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This book explains how standard risk analytic and cost-benefit analysis can be applied to aviation security in a systematic, straightforward, and fully transparent manner. It constructs a full model of the security system, describing the effectiveness, risk reduction, and cost of each layer, from policing and intelligence, to checkpoint passenger screening, to armed pilots on the flight deck.

It concludes that it is entirely possible to attain the same degree of safety at far lower cost by shifting expenditures from measures that provide little security at high cost to ones that provide more security at lower cost. In addition, it shows how the system can be made more efficient, providing great benefits to passengers, the airlines, and the taxpayer. It also finds that aviation security costs proportionately much more in the United States than in Australia, Canada, and elsewhere.

The authors also evaluate, and put into context, the degree to which terrorism presents a threat to aviation, and they discuss and apply the key notion, largely ignored by excessively risk-averse officials, of acceptable risk.

John Mueller and Mark G. Stewart are also the authors of *Terror*, *Security*, *and Money: Balancing the Risk, Benefits, and Costs of Homeland Security* (2011) and *Chasing Ghosts: The Policing of Terrorism* (2016).



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Mark G. Stewart is Professor of Civil Engineering and Director of the Centre for Infrastructure Performance and Reliability at The University of Newcastle in Australia. He is co-author of Probabilistic Risk Assessment of Engineering Systems (Chapman & Hall, 1997, and Japanese edition in 2003), and has published more than 400 technical papers and reports. He has 30 years of experience in probabilistic risk and vulnerability assessment of infrastructure and security systems that are subject to manmade and natural hazards. Professor Stewart has received extensive Australian Research Council support, including an Australian Professorial Fellowship, to develop probabilistic riskmodelling techniques for infrastructure subject to military and terrorist explosive blasts, and cost-benefit assessments of aviation security, policing, and counter-terrorism protective measures for critical infrastructure.

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