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# Penaid Nonproliferation

## Hindering the Spread

### of Countermeasures Against Ballistic

### Missile Defenses

Richard H. Speier, K. Scott McMahon, George Nacouzi

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## Summary

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This research describes an approach to hindering the spread of countermeasures against ballistic missile defenses. (Such countermeasures, when incorporated in an attacker's missile, are also called penetration aids, or *penaids*.) The approach involved compiling an unclassified list of penaid-relevant items that might be subject to internationally agreed-upon export controls.

The list is formatted to fit into the export-control structure of current international policy against the proliferation of missiles capable of delivering weapons of mass destruction. This policy, the Missile Technology Control Regime, creates two levels of control. One is a set of tight restrictions against a small number of items, such as complete missiles or their major subsystems. The other is a set of case-by-case export reviews for lower-level components and dual-use items.

This report recommends controls on 19 penaid-relevant items. More specifically, it recommends the tightest controls on three of those items: complete, integrated countermeasure subsystems; complete subsystems for missile defense test targets; and boost-glide vehicles. It offers as candidates for the tightest controls ten other items, such as re-entry vehicle replicas or decoys. But because these ten items are not complete subsystems, it identifies the possibility of treating them to a case-by-case review to improve the negotiability of the controls. Finally, the report identifies six classes of items, including test facilities and equipment, that could appropriately be subject to case-by-case review because of their utility for other applications, such as peaceful satellites.