In order to describe the U.S. strategic defense apparatus it is necessary first to evaluate the Russian threat. This of course is the function of U.S. intelligence and no doubt intensive effort is directed to this end. However, while the public literature provides much information about U.S. systems it provides little about the Russian ones. For this reason, in this chapter we use the U.S. offense capability to obtain some perspective about what the strategic defense problem is all about. Following chapters will be devoted to the U.S. strategic defense systems.

The U.S. deterrent consists of three main components: land-based intercontinental ballistic missiles (ICBMs), Polaris and Trident submarines carrying Polaris, Poseidon and Trident sea-launched ballistic missiles (SLBMs) and bombers carrying gravity bombs and guided missiles. Each of these components alone is actually capable of delivering far more warheads than is needed for deterrence and each is currently defended against surprise destruction in a quite different way. ICBMs are in hard silos and are numerous. SLBMs are hidden in the seas. Bombers are at various levels of alert status and are geographically dispersed. At present, both the U.S. and Russian deterrent capabilities are no longer a matter of numbers. By assuring missile force availability, penetration and effectiveness, the credibility of these nuclear deterrents can be maintained through qualitative improvements as well as through a simple increase in numbers. Such improvements to the nuclear deterrents are being continuously made and these have the advantage that they cost less than the proliferation of numbers. In this manner, the USA has tried to maintain its deterrent capability through such improvements as multiple independently-targeted reentry vehicles (MIRVs) and the accuracy of missile-carrying platforms and the missiles themselves rather than through an increase in the number of weapons. It does not appear that the Russians have taken the same approach and this may well reflect the difference in basic technological capabilities between the two opponents.
At present the USA has a wide numerical lead over the USSR in independently-targetable strategic nuclear warheads (MIRVs). Already, by mid-1975 the USA had emplaced about 8,500 such strategic weapons deliverable by land-based missiles (ICBMs), sea-based missiles (SLBMs) and bombers, compared with the Russian total of perhaps 2,800. Since 1971 the USA has been producing strategic nuclear weapons at the rate of about three per day. By the November 1974 Vladivostok understanding between the USA and the USSR the USA could have as many as 21,000 strategic nuclear weapons deployed by 1985.

Not included in the strategic arsenals is the vast stockpiling of tactical, or comparatively short-range, nuclear weapons by both sides. It is estimated that the USA alone has approximately 22,000 tactical nuclear weapons distributed around the world. This total includes about 7,000 on land in Europe, 1,700 on land in Asia, 2,500 aboard U.S. Navy combat ships and the remainder, 10,800, assigned to bases in the USA. The total number of tactical nuclear weapons deployed by the USSR is not public knowledge, but it is believed the Russian forces in Europe have some 3,500 tactical nuclear weapons at their command, giving the U.S. forces in Europe a roughly 2:1 advantage in this category.

Tactical nuclear weapons were first introduced in Europe by the USA in 1954, three years before the Russians began their deployment. At present the U.S. tactical nuclear weapons in Europe include four different kinds of surface-to-surface missiles (Lance, Sergeant, Honest John and Pershing), two sizes of nuclear artillery shells (155 millimeter and 203 millimeter), nuclear surface-to-air missiles (Nike-Hercules), nuclear air-to-surface missiles (Walleye) and nuclear demolition munitions and nuclear depth bombs as well as large numbers of nuclear air-to-surface bombs capable of being delivered by more than 500 fighter-bombers. The U.S. tactical nuclear forces are stationed in a number of European countries but are most heavily concentrated in West Germany. France also maintains some of its tactical forces in West Germany.

To support the continually on-going improvement process of its strategic nuclear deterrent forces the USA has initiated a variety of strategic warfare projects. These fall in the three