

ANBACIS

—calculates it in seconds

By CPT Joseph F. Gall

Whether you like it or not, the current trend in the military is toward automation. In the very near future, everything you do as a soldier will in some way involve computers. This is particularly true in the world of NBC.

Think back to the last time you had to take basic wind data from the Air Force and convert it to a wind vector plot and subsequent effective downwind report. Or how about the last time you had to solve a crossing problem which required a calculator, ruler, and a handful of mathematical formulas and nomograms. Not only are these processes time consuming, but they're also potentially inaccurate.

The Army realizes your plight as chemical soldiers and is developing a software program to do all these calculations for you. This program is called the Automated Nuclear, Biological, and Chemical Information System, or ANBACIS.

ANBACIS is designed to support chemical soldiers with communication, record keeping, tactical decision aids, and data bases essential to accomplish their tasks as members of any force level—battalion to echelons above Corps. It will also be found at chemical companies and squads.

The current version of ANBACIS (Version 2.2) can perform a variety of useful calculations which are guaranteed to make your job easier. It can take any number of NBC-1 reports and convert them to discrete NBC-2 reports. It

can take the NBC-2s and corresponding weather and produce NBC-3 reports. Additionally, it can take over 200 points from a chemical or nuclear NBC-4 report and produce an NBC-5 report.

If you've always hated plotting basic wind data and calculating effective downwind reports, ANBACIS is the answer to your prayers, since it has this capability. Whereas it can take the average chemical soldier about 30 minutes to plot an effective downwind report, ANBACIS requires about 15 seconds.

Of all the different types of NBC problems, most of us have a particular hatred for radiological problems, but fortunately ANBACIS can make short work of these. It can solve crossing problems, time of entry, time of stay, and any other type of problem that can realistically arise. And it doesn't even require a calculator.

One aspect of the program which users really seem to like is the MOPP/Heat Stress Analysis Module. This can advise a commander on how long he can work his soldiers in a particular MOPP level, at a particular work rate, and in certain meteorological conditions before he will begin to suffer casualties to his unit.

For those of you who are computer buffs, ANBACIS is written in C language and designed to work on any IBM-compatible computer. We are currently developing a UNIX version

which will function as part of the Maneuver Control System (MCS).

ANBACIS, when it is functioning as part of the Maneuver Control System, can display standard downwind hazard plots just like those described in FM 3-3 and ATP-45. Future versions will also display modeled NBC hazards which will depict what the contaminant is actually doing on the ground based on the weather and terrain.

Future versions of ANBACIS will also be able to plan flame field expedients, conduct chemical or nuclear vulnerability analysis, and even perform smoke calculations.

ANBACIS is not copyrighted material and is available to any individual or organization. To get your copy and a user's manual, write: Directorate of Combat Developments, US Army Chemical School, ATTN: ATZN-CM-CC (CPT Gall), Fort McClellan, Alabama 36205, or call me at DSN 865-3174. Three 5-1/4 disks are required, and you must have at least 590 kilobytes of RAM available on your computer for the program to work properly.

At the time this article was written, CPT Joseph F. Gall was assigned to the Directorate of Combat Developments at the US Army Chemical School.