

Editor's Note

The first article in this issue, by R. Scott Kemp, complements the two articles in volume 16:2–3, by Glaser and Wood, which describe the technical and political issues raised by centrifuges. In this issue, Kemp reviews the history of U.S. gas centrifuge efforts for a 50-year period starting in the mid 1930s. This effort included both engineering and theoretical contributions and gives insight into how countries could today mount a centrifuge program and the progress that might be expected. The article also uses the theory developed in the U.S. to derive a simple relationship for estimating the separative power of a centrifuge by virtue only of its length and speed of rotation.

The following article by Yousaf Butt examines recent Chinese advances in laser ranging. Although such ranging, could in principle, degrade the capability of ground-imaging satellites, the author finds that the Chinese lasers should not be considered anti-satellite weapons. Nevertheless, he argues that countries should adopt rules governing the use of laser ranging.

The last three articles examine the history of fast reactor programs in three countries which have been among the most aggressive in support of such programs—France, India, and Japan. The articles are by Mycle Schneider on France, M.V. Ramana on India, and Tatsujiro Suzuki on Japan. As the articles chronicle, although the three programs differ in substantial ways, in all three cases, despite substantial governmental development efforts, the fast reactor programs have largely failed.