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**New Strategic Forum Released:
Small Nuclear Reactors for Military Installations: Capabilities,
Costs and Technical Implications**
By
Richard Andres and Hanna Breetz

The [Center for Strategic Research](#) at the [Institute for National Strategic Studies](#) (INSS) is pleased to announce the release of Strategic Forum #262: "[Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technical Implications](#)" by [Richard Andres](#) and Hanna Breetz

"...if the wars in Iraq and Afghanistan are indicative of future operations, using small reactors at forward locations has the potential to save U.S. lives."

The technology being proposed for small reactors (much of which was originally developed in U.S. Government labs) is promising. A number of the planned designs are self-contained and highly mobile, and could meet the needs of either domestic or forward bases. The argument that this technology could be useful at domestic bases is virtually unassailable. The argument for using this technology in operational units abroad is less conclusive; however, because of its potential to save lives, it warrants serious investigation.

Unfortunately, the technology for these reactors is, for the most part, caught between the drawing board and production. Claims regarding the field utility and safety of various reactors are plausible, but authoritative evaluation will require substantial investment and technology demonstration. In the U.S. market, DOD could play an important role in this area. In the event that the U.S. small reactor industry succeeds without DOD support, the types of designs that emerge might not be useful for the department since some of the larger, more efficient designs that have greater appeal to private industry would not fit the department's needs. Thus, there is significant incentive for DOD to intervene to provide a market, both to help the industry survive and to shape its direction.

Since the 1970s, in the United States, only the military has overcome the considerable barriers to building nuclear reactors. This will probably be the case with small reactors as well. If DOD leads as a first mover in this market-initially by providing analysis of costs, staffing, reactor lines, and security, and, when possible, by moving forward with a pilot installation-the new technology will likely survive and be applicable to DOD needs. If DOD does not, it is possible the technology will be unavailable in the future for either U.S. military or commercial use.

Dr. Andres is a Senior Fellow and Energy and Environment Security and Policy Chair at INSS. His current work focuses on energy and environmental security and particularly defense related

energy issues. Prior to joining INSS, Dr. Andres was a professor at Air University assigned to the Pentagon where he served as Special Advisor to the Secretary of the Air Force. Hanna Breetz is a doctoral candidate at M.I.T.

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