# 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 Sec 1. & appendixes A-D, may be handy to have nearby when operating the system.

**Sec. 1: Command Line Interface**

The WOPR System functions on a command line interface, which accepts commands, some with and some without an argument. Commands are submitted by pressing enter, and when an argument is provided, should be separated from the command by a single space. **Basic commands can be issued at any time, even if the system is asking for an input.**

**HELP:** Prints the list of commands, as well as basic descriptors for each. Can take arguments **GAMES**, **FIRSTSTRIKE**, or **LAUNCH.**

**MANUAL:** Opens this manual.

**CREDITS :** View Game Credits. Press ESCAPE to exit credits view.

**LAUNCH :** Enters Launch Mode. More information on the next page.

**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.

**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 <SITE>:**

Lists data of specified nuclear launch site. **Sites are considered inactive if they have no more available warheads, or if all cities upon which they 'Depend' upon are destroyed.**

**Sec. 1.5: How to Launch Missiles**

The command **'LAUNCH'** will bring the WOPR system into "Launch Protocol", which allows the user to launch warheads. The system will then show prompts for the following:

**SOURCE:** The name of a nuclear launch site from which the payload originates. Full lists of launch sites are found at **Appendix C. for the UNITED STATES** and **Appendix D. for the SOVIET UNION**, or the command NUKES <country> in WOPR. The source should be **from the user's selected country.**

**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.

**Sec. 2: 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 each nation.

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 a 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. Submitting the second target will end First Strike Command and begin the simulation.

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 based on the user's response time, matching their pace via a sliding average.**

**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.**

**US_WEST REGION:**

| | | |
|---|---|---|
| Honolulu | Las Vegas | Los Angeles |
| Portland | San Diego | San Francisco |
| Seattle | | |

**US_CENTRAL REGION:**

| | | |
|---|---|---|
| Colorado Springs | Dallas | Denver |
| Houston | Phoenix | |

**US_MIDWEST REGION:**

| | | |
|---|---|---|
| Chicago | Detroit | Minneapolis |

**US_EAST REGION:**

| | | |
|---|---|---|
| Baltimore | Boston | New York |
| Philadelphia | Washington DC | |

**US_SOUTH REGION:**

| | | |
|---|---|---|
| Charlotte | Jacksonville | Miami |
| New Orleans | | |

**Appendix B.: High Priority Targets in the SOVIET UNION.**

**RU_WEST REGION:**

| | | |
|---|---|---|
| Kazan | Leningrad | Murmansk |
| Moscow | Volgograd | |

**RU_SOUTH REGION:**

| | | |
|---|---|---|
| Alma Ata | Baku | Dnepropetrovsk |
| Kharkov | Kiev | Odessa |
| Rostov on Don | Tashkent | Tbilisi |
| Yerevan | | |

**RU_URALS REGION:**

| | | |
|---|---|---|
| Chelyabinsk | Omsk | Perm |
| Sverdlovsk | Ufa | |

**RU_SIBERIA REGION:**

| | |
|---|---|
| Novosibirsk | Yakutsk |

**RU_ASIA REGION:**

| | |
|---|---|
| Magadan | Vladivostok |

**Appendix C.: Nuclear Launch Sites 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.: Nuclear Launch Sites 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