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# Highlights

Highlights of [GAO-06-475](#), a report to the Honorable John L. Mica, Chairman, Subcommittee on Aviation, Committee on Transportation and Infrastructure, House of Representatives

## Why GAO Did This Study

The Transportation Security Administration (TSA) has authority to approve air carrier requests to deploy less-than-lethal weapons, including electric stun devices, onboard commercial aircraft to thwart an attack. Since the terrorist attacks of 2001, one air carrier received approval to deploy electric stun devices. To address concerns regarding reports of injuries after the use of these devices and to ensure that the impacts of these devices onboard aircraft have been fully evaluated, this report answers the following: (1) What analyses has the federal government conducted to assess the safety and effectiveness of these devices onboard commercial aircraft? (2) What controls does TSA have in place to help ensure uniform and timely review of air carrier requests to deploy these devices onboard commercial aircraft?

## What GAO Recommends

GAO is recommending that should air carrier interest in deploying these devices resume, TSA should ensure that there is reliable research supporting their use in an aircraft environment and that the agency implement internal controls to govern receipt and review of air carrier requests. The Department of Homeland Security agreed with our recommendations.

[www.gao.gov/cgi-bin/getrpt?GAO-06-475](http://www.gao.gov/cgi-bin/getrpt?GAO-06-475).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Cathleen Berrick at 202-512-8777 or [berrickc@gao.gov](mailto:berrickc@gao.gov).

## AVIATION SECURITY

# Further Study of Safety and Effectiveness and Better Management Controls Needed If Air Carriers Resume Interest in Deploying Less-than-Lethal Weapons

## What GAO Found

The Transportation Security Administration and the Federal Aviation Administration (FAA) have conducted reviews addressing the effect of electric stun devices on aircraft. Plus, various federal as well as other organizations examined the health effects that electric stun devices have on individuals. But, no studies of health effects have been conducted in an in-flight environment. Moreover, according to National Institute of Justice (NIJ), although electric stun devices have been used successfully many times to subdue suspects, certain susceptible populations, such as the elderly and those with a history drug and alcohol abuse, may be at risk for negative outcomes. In April 2002, NIJ concluded that the use of electric stun devices in accordance with appropriate policies and training may be an effective means for flight deck crews to thwart an attack but should not be deployed without further testing. Similarly, in a 2003 report to Congress, TSA generally concurred with NIJ's conclusions. But, neither review included in-flight testing or empirical testing of these devices that would demonstrate that they would enhance security. TSA's position is that empirical data, particularly in an aircraft environment, is necessary to determine if these devices can be used safely and effectively.

TSA lacks key internal controls, to help ensure uniformity in decision making and a transparent process to review requests to deploy electric stun devices onboard commercial aircraft. Specifically, TSA (1) lacks a well-defined organizational area with responsibility to receive and review requests, (2) has not established formal criteria for decision making to approve requests and has not communicated criteria to external stakeholders, and (3) maintained little documentation of its decision making and activities to account for its handling of past requests. Without clearly defined approval criteria and a point of contact, TSA cannot reasonably assure that its decision making is uniform and consistent, nor can it provide a transparent request and approval process for air carriers.

Example of an Electro-Muscular Disruption Device (EMDD)



Source: GAO; Prince George's County, Md., Sheriff's Office.