INTRODUCTION

In 1977, after a period of nearly 10 years, the US Army War College reinstituted wargaming in its curriculum. The staff and faculty of the college developed its own theater-level, air ground, conventional combat, war game, the McClintic Theater Model or MTM. In 1979, the Chief of Staff of the Army asked that the model be enhanced to incorporate the effects of the integrated battlefield, i.e. combat in a nuclear, chemical, and electronic warfare environment. The MTM was used for a contingency planning seminar at the Army War College in 1980 when commanders of eleven of the sixteen active Army divisions participated in the MTM games along with the Chief of Staff and several of his senior DA staff officers. This paper describes the McClintic Theater Model.

OBJECTIVES OF THE MTM

The underlying objective of the model was that it be designed for use by senior officers of the Army. This objective became even more important as the role of the model expanded from one of training officers at the War College to a contingency planning aid. Implicit in this objective was the requirement that it be fast—not only quick in simulation, but also in data input and ease of modification. Simulation of the air-land battle in the integrated battlefield environment was, of course, a design objective. Finally, the designers sought to build a model architecture that would permit rapid enhancements to capitalize on the wide range of military expertise available in the faculty and students of the Army War College.
GENERAL DESCRIPTION

The McClintic Theater Model is a two-sided, continuous time, computer-assisted, hexagonal geometry, war game that may be played in either an open or closed format. The model employs LANcHESTER attrition type equations and force strength factors (WEI/WUVs may be used) to determine combat results. The laws of probability are utilized as well to determine climatic conditions and other variable values throughout the model.

The MTM utilizes top-down structural programming techniques and is written in the FORTRAN language (it is also available in the PASCAL language for micro-computer applications). The top-down programming permits relatively independent modules or subroutines, each having only one entry point and one exit, to facilitate rapid changes to the model.

A separate, interactive program permits rapid data input to MTM. The program consists of four subroutines: General data such as weather, intelligence parameters, day/night times, etc; terrain data (homogenous geometry), barrier information (hexagon sides) and unit (order of battle) data. Once the data is assembled it takes about 2 days to input data for a theater game.

The ratio of model time to real time is variable from 1 to 60. Realistically, the game is usually played at 3 or 4 to one depending on the scope of the game and capabilities of the players. The time ratio may be changed by the controllers at any time during game play. The model also has a restart capability to permit stopping the game without losing current battle information and to prevent loss of game data due to the inevitable power interruption.

MTM models air, land, and sea forces and their interactions to include air/sea lift of maneuver forces, naval gunfire and aircraft-based fighter aircraft in a conventional or nuclear/chemical environment. The model provides for strategic and tactical intelligence, electronic warfare (jamming and interception), command and control, and combat service support (logistics and sustainability).

PLAYER COMMANDS

Player commands may be input to the model at any time (both sides may input simultaneously). The model searches for key words on which to execute and ignores all extraneous word inputs. This free form permits common english command forms.