INTRODUCTION

Modern long-range, land-attack cruise missiles have been in development for almost two decades and deployed for almost one. They are weapons, like the U.S. TOMAHAWK-class sea-launched cruise missiles (SLCMs) and the Soviet AS-15 air-launched cruise missiles (ALCMs), that have emerged from technologies for smaller engines, warheads, and guidance systems. Their small sizes contribute to their survivability, for they are largely invisible to many air defense radars.

Although they are no more than six or seven meters in length, modern cruise missiles can fly distances of 2000 or 3000 kilometers. Long range is one of the major attributes differentiating these weapons from earlier cruise systems, and from current cruise missiles used in anti-ship or air-to-surface missions. Another attribute is their high accuracy, which makes them effective against land targets at the furthest extent of their operational range. They can destroy targets previously assigned only to accurate and powerful ballistic missiles.¹

From the outset, modern cruise missiles have posed problems for the arms control process. Their accuracy and range made them attractive nuclear delivery vehicles at the same time that uses were foreseen for them in the conventional sphere. These ranged from traditional cruise missile applications, such as the anti-ship mission, to conventional missions against land targets. In most respects, however, the current classes of nuclear and conventional cruise missiles have been identical in appearance, using the same airframe for each of the variants.

As long as the main emphasis in deployment was on the nuclear versions, cruise missile arms control remained feasible as well as desirable. The Strategic Arms Limitation Talks (SALT) were able to address the issue of limiting air-launched cruise missiles on bombers for two reasons: the ALCMs that the United States was deploying...
on its bombers were nuclear, and there was no great demand within the U.S. defense community for dual conventional and nuclear capability in the ALCM force.

All U.S. ALCMs could therefore be counted as nuclear, a simplifying rule for counting nuclear launchers that was used during the SALT years, when the United States and Soviet Union were depending on national technical means (NTM) to verify arms control agreements. Whether or not a weapon was amenable to control was in fact dependent during this period on its accountability under an NTM-based verification regime.

Once cruise missiles were deployed in nuclear and conventional variants on multipurpose launch platforms, the simple SALT rules no longer applied. Designed to be flexible and to carry different guidance and warhead payloads within the same basic airframe, the modern cruise missile began to fulfill its promise to become the worst arms control problem ever confronted by the United States and Soviet Union. The Reagan Administration initially refused to consider sea-launched cruise missiles in the Strategic Arms Reduction Talks (START), claiming that controls on the missiles are impossible to verify.

There is no question that cruise missiles, when deployed in multiple versions on multipurpose launch platforms, present an extraordinarily difficult problem for arms control verification. Nevertheless a confluence of factors justifies an effort at control. First is the demand, previously described, for cruise missiles in long-range conventional missions. Second is the fact that both the United States and the Soviet Union are now deploying long-range, land-attack cruise missiles with similar capabilities. Third—and perhaps most important—are the deep cuts in strategic nuclear weapons that the two superpowers are considering in the Strategic Arms Reduction Talks.

The pace of reductions in nuclear weapons will determine the urgency of controlling nuclear cruise missiles. If significant strategic arms reductions rapidly follow the elimination of intermediate- and shorter-range nuclear missiles, then a system like cruise missiles that can be covertly stockpiled and rapidly deployed in large numbers can pose an enormous breakout risk. That risk will probably take on major strategic significance only if the numbers of nuclear weapons in the superpower arsenals drop well below the fifty percent reductions envisioned in the current START negotiations. With fifty percent reductions, the superpowers would still have 6000 warheads deployed