

# Atomic Combat Instructions v.1.0

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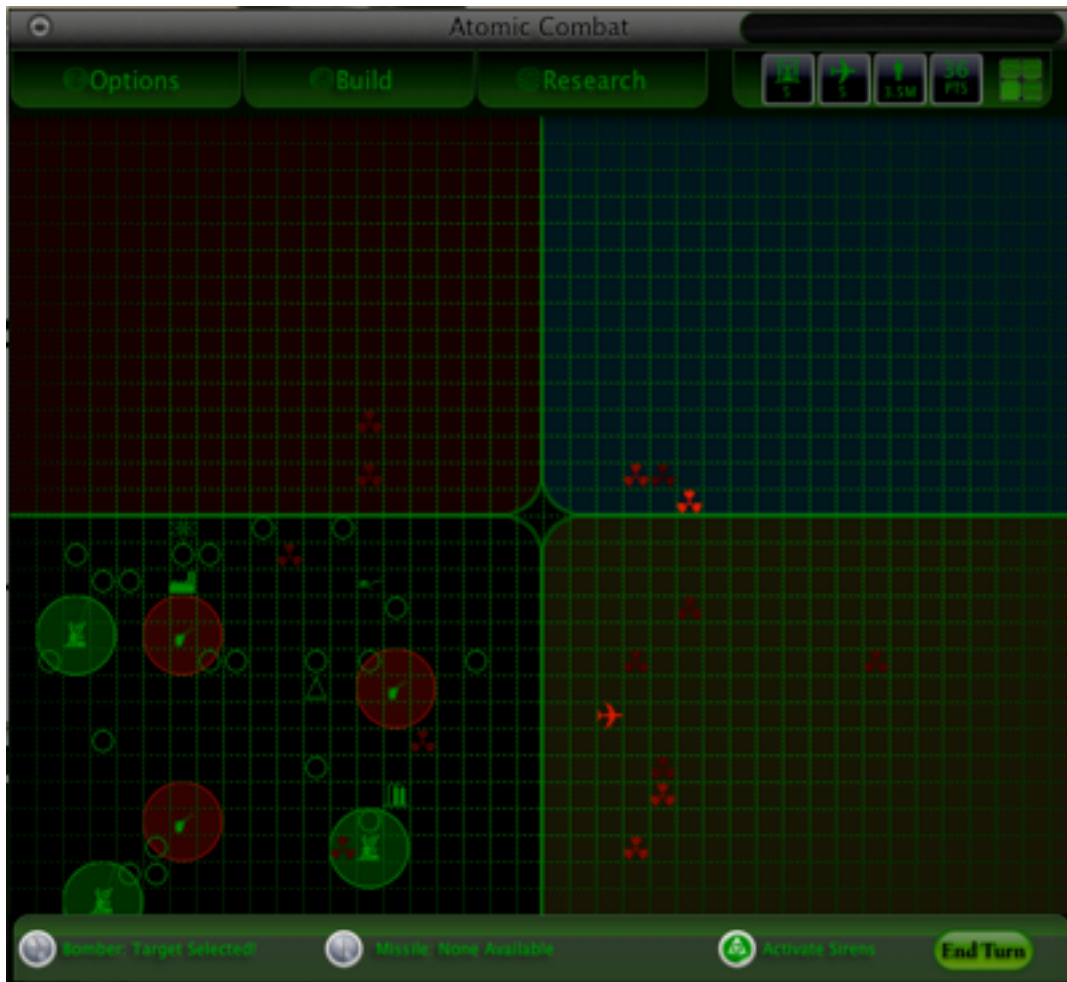
## ***About Atomic Combat***

Atomic Combat is a game of nuclear warfare in the spirit of Battleship and other such "location guessing" games.

As the game starts, a nuclear war has just started and you face three computer opponents armed to the teeth with nuclear weapons, you must try to force them to surrender by destroying their insignificant little countries and they will do the same to you. The problem is that you have no idea where their cities, airbases, silos, or any other targets of value lie... Nevertheless, you must destroy them, or at least give it a good shot!

Survival and destruction is key, and only through sheer luck and ingenuity will you be able to survive.

## Basic Game Concepts



**Figure 1: the Atomic Combat main screen**

- You control the country in the lower left hand quarter of the screen, when the game starts you are only aware of the location of resources within your own country. The thin dotted lines indicate a square of your country's territory. You can only build resources within the squares of your country. Each square may hold one resource, such as a silo, a city, or a research facility.
- You border three computer countries, differentiated by the thicker green lines and colored overlays. Your goal is to destroy as much of their infrastructure and kill as many of their citizens as possible. Unfortunately, they will be doing the same thing to you, and each other. As you drop bombs on the computers' territory, the square that was bombed will become visible, revealing any resources underneath.

- There are a number of different pieces of vital information presented on the main screen:
  1. The circles with distinct red borders are the range of your anti-aircraft emplacements, and the large green circles are your radar.
  2. The icons within the squares indicate **cities**, airfields, silos, etc. An empty circle is a city of population 100,000-400,000, a circle within a circle has a population of 500,000-900,000 and a solid circle is a city with a population of over 1,000,000.
  3. The smaller red circles indicate the presence of radiation. **Radiation** moves with the **wind**, from left to right across the screen, slowly growing weaker farther from ground zero. Radiation present over a city will kill a portion of its inhabitants. Radiation is always present over ground zero<sup>1</sup> and an attack is indicated by red radiation symbols; letting you know which squares have been attacked and which have not.
- The game is divided up into **turns**, with no set end... You may only drop one bomb, from either a plane or a missile each turn. Every ten turns is a "**manufacturing turn**", at the end of which your factories make more missiles and bombers, and your reactors produce more weapons. If you run out of bombers, missiles, or bombs before the manufacturing turn, you will have to wait out the computer's attacks until you've made more. If you have no functioning factories at the end of the manufacturing turn, you will not manufacture any bombers or missiles, and the same rule applies to reactors and weapons.
- At the end of each turn, attacks are decided- with each country's bombers or missiles soaring towards their intended targets. Bombers always start from the exact center of a country, to not reveal the secret location of their airfields, and missiles start in a random place for the same reason regarding their silos.
- After everyone has attacked and been attacked, the losses and damage is calculated, and you have a chance to build and research. This is done by the application of **points**- which are doled out based on your population, you get 1 point for every million people you have every turn, with a maximum of 10 points per turn<sup>2</sup>.
- The game ends when either all of the computer countries **surrender** or your populace finally gives up. This usually happens when you've got no population left, but can also be triggered when your population dips below 1 million (due to the fact that you'll be getting no more points and fighting on gets harder,) or when your total dead exceed your total left alive...

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<sup>1</sup> where a bomb has been dropped

<sup>2</sup> This is done so that both games with small populations and large are balanced.

## Using the Interface



**Figure 2: the bottom toolbar**

This is the **bottom toolbar**. The two leftmost buttons are for designating attacks by **Bombers** and **Missiles**- when the buttons are green, you can attack with the indicated weapon, when they are grey, you cannot attack. A yellow button indicates that you are readying an attack, and a flashing red button indicates that you have placed an attack and weapons are ready for deployment.

- **How to attack the enemy:**

The third button from the left indicates your current **civil defense** status- once again a green light means that the civil defense sirens are available, a grey light indicates otherwise, and a red light means that the civil defense sirens will sound.

**Sirens** can be very important- they signal an incoming attack on your populace, indicating that they should seek shelter immediately. Sirens will decrease the death toll from nuclear blast if one of your cities takes a direct hit. There are two ways that the sirens will sound- either from the press of this button, or if your radar picks up an incoming bomber or the launch of a missile. Starting the sirens costs 1 point.

The final button, all the way over to the right, is the "**End Turn**" button. Click this when you have placed your attack, finished your research, built everything, and all your ducks are in a row. Once you have clicked this button, there is no turning back; bombs have begun to drop!



**Figure 3: the Options menu**

**Options menu:**

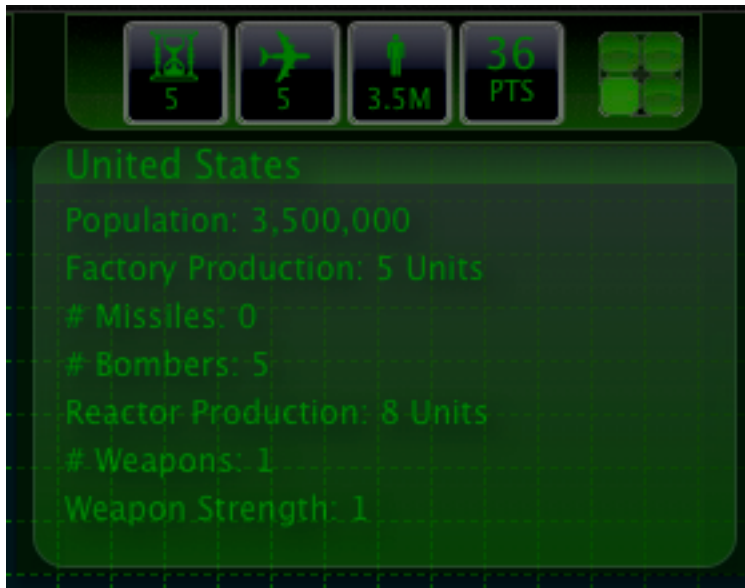
- In the **Options menu**, you have four options...
  1. Turn the **animations** for smoke, radar, and radiation on/off (mostly applies to the zoomed view)
  2. Turn the **radiation display** on/off (to distinguish from your AA, or get a better view)
  3. Show or hide the **radar and AA ranges** (once they get larger, they can become annoying)
  4. **Zoom** in on your country (for no real reason other than ease of construction)

**Build menu:**

*See: Building Resources on page 8*

**Research menu:**

*See: Research on page 10*



**Figure 4: the status bar**

**Status bar:**

The **status bar** is very handy... Click on the buttons to change their display

1. The button on the far left displays the current turn (**hourglass**) or turns till the manufacturing turn (hammer and wrench)
2. The button second from the left displays you **current bomber, missile, or weapon inventory**
3. Third from the left displays your **current population** (green guy) or total deaths (red guy)
4. The fourth button only shows you your current points
5. The blob of green blobs at the far right is your **status screen control**- when you mouse over the status bar, you will notice a screen displays below it- giving you important information about how many weapons you are producing, etc. By clicking on a different square,<sup>3</sup> you can see the same info about that country. None of the computer countries cares if you know how many missiles they have, in fact, they will probably be proud to display it...
6. Clicking on a highlighted square changes the screen, displaying your current population and a **breakdown** of your deaths, along with the current deaths and population of your enemies.

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<sup>3</sup> All of which correspond with the location of a country on the main screen- so your info is in the lower left, the country in the upper right of the main screen is the upper right button, etc.

## Building Resources



Figure 5: the Build menu

### Build menu:

The build menu lets you **construct** new resources within your country, from silos to reactors... Each item is designated with the icon used in the main map, and its accompanying cost in points. When a resource is available to build, the button to the left will be green; otherwise, the button will be grey. To build a resource, click on the button and then click on the map location where you would like to build the resource<sup>4</sup>. All resources must be placed next to or diagonal from a square with population<sup>5</sup> and must be in a square that has no radiation<sup>6</sup>.

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<sup>4</sup> Inside of your own country of course.

<sup>5</sup> Someone has to man those silos!!! This also makes the game much less of a crap shoot.

<sup>6</sup> Would you want to build a factory in an irradiated area?

1. **Population** (Free) This item will only be available if you have set the "**Manual Population Placement**" button at the start of the game. Otherwise, as a rule you will be losing population, never gaining. Placing population builds a city. Cities are incredibly vulnerable to both blast damage and radiation.
2. **Factory** (3 Points) Factories produce bombers and missiles during the manufacturing turn, based on your "**Factory Production**" level. Each functioning factory will produce this number of bombers and missiles, so if your production level is 6 and you have 3 factories, you will produce 18 bombers and 18 missiles during a manufacturing turn. Factories are very vulnerable to blast damage, but resistant to radiation.
3. **Reactor** (5 Points) Reactors act much like factories, except that they produce nuclear weapons and use a separate "**Reactor Production**" Level. Reactors are very vulnerable to blast damage but impervious to radiation.
4. **Research Facility** (4 Points) To be able to research anything, you must have a functioning research facility. Having more than one Research Facility does not give you any advantages other than piece of mind- if one is destroyed you always have another. Research Facilities are very vulnerable to blast damage but unaffected by radiation.
5. **Silo** (1 Point) To be able to attack with missiles; you must have at least one functioning silo. Silos are very well protected against blast damage and can withstand some direct hits, they are resistant to radiation.
6. **Airfield** (5 Points) You must have a functioning airfield to be able to attack with your bombers. Airfields are vulnerable to blast, but resistant to radiation.
7. **Anti-Aircraft** (2 points) AA will protect your cities from incoming bomber attacks. Somewhat blast resistant, it is also unaffected by radiation.
8. **Radar** (2 Points) Radar provides early warning to your populace when there is an incoming attack. If a bomber comes within range of the radar, or a missile is launched within its range your civil defense sirens will automatically roar to life. Radar also alerts your defensive fighters to an incoming attack, letting them know that they should scramble and try to shoot down the attacking fighter. Radar is somewhat blast resistant and unaffected by radiation.*(see also: How to attack the enemy, for an explanation of civil defense, on page 5)*

## Research



**Figure 6: the Research Menu**

The **research menu** has five buttons allowing you to direct your scientists to develop better weapons and abilities. Research is not time based, nor is it dependent on the number of Research Facilities you have- as long as you have at least one functioning Research Facility and enough points, you can develop whatever you want to.

### Research menu:

- **Enhance Production:**
  1. **Factory Production** +1 (2 Points / Max. Level: 20) This increases the number of bombers and missiles your factories produce during a manufacturing turn by 1 unit. Since you have to wait 10 turns between manufacturing turns, it is a good idea to research your Factory Production. This is essential if you are using missiles: whether you hit a target or not, every time a missile leaves a silo your stockpile decreases by one, so if you only produce 5 missiles, you will only have 5 turns worth after the manufacturing turn. Bombers are harder, only decreasing in number if they are shot down or crash. Having multiple factories means that each factory produces bombers and missiles at your current Factory Production value- e.g. if your Factory Production is 6 and you have 3 factories, you will produce 18 bombers and 18 missiles each manufacturing turn.

2. **Reactor Production** +1 (2 Points / Max. Level 20) Reactor production works in the same way as Factory Production, except it affects your reactors and the nuclear weapons they produce. If your Reactor Production is set at any level below 10 you will run out of weapons before you can produce more- leaving you unable to attack any of your enemies.
- **Missile Research:**
    1. **Missile Throw Weight** +1 (3 Points / No Max. Level) The "**throw weight**" of a missile is a fancy-schmancy term to define the maximum payload of the missile. If your weapons are heavier than your Missile Throw Weight, you will not be able to use missiles. However, every extra point of Throw Weight also adds an extra point to your missile's CPE. *(see below)*
    2. **Missile CPE** -1 (4 Points / Min. Level 0) CPE is the range in squares that your missiles may miss their target by- a higher number means that your missiles are less accurate and less likely to hit the target you have assigned them. Things can become disastrous when you combine a high CPE with targets close to your own country, as there is always a chance you will send a missile flying into your own territory.
    3. **Missile Reliability** +1 (2 Points / Max. Level 19/20) fairly self-explanatory, when the Missile Reliability level is lower, your missiles are more likely to fail or at least go horribly off target.<sup>7</sup>
  - **Radar/AA Research:**
    1. **Radar Range** +1 (4 Points / Max. range 5) Radar is used to detect incoming attacks, triggering your civil defense sirens and defensive fighters and possibly saving some of your citizen's lives- the more range it covers, the more likely your sirens will go off.
    2. **AA Range** +1 (4 Points / Max. range 3) Anti-Aircraft is, oddly, only useful against bombers... If your enemies are using nothing but missiles AA becomes useless. That being said, the more range you can cover with your AA, the less likely the enemy bombers are going to get through- unless their maximum altitude is higher than your AA... and then it's useless. Still... making sure your cities are covered is always a good idea.
    3. **AA Skill** +1 (3 Points / No Max. Level) The more skillful your AA is, the more likely it will shoot down incoming bombers.
    4. **Fighter Skill** +1 (3 Points / No Max. Level) Much like AA, the higher your fighter's skill, the more likely it will shoot down enemy bombers.
    5. **Fighter Type** (6 Points / Level 1-3) Each increase in fighter type, from basic to modern jet fighters, increases the chance that they will shoot down incoming bombers.

*(see also: explanation of civil defense on page 5)*

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<sup>7</sup> This can compound the problems facing you with a low CPE.

- **Weapon Research:**

1. **Weapon Damage** +1 (4 Points / No Max. Level) Weapon Damage directly relates to the level of death and radiation a weapon causes. A level 1 weapon will kill 100,000 unprotected people and cause 2 units of radiation. Weapons above level 4 will also cause 1/2 their damage and radiation in the four polar square around ground zero (up, down, left, & right.) Weapons above level 8 will do the same in the 4 corner squares surrounding ground zero.<sup>8</sup> The level of destruction is tempered by any civil defense measures your target may have enacted, and whether the target was at ground zero or simply within the blast radius.<sup>9</sup> Every time you increase a weapon's damage, its weight increases by one.
2. **Weapon Weight** -1 (4 Points / Min. Level 1) Weapon Weight only matters in relation to your missile's Throw Weight. If Weapon Weight is greater than the missile's Throw Weight, you cannot shoot your weapons with missiles.
3. **Weapon Reliability** +1 (3 Points / Max. Level 19/20) With a lower Weapon Reliability, the more likely you are to have unplanned and sometimes disastrous consequences when your nuclear weapons detonate. A failed weapon can produce higher or lower yields, more or less radiation, and sometimes can just be a plain old dud. While you can never completely solve these problems, a higher reliability can at least curb their occurrence.

- **Bomber Research:**

1. **Change Bomber Type** (6 Points/ Level 1-6) Your country starts off with prop-driven bombers and can upgrade to jet bombers and eventually stealth bombers. Jet bombers have a slightly better chance of not getting shot down by AA, and stealth bombers are invisible to radar, making them as good if not better weapons than missiles. However, is it worth the 6 points if you can instead upgrade your missiles and nuclear weapons and not worry about AA at all?
2. **Bomber Skill** +1 (2 Points / No Max. Level) The higher your bomber's skill level, the less likely it will get shot down.
3. **Bomber Reliability** +1 (3 Points / Max. Level 19/20) This is the single most important factor when considering your bomber's abilities, as a low Bomber Reliability level means that your bombers will crash or go off course more often, making their job, and consequently your future, much harder.

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<sup>8</sup> Making a nice 3x3 damage and radiation block.

<sup>9</sup> Silos usually survive small blasts and all but the heaviest non-direct hits.

## Setting up and customizing a game

The Setup screen:



Figure 7: the Setup screen

The Setup screen has a number of options that allow you to control the many aspects of a game, making Atomic Combat harder or easier according to your tastes.

- **Country Name:** Ummm... pretty clear here... This is what you call your country.
- **Initial Population:** This is the number of people with which you and all the computer countries start. Setting this low means you get fewer points<sup>10</sup> and can lead to games where the computer surrenders quickly as people start to die off. Setting this very high, along with high weapon damage will yield very high death rates.

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<sup>10</sup> you get 1 point per 1,000,000 people per turn

- **Manual Population Placement**: This button will let you place your own population in increments of 100,000 and place your own starting resources. You can place more than 100,000 people at a time by hitting a number key equal to the number of 100k people you want to place.<sup>11</sup> This lets you try interesting strategies like the "single city" game- wherein all of your population lies within one city- hard to find and hit, but one lucky bomb drop and it's all over.
- **Initial Points**: This determines how many points with which you and the computer countries start. If you do not have manual population placement on, the computer will try to place 1 factory, 1 research facility, 1 reactor, 1 airbase, 1 silo, 3 AA emplacements, and 3 radar emplacements within your country. This is a total of 30 points- if you set the initial point setting lower, not everything will get built- so in reality, setting this at 32 points means that you begin the game with 2 free points and a complete collection of resources. Set this very high, along with most of the other settings<sup>12</sup> for a "sandbox" mode type of game.
- **Weapon Weight**: How heavy your weapons are... Setting this high makes it harder to obtain missiles, making everyone depend more on bombers.
- **Weapon Damage**: How destructive your weapons are... Setting this high (at 10 say,) makes for quick and easy games with lots of early destruction and heavy fallout- this can be tons of fun!
- **# Initial Weapons**: If this is set below 10, you will spend some turns without weapons, as no more are produced until the first manufacturing turn. A low setting here will give you some breathing room after the first few turns, and is good if you want to learn the interface a little better before being completely annihilated.
- **Reactor Production**: How many weapons your reactors will produce during the manufacturing turn. If this is below 10, you will have to increase your production with research to produce enough weapons to survive between manufacturing turns.
- **Missile Throw Weight**: The weight that your missiles are able to lift. Setting this high makes missiles available early, setting it low makes them harder to obtain, especially if population is low.
- **Factory Production**: How many bombers and missiles your factories will produce during the manufacturing turn. Setting this at 1 or 2 makes the game harder and harder, even with a large population- it forces everyone to immediately spend points on production research and not on stronger weapons.
- **# Initial Bombers**: The number of bombers you start out with- the more the merrier, as they say. It is easier to survive a prolonged war with as many bombers as possible stockpiled. Setting this low (at 1 or 2) makes for a reasonably hard game- a simple crash or run-in with some AA and suddenly you are struggling.
- **# Initial Missiles**: The number of missiles you start out with, see Above.

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<sup>11</sup> e.g. 8 will let you place 800,000 people at a time

<sup>12</sup> other than weapon weight

- **AA Range**: The initial range of your Anti-Aircraft batteries. Setting this higher, along with a high weapon weight, a low population, and very little initial points will make for a very hard game- most countries will be forced to use bombers, and be vulnerable to the long AA range.
- **Radar Range**: The initial range of your Radar. This is not as influential on the outcome of the game as other settings, but a longer range means that your civil defense sirens will sound more often, making death tolls smaller.
- **Random**: All the values above are randomized, and every country (player and computers) get the same values- so if your initial random Bomb Damage is 8, the computer countries get the same value.
- **Super Random!**: All the values above are randomized, and every country (player and computers) get the different values... This option can produce some pretty strange games, where one country has very early advantages over their neighbors- it can be good or bad for you as the player.

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**A**

AA <i>See</i> anti-aircraft	
AA Range.....	11, 15
airfield.....	9
animations.....	6
anti-aircraft.....	4, 9, 11, 15
attack.....	5

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**B**

blast.....	5, 9, 12
bomber.....	4, 5, 7, 9, 10, 11, 12, 14, 15
Bomber Reliability.....	12
Bomber Research.....	12
Bomber Skill.....	12
Bomber Type.....	12
bomb <i>See</i> weapon	
bottom toolbar.....	5
Build menu.....	6, 8

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**C**

city.....	3, 4, 9, 14
civil defense.....	5, 9, 11, 12, 15
construct.....	8
Country Name.....	13
CPE.....	11

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**D**

damage.....	4, 9, 12, 13
death.....	5, 12, 13, 15

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**E**

End Turn.....	5
Enhance Production.....	10

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**F**

factory.....	8, 9, 10, 14
Factory Production.....	9, 10, 11, 14
Fighter Skill.....	11
Fighter Type.....	11

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**G**

ground zero.....	4, 12
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**H**

hammer and wrench.....	7
hourglass.....	7

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**I**

Initial Bombers.....	14
Initial Missiles.....	14
Initial Points.....	14
Initial Population.....	13
Initial Weapons.....	14

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**J**

jet.....	11, 12
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**K**

kill.....	3, 4, 12
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**M**

main screen.....	1, 3, 4, 7
Manual Population Placement.....	9, 14
manufacturing turn.....	4, 7, 9, 10, 14
missile.....	4, 5, 7, 9, 10, 11, 12, 14
Missile Reliability.....	11
Missile Research.....	11

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**N**

nuclear.....	2, 5, 9, 11, 12
nuke <i>See</i> weapon	

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**O**

Options menu.....	6
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**P**

payload.....	11
plane <i>See</i> bombers	
points.....	4, 7, 8, 9, 10, 12, 13, 14, 15
population.....	4, 7, 8, 9, 14, 15

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**R**

radar.....	4, 5, 6, 9, 12, 14
Radar Range.....	11, 15
Radar/AA Research.....	11
radiation.....	4, 6, 8, 9, 12
Reactor.....	4, 8, 9, 11, 14
Reactor Production.....	9, 11
research facility.....	3, 9, 10, 14
Research menu.....	6, 10
resources.....	3, 8, 14
rocket <i>See</i> missile	

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**S**

silo.....	3, 9, 10, 14
sirens.....	5, 9, 11, 15
status bar.....	7
stealth.....	12
surrender.....	2, 4

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**T**

territory.....	3, 11
throw weight.....	11
turns.....	4, 7, 10, 14

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**W**

weapon.....	5, 7, 12, 13, 14, 15
Weapon Damage.....	12, 14
Weapon Reliability.....	12
Weapon Research.....	12
Weapon Weight.....	12, 14

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**Z**

Zoom.....	6
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