Anti-personnel Landmines - Friend or Foe?

by

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Good morning, Ladies and Gentlemen. My name is Paddy Blagden, and I am an independent consultant. Before I start, I would like to thank the Foreign Ministry of the Lithuanian Government for so kindly inviting me to Vilnius for this meeting, and for my old friend the ICRC for sponsoring me. Just a short introduction. I was a Royal Engineer in the British Army for 34 years, leaving the service in 1988. I fell into humanitarian mine action in 1991, and have been working continuously in it since then. I have therefore moved from teaching how useful mines are to advising you not to use them. This has been quite a conversion.

Aim of the Study

- To look at the historical use of anti-personnel (AP) mines
- To assess the military value and effectiveness of AP mines in combat
- To consider the after-effects of AP mines on civilians
- To assess whether, ON BALANCE, AP mines have been an essential or necessary weapon

In Late 1995, Peter Herby of the International Committee of the Red Cross asked me to assist in writing a short pamphlet on the advantages and disadvantages of the use of anti-personnel mines, and this I was glad to do, because I felt that with my background I could possibly bring some perspective to the process. The aims of the study were as above – to assess how successful was the AP mine in combat, what were the advantages and disadvantages of use, and did the disadvantages outweigh the advantages.

Why do armies use AP mines?

- Cheap
- Effective (high scare factor)
- Flexible in use
- All good armies record, fence, mark, remove after use
- This leaves few lasting effects

But:

- Our own mines may be used against us

During my 34 years in the British Army, I taught, practiced and researched the use of anti-personnel mines. There are many stated tactical and strategic reasons to use AP mines, and here are a few, that I used to use in my lessons to staff officers. There was one caveat – that your own mines can be used against you. But are these reasons correct?

Are AP mines cheap?

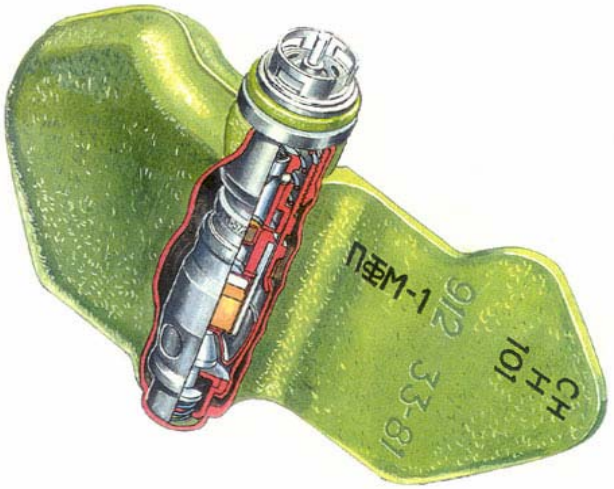
- Yes - simple blast mines $3 - $5 each
- More complex fragmentation mines $50 -$100 each
- Long-lasting in storage (except PFM-1)
- So cheap that they are a weapon of choice for guerilla forces

AP mines are certainly cheap, even the more complex ones. They usually have a long shelf-life, but there are exceptions, that I will mention in a moment. Guerilla forces are fond of them because in the early days they were often provided free, thrown in as part of overall arms “packages” provided by other nations supporting the armed struggles on one side or another.

A small plastic AP mine

This Pakistani P4 mine probably cost about $2-5 to make. By the way, I shown this view of it to give an indication of what the mine clearer actually sees, rather than the clean plastic shape seen in brochures and text books.

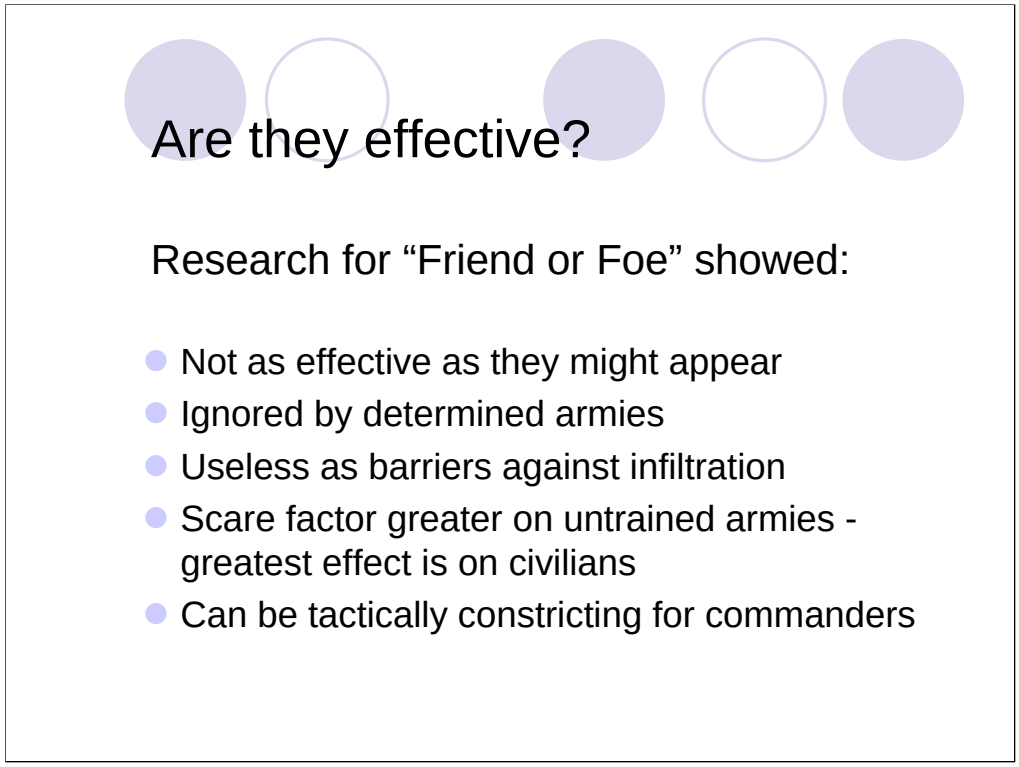
The exception - PFM-1 Series Mines



Back to shelf lives for a moment. All mines are designed to a shelf-life, but most explosives are stable, and their original shelf lives can be safely exceeded. It appears that the PMF-1 does not have a long shelf-life, and that early batches may have already exceeded it. The PFM-1 has a toxic and corrosive filling, which, under certain could make it hazardous to destroy. Suffice it to say that there could be circumstances under which internal corrosion could generate spontaneous detonation. Since the mines are fixed in cassettes during manufacture, 74 to a cassette, the detonation of one will inevitably lead to the detonation of many.

Blown-up Ammunition Dump

This could have the interesting result shown above - what happens when an ammunition dump starts to burn and detonate. This was one of three to blow up in Kuwait. Fascinating, but messy to clear up afterwards.



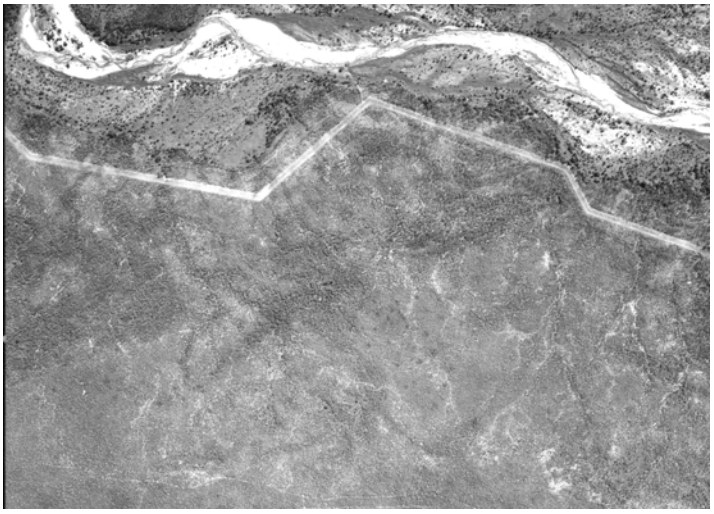
This is where we get near the central problem that I have found with AP mines. During my researches for the ICRC pamphlet “Friend or Foe” I could find no evidence that AP mines had ever stopped a determined army from gaining its objectives. The Korean and Iranian Armies marched through AP minefields, accepting the losses. AP mines have been totally useless as a barrier, unless covered by observed aimed fire.

Yes, they have a scare factor, especially with untrained or tired troops, and are very effective at scaring, killing and maiming civilians.

Militarily, they can also place tactical limitations on a commander.

Overall, there is no evidence that they were as effective as first thought.

A Barrier Minefield in Zimbabwe



Mines as barriers are almost totally ineffective against determined infiltration, unless covered by aimed fire. This is a Soviet satellite photo of part of a 360 kilometer minefield in Zimbabwe, which was created in the early 1980s at great expense, and was proof against incursion by irregular forces for maybe 3-4 days. It was expensively cleared with EU funding in 1999-2000, having failed to achieve it's objective.

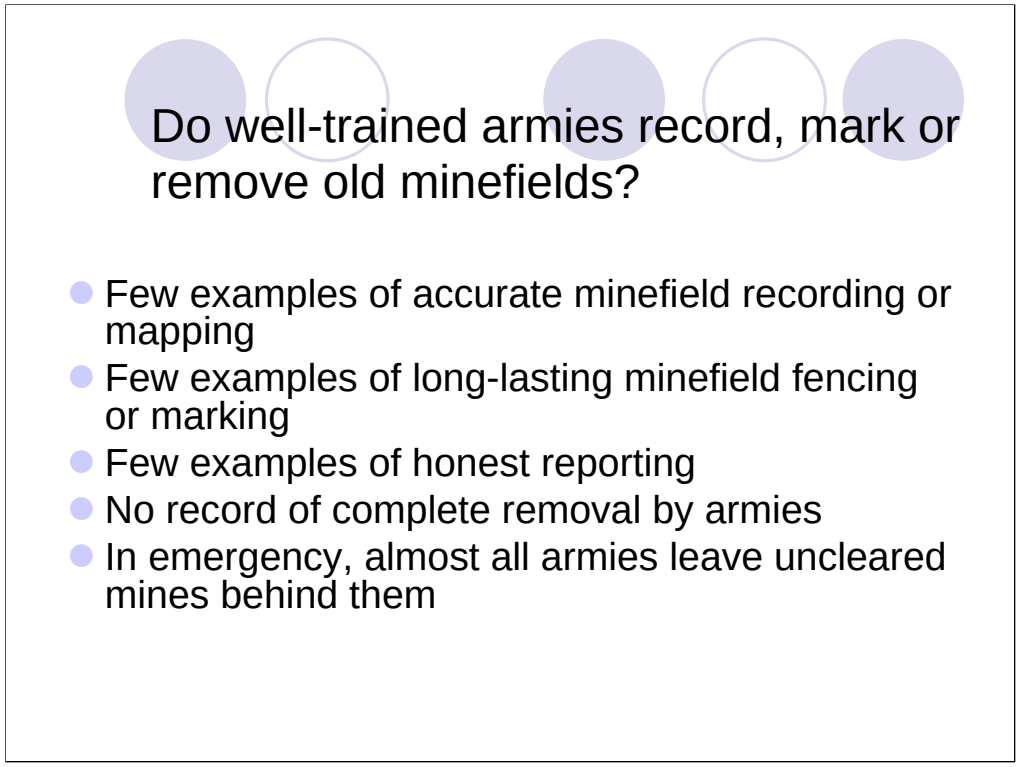
What it looks like now

This is what it looked like in 1997, when I was working on it. Of the 2.4 million mines recorded as being laid, about 1.7 million were still considered to be active and dangerous. Lives were lost during the clearance process.

Are they flexible in use?

- Flexible to lay, but tactically constricting when in place.
- Minefields costly in time and personnel to modify once laid

In Korea, huge AP minefields were laid, at the request of each tactical commander. When a new commander took over the area, he often wanted a different defensive system, perhaps because the threat had changed. Clearing a large AP minefield in order to move it somewhere else was soon found to be prohibitively costly in time and lives. The many minefields around the defensive positions soon generate a loss of tactical flexibility.



Now this is where I get into real trouble with many armies.

In my work of humanitarian demining, I have found few occasions where armies or military groups have carried out much, if any accurate recording or mapping. Government armies usually produce plans of some kind, provided that the soldiers can read or write, and many maps can be inaccurate. There has been some reasonable mapping in the Balkans, but some such maps have been offered for sale rather than surrendered for humanitarian clearance.

Marking or fencing is always difficult, as the marking materials are frequently stolen or destroyed.

Some governments deny that they laid any mines at all, whether they did or not. Others insist that they cleared all mines, whether they did or not.

Only one instance was found where the combatants removed the mines after the conflict. In all other instances, the mines were just left, to harass the local people for years after the conflict.

Marking may start like this ….

In practice, even marking minefields is rarely effective enough. This is some new marking, carried out by an NGO in Angola last year. It is good, but the locals may well steal most of the marking materials before long.

But can quickly become usesless.

This was a plastic mine sign, again used in Angola, but when the local farmers burnt off the land for cultivation, the plastic mine sign collapsed in the heat..

This might last better.

This is a local warning sign from Angola. It probably will not be stolen or decay, but may fall off the tree.

Few Lasting Effects?

- Major effects on tactical flexibility
- Lasting effects on civilian populations during and after the conflicts
- Long-lasting massive clearance task, using valuable resources needed elsewhere
- After-effects last for decades - WWI and WWII mines and other weapons still killing and maiming today

I have mentioned some tactical restrictions, but there is also the effect on troops covered by mines. In Korea there was a reported reluctance of military patrols to pass through minefield gaps, possibly because they feared that the minefields had been tampered with, preferring to wait at the edge of the minefield and claim that they had completed their tasks.

The effect on the civil population is horrible, and the ill-effects of mine pollution continue for many years. The effort to clear up after conflicts is enormously costly, and imposes financial strains on the victim country that spill over into every facet of society.

Could our AP mines be used by the enemy against us?

- Very likely
- Mines favoured by irregular armies
- Your own mines stocks may be stolen
- Individual mines may be removed from minefields and used against you

Every army which has signed up to the Mine Ban Convention has to say, “well, if we do not use them, they will be used against us. Why should we be forced to wage war on an unequal footing?”. I agree that mines may well be used against them, because AP mines are so popular with irregular armies, but mines can be dangerous to one’s own side. Many thousands of US mines brought into Korea were captured by the North Koreans and Chinese, and used against the US and other forces. In Vietnam, the Vietcong harvested the mines from US minefields, and again used them against the US. There is evidence from many countries that minefields are used as sources of supply of mines for irregular groups.

That said, as more countries sign up to the Mine Ban Convention, more armies are changing their tactics and doctrine to live without AP mines. It seems to work.

So are Anti-personnel mines useful?

- Some military value
- Some military liabilities
- Major undesirable lasting after-effects
- On balance, overall value is questionable

So now we come to the most important point - are AP mines really that useful?

Yes, they have acknowledged military value, and limitations, but if you consider what happens after the conflict, the narrow advantages may well be heavily outweighed by the disadvantages. If armies did what they claimed to do, and removed mines after they had no tactical or strategic value, they could perhaps be a case for them. But they do not.

Alternatives?

- Changes in tactics
- Use of new surveillance equipment
- More use of traditional non-lethal delaying elements (barbed wire etc)
- This needs a change of doctrine
- Armies need to teach downstream effects in staff colleges and arms schools

Note:

- Many nations have found it possible to fight without mines, though mines are held by their enemies

Yes, there are alternatives, and John McBride has discussed some of these. But as he said changes come from a mental attitude rather than a new technology. Modern surveillance equipment is many times more sophisticated that before, even for factories and warehouses, and could probably be transferred to military use. A large amount of research is currently taking place in the US and elsewhere into valid alternatives. But the fundamental principles of covering obstacles, including minefields, by aimed, observed fire, which most officers learn as cadets, and is taught at staff colleges, still apply.

Living without AP mines is a change in doctrine that will need to be explained and taught properly. Since 1994 I have been advocating the teaching of the effects of AP landmines in Staff colleges and Arms Schools. I have no evidence that I have been listened to.

And, as I said earlier, many nations are now living without mines.

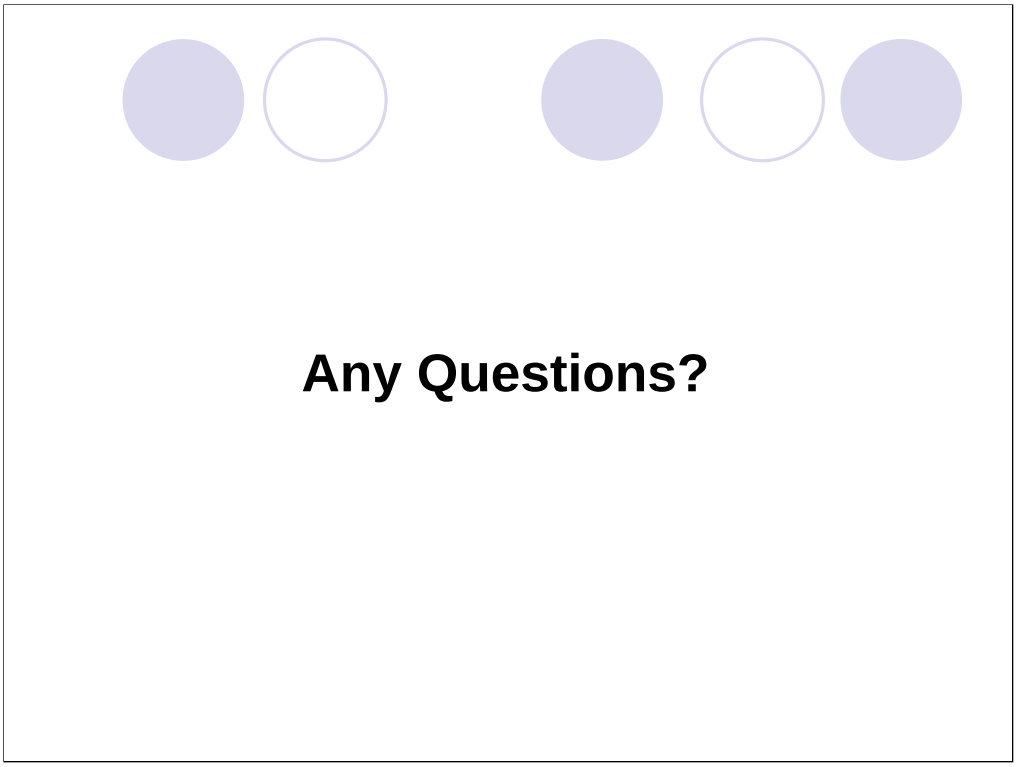
Or is this the future?

This is an early-generation “smart” mine, aerially delivered. This example is actually an anti-vehicle mine, but the AP version is almost externally similar, except for four holes in the top surface.

Smart mines are meant to be self-destroying, although this one did not. When active, they are difficult to see, and very lethal. When inactive, they can still generate enough fear amongst civilians to cause contaminated ground to be left unused. If this is the future, I still do no like it.

This needs to comment.

As the Mine Ban Convention reduces the mine supply, your own mine stocks, or your own minefields, become increasingly worth "harvesting". A capable terrorist force or patriotic front could have your own mines from your own border into your own capital in a very few days – a point worth thinking about.



Any questions?

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