

*Technology Against Terrorism: Structuring
Security*

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**TECHNOLOGY AGAINST
TERRORISM**
STRUCTURING SECURITY



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Foreword

Terrorism is not a new phenomenon, but it has become more prominent during the past two decades. Terrorist attacks have included not only political assassinations, but also large-scale attacks, often aimed at third parties, causing massive casualties. Two well-known examples are car bombings, employing hundreds of kilograms of high explosives, and attacks on commercial aircraft around the world. The U.S. Government and the American public became acutely aware of terrorism after the bombing of Pan American Flight 103 over Lockerbie, Scotland in December 1988. The recent war in the Persian Gulf heightened fears of renewed terrorist attacks on U.S. targets, both overseas and at home.

In 1989, because of growing concern over terrorist threats, several Senate Committees requested that OTA study the role of technology in fighting terrorism and the Federal effort in promoting related research and development. The requesting Committees were: Governmental Affairs; Foreign Relations (Subcommittee on Terrorism, Narcotics, and International Operations); and Commerce, Science, and Transportation, together with its Subcommittee on Aviation. The Senate Select Committee on Intelligence also endorsed the study.

This report is the second and final one in response to these requests. The first was transmitted to Congress in a classified version in September 1990. An unclassified summary was released to the public separately in February 1991, and an unclassified version of the full report was published in July 1991. This second report also has a classified annex with additional technical data. The first report concentrated on Federal funding for research and development in counterterrorist technology and on aspects of airline security, particularly explosives detection. This report is devoted primarily to three other topics: interagency coordination of efforts in counterterrorist research and development, integrated security systems, and the role of human factors in aviation security. In addition, it furnishes details on a number of technologies that play a role in counterterrorism.

The help and cooperation of a large number of scientists and officials from the Departments of Defense, Justice, State, Transportation, and the Treasury are gratefully acknowledged. Special thanks are due to the Federal Aviation Administration.



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NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory panel members. The panel does not however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility for the report and the accuracy of its contents.

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