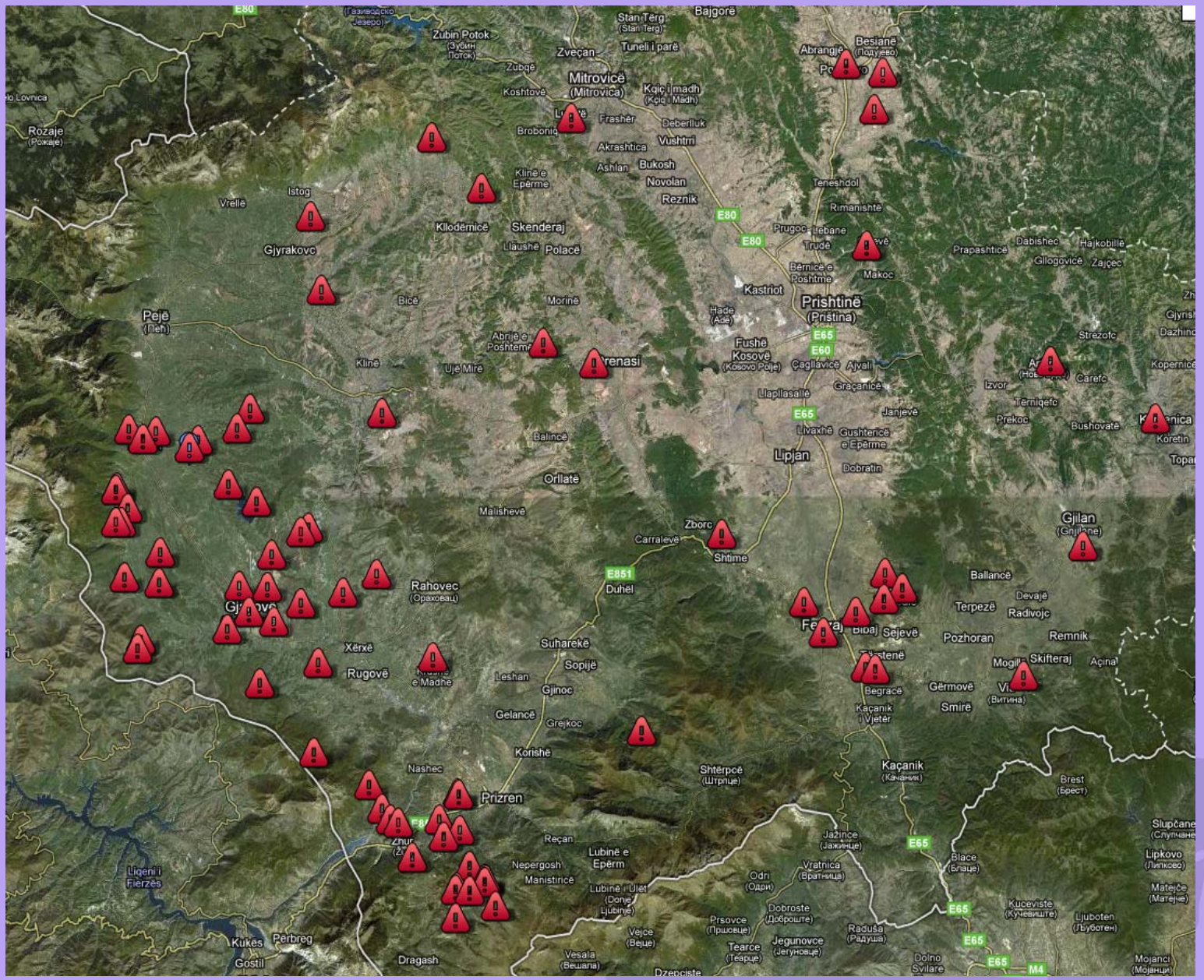

Map of Kosovo showing NATO DU strike coordinates

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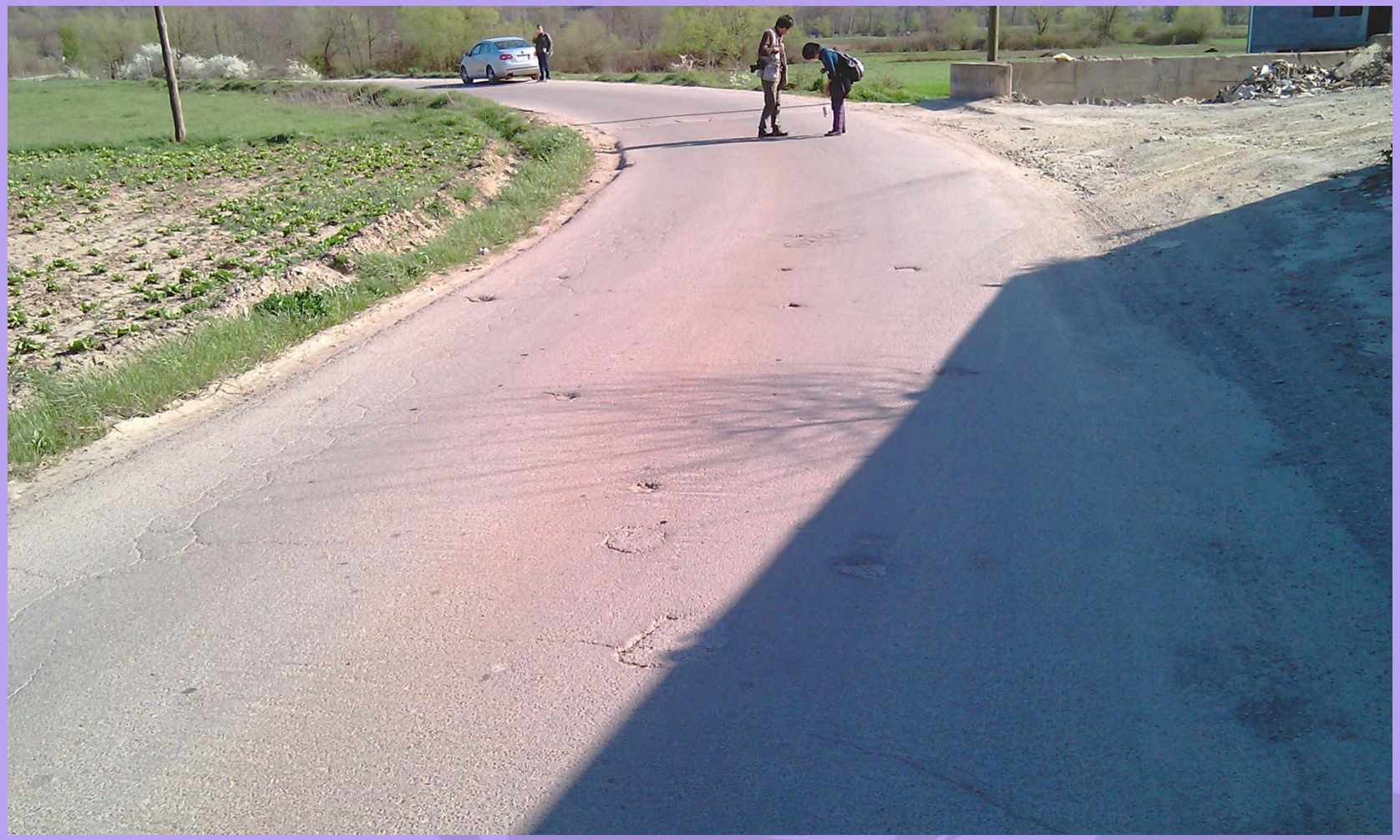


Prizren Road junction, c.540 rounds were fired, two sites 100m apart in fields adjacent to road. Land is now back in use, currently growing lettuces. No evidence to suggest comprehensive decontamination.

Kosovo: Conclusions

• KFOR refuse to share information on decontamination with NGOs, no data available on what has been done at each site.

• Environment Ministry do not have funds or capacity to do monitoring or decontamination; accept KFOR's claim that there is no risk.

• Environment Ministry claims to have undertaken hazard awareness work, but we found no evidence of this.

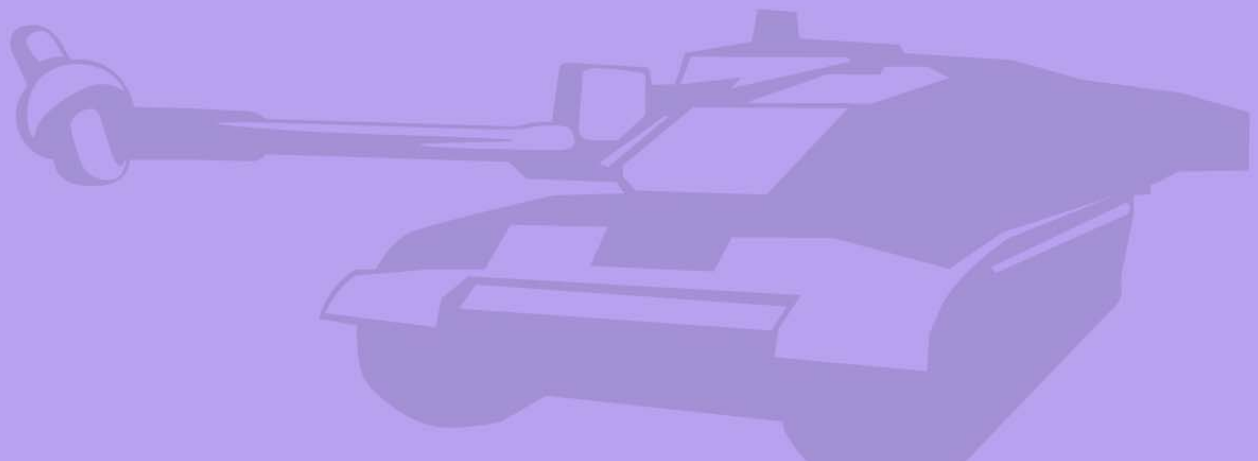
• Impossible to gauge risk without transparency from KFOR.

• Government has range of competing environmental and health priorities common to states recovering from conflict.

Serbia & Montenegro

Date used: 1999
Number of targeted sites: 12
Number of DU rounds fired: over 2,300 rounds.

Volume of DU: Over 700 kg
Coordinates revealed: Inadequate 'general map' released in 1999 after intervention by Kofi Annan, coordinates released in 2000 after second intervention.



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Serbia

The use of DU on Serbian soil was comparatively limited – 12 sites targeted.

”Decontamination process is like an archeological dig”

→ Sampling to assess level of contamination
→ Intact penetrators removed from surface
→ Some buried penetrators located by detection equipment
→ Top 2m of soil removed and sifted for fragments
→ Contaminated soil removed and stored as low level waste
→ Landscaping and monitoring of water and biological life, workers’ health regularly assessed.

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Borovac, southern Serbia, 2007. Earth moving equipment is used to reveal buried penetrators.

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Borovac, southern Serbia, 2007. Staff with respirators check soil revealed by earth movers. Staff can work a maximum of six hours each per day.

Borovac, southern Serbia, 2007. Penetrator jacket found at depth of 2m. Penetrator and soil will be bagged and moved to a low level waste repository at the Vinca Nuclear Institute, Belgrade.

Serbia: results of

Sites with confirmed contamination*	Bratoselce	Pljačkovica	Borovac	Reljan	Total
Activity	2002-03	2004	2005, 2007	2006-07	2002-07
NATO data**	2140	?	300	>180	Incomplete
Penetrators found	324	49	138	195	706
Jackets found	314	36	136	194	680
Area analysed	2,185m^2	971m^2	16,680m^2	13,044m^2	29,724m^2
Volume soil removed	2,800kg	1,500kg	1.38m^3	3.0m^3	4300kg 4.38m^3
Cost***	RSD34.8m **£348,000**	RSD18.76m **£187,600**	RSD34.5m **£345,000**	RSD27.6m **£276,000**	RSD115.66m **£1.156m**

Table comparing cost of decontamination work undertaken by Serbian authorities at four NATO strike sites. * NATO gave 9 firing points, 6 had no trace of contamination, 4 sites remained including site not listed by NATO. ** NATO data thought to be incomplete by Serb authorities who estimated total rounds used at between 3-5000. ***GBP data estimated as exchange rate fluctuated.

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Serbia: Conclusions

• Expertise and political will makes all the difference…

• Few contaminated sites and high local capacity resulted in comprehensive site decontamination programme.

• DU contamination not ‘gone’ - relocated to a storage facility. Ministry acknowledge that it is impossible to remove 100% of the contamination. UNEP: *“…it is very difficult to achieve comprehensive detection and complete decontamination of DU at a given site. Even after thorough decontamination efforts have been conducted, some contamination points may remain.”*

• Struggling to raise funds for comprehensive monitoring.

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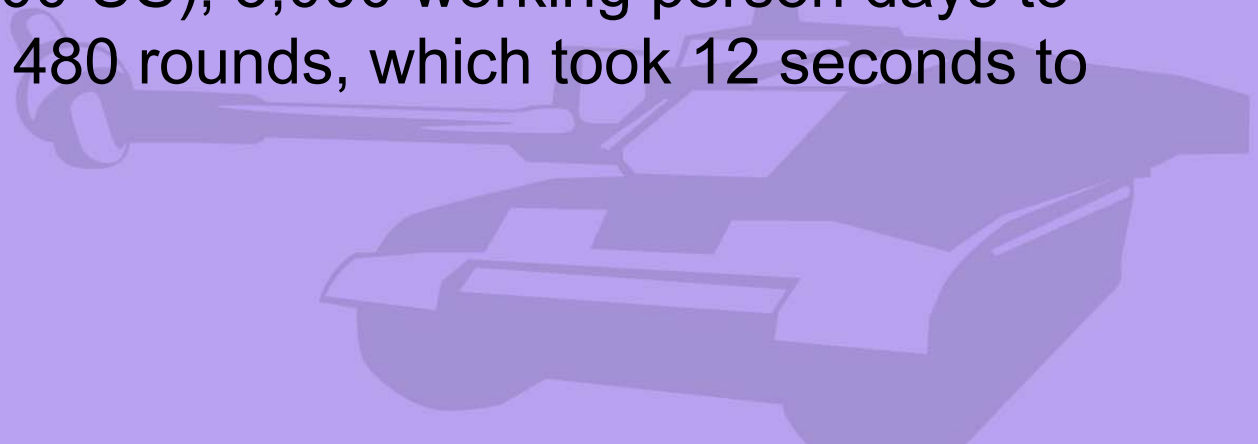
A Question of Responsibility:
Conclusions

User transparency – historically states unwilling to release detailed strike data – major implications.

Financial and technical constraints on decontamination – decontamination is incredibly expensive and technically difficult.
e.g. Cape Arza, Montenegro. Cost DM 400,000 (almost $280,000 US), 5,000 working person days to decontaminate 480 rounds, which took 12 seconds to fire.



A Question of Responsibility:
Conclusions

Health monitoring – collapse of health registration during conflict. Monitoring and assessment complicated by population movements, a lack of analytical capacity, security problems and limited financial resources.

Institutional capacity – states recovering from conflict unable to fully implement hazard reduction protocols.

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Applying the lessons…

Dec 2010: UNGA calls for user transparency.
In Iraq, only UK had released data on the location of DU firing points - and then only from the 2003 conflict.
At least 400,000kg of US DU unaccounted for.

UN resolution non-binding but helped raise awareness. ICBUW worked with the Non-Aligned Movement to ensure transparency featured in wording.

2007 resolution accepted that DU has the potential to damage health. GA:136-5-36

2008 resolution called for more research in affected areas.
GA: 141-4-34

Applying the lessons…

Transparency: OP6 Invites: Member States that have used armaments and ammunitions containing depleted uranium in armed conflicts to provide the relevant authorities of affected States, upon request, with information, as detailed as possible, about the location of the areas of use and the amounts used, with the objective of facilitating the assessment of such areas;

But: transparency is a scary concept for some states as it infers some liability for clearance and decontamination.

UNGA 2010 results

148-4-30.
Against: US, UK, France and Israel.
NATO members in favour: Belgium, **Germany,** Greece, Iceland, Italy, Luxembourg, Norway, Slovenia and the Netherlands.

Others: Austria, Finland, Ireland, Malta and Switzerland.

NATO members abstaining: Albania, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Hungary, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia, Spain and Turkey. Plus Sweden and Ukraine.

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“OP6 of the resolution requests states that have used depleted uranium in armed conflict to provide information about its use. We have serious doubts on the relevance of such a request, according to IHL. We consider that it is up to each state to provide data at such a time and in such a manner as it deems appropriate.”

UK, US, France – explanation of vote to 2010 UN resolution

“By trying to divert the discussion onto specific obligations, the Government is indulging in obfuscation. The question is not whether there is an obligation under IHL to share this information, but whether the request in the resolution is reasonable or not, and whether the UK should endorse it.”

UK Uranium Weapons Network, response to UK – explanation of vote to 2010 UN resolution

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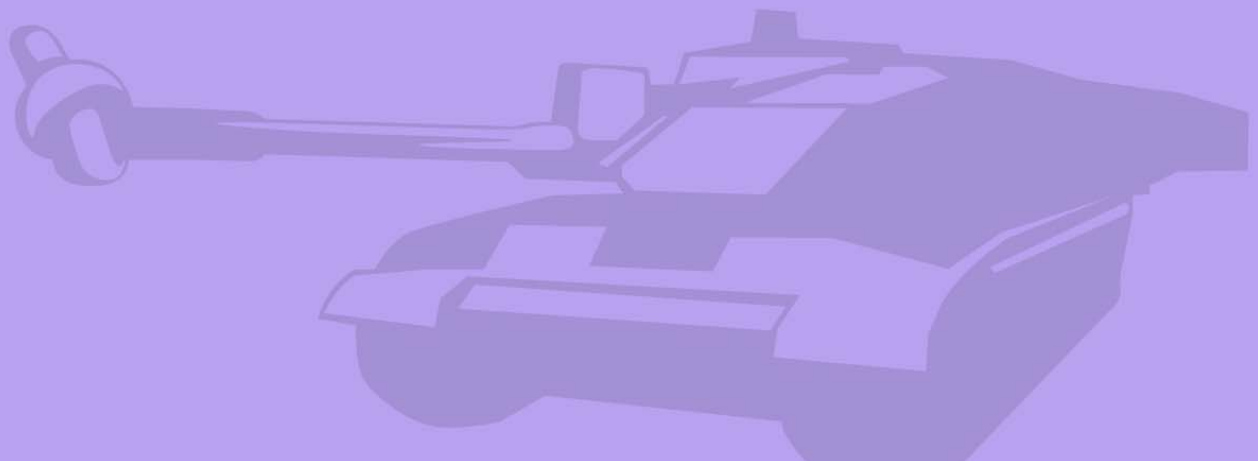
“It is Germany's understanding that OP6 of the resolution does not set a precedent for similar cases.”

Germany – voted in favour with explanation of vote, 2010 UN resolution



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Next steps…

All out ban? No stomach for it yet among states but some are growing more interested.

Why not? At the moment policy makers see DU in the same terms as mines and cluster munitions, but there are significant differences. We know that DU is hazardous but we need to clearly define why its use is unacceptable.

What's the problem? Users deny there are problems. Well-meaning activists exaggerate the impact.

Solution: develop a clear, rational and coherent narrative based on precaution.

Framing the debate…

Scientific angle:

Laboratory studies show that DU is genotoxic etc.

Human research biased towards veterans – no civilian data.

Environmental behaviour highly uncertain.

Post-conflict health studies always difficult.

Risk angle:

Military standards for reducing risk not extended to civilians.

UNEP, WHO, IAEA, Royal Society standards not fully in place.

Moral and legal angle:

Will the uncontrolled release of radioactive materials ever be morally or legally acceptable?

Should the BSS risk/benefit analysis be applied to DU?

How does use compare with radiation protection norms?

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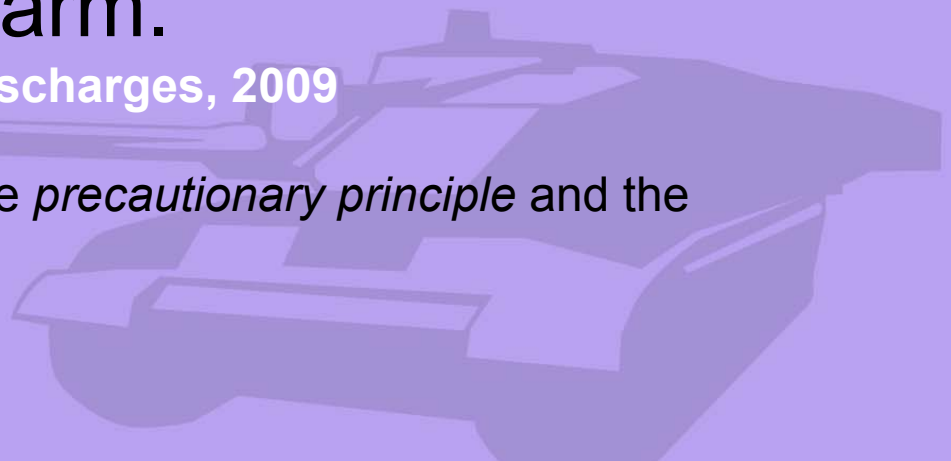
For example:

"The [UK] Government considers that the unnecessary introduction of radioactivity into the environment is undesirable, even at levels where the doses to both human and non-human species are low and, on the basis of current knowledge, are unlikely to cause harm."

UK Strategy for Radioactive Discharges, 2009

The strategy is also based on the *precautionary principle* and the *polluter pays* principle.



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Framing the debate…

Applying precaution:

ICBUW is developing a narrative based on precaution.
IHL precedents: Article 36 (weapon reviews), Article 57 (avoiding civilian harm)
Arms control precedents – PTBT and the CCM
Post conflict experience – uncontrolled use and exposure

Wingspread: *Where an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.*
In this context the proponent of an activity, rather than the public bears the burden of proof.

Domestic legislation

Costa Rica: Passage of domestic ban imminent. Ban on manufacturing uranium weapons in Free Trade Zones already in place.

Ireland: Private Members Bill passed through the Senate unopposed November 2010. Second ever time that a Private Members Bill has passed through the Senate. Will be discussed in lower house this year.

New Zealand: Private Members Bill to be considered this year.

Our eventual goal:

A Uranium Weapons Convention

that would:

- **Ban the use, sale, production, testing and transfer of uranium weapons; ***
- **Order the destruction of stockpiles;**
- **Release money and expertise from the international community for decontamination;**
- **Support medical care and environmental monitoring for communities affected by the weapons;**
- **Strengthen the role of precaution in arms control law;**
- **Set a valuable precedent for the protection of the environment in armed conflict.**

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* a conventional, i.e. non-nuclear, weapon that uses uranium in its mode of action

1997 - Anti-personnel Landmines **X**

2008 - Cluster Bombs **X**

20?? - Uranium Weapons ☠

Follow the campaign:

www.bandepleteduranium.org

www.twitter.com/ICBUW

Download the report:

http://bit.ly/gUUrLz

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