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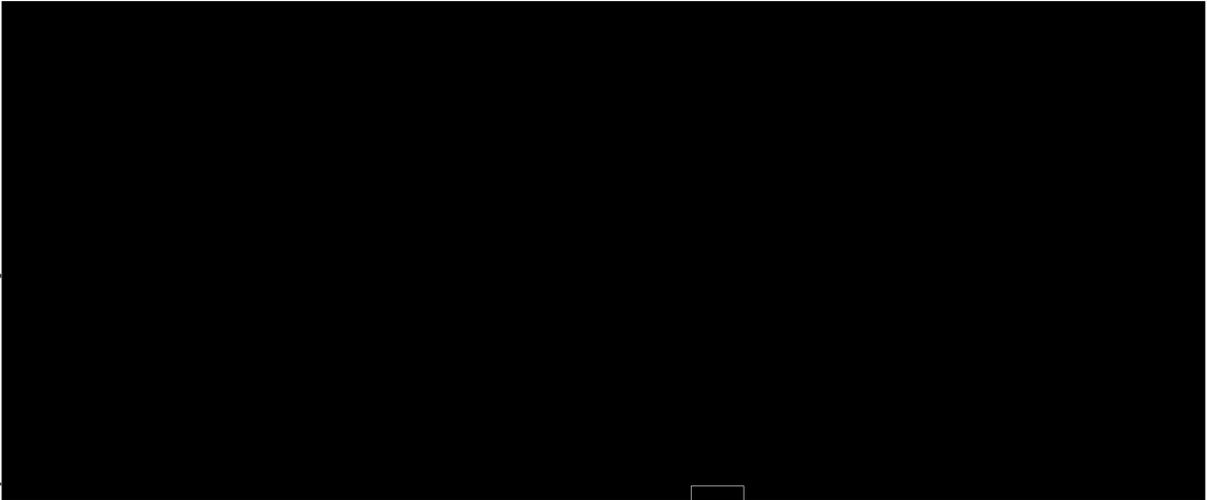
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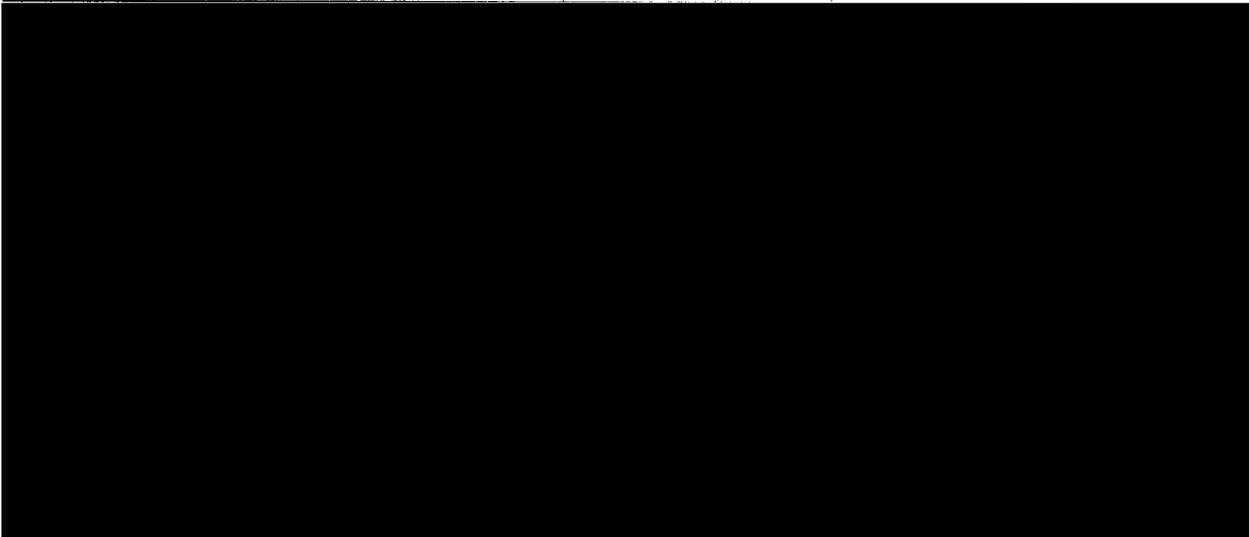
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5 **China: Modernizing the Nuclear Deterrent** [redacted]

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China is replacing vintage MRBMs with CSS-2 IRBMs—a program providing expanded coverage of targets and a more stable and lethal missile force. [redacted]



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China: Modernizing the Nuclear Deterrent

China is replacing the vintage CSS-1 medium-range missile with an intermediate-range missile, the CSS-2, which will expand coverage of targets in the eastern Soviet Union and in Vietnam and provide Beijing with a more stable and lethal missile force.

The number of these semimobile missiles—the mainstay of China's nuclear deterrent—seems to have reached a plateau. The force probably will not grow until the mid-1980s when China's first missile-carrying submarine (SSBN) becomes operational.

The Role of an Improved Missile Force

The replacement of MRBMs with CSS-2s is a relatively simple, low-cost way for China to improve the capabilities of its semimobile missile force, which is composed of weapons that can be transported on roads, but not cross-country.

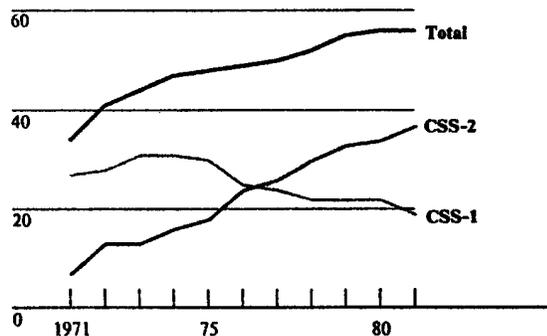


China deployed the CSS-1 MRBM, which has a range of 1,100 kilometers, in 1966 and the CSS-2 IRBM, which has a range of 2,700 kilometers in 1971. Both missiles are delivered on trailers to their launch positions, and are fired from a surface launch pad.

A variant of the German V-2 rocket, the CSS-1 is an antiquated missile with serious limitations of range, lethality, and—especially—readiness. Because its liquid oxygen propellant rapidly boils away, the CSS-1 can be held at full readiness for only about an hour. The poor accuracy of the missile and the relatively low yield of its 15-kiloton warhead do not make the missile a particularly effective system.

The CSS-2 is superior in all respects. It can carry a 3-megaton warhead for more than twice the range with about the same accuracy. Its storable liquid propel-

Deployment Trends for China's Semimobile Missiles, 1971-81^a



^aValues shown on this graph only represent deployments at known bases. Moreover, the data reflect the midpoint in the range of our own estimates for each missile system and do not indicate the degree of uncertainty about the number of launchers at known bases.



lants do not limit how long it can be kept fully ready to fire. Heavy-duty trucks supplied to CSS-2 units make the missiles more maneuverable.

Beijing appears to be pointing toward an all CSS-2 force by 1986. To achieve this goal, it needs to replace one regiment of CSS-1s each year.



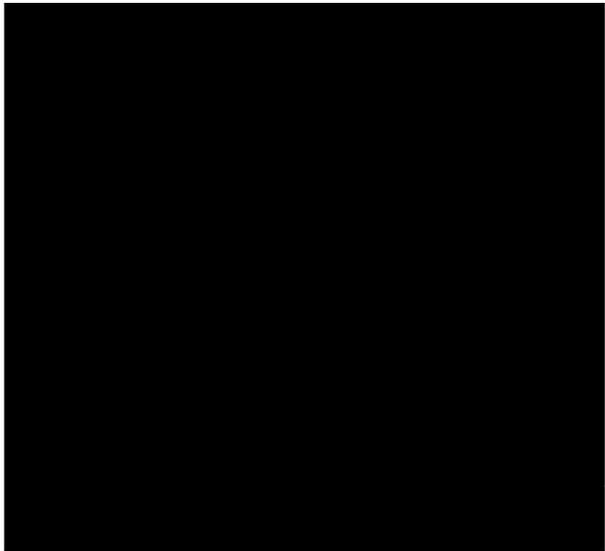
The CSS-2 will be the mainstay of the Chinese nuclear deterrent into the 1990s. It gives the military

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leadership more flexibility because the missiles can be kept on full alert indefinitely. In contrast, the CSS-1 required the Chinese to choose between keeping the force at a moderate level of readiness—that is, without fuel in the missiles—or at a readiness posture that would fluctuate rapidly between ready-to-fire and hours-to-fire.

The CSS-2 also provides increased range. Vladivostok, previously within range of the missiles at 23 Chinese missile bases, now is within range of 25 bases. Saigon, formerly within range of eight bases, now could be attacked from 14 bases. Because most of the semimobile missile bases are near the coast or the borders, the CSS-2 generally offers wider choices in targeting potential adversaries on China's periphery.

The Chinese probably will not modernize the bases closest to the USSR until last. CSS-1 missiles at these bases can reach important Soviet targets and therefore remain useful against China's main adversary. Moreover, by reequipping the more southerly bases, China can strike the Soviet Union from more distant areas. This also will provide greater capabilities against Vietnam, about which the Chinese are increasingly concerned because of improvements in Vietnamese forces and the growing Soviet presence.



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