

# Nukewar

## NUKEWAR RULES

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**FOR:**  
ATARI 400/800®, 16K Memory  
Apple II®, Applesoft® Basic, 16K beyond Basic  
PET® 2001, 16K Memory  
TRS-80® Level II, 16K Memory

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### INTRODUCTION

NUKEWAR is a semi-serious simulation of the choices facing the leaders of democratic nations as they attempt to provide strategic defenses for their countries in the nuclear age. The key assumption in this simulation is that strategic nuclear war will occur as the arms race causes continued stockpiling of nuclear weapons. This makes for a lively game, but let us hope that we can prevent nuclear war from happening in real life!

### GAME DISPLAY

The basic game display is a symbolic map of  $8 \times 8$  grid points representing the player's country, and a similar map of the computer's country. The map of the computer's country is initially all unknown, to be filled in bit by bit during the Cold War phase of the game by spies in the enemy country. The computer has a similar display (with similar restrictions) in its memory.

On the display, 'C' is a city, 'M' is a missile base, 'B'

is a fighter-bomber base, 'S' is a missile submarine base, 'A' is an ABM (anti-ballistic missile) base, and '\*' is suburban-rural land or an unknown area.

Grid points are referenced as a pair of numbers: row, column. For instance, 1,1 is the upper left corner and 1,8 is the upper right corner. (Note that the grid points are referenced somewhat differently in the Apple II, PET and Atari versions. The columns are lettered A-H instead of numbered and the COLUMN is typed first, rather than the row as in the TRS-80 version. Also, there is no comma between column and row. Thus, A1 is the upper left corner and H8 is the lower right corner.)

### BEGINNING THE GAME

When the program begins, the computer will ask for the names of the two countries. Any string of up to 30 characters (15 with the Apple, PET and Atari) can be entered as a name.

Once the computer has the names of the countries, it will generate the city locations (8 cities) and two bases (one missile base and one fighter-bomber base) for each country. The game then enters the first Cold War turn, in a random year from 1956 to 1965.

### COLD WAR TURNS

Each turn (Cold War or Hot War) begins with the display of the current maps. Remember that the enemy map does not contain complete information, but it does contain all that is known at the time.

The computer will ask for 'Cold War orders' after displaying the maps. Three orders are valid: S(py), W(ar), and normal. Only the first letter counts, and the answer is assumed to be 'normal' if not 'S' or 'W'.

Spying means that a lot of information will be gained about the enemy country, but at the cost of one new base. War attempts to call a first-strike on the enemy, but could be disobeyed (You have a democracy, after all!), resulting in a lost turn. Normal strategy allows two new bases and a mediocre espionage effort.

### BUILDING NEW BASES

Based on the Cold War orders, the computer will ask questions relevant to the building of zero, one, or two new bases. The first question is what base type. The answer should be 'M', 'B', 'S', or 'A' depending on the desired base type. The other question is what is to be the location of the new base. The row and column of the desired location should be entered, separated by a comma. (Note as before the different format for the Apple II and PET versions.) The location must be empty, i.e. show on the display as '\*'. Additional restrictions are (1) 'S' bases cannot be built before 1965, (2) 'S' bases must be built on the map edge, and (3) 'A' bases cannot be built before 1970.

### NUCLEAR WAR (HOT WAR)

Nuclear war will begin eventually when it is started by the computer or by the player. The party that starts the war will be able to activate his bases more successfully on the first turn of Hot War, and will have the chance to carry out a first-strike before the enemy has a chance to get his strategic weapons off the ground or out to sea. If both sides declare war at the same time, then both will

have the same advantage. Note that a S(py) order during Cold War will prevent first-strike surprise in case the computer declares war that turn. The computer is more likely to declare war each turn that the game progresses.

#### **ACTIVATING BASES DURING HOT WAR**

Bases which have not been activated will appear on the display map during Hot War. As bases are activated, they are replaced by '\*' grid markers. Known enemy bases are also displayed, but they are not removed when they are activated.

In order to activate a base when the computer asks, simply input the base location in the same format used when building bases. The base type is not needed. The computer will then take the appropriate action depending on the type of base activated.

Bases will often activate themselves. When this happens, the computer will ask the necessary questions and the player should respond as he would if he had activated the base normally.

#### **WHAT MISSILE BASES DO WHEN ACTIVATED**

When a missile base is activated, the computer will display the number of missiles ready to launch and ask for a target for each one. The target location in the other country is input in the same format as the grid locations in the home country. Missiles can often drift off target, and so several may be needed to hit a specific location.

A new display map will be given when a missile base activates itself so that targets can be easily selected. Also, line feed is suppressed during the input of targets so that the maps do not roll off the top of the screen. (In the Apple II version, the grid coordinates should not be terminated with RETURN when entering missile targets. However, the TRS-80 and PET versions require the ENTER or RETURN. In any case, the screen will NOT "scroll up" during the input of missile targets.)

#### **WHAT FIGHTER-BOMBER BASES DO WHEN ACTIVATED**

When a fighter-bomber base is activated, the number of jets ready to take off will be displayed. The number of jets to arm as fighters should then be input; the rest will be armed as bombers.

Bombers will arrive over the enemy country in an unknown number of Hot War turns. Defending fighters will shoot them down and the bombers will shoot back. Generally, fighters are about 20% tougher than bombers in this type of combat. If any bombers are left after the defending fighters are eliminated, the bombers will attack any targets of opportunity they can find, whether the targets are shown on the spy map or not. Thus, bombers are the most powerful strategic weapons if they can get through the enemy fighter defense.

#### **WHAT MISSILE SUBMARINES DO WHEN ACTIVATED**

An activated missile submarine goes to sea, where it is immune from attack. An unknown number of Hot War turns later, it will report itself as having reached its launch location. When that happens, the procedure is identical to self-activation of a missile base.

#### **WHAT ABM BASES DO WHEN ACTIVATED**

An activated ABM base adds its ABM's to the total of ABM's in 'active tracking mode.' Every incoming missile and every bomber that gets past the fighter screen will be allocated one ABM from the total in an attempt to bring it down before it gets to its target. This attempt is not always successful, especially against bombers. If a bomber is missed, there is time to fire another ABM, but there is no second chance against a missile.

#### **WHAT HAPPENS WHEN A GRID LOCATION IS HIT**

Grid locations that are hit by nuclear weapons are displayed as '\*'. If an unactivated base is present, it is destroyed.

A nuclear accident sometimes occurs (rarely) during Cold War at a base. The result is a nuclear hit at the base grid zone and a second hit at a grid zone within one unit in a random direction (possibly the same one).

#### **ENDING HOT WAR**

Hot War ends either as the result of negotiation or after all offensive weapons have been expended.

Negotiations occur when the Premier of the enemy country (the computer) calls on the Hot Line (the terminal) and the player agrees to negotiate. After sizing up the player's remaining threat (bombers on the way and missile submarines at sea are very good threats), the computer will either agree to a truce and stop the Hot War, or continue as before.

#### **THE WINNER**

The winner is generally the side with the greater population at the end. Cities have 11 million people each, while other non-bombed grid locations have 1 million each. If world opinion goes against the side that declared war, it is harder for that side to win. The winning country and the degree of victory are given after a final printing of the maps, this time with total and correct information for both sides. There is no winner if the population is reduced far enough.

#### **EXAMPLES OF PLAY**

This section gives some examples that will be useful for the computer game beginner. An important thing to keep in mind is that the computer expects the player to input his commands in a very precise format and terminate them by pressing the "ENTER" (or "RETURN") key. The computer is very literal-minded and can't make guesses about what was REALLY meant! (Note that there will be some very minor differences between the versions for the different computers, but all versions are very nearly identical.)

The standard routine during cold war is to build bases. The following sequence is an example of this for one turn of cold war:

COLD WAR ORDERS? (Computer puts this on the screen.)

[ENTER] (Player presses ENTER for normal strategy.) ('N' RETURN for PET)

TYPE OF BASE TO BUILD? (Computer)

M [ENTER] (Player. Missile base.)

LOCATION TO BUILD BASE? (Computer.)

1,8 [ENTER] (Player. Upper right corner. H1 on Apple or PET.)

TYPE OF BASE TO BUILD? (Computer)

B [ENTER] (Player. Fighter-bomber base.)

LOCATION TO BUILD BASE? (Computer.)

8,1 [ENTER] (Player. Lower left corner. A8 on Apple or PET.)

(Computer now proceeds to its own strategy.)

During hot war, the normal activity is to activate bases. The following example is the activation of a fighter-bomber base:

BASE TO ACTIVATE? (Computer.)

8,1 [ENTER] (Player. Base type is not needed.)

7 PLANES READY AT AIRBASE 1. (Computer.)

NUMBER TO ARM AS FIGHTERS? (Computer.)

3 [ENTER] (Player. 3 fighters, 7-3 = 4 bombers.)

(Computer now proceeds to other hot war activities.)

While entering commands may seem difficult at first, a little experience will make entering them almost second nature. Note that the computer won't let you do anything against the rules, so don't worry about that!

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## CASSETTE LOADING INSTRUCTIONS

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### ATARI 400/800

Lift the cartridge door on your ATARI 400/800 computer and insert the COMPUTING LANGUAGE BASIC cartridge into the computer. Use the LEFT CARTRIDGE slot on the ATARI 800 system.

Press the POWER switch on the side of the console ON. With SIDE ONE of the cassette up, put it into your ATARI CASSETTE RECORDER and press 'REWIND' until the tape stops moving. Using the keyboard, type:

#### CLOAD

Then press the 'RETURN' key on the keyboard. You will hear one beep. Push 'PLAY' on the recorder and press the 'RETURN' key on the keyboard again. The recorder should start to move and the program will be loaded. By turning up the volume on your video screen you can hear the program being loaded. When the tape stops, the program has been transferred from the cassette tape to the computer. 'READY' will be displayed on the screen. Type: 'RUN' and press the 'RETURN' key to play the game. The program has been recorded on the cassette twice to insure against errors in loading. Should your video screen display the word ERROR, press the RESET button at the top righthand corner of the keyboard and repeat all of the above loading instructions.

To assure a successful load on your Atari computer we suggest you advance the clear portion of tape (leader) until the brown magnetic portion is just visible to the left of the cassette head.

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### APPLE II

The APPLE program is located on SIDE ONE after the Atari program. There are two copies of the Atari program which must be skipped before the APPLE program can be loaded. By listening to the tape, you can tell the difference between the two programs. The APPLE program is easily recognized by the relatively high pitch and 'pure' quality of the calibration tone at the beginning of the program. This tone is free of the characteristic Atari buzz. Find the beginning of an APPLE program and position the tape to just after the start of the calibration tone. Set up the recorder for input. On the keyboard, type:

LOAD (Don't hit 'RETURN' yet).

Press 'PLAY' on the recorder and immediately press 'RETURN' on the keyboard. The computer will start reading in your program. The computer will beep twice, once at the beginning of the program and once at the end. This program is not short and will take a few minutes to load. When you hear the second beep, type:

#### RUN

and press 'RETURN' to play the game.

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### COMMODORE PET 2001

Turn the tape over so SIDE TWO is up. Insert the tape in your recorder and rewind to the beginning of the tape. When ready, type:

#### LOAD

and press the 'RETURN' button on the keyboard, then the 'PLAY' button on the recorder. The tape should start moving, and start loading your program. This program is not short, and will take several minutes to load. The computer will tell you when it finds the program and starts loading. When done, the computer will print 'READY', and the tape will stop. Type:

#### RUN

and press 'RETURN' to play the game.

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## CASSETTE LOADING INSTRUCTIONS

### TRS-80

The TRS-80 program is located on SIDE TWO after the PET 2001 program. There are two copies of the PET program which must be skipped before the TRS-80 program can be loaded. By pulling out the EAR and MIC jacks on the recorder and listening to the tape, you can differentiate the PET program from the TRS-80 program. The PET sounds louder, yet has a lower pitch. Both PET programs last approximately a total of 8½ minutes and are followed by a portion of blank tape which is your cue to prepare to load the TRS-80 program.

Check that the volume control is set to the proper level (between 5 and 6 is normal). Press 'PLAY' on the recorder, type:

### CLOAD

(For Mod III only, enter: L after CASS?, then CLOAD)

and press the 'ENTER' key on the keyboard. The recorder should start to move and your program will be loaded. This will be indicated by the flashing asterisk at the upper right corner of the screen. This program is not short, and will take several minutes to load. When the tape stops and the TRS-80 prints 'READY' on the screen, type:

### RUN

and press 'ENTER' to play the game.

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### IF YOU CANNOT LOAD THE PROGRAM

1. Check your equipment carefully to be sure that all cables and connections are correct.
2. Re-read the section in your computer's manual that tells you how to load a tape. Try to load the tape again.
3. If you can adjust the volume on your recorder, try different settings, both higher and lower.
4. Each program is recorded twice on the tape, one recording right after the other. By listening to the tape, find the beginning of the second recording and try to load it.
5. If possible, load another program from a tape you know works on your computer. This will prove that your equipment works. Try once more to load your game.
6. The normal reason tapes will not load is tape recorder head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to read tapes made on a different recorder for this reason. Be sure your recorder heads are correctly aligned. Your local computer store or dealer can help you with this.
7. If the program still cannot be loaded, send the cassette, with a complete description of the problem (what type of computer you have, what the computer says, if anything, when you try to load the cassette or play the game and what you did to try to get it to load.) to:

### Avalon Hill Microcomputer Games

4517 Harford Road  
Baltimore, Maryland 21214

Defective cassettes will be replaced.

### After the program is loaded

Once you have your program loaded, it is a good idea to make a backup copy (for your own use). Follow the normal procedure for saving a basic program in your computer's manual.

### YOU NAME IT, WE'VE GOT A GAME ON IT . . .

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### QUESTIONS ON PLAY

The clarity of these rules has been verified by *Software Testers of Universal Microcomputer Programmers (STUMP)* and deemed "complete" in all facets of instruction. Please re-read them in areas that seem unclear at first reading. Questions on play can be answered by the factory *only* upon receipt of a self-addressed envelope bearing first-class postage.



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