

Force-on-Force Training

—the ultimate test for training devices

The most realistic force-on-force engagement training occurs at the National Training Center (NTC), Fort Irwin, California, between a US maneuver brigade and the NTC opposing forces (OPFOR) unit. The NTC OPFOR is permanently stationed at Fort Irwin, so they have the advantage of knowing the terrain intimately. Training involves the full use of the AirLand Battle conditions, including employment of NBC weapons and smoke. This sample scenario brings together many of the training events enhanced by utilizing NBC training devices.

The Multiple Integrated Laser Engagement System (MILES), used at NTC, allows every player and vehicle to become a casualty during the training exercises. The map overlays in the illustrations are representative of this scenario and involve symbols found on the various types of support annex overlays (fire support, service support, for example) that accompany the operations order. Excerpts of the operations order are included as we build this battle.

General Scenario

Elements of the 1st Brigade, 52d Armor Division, are defending in sector in the vicinity of Fort Irwin. The enemy is expected to attack within the next three days to secure the assets at the post and the radar tracking stations of Goldstone. The brigade has three battalions of the 7th Armor Regiment and the 1st Battalion, 907th Infantry (Mech). The division commander's intent is for the 1st Brigade to reduce the enemy forces and force them into a hasty defense.

The OPFOR facing the brigade is the 119th Guards Tank Army, more specifically, the 219th Motorized Rifle Division (MRD) recently deployed to southern California. The unit is at full strength, but has not been battle tested yet. The enemy front has launched its current operations from the vicinity of Las Vegas, Nevada, which fell into enemy hands two weeks ago.

After seizing the Panama Canal Zone, the OPFOR launched a full scale invasion up the Mexican peninsula. The OPFOR pushed

north from Mexico for the last four months. The OPFOR employed nuclear and chemical weapons in support of the operations.

The brigade commander issued the following mission for the 3-7th AR task force:

"TF 3-7 AR defends in sector to defeat the enemy and prevent deep penetration of Phase Line (PL) GOAT. The enemy attack is expected to occur at 0430 hours on 12 June. Nuclear weapons fire support is planned to stop the enemy should conventional means fail. Package ALPHA (figure 1) supports TF 3-7."

The TF 3-7 commander has planned a two-phased operation: phase 1 is a mobile defensive operation forward of PL HORSE. Two armor companies occupy battle positions forward of the phase line; they will withdraw and not become decisively engaged. The two companies withdraw along routes Waltz and Polka, and the second two company teams provide overwatching fires. A massive conventional artillery barrage will strike the areas of BP BIRD and BP SNAKE, allowing

Nuclear Package Alpha Target List			
Target Number	DGZ	Yield	Training Device
N31	NK57420445	1 KT	FFE
N32	NK58750120	1KT	NWES
N33	NJ51349823	1 KT	NWES
N34	NK59210592	1 KT	NWES
N35	NK63110283	1 KT	NWES
N36	NK56020790	1 KT	NWES
N37	NJ53859515	1 KT	FFE

Figure 1.

The chemical company's mechanized smoke platoon will provide a smoke haze in the vicinity of Smoke Area TANGO to support the operation for two reasons: first, a concealment for friendly forces as they withdraw; and second, OPFOR units exiting the haze become easy targets for the defending units.

companies now occupy battle positions, taking advantage of the natural channeling effects of the terrain. In addition, a series of minefields from artillery delivered scatterable systems will eliminate any attempts by the OPFOR to bypass the battle positions.

The OPFOR Plan

main attack centers to the north, with a supporting attack by a motorized rifle regiment through Red Lake Pass. Immediate objectives are to secure the pass and the high ground known as the "whale." Subsequent objectives: secure the main post area of Fort Irwin and the airfield at Bicycle Lake.

A N33
D 120645U-120700U
F1 011 NJ513982

[illegible]



Lone soldier climbs hill during National Training Center exercise. Note MILES configuration on helmet.

the support units. The attack begins at 0400 hours on the 12th.

The Battle

The early morning silence is broken by the thunder of cannon fire. A rolling barrage of artillery fire sweeps the positions of B Company, TF 3-7. Smoke blinds the gunners' visual sights; thermals are employed. Two of the M1 tanks sustain minor damage from artillery hits. The M8A1 chemical agent alarms sound. Gas! A mixed payload of conventional and chemical rounds rain upon the tankers. A hurried NBC1 report is submitted (figure 4).

Far to the rear, the support area is blanketed by tiny droplets of thickened chemical agent from an OPFOR missile. The chemical company has previously set up a decontamination site. Affected units perform immediate decon steps, then move the contaminated vehicles and equipment to the decon site. The M256 detector

tickets confirm nerve agent presence. NBC recon units move to locate and mark a clean path for the main supply route.

The mechanized smoke generators plume their wares over the cool desert floor. The white haze quickly obscures the land — only the black hulking whale is visible. Smoke obscures the minefields and tank ditches — waiting patiently to trap their armored victims.

Two hours later, the glitter of light from the engagements of the units flash over the battlefield. TF 3-7 has moved its remaining few units to occupy the final battle positions along PL GOAT. In the distance, the OPFOR's second echelon forces flood through Red Lake Pass. The brigade commander is forced to make the decision to employ nuclear package ALPHA. He calls his battle staff together.

Eighteen minutes later, time on target is achieved. Sunbursts fill

the sky. OPFOR units caught in the open are eliminated. The mushroom cloud near the whale indicates the ominous shape and color of ground contact. The wind pushes the fallout toward the pass. TF 3-7 is ordered to counterattack the remaining OPFOR units and restore the forward edge of the battle area (FEBA) to PL HORSE.

Radiation monitors tell a grim story as the units move back onto Red Lake Pass: fallout blankets the area. The pass must be held. How long can the units remain and not suffer unnecessary radiation casualties? The commander assesses the situation. He decides to rotate company teams between the clean areas and the hot pass. Victory is achieved.

Radios crackle the end of the exercise message. After-action reviews are conducted. The chemical company at the decon site continues to work until all the contaminated units are clean. Resupply of essential ammunition, food, and water begins to arrive at the forward units — two hours late,

NBC1 Observer's Report

Line	Message
B	NK574034
D	120435
F	NK574034
G	Artillery
H	G Nerve

Figure 4.

having been delayed by the chemical contamination hazards.

Training Devices Impact

The force-on-force engagements are trained through the use of MILES equipment on all personnel, vehicles, and aircraft. Reinforcing the MILES are observer controller (OC) personnel who simulate many of the casualty effects of area weapons, like artillery. The OC assesses a casualty by activating the MILES with a controller gun.

The chemical attacks during the initial bombardments are simulated by the use of M81 sets activating the M43A1 detector units. In addition, the OCs explode artillery simulators. The sound of the alarm horn cues the soldiers to mask. The M256 TRAINS detector tickets used by the units were previously selected to give the confirmation of a nerve agent presence. However, without the detection of a thickened agent, the personnel knew that a non-persistent agent had been employed. The OPFOR used this strategy to degrade the US forces' performance by forcing them into MOPP4.

Quite the opposite occurred in the rear support areas. The simulated persistent agents forced the soldiers into a decontamination exercise. Persistent Chemical Agent Simulant (PCAS) was mixed to give a G-nerve agent identification on the surrogate M8 paper. These personnel had M256



M256 TRAINS detector tickets are previously selected and marked to indicate nerve agent presence.

TRAINS detector tickets selected for positive nerve detection and identification.

The OCs sprayed PCAS over the area by using SPAL devices. The desired effects required three SPAL kits (60 canisters). Three containers of PCAS were required. The OCs spread more PCAS contamination over the main supply route. The NBC reconnaissance units located and marked these areas.

Soldiers made extensive tests to determine which vehicles and equipment had been contaminated, since water for decon is a scarce

commodity. The cues available in the PCAS system trigger the surrogate M8 paper, the Chemical Agent Monitor (CAM), and the M43A1 detector.

Since a nuclear package supported the operation, the OCs set up the Nuclear Weapons Effects Simulators (NWES) near the desired ground zeros. Controllers further selected target N33 as a ground burst type explosion that would cause fallout. The T-1 Large Area Radiac Training Set (LARTS) transmitter sent out the residual radiation hazard signal from the hill



OPFOR Tanks roll across the desert floor at National Training Center's force-on-force exercise.

near the ground zero of N33. The directional antenna echoed the prevailing surface wind direction, giving the illusion that Red Lake Pass was contaminated with fallout. Hot spot transmitters were positioned near the other ground zeros to produce the neutron-induced hazard areas.

The after-action reviews focused on the seven major combat systems, the most important being the survivability of the force. The commander had specified a high MOPP level for the forward units. He knew the OPFOR would use a surprise attack of non-persistent agents to produce casualties and disrupt control channels. The OPFOR would *not* use persistent agents, since they would have to pass through the contaminated areas during the attack.

The rear support areas were struck with persistent chemical agents to delay resupply efforts. The

area occupied by the support units was not crucial to the OPFOR objectives, so contamination did not affect future plans.

The commander's decision to rotate units located in the fallout area at Red Lake Pass accomplished the mission and reduced the exposure levels of the soldiers. The residual radiation areas also become obstacles to counterattacks from the OPFOR.

Employment of the mechanized smoke assets to haze the center area of the sector was also successful. The haze screened the movement of friendly vehicles and prevented observation of several key obstacles: there were two tank ditches and three minefields hidden by the smoke. The OPFOR did not follow the paths of the TF 3-7 vehicles and fell victim to the mines' effects.

The simulated nuclear support package was correctly targeted on

concentrations of OPFOR units. The friendly units took protective measures and suffered no casualties. The OPFOR, caught out in the open, were eliminated by the OCs as battle losses.

The ability of the NBC recon units to locate the contaminated areas, mark them, and redirect the main supply route aided the combat service support mission. Resupply was delayed by two hours. Some supplies and equipment were so heavily contaminated, they were abandoned.

Overall, the TF 3-7 AR was successful in its mission. The full integration of NBC and smoke conditions did affect the operation. In fact, many of the smoke and nuclear events were used as combat multipliers. The training devices and simulants employed proved the deciding edge to the realism of the combat. ●●