

W.O.P.R SYSTEM
OPERATION MANUAL

This manual is intended to give new users assistance with operating the WOPR, or War Operation Plan Response, simulation system. This guide, specifically appendixes A-D, may be handy to have nearby when operating the system.

Sec. 1: Simulation "Gameplay"

The WOPR system is designed to simulate a "Global Thermonuclear War" between the UNITED STATES and the SOVIET UNION. This is done by simulating nuclear detonations over twenty-four high priority targets in both nations.

To "WIN" the simulation, the user must destroy the enemy nation completely while **remaining ABOVE a population threshold of twenty percent.**

The user will begin by choosing a nation to control by entering the country's name or number identifier. Throughout the rest of the simulation, countries can be referred to in commands by either their name or number identifier.

UNITED STATES : 1

SOVIET UNION : 2

Next, the user will be prompted to enter a **"First Strike Command"**. To do so, type in the name of one city to be targeted by an initial nuclear strike. Press enter, and if the target is valid, the user will be prompted to enter a second target. Pressing enter a second time will end First Strike Command.

The lists of **high-priority cities** are in **Appendix A. for UNITED STATES**, and **Appendix B. for SOVIET UNION**.

The command **'LIST <country>'** may also be used in the WOPR system.

After finishing the First Strike Command, the user is free to navigate the simulation as they please. **The WOPR system will automatically take control of the enemy nation and launch warheads at scheduled intervals.**

The next page contains detailed information on the commands that WOPR allows as input.

Sec. 2: Command Line Interface

The WOPR System functions on a command line interface, which accepts commands either alone, or some with an argument. Commands are submitted by pressing enter, and when an argument is provided, should be separated from the command by a single space.

HELP:

Prints the list of commands, as well as basic descriptors for each. Can be used alone or take arguments **GAMES**, **FIRSTSTRIKE**, or **LAUNCH**, which will provide help on these commands in the WOPR system.

MANUAL:

Opens this manual.

TOGGLE:

Sets WOPR War Map display to show or hide cities. Healthy cities are displayed in **GREEN**, irradiated cities are displayed in **YELLOW**, and destroyed cities are displayed in **RED**. In the WOPR system, the phrase TARGET refers to one of these cities.

CLEAR:

Clears the right-side information panel display.

PAUSE:

Pauses the simulation timer.

RESUME:

Resumes the simulation timer.

EXIT:

Terminates connection to WOPR system.

LAUNCH:

Enters Launch Protocol, which allows the user to launch warheads. Launch protocol will ask for the following:

SOURCE: A valid payload delivery vehicle from your own country. Full lists of included **payload delivery vehicles** are found at **Appendix C. for the UNITED STATES** and **Appendix D. for the SOVIET UNION**, or the command **NUKES <country>** in WOPR.

DESTINATION: a valid priority target from the enemy's country. This destination must be within the "Delivery Zone" of the specified source.

PAYLOAD STRENGTH: An integer larger than zero and less than or equal to the specified source's current payload capacity.

'BACK' Can be entered at any time during Launch Protocol to exit Launch Protocol.

LIST <COUNTRY>:

Lists the available priority targets in each country, sorted by Zone and Name.

POP <COUNTRY>:

Lists the core population data of specified country.

NUKES <COUNTRY>:

Lists payload delivery vehicles of specified country.

VIEW <TARGET>:

Lists data of specified high-priority city.

INFO <VEHICLE>:

Lists data of specified payload delivery vehicle. **Vehicles are considered inactive if they have no more available warheads, or if all cities upon which they 'Depend' upon are destroyed.**

Sec. 3: Hidden Mechanics

When a warhead is launched, the following calculations are made that the WOPR system does not display directly to the user:

- Calculation for launch preparation times due to mass armament requests
- Calculation for chance of critical launch failure due to equipment or personnel malfunction
- Calculation for effectiveness of target city's anti-air and anti-missile air defenses
 - This calculation takes into account the number of warheads engaged in flight; the more warheads are engaged, the more likely all are to breach air defenses.
- Calculation of survival rates due to nuclear shelters
- Calculation of living but injured population
- Calculation of a) immediately irradiated population and b) population exposed to radiation post-detonation
- Calculation of injured and irradiated population receiving treatment at medical center; or succumbing to injuries/ radiation sickness.

Appendix A.: High-Priority targets in the UNITED STATES.

In the WOPR System, they are referred to without State Abbreviations.

US_WEST REGION:

Honolulu, HI	Las Vegas, NV	Los Angeles, CA
Portland, OR	San Diego, CA	San Francisco, CA
Seattle, WA		

US_CENTRAL REGION:

Colorado Springs, CO	Dallas, TX	Denver, CO
Houston, TX	Phoenix, AZ	

US_MIDWEST REGION:

Chicago, IL	Detroit, MI	Minneapolis, MN
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US_EAST REGION:

Baltimore, MD	Boston, MA	New York, NY
Philadelphia, PA	Washington, D.C.	

US_SOUTH REGION:

Charlotte, NC	Jacksonville, FL	Miami, FL
New Orleans, LA		

Appendix B.: High Priority Targets in the SOVIET UNION.
In the WOPR system, they are referred to without Republic
Abbreviations.

RU_WEST REGION:

Kazan, Tatar ASSR	Leningrad, RSFSR	Murmansk, RSFSR
Moscow, RSFSR	Volgograd, RFSR	

RU_SOUTH REGION:

Alma Ata, Kazak ASSR	Baku, AzSSR	Dnepropetrovsk, UkSSR
Kharkov, UkSSR	Kiev, UkSSR	Odessa, UkSSR
Rostov on Don, RSFSR	Tashkent, Uzbek SSR	Tbilisi, GeorgianSSR
Yerevan, ArmenianSSR		

RU_URALS REGION:

Chelyabinsk, RSFSR	Omsk, RSFSR	Perm, RSFSR
Sverdlovsk, RSFSR	Ufa, RSFSR	

RU_SIBERIA REGION:

Novosibirsk, RSFSR	Yakutsk, RSFSR
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RU_ASIA REGION:

Magadan, RSFSR	Vladivostok, RSFSR
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Appendix C.: Payload Delivery Vehicles in the United States

ICBM Silos:

Ellsworth

Can target all Zones

Depends on Colorado Springs & Washington, D.C.

Grand Forks

Can target all Zones

Depends on Colorado Springs & Washington, D.C.

Ft Warren

Can target all Zones

Depends on Colorado Springs & Washington, D.C.

Nuclear Submarine Bases:

(Port Of) San Diego

Can target RU_SIBERIA and RU_ASIA

Depends on San Diego & Los Angeles

*Shares a name with the target city San Diego.

Norfolk

Can target RU_SOUTH and RU_WEST

Depends on Charlotte and Washington, D.C.

Pearl Harbor

Can target RU_SIBERIA, RU_ASIA, and RU_URALS

Depends on Honolulu

Nuclear Bomber Air Bases:

Alameda

Can target RU_SIBERIA, RU_ASIA, and RU_URALS

Depends on San Diego, Los Angeles, & San Francisco

Charleston

Can target RU_SOUTH, RU_WEST, and RU_URALS

Depends on Charlotte and Washington, D.C.

Lakehurst

Can target RU_SOUTH, RU_WEST, and RU_URALS

Depends on New York, Boston, and Philadelphia

Appendix D.: Payload Delivery Vehicles in the Soviet Union

ICBM Silos:

Derazhnya

Can target all Zones

Depends on Leningrad

Pervomaysk

Can target all Zones

Depends on Moscow

Dombarovskiy

Can target all Zones

Depends on Volgograd

Uzhur

Can target all Zones

Depends on Omsk

Gladkaya

Can target all Zones

Depends on Novosibirsk

Nuclear Submarine Bases:

(Port Of) Leningrad

Can target US_EAST and US_SOUTH

Depends on Leningrad

*Shares a name with the target city Leningrad

Arkhangelsk

Can target US_EAST and US_SOUTH

Depends on Murmansk

(Port Of) Murmansk

Can target US_EAST, US_SOUTH, and US_MIDWEST

Depends on Murmansk

*Shares a name with the target city Murmansk

(Port Of) Magadan

Can target US_WEST, US_CENTRAL, and US_MIDWEST

Depends on Magadan & Vladivostok

*Shares a name with the target city Magadan

(Port Of) Rostov on Don

Can target US_EAST

Depends on Rostov on Don

*Shares a name with the target city Rostov on Don

Cam Ranh Bay

Can target US_WEST, US_CENTRAL, and US_MIDWEST

Offshore Operation - Has No Dependencies

Appendix D., Cont.

Nuclear Bomber Air Bases:

Afrikanda

Can target US_EAST, US_SOUTH, and US_MIDWEST

Depends on Murmansk, Moscow, Leningrad

Beketovsk

Can target US_EAST, US_SOUTH, and US_MIDWEST

Depends on Volgograd

Artsyz

Can target US_EAST, US_SOUTH, and US_MIDWEST

Depends on Odessa

Uzyn

Can target US_EAST, US_SOUTH, and US_CENTRAL

Depends on Kiev

Semey

Can target US_EAST, US_SOUTH, and US_CENTRAL

Depends on Alma Ata