



## BRIEF OF THE DAY:

### AIRPLANES VULNERABLE TO PORTABLE EMP DEVICES

PREVENTION GOALS	COLLABORATION	INFORMATION SHARING	THREAT RECOGNITION	RISK MANAGEMENT	INTERVENTION
DETER					
DETECT			X		
PREVENT			X		
ELIMINATE THREATS					

#### CONTEXT:

Imagine an item that is powerful enough to take down a jetliner, yet small enough to be carried in a car or even on a person. The portable e-bomb is that powerful.

The e-bomb is a small electromagnetic pulse (EMP) device. When placed on or aimed at an airplane, the e-bomb can use a single microwave radio blast to interfere with electrical components and bring it down. Counterterrorism experts believe that terrorist groups could easily build low-tech e-bombs to inflict massive damage with information and components that are available on the internet.

The increased use of carbon-fiber reinforced composite in aircraft fuselages makes them more vulnerable to electromagnetic radiation. When compared with metals, composites offer little protection against electromagnetic radiation. Airlines can possibly reduce their vulnerabilities with extensive shielding of electronic components and cables.

#### Sources

PORTABLE 'E-BOMBS' COULD TAKE DOWN JETLINERS

<http://www.foxnews.com/story/0,2933,513295,00.html>

DIY 'e-bombs' a threat to airliners

[http://news.cnet.com/8301-13639\\_3-10211830-42.html](http://news.cnet.com/8301-13639_3-10211830-42.html)

How E-Bombs Work

<http://science.howstuffworks.com/e-bomb.htm>

#### Prevention Relevance

Terrorist groups could easily build low-tech e-bombs to inflict massive damage with little money and knowledge by using information and components that are available on the internet.

### **Prevention Techniques**

**Threat Recognition:** Using metal mesh to shield vulnerable electronic components and cables may help airlines to reduce risks from e-bombs.

### **Prevention Thought**

**Threat Recognition:** Do you think terrorist groups already possess e-bombs that could be used against airplanes? Should airlines take more precautions to reduce vulnerability to e-bomb attacks?

## **IPS CONTACT INFORMATION:**

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