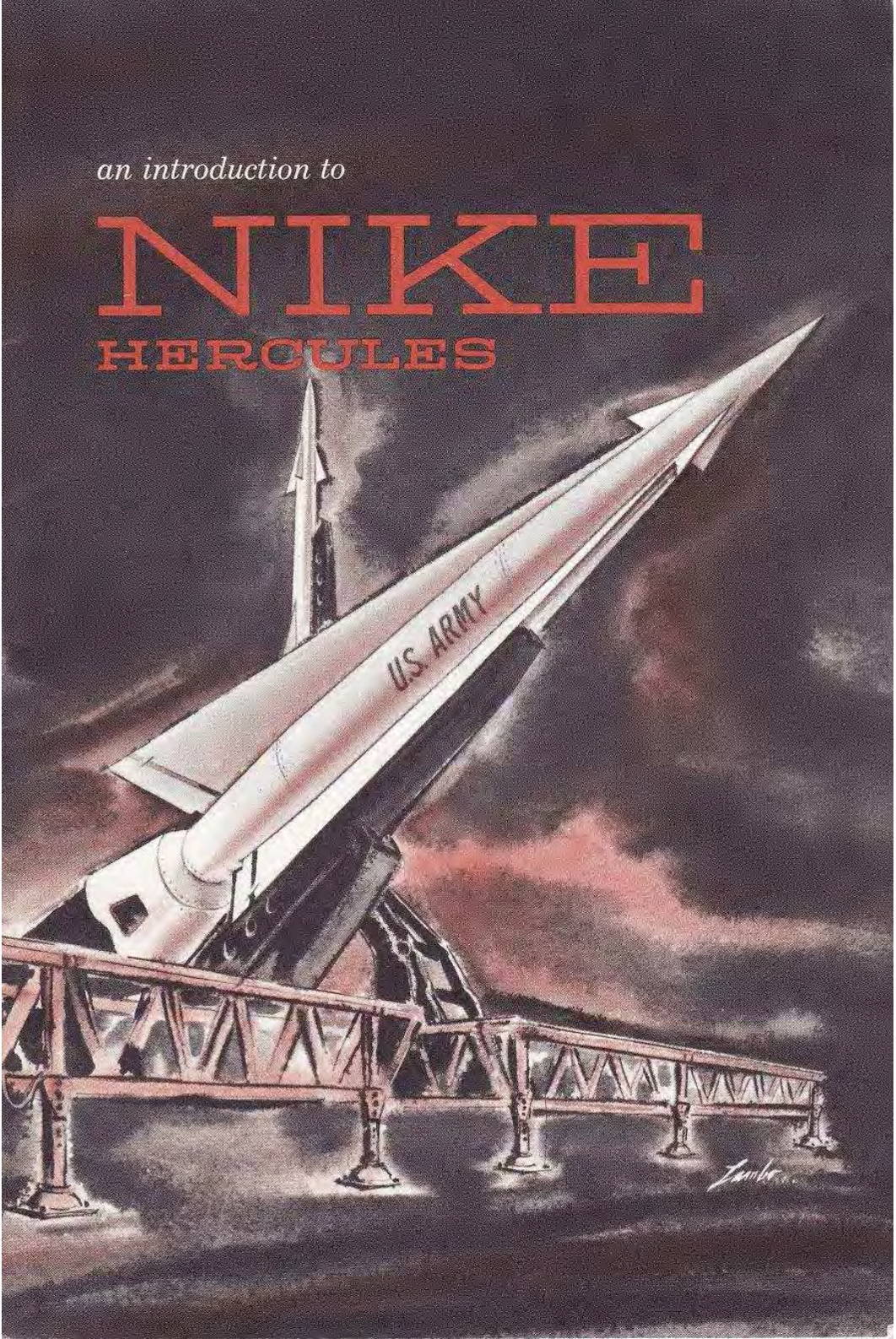
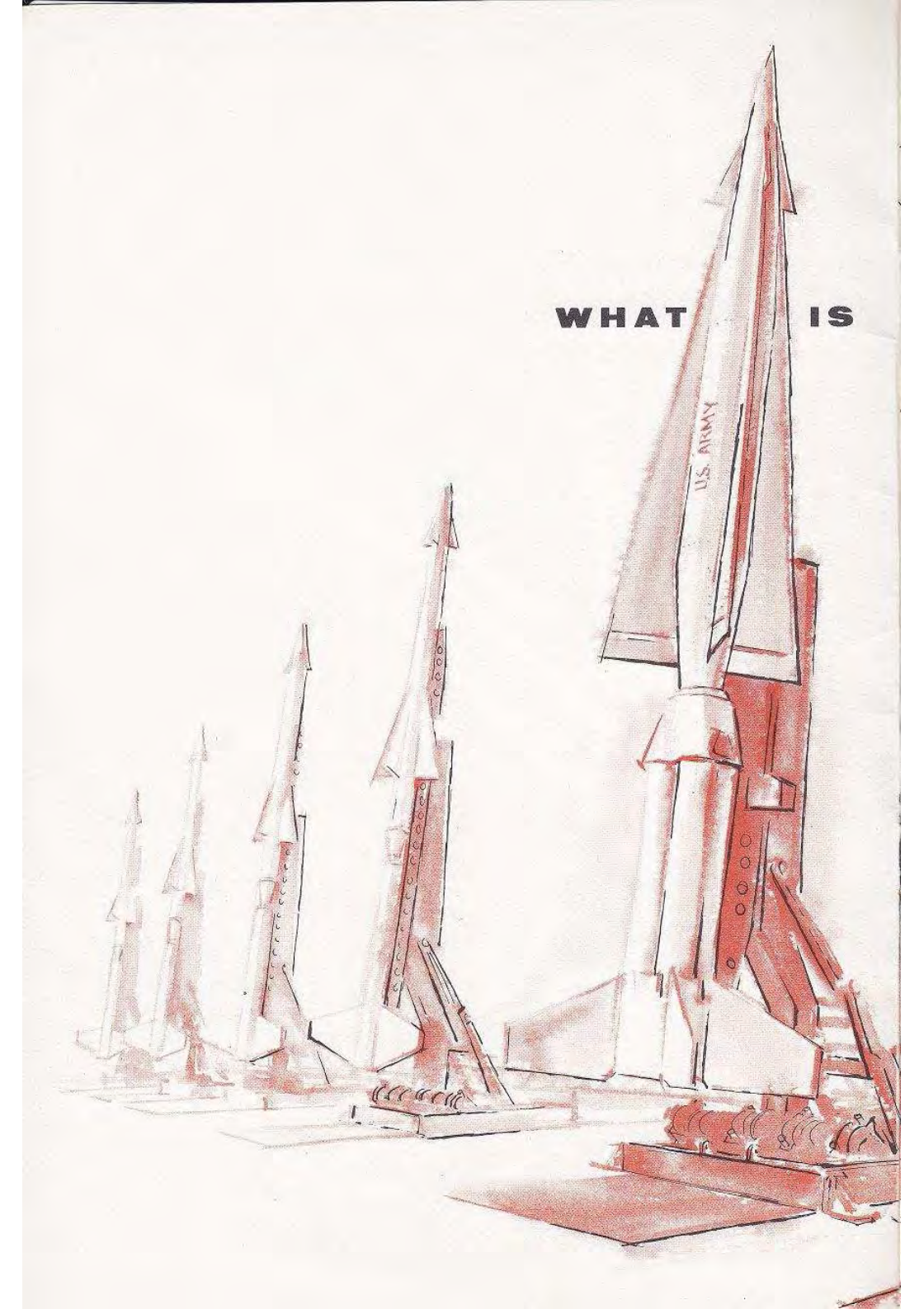
an introduction to

NIKE HERCULES



WHAT IS

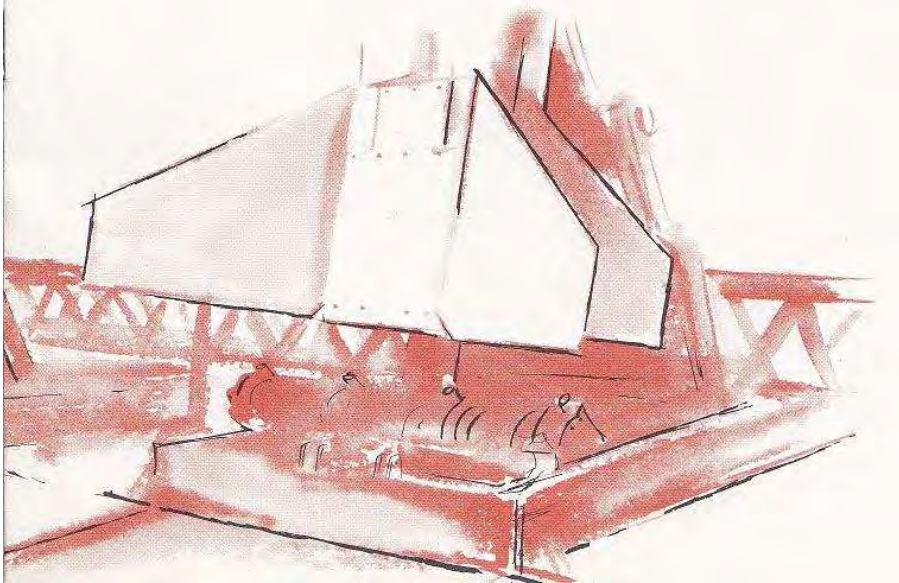


NIKE...

America today is faced with the possibility of atomic attack delivered by planes flying faster than the speed of sound. Unless weapons are at hand to repel such an enemy, we will be in danger of horrors far worse than Hiroshima.

To meet the threat, Army Ordnance asked Bell Telephone Laboratories soon after World War II to plan a guided missile system which could destroy enemy planes despite any maneuvers they might attempt. Working together with Douglas Aircraft, Bell Laboratories developed a missile system they named NIKE. Early tests showed that NIKE could do the job.

The Army then asked Western Electric to make NIKE available in quantity for the protection of areas of the country which would be the likely targets of an enemy attack.

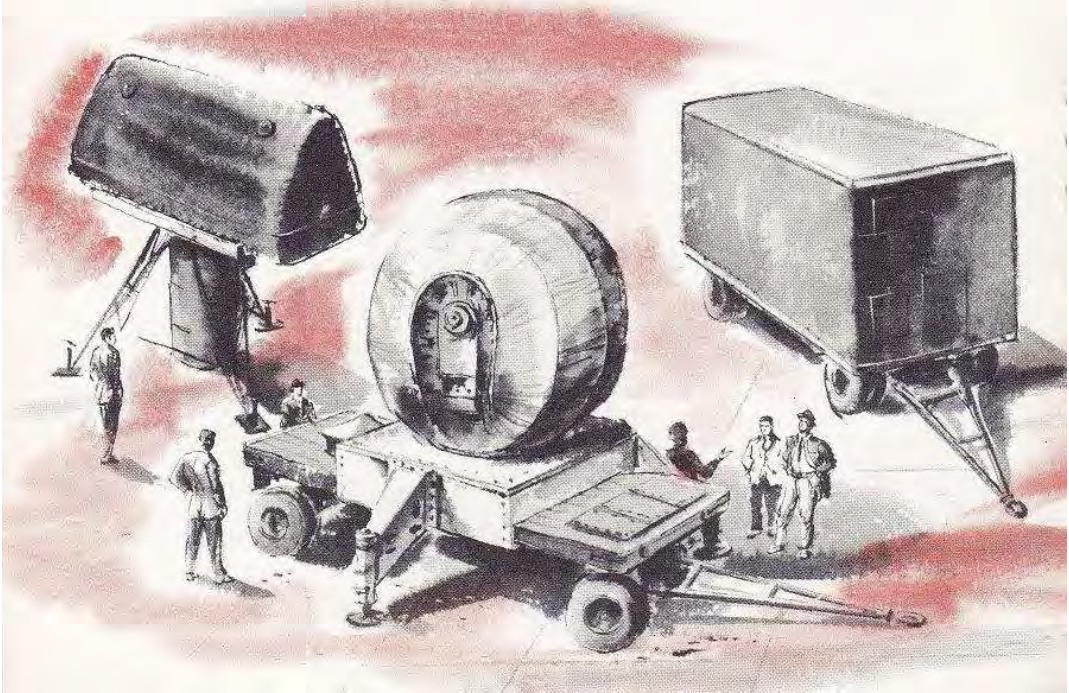


Western Electric was well qualified for handling such a vast assignment because of long experience as manufacturing and supply unit for the Bell Telephone System.

This big production job required the placing of orders with over 6,000 suppliers, of which a major percentage were small business concerns. Their products were channeled into Western Electric and Douglas Aircraft factories for assembly with their own manufactured equipment into an intricate but deadly electronic system.

Over 1,500,000 parts form a complete NIKE system. Yet for all its complexity NIKE is easy to maintain. Designed for lightness, it can be transported by air.

Hercules is a new member of the NIKE family of missile systems. First was Ajax, a potent weapon whose slender body stands poised around the nation to intercept enemy aircraft. Today Hercules is joining Ajax, to be used if greater range, speed and explosive punch are required. And now research and development work is proceeding on Nike Zeus, a missile system designed to bring down attacking long range missiles.

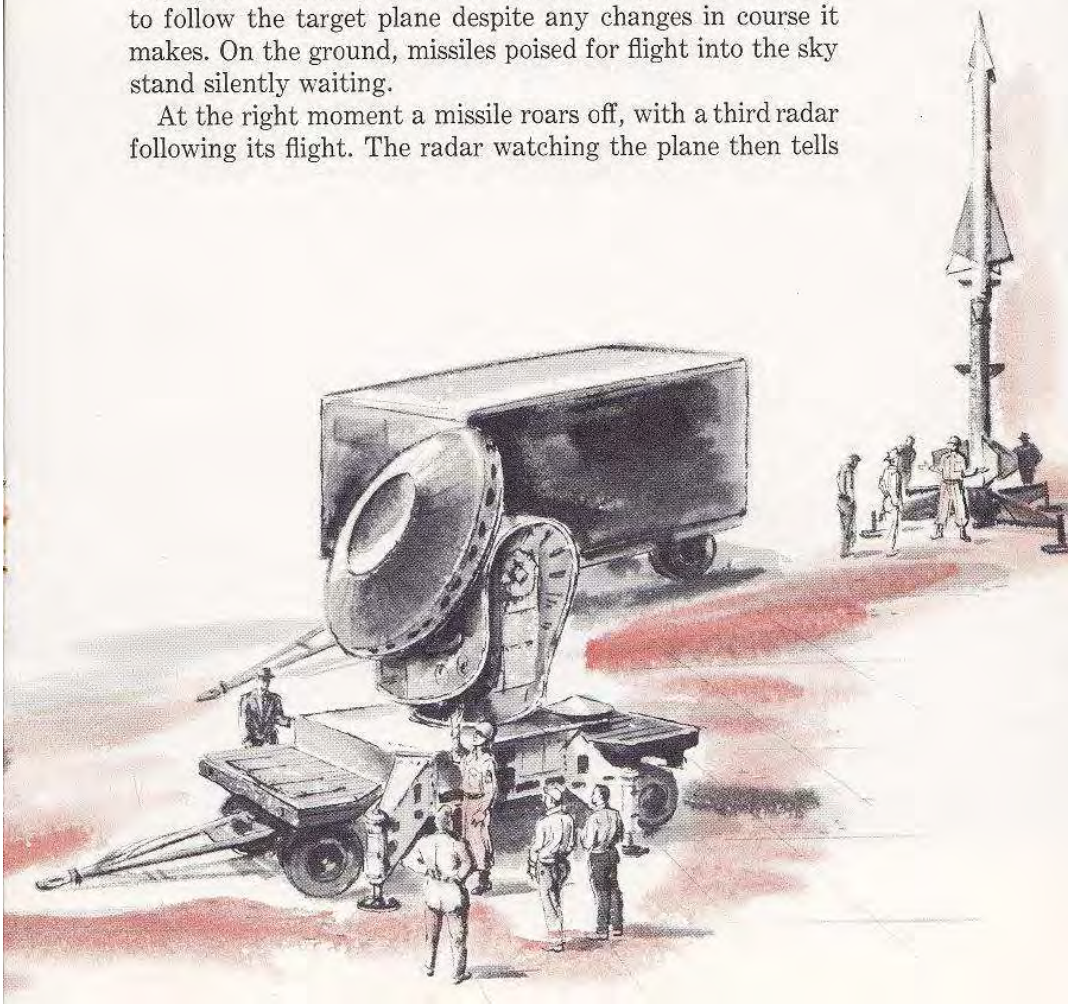


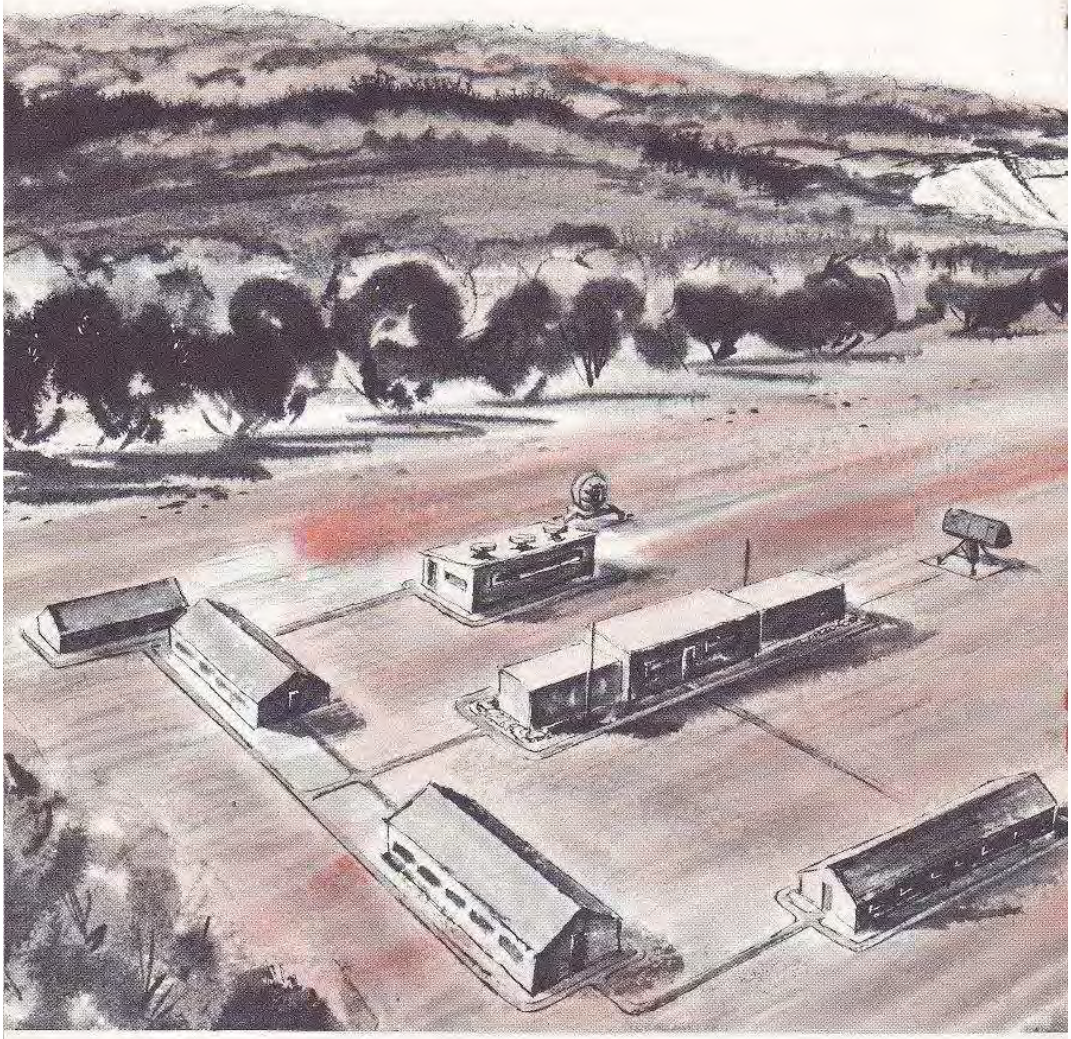
HOW DOES IT WORK?

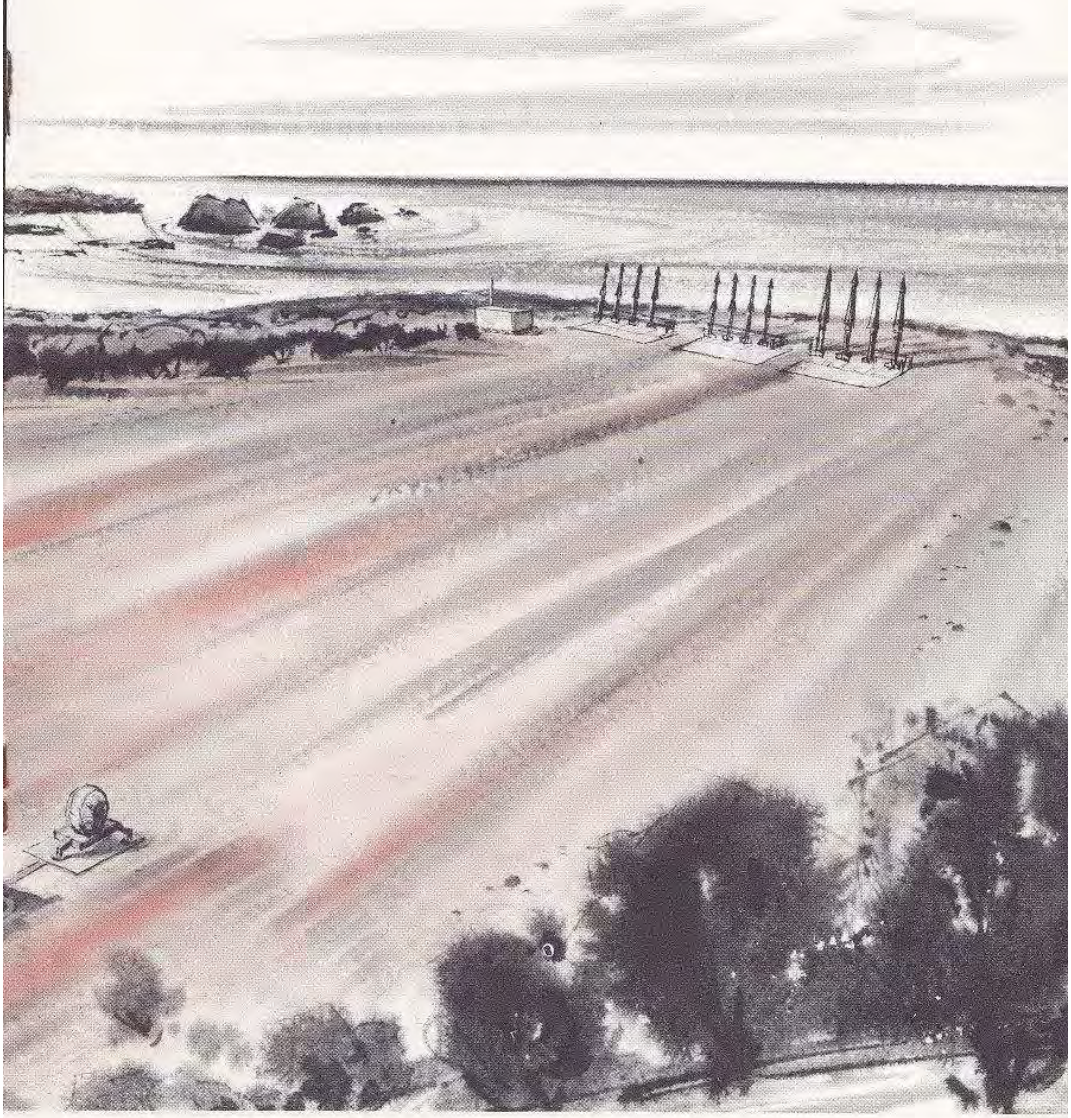
If the warning systems beyond our borders ever alert us to enemy aircraft aiming for our country, fighter squadrons would immediately rise to meet the attack. However, some of the enemy could slip through and approach a target area.

While still many miles away, each of these planes is detected by a Nike search radar. A second radar is then assigned to follow the target plane despite any changes in course it makes. On the ground, missiles poised for flight into the sky stand silently waiting.

At the right moment a missile roars off, with a third radar following its flight. The radar watching the plane then tells





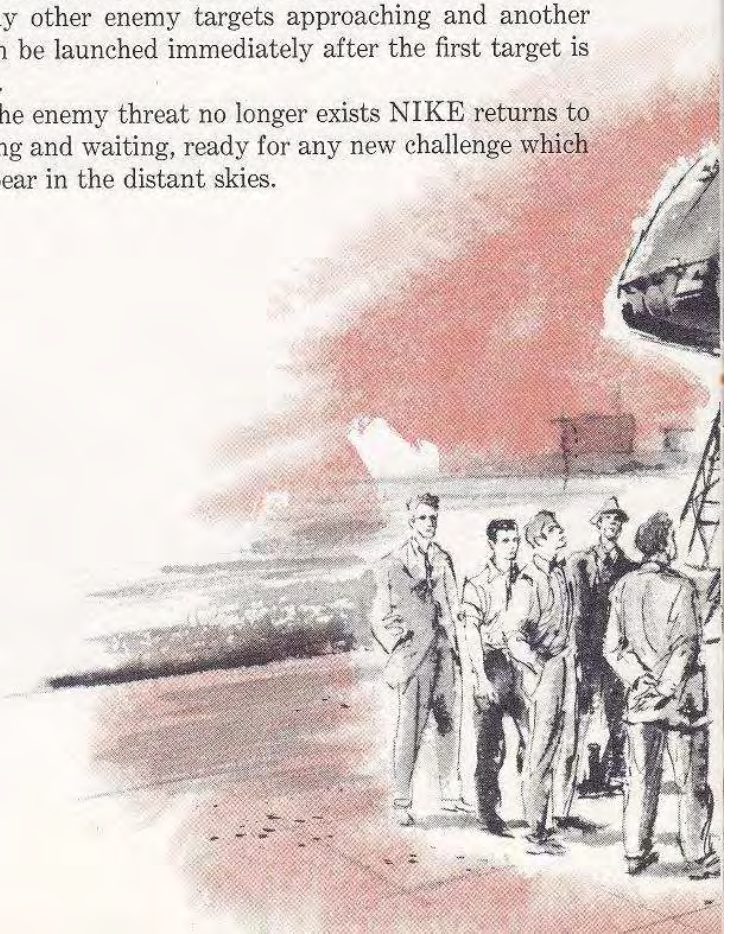


the radar following the missile of every move made by the plane, guiding the missile in each change of course it must make in order to bring it into the enemy's flight path.

Speeding faster than sound the missile rockets toward its target — a target already doomed in spite of any maneuvers it might try. Swiftly, very swiftly, the two move nearer, until the fatal meeting. In a flash the enemy invader is reduced to rubble.

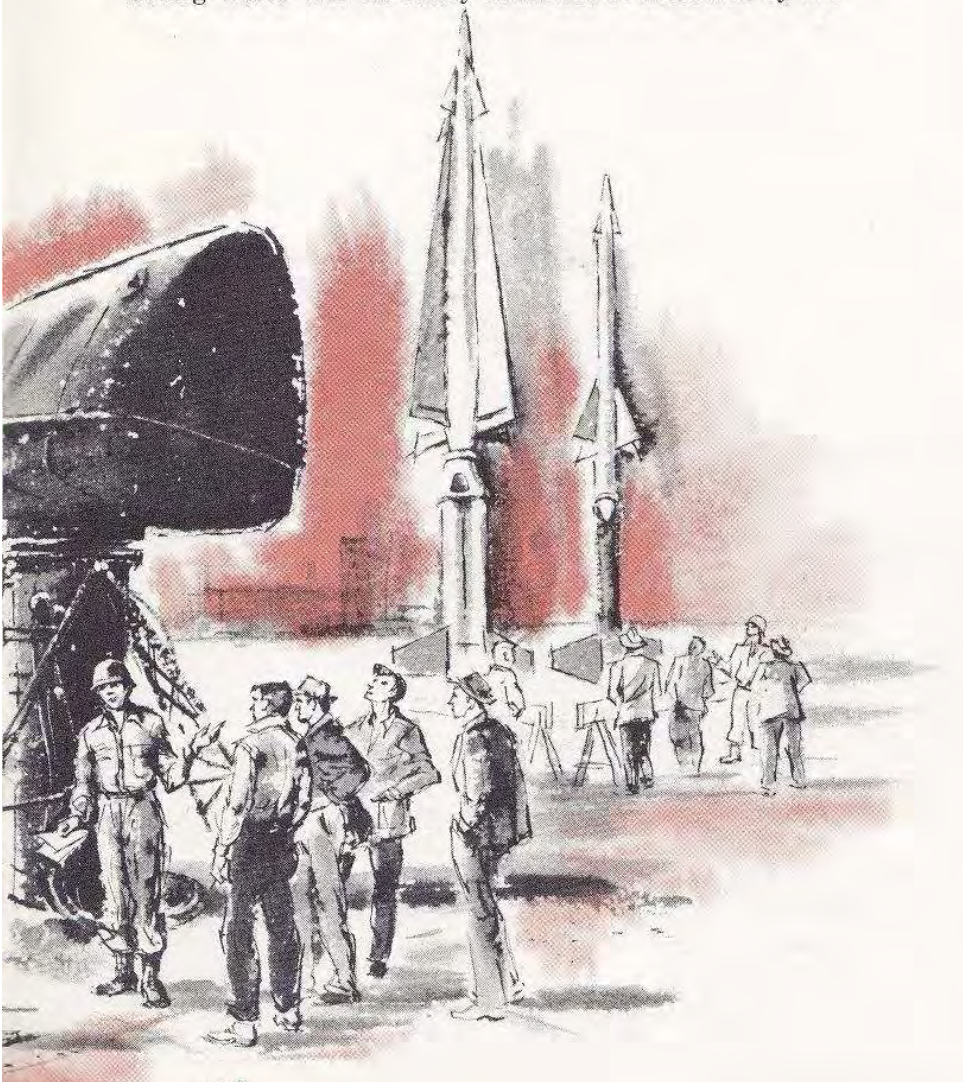
In the meantime the search radar is indicating to the operators any other enemy targets approaching and another missile can be launched immediately after the first target is destroyed.

When the enemy threat no longer exists NIKE returns to its watching and waiting, ready for any new challenge which might appear in the distant skies.



WHAT DOES NIKE MEAN TO YOU?

In case of an enemy air attack on this country, those of us who live or work near our target areas might face devastation far greater than the terrible suffering inflicted on London during World War II. Safety could not be measured by the

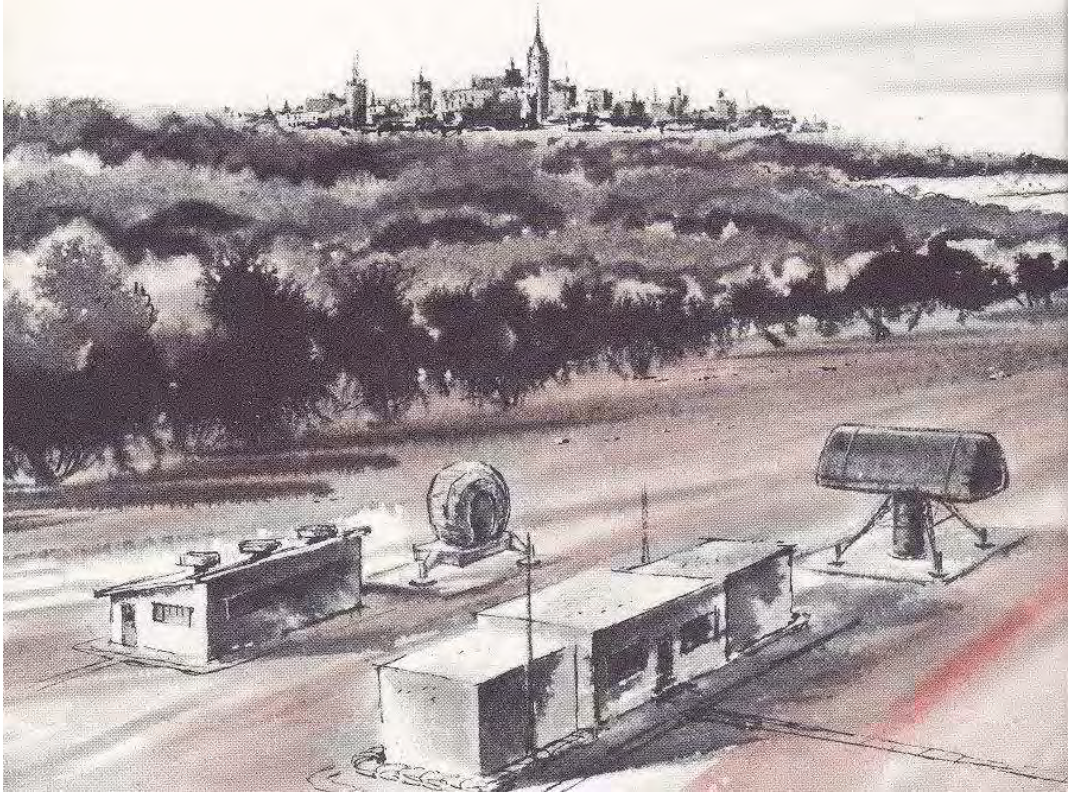


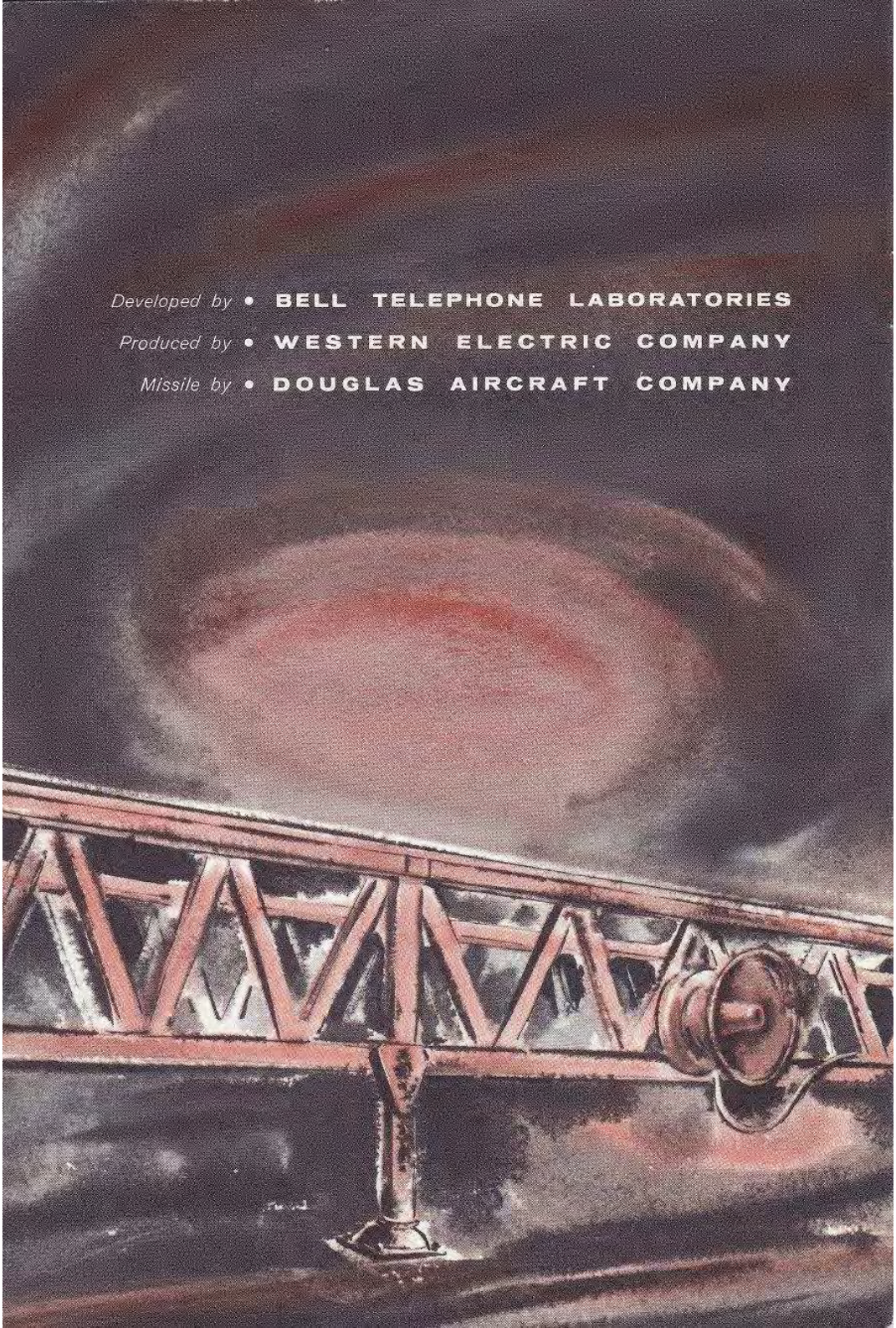
distance of a few dozen miles from the target.

Should that day ever come — and only then — NIKE would go into action to remove the enemy threat while it was still far distant in the sky and would prevent such devastation.

The silent sentinels of NIKE stand ready for that day — a day we all hope may never come. In the world of today, a sincere desire for peace is not enough to guard us and our families. We must be ready to protect ourselves with the newest weapons science can provide.

Whatever tomorrow may bring, NIKE will be ready — an effective and mighty guardian, always watching, always ready.




Developed by • BELL TELEPHONE LABORATORIES
Produced by • WESTERN ELECTRIC COMPANY
Missile by • DOUGLAS AIRCRAFT COMPANY