Lexicon

Within the next few weeks, President Reagan will announce what sort of base he prefers for the proposed fleet of 100 MX intercontinental missiles.

The current betting is that he will recommend "closely spaced basing," known in the Pentagon as C.S.B., and among many journalists and politicians as "dense pack." This system would involve placing all 100 MX missiles, advanced intercontinental weapons with 10 warheads each, in one field of slightly less than 15 square miles, with silos about 600 yards apart.

But whatever system the President recommends, the debate over MX is not likely to end soon. For those who wish to follow the argument, or merely ponder the nuclear jargon that has grown up around it, the following glossary may be useful:

Fratricide — A phenomenon in which, it is expected, the earliest explosions of enemy nuclear warheads in a closely spaced MX base will destroy or deflect warheads that follow, thus permitting most of the MX fleet to survive. Like most such theories, this has never been empirically tested.

Capsule — The Air Force prefers to call MX silos capsules because of a fear that the Soviet Union will complain that building new intercontinental ballistic missile silos constitutes the construction of new missile launchers, which is forbidden by the second treaty on strategic arms limitation, SALT 2.

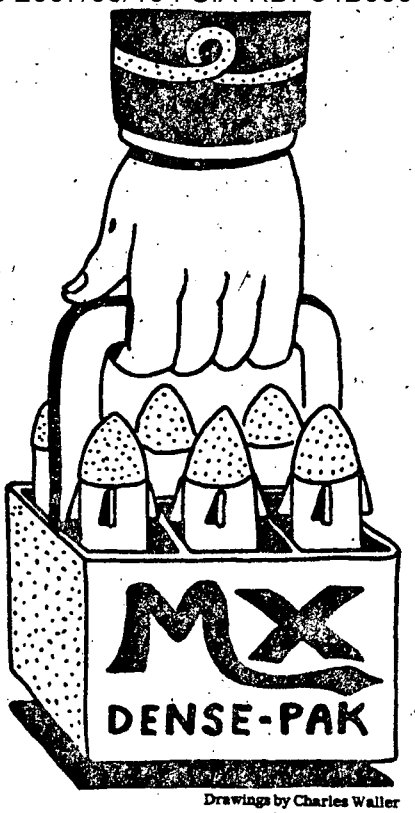
Launcher — For reasons of diplomatic ambiguity, no clear definition of this key term has ever been agreed upon. The second arms limitation treaty, which was signed in 1979, says in Article 2 that "intercontinental ballistic missile launchers are land-based launchers of ballistic missiles." The "First Agreed Statement" of the treaty says that this "includes all launchers which have been developed and tested for launching ICBM's." This, one nuclear theologian remarked, is "tautological," saying little more than a launcher is a launcher. The assumption in 1979 was that silos were launchers, but this assumption is no longer convenient to nuclear hawks.

R.V. — Re-entry vehicle, the cone-shaped, heat-shielded object that carries the nuclear warhead, often called the physics package, to the target.

Scenario Dependent — Theories or ideas, the validity of which depend on scenarios or assumptions of a chain of events.

Full Spike — A war scenario in which Soviet military planners would attack the densely packed MX field with a salvo in which at least one R.V. would be directed at each capsule for detonation as nearly simultaneous as possible.

Staggered Attack with Pindown, or Partial Spike — A scenario in which the enemy would fire perhaps 11 R.V.'s at a time, spaced to detonate far enough apart to avoid fratricide, while the American MX's were immobilized in their capsules by pindown.



Drawings by Charles Waller

achieve simultaneous explosion of incoming R.V.'s. One such possibility would be to slow the high re-entry speeds of R.V.'s (as much as 23,000 feet per second, or almost 10 times the speed of a rifle bullet) with parachutes or retro rockets so that all the incoming R.V.'s landed gently on the field and could be exploded simultaneously by remote control.

Deep Penetrator, or Earth Penetrator — An R.V. that would be constructed so as to be able to plunge deep into the earth without exploding (or being destroyed by the high energy of impact) until other penetrators had done the same and all could be exploded.

P.L.U. — "Preservation of location uncertainty." P.L.U. was very important when there were plans for moving MX missiles among a large number of protective shelters in a "shell game" or "race track." In a simple densely packed MX field, P.L.U. is a moot question. However, in the future the United States may wish to add **Deceptive Basing** to the MX field by adding extra capsules among which the 100 missiles could be moved. In that case it will be most desireable to preserve location uncertainty.

Launch on Warning, or Launch Under Attack — If confidence in the workability of dense pack or other defenses erodes, some thinkers have discussed firing United States missiles before incoming enemy missiles strike the capsules. One fear, among many, about L.O.W. or L.U.A. is that an enemy might first knock out the space satellites that carry **sensors**, which are designed to give the warning that Soviet missiles have been launched. Such an event is sometimes described as **Warning by Loss of Warning.**

Dust Defense — A theoretical defense of a missile field in which the United States would bury some nuclear warheads in a missile field and north of it and detonate them when sensors gave notice that enemy warheads were incoming. The columns of dirt, dust and debris raised by these explosions might destroy or deflect the enemy R.V.'s. It is widely assumed, however, that Congress and the President might be reluctant to embrace a defense that involved the deliberate detonation of American thermonuclear devices on American soil. A Pentagon document recently conceded that a problem with some nuclear plans, such as dust defense, were that they may be:

Counter Intuitive — The Pentagon paper did not define counter intuitive. However, insiders say the phrase means that to ordinary folks the idea sounds crazy.

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Pindown — An untested but apparently plausible nuclear tactic in which one side would explode a timed series of nuclear warheads at very high altitudes above a missile field. Because the "boost stages" or rocket portions of missiles attempting to fly out through the pindown woud probably be destroyed by X-ray energy, the President would have to delay launching United States ICBM's until the pindown ended.

Soft Laydown — One way for an attacker to defeat fratricide would be to