

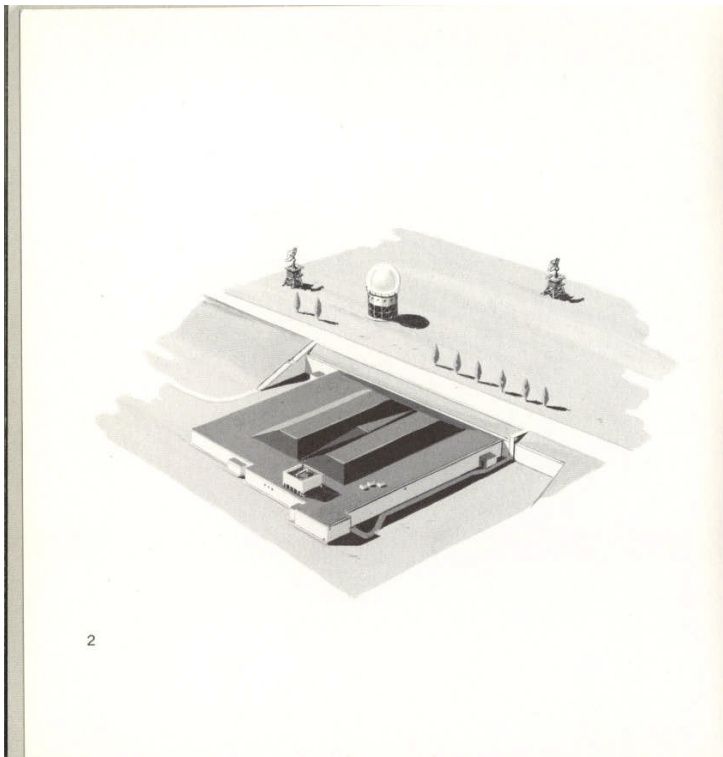


Missile Master

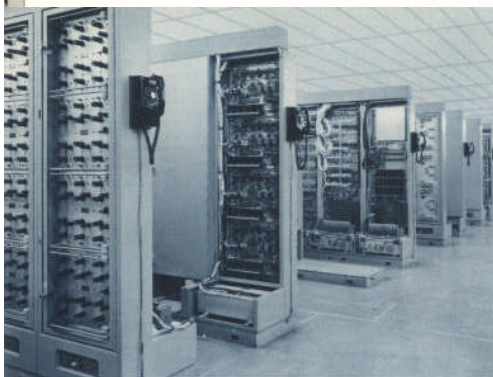
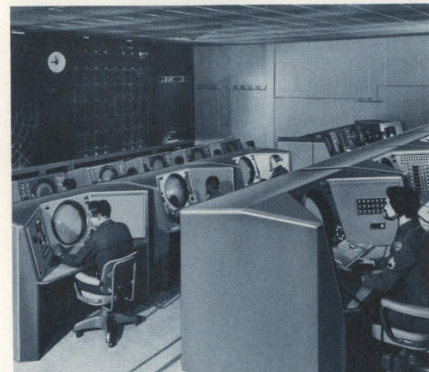
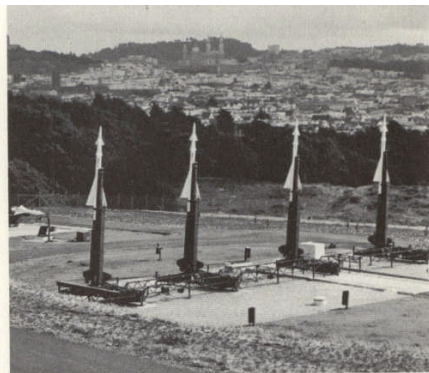
Missile Master

ANTIAIRCRAFT DEFENSE SYSTEM AN/FSG-1

Missile Master, a new link in Continental Air Defense to protect our vital metropolitan and industrial centers, was designed, developed, and produced by The Martin Company in cooperation with the United States Army Signal Corps.



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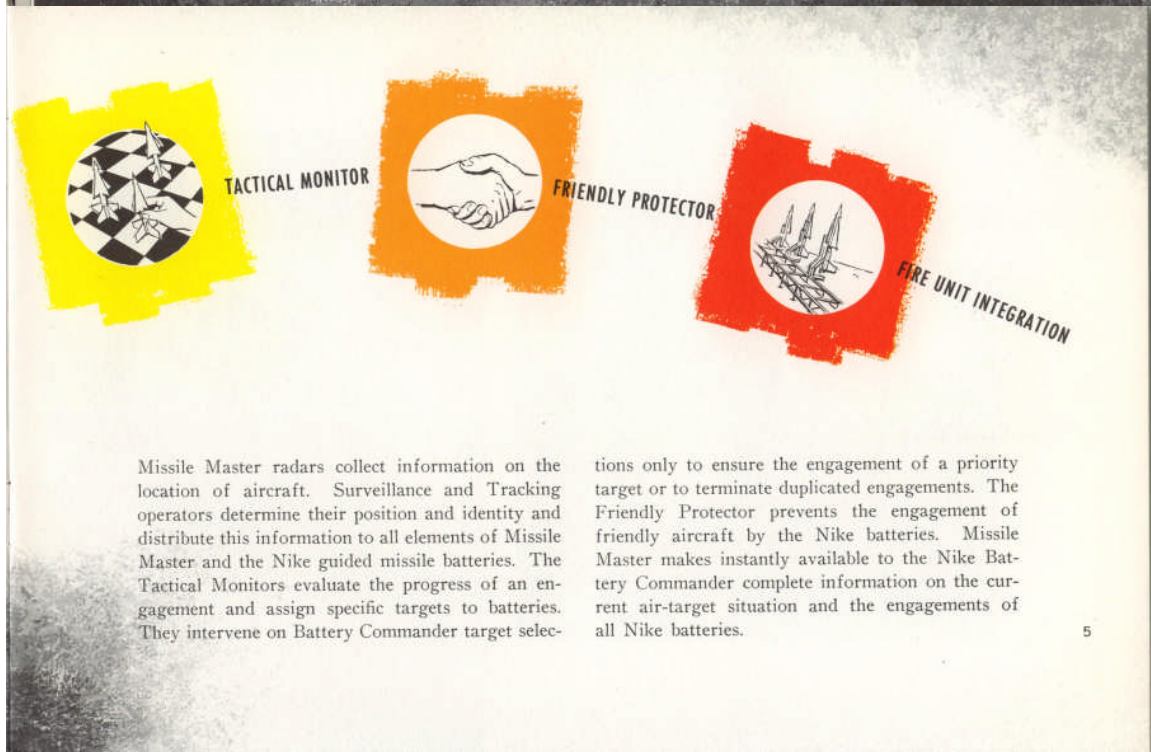
Missile Master

*Today's operational antiaircraft defense...
flexibility to cope with the future*

Missile Master, the Nation's first complete electronic weapon system to coordinate all elements of anti-aircraft defense from target detection to target destruction. By automatically collecting, displaying, and disseminating all information describing the tactical air situation, Missile Master enables Nike Battery Commanders to deploy their weapons most effectively.

Missile Master is linked with its adjacent radars and a ring of Nike guided missile batteries. Focal point is the Operations Room where Army personnel at TV type display consoles monitor the overall air situation. Electronic computers, memory devices, communications, and display equipment are in adjacent equipment rooms.

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Missile Master radars collect information on the location of aircraft. Surveillance and Tracking operators determine their position and identity and distribute this information to all elements of Missile Master and the Nike guided missile batteries. The Tactical Monitors evaluate the progress of an engagement and assign specific targets to batteries. They intervene on Battery Commander target selec-

tions only to ensure the engagement of a priority target or to terminate duplicated engagements. The Friendly Protector prevents the engagement of friendly aircraft by the Nike batteries. Missile Master makes instantly available to the Nike Battery Commander complete information on the current air-target situation and the engagements of all Nike batteries.



Radar

A network of local radars constantly scans the skies for the approach of aircraft or missiles. This information is instantly presented on the display consoles of Missile Master. Additional information on approaching targets is received from associated early warning systems.

Local radars provide accurate target information for Missile Master anti-aircraft defense.



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Surveillance and Entry

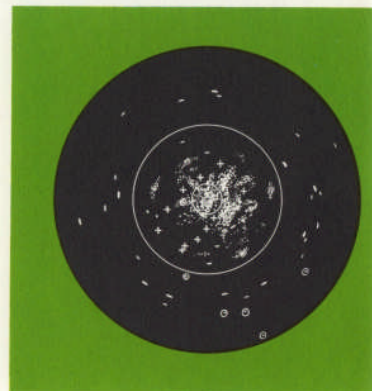
Surveillance and Entry operators monitor the local radar displays. When a target appears, its location and identity are determined. This information is displayed on all consoles and automatically entered into the Missile Master memory.

The target is then assigned to a Tracker.

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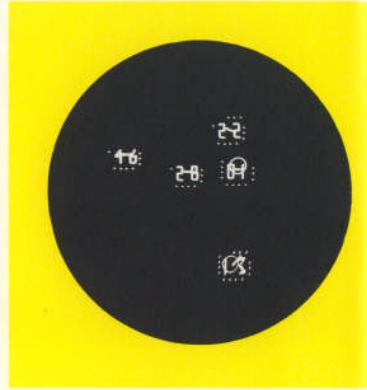
Tracking

Target information is displayed on the tracking consoles together with symbols representing the target position information stored in the Missile Master memory. The operators track the targets by positioning the symbols over them. Tracking generates timely and accurate target information which is continuously entered into the memory and distributed to the tactical displays and the Nike missile batteries.

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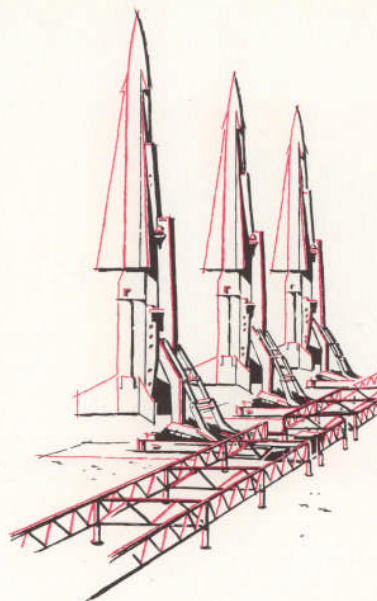
Tactical Monitor

The Tactical Monitors have special electronic displays which, with numbers and symbols, give complete information on all targets and Nike guided missile batteries in the defense area. These operators compare individual Nike battery selections against the total air defense picture. They can accurately assign a specific target to an individual battery and can interrupt faulty or wasteful engagements. The Tactical Monitors coordinate and control the Nike batteries to ensure maximum effectiveness of their fire power.

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Fire Unit Integration

At each Nike guided missile battery, the information received from Missile Master is displayed as coded symbols on the radar display. The Battery Commander selects his target by comparing target information from his radar with the identity and engagement symbols. When a specific target is designated to the Nike battery for engagement, all other information to the battery is interrupted and only position data on the designated target is received. Automatic interchange of information between Missile Master and the Nike batteries ensures the rapid, positive engagement of all identified targets without duplication of effort.

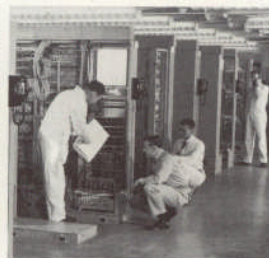
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Publications



Logistics Support



Field Service Representatives



Military Personnel

Missile Master Weapon System Support



Training

The Martin Company, as Missile Master prime contractor, assists the U. S. Army with a complete weapon system support program. This program provides a complete compliment of trained military operators, field service representatives, logistics support, and instruction manuals and training aids. There is no lag between system acceptance and the inception of complete operational capability.

Missile Master can

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- Coordinate many Nike weapon units, i.e. Nike Ajax or Nike Hercules
- Locally generate a sufficient number of aircraft tracks to accommodate the overall air situation
- Transmit aircraft data to all weapon units
- Transmit individual weapon unit tracks to other weapon units
- Monitor actions of all weapon units at the operations center
- Direct operation of weapon units when required
- Display the engaged tracks from adjacent Missile Master defenses at operations center
- Automatically interchange data with SAGE
- Integrate local defenses with overall continental defenses.

Missile Master systems have been manufactured and are being installed near major cities throughout the United States.

U. S. ARMY

