

# Liquid threat exposes flaws in airport security

Claims that terrorists were plotting to use liquid explosives suggest they understood the limitations of current bomb detection methods, experts say.

**James Sturcke**  
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With investigations focusing on an alleged plot by suicide bombers to smuggle liquid explosives on to transatlantic flights, not even baby milk was allowed on board aircraft departing Britain today unless an accompanying passenger was prepared to taste it in front of security staff.

Bottles of water, contact lens solution and liquid medicine were among the items barred from hand luggage. The Home Office website added that duty-free liquids would also be removed from passengers boarding flights to the US.

Terrorism experts said it would be possible to make a liquid bomb from apparently innocuous components.

"You could carry an inert liquid that if you mix with another one could become explosive," said David Hill, a former counter-terrorism expert at the National Crime Squad and a security consultant at Red24.

"You could get the materials to make a bomb from a garden centre. Or it could be something as simple as taking on board paraffin and attempting to start a fire."

With all objects except pocket wallets, purses and a few other essential items also banned from hand luggage, Mr Hill said police would be looking at other ways explosives could be taken on to flights.

"The terrorists will have planned this for some time. They will try to make contingency plans and I think that is what the security services will be trying to guard against," he added.

Andy Oppenheimer, the editor of Jane's Nuclear Biological Chemical Defence, said a lot of "home brews" were difficult to detect.

"A lot of these components are clear and have no smell and you could mix them on board. You do not need much explosive to bring down an aircraft," he said.

"The trouble with airport security measures is that a lot of machines do not spot a lot of explosives. It is still a case of dogs and people taking their clothes off."

Liquid bomb components would not necessarily be picked up by "sniffer" type security scanners if placed in carefully sealed and cleaned containers, said the explosives expert Sidney Alford.

"Most people associate explosives with either solid materials or gases," Dr Alford said. "You don't expect an explosive to be liquid. If it's in a baby's bottle, or a clearly labelled bottle of gin or whisky, or cough mixture, how many security staff are going to question it?"

Several different kinds of explosive may have been involved in the making of a liquid bomb and they are not difficult to obtain or make from raw ingredients, said Dr Alford, who is the chairman of the explosives company Alford Technologies. Some need to be combined with another sensitising substance and detonated, but others explode as soon as they are combined with another substance.

"The fact that you don't need a detonator would be a great advantage," he added.

Philip Baum, the editor-in-chief of Aviation Security International, said today's events showed the alleged plotters understood the limitations of the technology used at airports.

"The type of scanner technology used for hold baggage is more advanced in detecting explosives than those used for hand luggage," he told the BBC's World At One. He said potential bombers would not be able to combine the components of the bomb if they were checked in as hold baggage.

Professor Paul Wilkinson, of the Centre for the Study of Terrorism and Political Violence at St Andrews University, said nothing on this apparent scale had succeeded before.

"This is really a very ambitious plot indeed, it is the kind of spectacular, potentially lethal attack which the al-Qaida network has been particularly interested in carrying out," he said. "I would be very surprised if it was found that they were not involved as a movement.

"It is possible, I suppose, that some other movement could have copied the kind of techniques that had been used by the al-Qaida network but I think that's unlikely. I don't think we should in any way underestimate it, it's a significant and serious development and the authorities are right to be responding with exceptional measures."

He said that the only close comparison could be with the foiled Bojinka plot to blow up 12 western airliners simultaneously in Asia in the mid 1990s.

The plot, which would have killed thousands in the Asia Pacific region, was scuppered when plans were found in the Manila base of terrorist Ramzi Yousef, who also planned the 1993 World Trade Centre bombing.

The former Metropolitan police commissioner, Lord Stevens, said the latest drastic security measures would not have been taken unless there was an "absolute need".

"You know there is going to be a fair amount of disruption and chaos and that is balanced against trying to keep things as normal as possible. But they will not have done anything unless there was an absolute need for it."

Airports and aeroplanes have been a key target for terrorists for decades. British-born Richard Reid tried to detonate a shoebomb on a transatlantic flight from Paris to Miami in late 2001. He was overpowered by passengers as he tried to ignite the explosives and was later jailed for life by a US court.

In February 2004, six transatlantic US-bound flights from Britain and France were cancelled on two days as a result of security fears. BA cancelled its Heathrow to Washington flight BA223 after receiving advice from the government.

The same flight had been cancelled on January 1 and 2 that year after the US stepped up its security alert.

In February 2003, troops and armoured vehicles were sent to Heathrow amid fears that terrorists were planning an attack.

On December 21, 1988, Pan Am flight 103 exploded over Lockerbie, killing all 259 people on board and 11 residents in the Scottish town. In total, 44 of the victims were British.