

A welcome addition to your library

FM 3-14 NBC Vulnerability Analysis

Two essays on the new field manual

FM 3-14: A welcome addition to your library

by 1LT Michael R. Chupas

Intelligence preparation of the battlefield (IPB) is not exclusively a responsibility of the intelligence officer. It is the responsibility of all staff officers and commanders at all levels. Until now doctrine concerning IPB for the chemical staff officer has been extremely limited, if not non-existent.

FM 3-14, *Nuclear, Biological, and Chemical Vulnerability Analysis*, provides the chemical officer a long-awaited guideline to follow when conducting nuclear, biological, and chemical IPB. It is important to understand that the commander drives intelligence, but the NBC staff must drive NBC intelligence in the IPB process and the military decision-making process (MDMP). With few additions, FM 3-14 can assist the chemical officer in integrating NBC IPB into the MDMP and allow the commander's chemical assets to support and win his fight.

Failure to Conduct NBC IPB, a Trend

Intelligence preparation of the battlefield is just one step in the decision-making process that chemical officers and NCOs must be involved in to successfully employ or supervise the employment of the brigade's NBC assets. Without a systematic and continuous IPB process, chemical officers at brigade and task force level fail to synchronize their NBC assets with the maneuver plan. The NBC staff must work hand in hand with the S2 staff to provide the commander adequate information to fight and win. This is not always the case. This is evident when looking at the National Training Center trends from FY 96.

PROBLEM:

1. While brigade chemical officers are involved in all phases of the MDMP, they generally do not possess the knowledge to plan for chemical assets to support the maneuver plan.

2. Brigades attach chemical assets to task forces with little or no guidance to TF chemical officers or NCOs on how to use them.
3. Chemical NCOs do not receive training in MDMP.

RESULTS:

1. The chemical staff often fails to synchronize the efforts of the smoke and decontamination platoons and the chemical reconnaissance squad.
2. Templating of chemical strikes and effects of smoke on the battlefield are not adequately completed or planned during MDMP.
3. Chemical assets do not support the brigade maneuver plan.¹

The problems outlined above can be attributed to the lack of NBC IPB. The NBC staff's failure to integrate IPB with the other staff sections resulted in a negative trend at NTC. This trend results from the absence of doctrine pertaining to NBC IPB in both FM 101-5, *Staff Organization and Operations*, and FM 34-130, *Intelligence Preparation of the Battlefield*.

Does FM 3-14 Provide the Solution?

The chemical staff can successfully plan for and synchronize all NBC assets into the commander's plan, using the IPB process as indicated in Chapter 1 of FM 3-14 and appendixes A through D. The negative trends from last year's NTC rotations seem easily conquerable by following the simple steps outlined in Chapter 1 of FM 3-14 and integrating the associated appendixes. "A planned process requires a contract between the intelligence officer and commander. Certain areas will be covered in great detail, while risk is accepted in others."² FM 3-14 provides this planned process, but it does not ensure that NBC will not be one of the accepted risks.

Suggestions

Since much of the IPB process for the S2/G2 begins at home station, it should begin for the NBC staff at home station as well. Appendixes A, B, and C

in FM 3-14 provide a guideline for defining a nuclear, biological or chemical battlefield environment. These appendixes would be more effective and helpful to the NBC staff if the items on the checklists coincided directly with the IPB process outlined in Chapter 1. Furthermore, they would serve the entire staff better as additions to FM 101-5 or FM 34-130. If the checklists are not used in conjunction with the outlined steps in Chapter 1, the NBC staff and the staff as a whole overlook key pieces of information. This jeopardizes the synchronization of the NBC plan with the plan of the maneuver commander, and may lead to a failed plan.

Conclusion

FM 3-14 provides the chemical staff with a long-awaited guideline to conducting NBC IPB. As we can see by the trends from FY96 at the National Training Center, the NBC staff did not conduct IPB. The failure to conduct this IPB systematically and continuously caused a multitude of problems for the NBC staff and the maneuver commanders. The commander may drive intelligence, but the NBC staff must prepare the battlefield so the commander gets a complete picture of the battlefield. FM 3-14 assists the NBC staff and gives the commander the picture that, in turn, gives the commander the information and assets necessary for success.

¹ NTC Trends Compendium, U.S. Army Training and Doctrine Command, September 1997.

² Faint, Donald R., LTC (USA), Contingency Intelligence; *Military Review*, July 1994, 59-63.

NBC Vulnerability Analysis —and the use of FM 3-14

By CPT David Brumlow

One of the chemical officer's jobs is conducting an NBC vulnerability analysis. The challenge is finding the right tools in order to conduct an effective analysis. FM 3-14, *Nuclear, Biological, and Chemical Vulnerability Analysis*, is one of the newest tools used for conducting an NBC analysis. Conduct an analysis on your unit today using the new FM 3-14. Find out how vulnerable your unit is to acts of terrorism or industrial accidents.

Many will question the need to conduct this analysis, considering all the other jobs the chemical officer must do. You must do your job and research the need for conducting a vulnerability analysis. On 20 March

1995, the doomsday sect in Japan unleashed a deadly nerve agent in a crowded subway, killing 12 people and injuring more than 5,500 others. Closer to home, the Canadian border authorities arrested Thomas Levy when he tried to smuggle ricin into Canada, enough to kill over 30,000 people.

With the rapid increase in technology and access to the Internet, it has become increasingly easier for the "do it yourselfer" to manufacture weapons of mass destruction. Chemical and biological deaths and injuries are not limited to just wars and terrorism. On 3 December 1984, the Union Carbide plant in Bhopal, India, accidentally released 30 tons of methyl isocyanate. The accident killed over 2,000 people and injured more than 200,000, making it one of the largest industrial accidents in recent decades. The potential for a chemical or biological accident happening in your area is real. To counter the threat and limit casualties, we must do an effective NBC vulnerability analysis. There are many reasons to do vulnerability analysis:

There exists a real threat. As mentioned earlier the threat of terrorist and extremist groups using weapons of mass destruction is growing. Biological warfare is one of the cheapest ways to kill; it requires very little skill to produce biological weapons and is cost effective.¹ For example, it would cost one billion dollars or more to produce nuclear capability, require over 1,000 engineers, and take at least 2 years to complete. On the other hand, biological warfare can be developed for under a thousand dollars and requires only a few biologists and a couple weeks of work using equipment readily available.

Force Protection. Conducting an NBC vulnerability analysis allows commanders to make decisions based on information gathered from internal intelligence and local sources. Commanders can focus on accomplishing the mission with minimal loss of personnel, equipment, and supplies.² Force protection is accomplished by taking active measures—such as destroying enemy production facilities, munitions, or delivery systems. By taking passive measures such as planning ahead, avoiding detection, providing warning, maintaining discipline, seeking protection, and dispersing—based on METT-T—the commander will ensure that his unit is less vulnerable to an NBC attack. All of these passive measures aid the commander in avoiding and preventing the spread of contamination.

Reducing Battlefield Hazards. By conducting the vulnerability analysis the chemical officer can identify potential low-level radiation and depleted uranium

areas. By working with other staff elements he can identify all industrial plants and factories in the area that contains toxic industrial hazards.

This information will aid the commander in identifying potential hazard areas, targeting, and alerting units to record exposure levels.

Several field manuals can help the chemical officer conduct his analysis. Some of them are:

FM 34-130, *Intelligence Preparation of the Battlefield*.

FM 3-3, *Chemical and Biological Contamination Avoidance*.

FM 3-4, *NBC Protection*.

FM 3-14, *Nuclear, Biological, and Chemical Vulnerability Analysis*.

The Chemical Corps has recently published FM 3-14, the newest of these four publications, which was released on 12 November 1997. FM 3-14 has two functions—it aids chemical staffs in conducting NBC vulnerability analysis during all phases of operations, and assists in advising commanders on force protection.

The need for the new FM arose when several NATO nations expressed the need for an updated standardization agreement (STANAG) regarding vulnerability analysis according to Major Michael Avery of the Doctrine Development Division at Fort

McClellan, Alabama. With the need for standardization in mind, the concept of FM 3-14 was born, making obsolete the vulnerability analysis found in all other chemical field manuals.

One advantage of the new FM 3-14 is that it takes all of the tools of vulnerability analysis found in various chemical manuals and rolls them up into one useful document. FM 3-14 addresses every area of concern in NBC with sections on nuclear, biological, and chemical. Two new sections that are particularly helpful and often overlooked are low-level radiation and toxic industrial chemicals.

Assessing the unit's vulnerability to nuclear, chemical, and biological weapons is the chemical officer's job. No one else will do it. With field manuals like the new FM 3-14, conducting the NBC vulnerability analysis is not only easier but also faster. The potential for the use of NBC from terrorism is high; we must protect our force. I challenge you to conduct an analysis on your unit today using the new FM 3-14. Find out how vulnerable your unit is to acts of terrorism or industrial accidents. This FM will go a long way in protecting the force.

¹Sternberg, Steve. *Germ Warfare: New threat from terrorist* 1996. *Science News Online*, http://38.214.184.12/sn_arch/5_18_96/fob2.htm.

²FM 3-14 pages 3-1 to 3-2, Headquarters Department of the Army, Washington, DC, 12 Nov 97.

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- TVT 3-108 PIN 710932 M45 Protective Mask--Unit Level (7:42 min.)
- TVT 3-109 PIN 710933 M45 Protective Mask--Operator Level (9:57 min.)
- TVT 3-110 PIN 710937 U.S. Army Chemical Corps History (16:56 min.)
- TVT 3-111 PIN 710938 Employment of Smoke and Obscurants on the Battlefield (12:32 min.)

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