"Let them have their ticker tape parades, their "space races," and their commemorative packets of dehydrated ice cream. While Von Braun takes credit for his Redstone bottle rockets,
I am finalising plans for an inter-planetary fleet that could plant an American flag on every rock and pebble in this solar system by the end of the next decade. I will be watching the sunrise from atop the Olympus Mons long before NASA takes their first steps on the moon."

– Dr. Wilhelm Arkin's response to the offer of a position at NASA

CONTENTS

MEMORANDUM

From the President of
The United States of America

From: President Dwight D. Eisenhower
To: General George Collins
Re: Establishment of the National Space Defence Force (NSDF)
Security Status: Eyes Only
Date: June 3, 1958

After all that we've been through together, I hold you as one of the few men that I trust implicitly. I can't fully express the importance of maintaining the highest level of discretion regarding the information contained within this memorandum. Much has changed since we've spent time together. As Commanders in the Armed Forces, we took for granted that we held many secrets nobody should know, but now my life as President is very different. Many people know more than they should, and it is putting the future of our nation in grave jeopardy.

The news of my health problems are widely known, and I have no idea what will become of me. My gut tells me that it is time to plan for the future, and I'm counting on you to carry forward the defence of our nation. You may feel that you are too old to do what I'm about to ask you to do, but I need someone that I can trust, and I have complete confidence that you are up to the task. That aside, I can only promise that you will see action like you've never seen before. In fact, I wish that I could personally take charge of this operation.

You may recall brief mentions of a meteor shower that struck the Bering Straight six years ago. The seemingly inconsequential phenomena was overshadowed by events

on the Korean Peninsula, but in actuality the debris that fell from space will have a much more enduring impact on the future of our nation than the outcome of the conflict in Korea.

Soviet and American scientists simultaneously discovered an odd metal with unknown biological properties amongst the rocks that fell to Earth. We both rushed to gather as much of the material as possible and all known reserves have now been collected.

We've established a research facility in Nevada in order to investigate this "bio-metal." The results of these efforts are astounding. The material itself remains a complete mystery, but we have managed to fabricate some promising munitions from it. It seems that the biological element of the metal contains some sort of memory that allows it to reshape itself into its previous form. Later in this report you will see some of the engineering specifications of what we know the material can do. The bottom line is clear, however. Whoever controls these materials will win the Cold War.

Next month I will publicly establish the National Aeronautics and Space Administration (NASA). Pending your acceptance of this post, I will also secretly endow the National Space Defence Force (NSDF). No one will know about the NSDF... everyone will know about NASA. Let me explain why this is so important.

As you may know, the Soviets have one distinct advantage over us. Their system easily allows them to keep secrets, whereas it seems that I cannot even sneeze without the world knowing. Every last secret from our weapons programs has slipped into Soviet hands. By comparison, their Sputnik caught us by surprise, and our intelligence on their Luna and Zond programs remains limited. We can only assume that they too are trying to gather more of the bio-metal.

As the presiding General of the NSDF, you will be responsible for recruiting an elite force of engineers and combat personnel that will secretly venture into space in order to gather more of the bio-metal. Your organisation will be funded through the NSA, and you will report to nobody, not even me. I fully expect that the NSDF will continue on past my term as President. Subsequent administrations will have no knowledge of the NSDF.

You may recruit under the auspices of NASA. Choose your personnel carefully and do not allow your numbers to exceed one thousand. You should quickly establish a base on the dark side of the moon. Once you have a space foothold, you may begin to recruit a broader force.

Please include this memo in your briefing pack but only distribute it on the moon. I want every one of the people who serve under your command to know that I personally thank them for risking their lives in the service of their country. May God be with you and may you further the legacy of our great nation.

God bless,

Ike

From: General George Collins
To: President Dwight Eisenhower
Re: Memorandum Dated June 3, 1958
Security Status: Eyes Only
Date: July 7, 1958

It was good to hear from you in your earlier letter, and I have been sorry to hear the continued reports on your health. Joann and I dearly miss spending time with you and Mamie.

I am honoured by both your confidence in my abilities to carry out this effort, and the level of trust that you feel confident bestowing on me. It is with great pleasure and excitement that I accept your offer to establish the NSDF.

I will do as you've commanded, and I assure you that I will make both you and our country proud.

Best wishes and I look forward to seeing you soon,

George

From: Andrew Goldman, NSDF
To: President Dwight Eisenhower
Date: September 4, 1958
Re: Astronomical Research Assessment 3750

Per your request, we have completed an assessment of the debris found in the Bering Straight meteor shower of 1952. The samples found are most definitely the result of otherworldly sentient manufacture, and are known to be only a small portion of the quantity that has passed through our solar system over the last several years. The source of the debris is assumed to have been some sort of cataclysmic event involving a massive alien structure, possibly the size of Earth or larger. Estimates based on the velocity of the meteor shower at impact and the apparent duration since the meteor fragments were formed put the source object in the order of 100 trillion kilometres away when it shattered. At this distance, it is likely that bio-metal fragments have passed within the gravitational pull of every other planet in the solar system.

We have conducted extensive observation of the celestial bodies within ten astronomical units of our sun and ranked them as candidates for more extensive NSDF investigation. Our primary concerns in selecting destinations were likelihood of bio-metal deposits, proximity to Earth, and environmental hospitality.

Topping the list of candidates for obvious reasons is our own moon.

With the technological leaps provided by the bio-metal, it is easily within our grasp.

Of the inner four planets, only Mercury has been eliminated from our list of potential bio-metal deposit sites. Its gravitational pull is too inconsequential, and our astronomers suspect that the sun would have stolen away any meteors headed in its direction. This leaves the ideally suited Mars, and the incredibly harsh yet tantalisingly local Venus.

The outer planets; Jupiter, Saturn, Uranus, and Neptune have all been ruled out as they are simply dense balls of gas. The ninth planet, Pluto, is far too small and distant to be worth an effort. This leaves only a few remaining candidates among the Jovian moons; the satellites of Uranus and Neptune have little to offer, and are still quite distant, but a few possibilities between Jupiter and Saturn are worth examining.

There are 4 contenders among the 16 moons of Jupiter. Ganymede and Callisto are sizable, but they attract heavy cratering from the ring of asteroids that shares Jupiter's outer orbit and pose too much of an uncontrollable risk. Io and Europa are both much closer in, yet still large enough to supply an adequate gravitational field for our purposes.

Finally, Titan stands out from its 17 siblings with a mass of over 100 times the next largest moon of Saturn. Though cold and distant, it offers the closest atmosphere to Earth's in the entire solar system.

More detailed reports on the six selected sites follow, including all relevant statistical data and the best available images from our telescopes and probes.

Best of luck,

Andrew Goldman

The Moon's close proximity makes it by far the most likely candidate for NSDF exploration. Most of the debris that hit Earth burned up in the atmosphere. But given that the moon has no atmosphere, there is strong reason to believe that it holds a far greater supply. Unfortunately, the moon was in front of the Earth when the shower hit and any debris would have landed on its dark side, so we can only guess at what it hides.

Exploiting the moon's resources would require three moon bases. A mining base on the far side, a transport base on the near side, and a power base at the northern pole. The polar base would provide continuous exposure to the sun and an ample amount of solar generated power. Lunar rocks contain about 40% oxygen and could be mined for environmental systems.

There is also a possibility that a small region near the perpetually shaded southern pole hides a frozen reservoir of water ice. If true, this may warrant a fourth facility.

LUNA (EARTH'S MOON):

Position: Satellite of Earth, third planet from the Sun

Distance from Sun: 1 Astronomical Unit

Minimum Distance from Earth: 384,400 Kilometres

Surface Gravity (Earth = 1): 0.166

Surface Composition: Basaltic Rock

Atmospheric Pressure (Earth = 1): 0

Mean Surface Temperature: (Light side) 107 Celsius (Dark side) -153 Celsius

Axis Rotation: Static

Sun Orbit Period: 365.26 Days

Earth Orbit Period: 27.32 Days

Diameter: 3476 kilometres

MARS:

Position: Fourth planet from the Sun

Distance from Sun (Earth = 1): 1.5 Astronomical Units

Minimum Distance from Earth: 56 Million Kilometres

Surface Gravity (Earth = 1): 0.377

**Surface Composition: Basaltic Rock and
Solid Carbon Dioxide (Dry Ice)**

Atmospheric Pressure (Earth = 1): 0.007 Bar

Mean Surface Temperature: -23 Celsius

Axis Rotation: 1.03 Days

Sun Orbit Period: 686.98 Days

Diameter: 6794 Kilometres

The atmosphere of Mars is characterised by extensive haze and fog, and is often further clouded by dust storms. Like Earth, Mars has seasons that result from its oblique rotational axis. The atmosphere is primarily composed of carbon dioxide, with limited amounts of nitrogen, argon, and water vapour. We have not detected any magnetic field on Mars, which leads us to believe there is no metallic core.

Satellite imagery and extensive surveying teams have reported that Mars has vast cratering like Earth's moon in addition to cracked lava beds with sheer cliffs that drop down into deep valleys. This cratering leads us to believe that the planet could contain additional reserves of bio-metal.

A massive volcano, the Olympus Mons, is the largest in the solar system with a diameter of 550 kilometres and a height of 27 kilometres. Teams have not delivered confirmation on whether or not the volcano is active, yet pilots are warned that volcanic activity could occur and would provide a significant hazard.

Wind and solar energy could provide adequate power for colonisation. Moderate water supplies could be found among the frozen carbon dioxide in the polar caps.

Mars' topography and maze-like world would require special instrumentation to navigate. Negotiating riverbeds and cliffs would pose grave danger to navigating the planet's surface.

In all, we believe that Mars is a solid candidate for further NSDF investigation. Its relatively close proximity to Earth and hospitable environment in addition to the evidence of cratering makes this our second choice for colonisation.

Named after the Roman Goddess of love for its brilliant glow in Earth's sky, Venus holds no physical resemblance to its namesake. The planet is one of the harshest environments amongst our candidates. Although Venus is a near twin in shape and mass to Earth as well as being the closest planet, its brutal atmosphere will make exploiting any bio-metal reserves difficult. Nonetheless, its proximity and likelihood of containing bio-metal deposits keep it on the top half of the list.

Venus' atmosphere of carbon dioxide and thick cloud cover of highly concentrated sulfuric acid cause an intense greenhouse effect. Although not much light penetrates the dense atmosphere, what does make it through is reradiated as infrared light, resulting in the intense heat on the planet's surface, far exceeding that of any other planet or moon in the solar system.

The atmosphere is also extremely dense, the equivalent of about one kilometre below Earth's oceans. The severe pressure will require special structural engineering in order to avoid being crushed. While Venus' upper atmosphere is characterised by strong winds, its lower atmosphere is relatively calm. Regardless, we should be able to generate sufficient lightning power due to intense electrical activity on Venus.

Trace amounts of water vapour have been found in the environment and could be tapped in order to help sustain life on Venus' surface. For the most part however, establishing a mining base on Venus will require importing all life-sustaining resources from other locales.

VENUS:

Position: Second planet from the Sun

Distance from Sun (Earth = 1): .7 Astronomical Units

Minimum Distance from Earth: 42 million kilometres

Surface Gravity (Earth = 1): 0.907

Surface Composition: Basaltic Rock and Molten Lava

Atmospheric Pressure (Earth = 1): 92 Bar

Mean Surface Temperature: 460 Celsius

Axis Rotation: 243 Days

Sun Orbit Period: 224.7 Earth Days

Diameter: 12,103.6 Kilometres

EUROPA:

With an almost featureless blue exterior, Europa appears calm and tranquil, in sharp contrast to the rough, cratered surfaces spread throughout the rest of the solar system. This is because Europa consists almost entirely of water ice, making it an ideal destination. The ice would provide boundless quantities of a vital resource as well as a clear canvas for locating bio-metal.

Even more exciting, Europa did at one time and may still have active volcanoes that shoot warmer ice flows [spotted two weeks ago by the Galileo satellite] from beneath the surface. Evidence of a heated centre naturally suggests that the ice may melt at some depth, flowing freely within the moon's interior. This would make Europa the only other celestial body in our solar system with liquid water, and a leading contender for bearing life, albeit far from our view.

Though lacking the distinct advantages and engineering opportunities held by Luna, Mars, and Titan, Europa is a relatively safe gamble for finding and acquiring bio-metal with little environmental hazard.

Position: Satellite of Jupiter, fifth planet from the Sun

Distance from Sun (Earth = 1): 5.2 Astronomical Units

Minimum Distance from Earth: ~630 Million Kilometres

Surface Gravity (Earth = 1): 0.135

Surface Composition: Water Ice

Atmospheric Pressure (Earth = 1): 0

Mean Surface Temperature: -153 Celsius

Axis Rotation: Static

Sun Orbit Period: 4332.71

Jupiter Orbit Period: 3.55 Days

Diameter: 3138 Kilometres

IO:

Position: Satellite of Jupiter, fifth planet from the Sun

Distance from Sun (Earth = 1): 5.2 Astronomical Units

Minimum Distance from Earth: ~630 Million Kilometres

Surface Gravity (Earth = 1): 0.183

Surface Composition: Sulfur

Atmospheric Pressure (Earth = 1): 0

Mean Surface Temperature: -143 Celsius

Axis Rotation: Static

Sun Orbit Period: 4332.71

**Jupiter Orbit Period: 1.77 days**

Diameter: 3630 Kilometres

Initially promising for its colourful and craterless surface, researchers later discovered that Io's apparent tranquillity is, in actuality, evidence of its inhospitable and potentially maddening nature. Scattered across the moon's frozen surface, dozens of active volcanoes spout molten sulfur from the core, sending it hundreds of kilometres into space. Once cooled, the sulfur pours back down like snow, forever resurfacing the terrain with the otherwise harmless substance.

This condition could prove a costly and time-consuming irritation for colonists. Significant measures would need to be taken to avoid our facilities and equipment from being buried.

Fortunately, a few other options have been suggested by our engineers. While sulfur is far more sedentary than water, they claim that an adequate drainage system could be fitted at a minimal cost. Similar in concept to the conventional drainpipes used for rain, jets of liquid would cycle through them to stimulate movement.

Our chemists have offered another solution. By applying a layer of a corrosive compound, they believe they can dissolve the sulfur on contact and without consequence. Both of these techniques are unproven as yet, but I assure you the issue is being addressed.

Aside from this annoyance, the only factors that are less than ideal are Io's enormous distance from Earth, its bitter cold temperatures, and its lack of life-sustaining resources. The first two conditions Io shares with its sibling contender, Europa, and are even more pressing for the remote moon of Titan.

A final concern: bases would need to be established far from the equator on Io. It is caught in a three-way tug-of-war between the gravitational pulls of Europa, Ganymede, and Jupiter. This forces an unstable tidal current on the moon's outer layer which can bend and stretch its width by as much as 100 meters.

At the far end of technological feasibility, a journey to Titan would require efficiency in storage and preparation that may be beyond our means. Though if it were possible, the reward would be the most manageable and self-sustaining non-terrestrial environment in our solar system.

Observations of Titan's nitrogen-heavy atmosphere suggest that the moon is a close mirror of Earth before the first organisms began producing oxygen. In fact, its hydrocarbon rich elements are the building blocks for amino acids, vital to the formation of life.

Though far too cold to sublimate with the atmosphere's chemistry, oxygen does exist on Titan in the form of water ice covering its surface. This could be melted, providing ample water as well as the primary missing ingredient needed to terraform the atmosphere into one that is breathable by humans. While terraforming distant moons has not been listed on the NSDF's agenda, the possibility is far too tempting to be denied further investigation.

Power resorces on this moon consist primary of lightning and wind. However, clouds of methane in the upper atmosphere could easily be converted into natural gas. With some modifications to our equipment, this could provide the bulk of our power.

Unfortunately, these same methane clouds are exaggerated versions of what is known on Earth as smog. Covering the moon completely, they prohibit any further insight into Titan's composition.

Also worth noting is the concern that Titan's distance from Earth decreases its likelihood of being hit by the meteor shower. The trip would be a major undertaking, and could very well prove fruitless.

TITAN:

Position: Satellite of Saturn, sixth planet from the Sun

Distance from Sun (Earth = 1): 9.6 Astronomical Units

Minimum Distance from Earth: ~1290 Million Kilometres

Surface Gravity (Earth = 1): 0.38

Surface Composition: Water Ice and Rock

Atmospheric Pressure (Earth = 1): 1.5 Bar

Mean Surface Temperature: -180 Celsius

Axis Rotation: Static

Sun Orbit Period: 10,759.5 Days

Saturn Orbit Period: 15.95 Days

Diameter: 5150 Kilometres

ARKIN INDUSTRIES
Serving the Nation's Future

☆ ☆ ☆ ☆ ☆

From: Dr. Wilhelm Arkin
To: President Dwight Eisenhower
Re: Findings on Engineering
                  Opportunities Regarding Debris
                  from 1952 Meteor Shower
Security Status: Eyes Only
Date: January 3, 1956

Dear Mr. President,

Words can not express my gratitude for the opportunity to chair
the research team investigating the debris from the 1952 Bering
Strait meteor shower, which we have come to name "Bio-Metal
11." The research has enriched my life in ways that I never could
have imagined.

The engineering prospects for this bio-metal are nothing short of
astounding. In working with the material, we at Arkin Industries
have found exciting new prospects for weapon systems. The
inherent memory within the material has shown us how to
reconstruct the material into a new breed of all-terrain vehicles
and futuristic weaponry the likes of which we've never seen here
on Earth.

It is regrettable that we do not have enough of this material to
begin mass production of the new designs. With enough of the
material, we could drive our armies through Red Square without a
casualty. Be advised, however, that should the Soviets get ahold
of enough of this material they could just as easily put the Cold
War to rest.

I recommend that we use our current reserves of the bio-metal to
implement our designs for interplanetary transports that could
allow us to reach neighbouring planets likely to hold more of the
material. Once there, we could remanufacture the material into
reclamation units, harvest the bio-metal, and ship it back to Earth
to fuel our weapons programs.

☆ ☆ ☆ ☆ ☆

The end of the Cold War is at hand. As we move forward with
our exploration, research, and development into this bio-metal, I
would gladly serve in any way possible

Best Wishes,

Dr. Wilhelm Arkin
Chairman of the Board
Arkin Industries

NSDF M580A2 Scout

Code Name: Razor

Vehicle Type: Armoured Reconnaissance

Built by: Recycler

Physics:

Forward = 25 m/s

Reverse = 25 m/s

Strafe = 20 m/s

Turn Speed = 150° per second

Armour: 25mm EDD

Ammo: 600 cells

Standard Weapons:

Minigun (2)

The front end of the US attack force, the Razor is built for speed and agility with only modest armament to aid in combat. It was designed as a reconnaissance vehicle. Relying exclusively on it in a combat situation is not recommended.

While the canopy design is almost identical, dubbing the Razor a variant of the P-47 "Thunderbolt" fighter plane would be a massive understatement. It has been retrofitted with twin V-thruster engines and a unique tri-mounted stabiliser system, granting it speed bursts of up to 60 meters per second. Recent modifications on the exhaust ports allow the engine's thrust to be aimed in any direction, giving the Razor a lightning fast turn speed as well as limited vertical take-off and landing (VTOL) capability.

NSDF M60A7 MBT Tank

Code Name: Grizzly

Vehicle Type: Armoured Assault Tank

Built by: Unit Factory

Physics:

Forward = 20 m/s

Reverse = 15 m/s

Strafe = 20 m/s

Turn Speed = 90° per second

Armour: 30mm EDD

Ammo: 1200 cells

Standard Weapons:

AT-Stabber

Minigun

Manual Detonation Mortar

Thumper

Based on the successful M60 series of ground tanks, the A7 is an extraordinarily versatile fighter and the backbone of the extra-terrestrial forces. Its wide selection of armaments makes it a devastating presence in almost any combat situation, while its six-point Articulated Exhaust V-Thruster array provides 2000 horsepower and the ability to reach speeds of 20 meters per second.

Though still one of the most agile attackers in the NSDF, the Grizzly is weighted down enormously by its special grade of bio-metallic armour, capable of equally distributing damage (EDD) over the entire craft. This fortifies the vehicle by making concentrated attacks on a single part of the exterior ineffective.

NSDF M60A8 Rocket Tank

Code Name: Wolverine

Vehicle Type: Mid-Range Armoured Assault Tank

Built by: Unit Factory

Physics:

Forward = 20 m/s

Reverse = 15 m/s

Strafe = 20 m/s

Turn Speed = 90° per second

Armour: 25mm EDD

Ammo: 1000 cells

Standard Weapons:

Hornet Missile

Shadow Missile

Proximity Mine

A variant of the M60A7, the Wolverine differs from the Grizzly mainly in its armament. It is equipped with Hornet concussion missiles for larger targets and advanced Shadow heat seekers for fast-moving opponents, making it a strong mid-range attacker, but a sluggish close-combat fighter.

The added load of the Wolverine's dual missile systems is balanced by a slight reduction in EDD shielding.

NSDF M173 Turret

Code Name: Badger

Vehicle Type: Self-Propelled Defensive Turret

Built by: Recycler

Physics:

Forward = 15 m/s

Reverse = 15 m/s

Strafe = 15 m/s

Turn Speed = 60° per second

Armour: 20mm EDD

Ammo: 2000 cells

Standard Weapons:

Minigun

NSDF TURRET

The M173 Badger is a vital defensive unit, best suited for use along the perimeter of a friendly base. Once there, it immobilises and deploys its STAB hooks (Stabilised Terrain Adapting Base). The low-weight turret must be locked into the terrain before firing to avoid kickback and maintain accuracy. The Badger can be repositioned when needed, but it cannot fire when its STAB unit is not deployed.

Because of the turret's slow turn rate, the Badger is most effective within a ridge or canyon pass where an oncoming vehicle cannot manoeuvre around it. If used in this capacity, the Badger can handle multiple attackers.

NSDF M47A9 Light Tank

Code Name: Bobcat

Vehicle Type: Armoured Assault Tank

Built by: Unit Factory

Physics:

Forward = 20 m/s

Reverse = 15 m/s

Strafe = 20 m/s

Turn Speed = 120° per second

Armour: 25mm EDD

Ammo: 1200 cells

Standard Weapons:

AT-Stabber

Hornet

Solar Flare

NSDF LIGHT TANK

A less powerful, less versatile older sibling to the Grizzly. The Bobcat was designed to be the NSDF's main battle tank and served in large numbers during the initial Lunar establishment years, but has fallen out of use since Dr. Arkin's demands for a more effective replacement. Nonetheless, the Bobcat is a low-cost, reliable offensive unit.

NSDF B74CT Bomber

Code Name: Thunderbolt

Vehicle Type: Heavy Strike Cruiser

Built by: Unit Factory

Physics:

Forward = 25 m/s

Reverse = 15 m/s

Strafe = 10 m/s

Turn Speed = 60° per second

Armour: 20mm EDD

Ammo: 1900 cells

Standard Weapons:

Rocket Bomb (2)

NSDF BOMBER

The Thunderbolt is one of the most powerful vehicles in NSDF service. Chico Aerospace developed the bomber to perform as a fast-strike cruiser, able to eliminate primary targets before enemy defence units can provide support. In standard configuration, it carries two of the potent BFE9 "Fire-and-Forget" Rocket Bombs for single salvo attacks against heavily armoured targets such as barracks, Recyclers, and supply facilities.

Because of its armament, the Thunderbolt is not well suited to extended mêlées and should be given ample support if it is likely to come in contact with enemy fighters on an attack run.

NSDF AAV6A4 APC Transport

Code Name: Tracker

Vehicle Type: Armoured Personnel Carrier

Built by: Unit Factory

Physics:

Forward = 8 m/s

Reverse = 8 m/s

Strafe = 8 m/s

Turn Speed = 90° per second

Armour: 50mm EDD

Standard Weapons:

Unarmed

NSDF TRANSPORT

The Tracker APC is well-armoured, but nonetheless vulnerable due to its lack of weaponry. The Tracker's functions are infantry transport and pilot recovery only. It should not travel without a formidable escort, especially when carrying personnel.

The Tracker carries five infantrymen which can be used to attack lightly defended targets. Order the Tracker to attack a target and the infantry will deploy and attack.

NSDF M183A1 Howitzer

Code Name: Longbow

Vehicle Type: Self-Propelled Long-Range Artillery Turret

Built by: Unit Factory

Physics:

Forward = 15 m/s

Reverse = 10 m/s

Strafe = 15 m/s

Turn Speed = 90° per second

Armour: 30mm EDD

Ammo: 2000 cells

Standard Weapons:

Howitzer

NSDF HOWITZER

The M183 Longbow is much the same as the M173 Badger, save for its armament's range and damage capabilities. With its STAB unit deployed, the Longbow can accurately deliver heavy impact shells up to 750 meters away, carefully extrapolating the enemy's position based on its velocity and orientation when the shot is fired. This unit compliments the field commander's vehicle perfectly. Commanders on the front line can order artillery strikes by linking with the Longbow's communications channel and relaying the desired coordinates.

Unfortunately, the calculated precision of the Longbow at long ranges makes it virtually useless in close quarters, where enemy positions change rapidly relative to its position. The Longbow is often paired with the Badger to account for this shortcoming.

NSDF AT9 Walker

Code Name: Sasquatch

Vehicle Type: Mobile Assault Turret

Built by: Unit Factory

Physics:

Forward = 5.5 m/s

Reverse = 5.5 m/s

Strafe = 2 m/s

Turn Speed = 90° per second

Armour: 40mm EDD

Ammo: 2000 cells

Standard Weapons:

AT-Stabber (2)

Pop Gun

NSDF WALKER

The mysterious product of a long-dead alien race, the Sasquatch is one of the NSDF's greatest assets. It has far and away the greatest firepower of any vehicle, with configurations that allow it to carry multiple missiles, cannons, mortars, and special weapons systems.

The Sasquatch's primary means of propulsion is a titanium-reinforced hydraulic engine, powering the legs at no more than 8 meters per second. Part of this lumbering pace can be attributed to the weight of its thick EDD armour plating, making it a slow, but almost unstoppable attacker.

NSDF LMA6 Minelayer

Code Name: Unabomber

Vehicle Type: Mine Deployment and Recovery

Built by: Unit Factory

Physics:

Forward = 15 m/s

Reverse = 10 m/s

Strafe = 15 m/s

Turn Speed = 90° per second

Armour: 30mm EDD

Ammo: 2000 cells

Standard Weapons:

Proximity Mine

NSDF MINELAYER

The Unabomber is a defensive unit with one valuable function; it is capable of dropping smart-mines from its fish-like hull that will not detonate in the proximity of friendly vehicles, making them a safe and effective fortification along a base's perimeter.

To use the Minelayer, move it to an area that you wish to defend. When the minelayer is in position, open a channel to the Minelayer and tell it to **Lay Mines**. The Minelayer will then start to move around and drop mines in a random pattern.

NSDF VS3E Reclamation Unit

Code Name: Scavenger

Vehicle Type: Remote Extraction

Built by: Recycler

Physics:

Forward = 15 m/s

Reverse = 10 m/s

Strafe = 15 m/s

Turn Speed = 90° per second

Armour: 30mm EDD

Standard Weapons:

Unarmed

NSDF RECLAMATION UNIT

An autonomous vacuum cleaner of sorts, the Scavenger roams the battlefield on its own, gathering scrap from downed vehicles and bio-metal deposits. The Scavenger works with the Recycler and the Scrap Silo in order to offload its bio-metal harvest.

NSDF Cargo Utility

Code Name: Tug

Vehicle Type: Cargo Propulsion Cab

Built by: Unit Factory

Physics:

Forward = 8 m/s

Reverse = 8 m/s

Strafe = 15 m/s

Turn Speed = 90° per second

Armour: 50mm EDD

Standard Weapons:

Unarmed

NSDF CARGO UTILITY

The Tug is a hauling unit, used to pull large, heavy objects that are otherwise immobile. It has often proven successful at collecting and transporting alien artifacts.

NSDF TU11 Mobile Bio-Metal Fabricator

Code Name: Recycler

Vehicle Type: Mobile Unit Factory

Physics:

Forward = 15 m/s

Reverse = 15 m/s

Strafe = 15 m/s

Armour: 100mm

Standard Weapons:

Unarmed

NSDF RECYCLER

The Recycler is the primary building unit for the NSDF, and a necessity for establishing a presence in unclaimed territory. It is weaponless, but heavily armoured and able to withstand extended attacks.

In its mobile form, the Recycler can move freely across the battlefield. Once positioned over an energy-producing geyser, it deploys, exposing the massive construction facility stored within its hull.

The Recycler builds vital base resources and unit supplies, as well as basic offensive and defensive units. It does this by projecting ultra-lightweight endo-skeletal beams inside of its construction bay while generating extreme temperatures that melt its supply of bio-metal. It then coats the beams with the liquid bio-metal, and holds the new unit's engines and internal machinery in place while the bio-metal cools. The entire process takes seconds.

NSDF TU8 Supply Launch

Code Name: Armoury

Vehicle Type: Armoury

Physics:

Forward = 15 m/s

Reverse = 15 m/s

Strafe = 15 m/s

Armour: 100mm

Standard Weapons:

Unarmed

NSDF TU8 SUPPLY LAUNCH

The Armoury serves a number of purposes on the battlefield. Among them: manufacturing special weapons and utilities, supplying ammunition and repairs to drained vehicles, and establishing communication links with orbital surveillance satellites.

The Armoury is equipped with a special, catapult-like structure that allows it to shoot the items it produces to the desired location. This helps in maintaining supply lines during attack runs far from base. Like the Recycler, the Armoury requires a geyser power source.

NSDF TU12 Advanced Bio-Metal Fabricator

Code Name: MUF (Mobile Unit Factory)

Vehicle Type: Advanced Mobile Unit Factory

Physics:

Forward = 15 m/s

Reverse = 15 m/s

Strafe = 15 m/s

Armour: 100mm

Standard Weapons:

Unarmed

MUF (MOBILE UNIT FACTORY)

The MUF is built by the Recycler in order to manufacture advanced units. Like the Recycler, it deploys over geysers and uses the same bio-metal molding technique. Its multiple dynamic molding armatures allow it to build units with more intricate designs and moving parts. Most of the NSDF's offensive and defensive vehicles are built by the Mobile Unit Factory.

NSDF TU15 Construction Rig

Code Name: Heaval

Vehicle Type: Pre-Fabricated Building Assembler

Built by: Recycler

Physics:

Forward = 8 m/s

Reverse = 8 m/s

Strafe = 8 m/s

Turn Speed = 90° per second

Armour: 20mm

Standard Weapons:

Unarmed

NSDF CONSTRUCTION RIG

The Heaval is an incredibly valuable high-end unit, capable of mind-numbing engineering feats. With adequate resources, it can assemble a functioning military base in minutes, providing everything from power facilities, to communication towers, to infantry barracks.

From: Case Officer Chico
To: CIA Director Allen Dulles
Re: B.S. Case 1752 – Report from Operative (code name Kino)
Security Status: Eyes Only
Date: April 3, 1956

Below please find our most recent drop from Kino. This message was picked up by Rosas on March 17 at Sigma. I will notify you with any additional information.

I have succeeded in infiltrating the Soviet facility in U2 photo 1752. As suspected, Big Bear is working with the suspected material. See the enclosed papers and notice the remarkable similarities in their designs to those in our case file.

I also have confirmed the existence of ships specifically designed for interplanetary travel. Big Bear is recruiting amongst his elite ranks for a group called the CCA (believed to stand for Cosmo Colonist Army). It appears they're up to the same thing as us.

Check drop Gamma for next update.
The race is on.

Although reliable data on CCA equipment is limited, some information has been acquired through satellite reconnaissance of the Workers Space Construction plant in Kinostan, Siberia. All CCA vehicles are known only by their Western nicknames.

Flanker

The Flanker is recognised by its wing-like appendages. It is roughly equivalent to an NSDF Razor, though probably better armoured.

Czar

The Czar tank seems likely to dominate the battlefield of outer space. It is similar to a Grizzly, but better armoured and carrying more nano-ammo.

Tusker

The Tusker missile tank carries more nano-ammo than the NSDF Wolverine. It is also more vulnerable on the battlefield.

Stoli

The Stoli light tank is similar to the NSDF Bobcat. It is smaller and generally thought to carry more experimental weapons than its NSDF counterpart.

Grendel

The Grendel is a fast-strike vehicle. It is slower than the NSDF Thunderbolt, but also slightly more agile.

Golem

The Golem is the CCA unit most influenced by alien technology. Unlike the Sasquatch, the Golem carries its weapons on the head and shoulders of the vehicle. This allows it to wield the most powerful weapons of any unit on the battlefield.

CCA Support Units

Intelligence reports that in addition to the listed combat units, the CCA has developed transport, defence, and mobile construction units roughly equivalent to the NSDF.

WEAPONS

CANNONS

187 SMG (Standard Mini Gun)

The Mini Gun is a rapid-fire, small-projectile machine gun. The SMG is particularly devastating against infantry and non-moving targets.
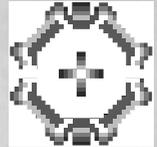
AT-Stabber

The AT-Stabber, short for Anti-Tank Stabber, fires a high-speed, low-impact shell.
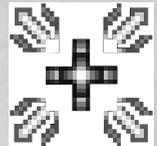
Blast Cannon

The Blast Cannon delivers a short but powerful laser beam burst that does tremendous damage to enemy armour. The energy needed to create the laser requires a great deal of nano-ammo. For this reason, the Blast Cannon is best utilised by Gun Towers.
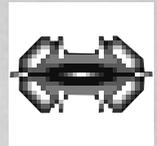
MAG (Magnetic Acceleration Gun)

The MAG Cannon is a charging magnetic acceleration gun that fires highly condensed balls of magnetic energy. This weapon has a maximum range of 250 meters.
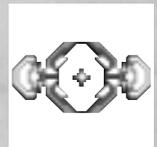
Flash Cannon

The Flash Cannon, often referred to as the "Hot Foot," fires a concentrated beam of microwave energy at its target. The microwave energy causes the target vehicle's v-thruster engine to overheat.
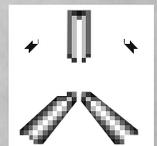
Automated Targeting Gun (TAG Cannon)

The Automated Targeting Gun or TAG Cannon has two phases. In the first phase it shoots a homing ordnance into the skin of the target craft. If the first round hits its mark, the TAG Cannon unleashes a salvo of guided missiles that will head toward the homing signal.
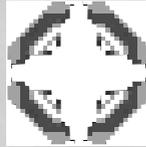
AT-Super Stabber

The Super Stabber is an advanced Stabber round. Upon impact, the round damages the vehicle it strikes and anything else within a blast radius of five meters.
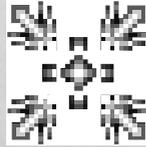
MORTARS

Standard Mortar

The mortar fires in an arced trajectory. The ordnance will explode on contact with any object and inflict collateral damage throughout its five meter blast radius.
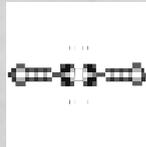
Manual Detonation Mortar (MDM)

The MDM fires like a standard mortar; however, it does not detonate on impact with terrain. The MDM will only detonate if it collides with an enemy vehicle or if the pilot presses the fire button a second time, thereby setting off the charge. The MDM is designed to bounce or ricochet in order to allow the pilot more exact placement before detonation. Multiple MDMs may be fired by pressing the Ctrl key when firing.
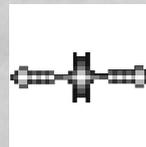
The Splinter (Death Wheel)

The Splinter detonates upon contact with enemy vehicles and does normal mortar damage. Should the Splinter miss its target however, all is not lost. The ordnance will raise itself up into the air and fire circular bursts of .72mm AP projectiles.
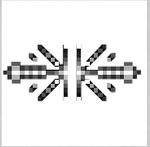
Pop Gun

When fired, a popper travels straight up to an altitude of 200 meters. It then locks onto the nearest enemy target and comes down again propelled by its rocket guidance system.

Day Wrecker (Fired by the Armoury)

The Day Wrecker is the most powerful artillery available. The Day Wrecker has a range of 1500 meters. It will explode when it comes within 20 meters of the ground with a devastating shock wave 50 meters in diameter.

MISSILES

Pilots initiate the locking process for guided missiles by pressing and holding the fire button. The pilot must maintain a locking position long enough for the missile's guidance system to lock on to its target, and then release the fire button. If the fire button is released before the missile has locked on to a target, the missile will not fire.

Thermal Hornet

The Thermal Hornet's sensors lock onto the thermal signature of an enemy ship. Armed with a combustion, shard-scattering warhead, the Hornet is designed to explode on impact spraying the target with shrapnel. Any vehicle within five meters of the blast will also take damage. Especially effective against fast-moving vehicles with hot engines.
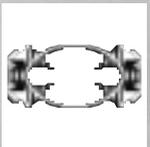
Rocket Bomb

All of the fancy electronic components were stripped out of a Thermal Hornet casing to make room for even more explosives. The result was the Rocket Bomb, a heavy, slow moving rocket that has given up speed and finesse for one heck of a punch.
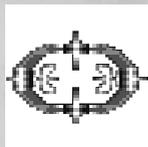
Image Locking Shadower Missile

The ILS Missile locks onto the visual image of its targets. It works best on slow-moving targets, complementing the Thermal Hornet well.
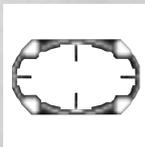
Comet Cruise Missile

The Comet Cruise Missile is a radar guided missile that can lock onto any target as long as it is within radar range.
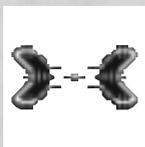
Sand Bag Missile

The Sand Bag Missile is a non-locking missile. When the Sand Bag Missile strikes its target it deploys a magnetic anchoring device that will slow the targeted ship down. This missile is designed to allow slower, less manoeuvreable vehicles to pin down fast-moving craft.
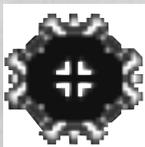
RED-Field Generator
(Radar Echo Dampening Field Generator)

The RED-Field Generator completely removes the ship's echo signature from all radar while selected. All weapons that require a radar signal to lock will not be able to target or track the ship once the RED-Field Generator is activated.
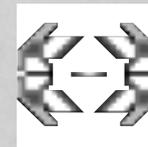
M-Curtain Mine (Magnetic Curtain Mine)

The M-Curtain is a specialised mine designed to produce a localised field of extreme magnetism. Once the mine is launched it imbeds itself into the terrain. One second after it imbeds into the ground, it starts to generate a bubble of magnetism that is 20 meters in diameter and three meters tall. No projectile can penetrate the magnetic bubble, however, vehicles under the bubble can fire out.

Solar Flare

The Solar Flare is a specially modified mine that will produce a plume of fire burning at high temperature for a short period of time. The flare gives off a thermal signature that will attract heat-seeking projectiles within 200 meters of it.
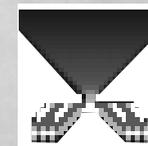
MITS (Magnetic Inverting Tethering Snare)

The MITS or "catcher's mitt" is a modified M-Curtain Mine. Instead of pushing outward with magnetic force the MITS does exactly the opposite – pulling anything towards itself with incredible force. MITS will also attract any projectile within 200 meters.
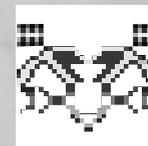
Proximity Mine

A standard mine that detonates when an enemy vehicle enters its detection range. The mine does not become armed until two seconds after it is placed in the ground. Once the mine is armed any enemy vehicle that gets within seven meters of the mine will activate it.
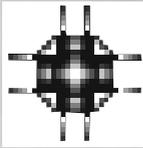
Sensory Image Terrain Exposing Camera (SITE Camera)

The SITE Camera is an x-ray device that allows a pilot to see through terrain. The device has a range of 100 meters. Any terrain feature outside the camera's range will not become transparent.
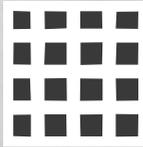
Thumper

No one is exactly sure how the Thumper device works. It is believed that raw energy is extracted from nano-ammo and channelled directly into the ground like a concentrated seismic charge. The result is a shock-wave that distorts the terrain it travels across.
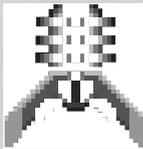
The Construction Rig can construct buildings. Buildings must be spaced apart and placed on level ground. Certain types of buildings require power. A building that requires power must have a power plant within 100 meters. If the power plant that services a building is destroyed, the building will cease to function.

POWER PLANTS

These structures power any building that requires power within a 100 meter range. The type of power plant available varies from planet to planet depending on the environment of that planet.

Solar Power Plant

Solar power is used on Ioall planets except Venus

Cost: 4

Hit points: 1500

SOLAR POWER PLANT
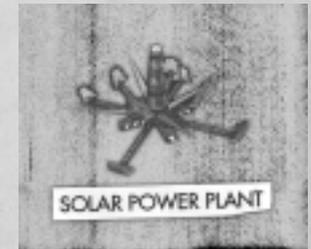
Lightning Power Plant

Lightning power is used on Venus and Titan.

Cost: 7

Hit points: 4000

LIGHTNING POWER PLANT

Wind Power Plant

Wind power is used on Titan and Venus and Mars

Cost: 6

Hit points: 2000

WIND POWER PLANT

BUILDINGS

Gun Tower (requires power)

A gun tower is an extremely powerful defensive weapon when power is
available. Its range is over 200 meters.

Cost: 6

Hit points: 5000

GUN TOWER

Communications Tower
(requires power)

The Communications Tower provides a satellite uplink giving pilots connection to a strategic vantage point. Warning: Vehicles utilising the satellite uplink will emit a strong radio signal rendering them visible to all other craft's radar systems.

Cost: 6

Hit points: 2000

COMMUNICATIONS TOWER

Barracks

Building a Barracks increases the number of available pilots by five.

Cost: 8

Hit points: 1500

BARRACKS

Scrap Silo

This is a storage building which stores bio-metal scrap. This is also a point at which a Scavenger may drop off scrap instead of at a Recycler. A Scavenger will either go to the Scrap Silo or the Recycler, depending on which one is closer.

Cost: 4

Hit points: 3000

SCRAP SILO

Supply Depot

This is a stash of supplies. The closest vehicle within 50 meters of a Supply Depot regains 100 units of nano-ammo per second.

Cost: 5

Hit points: 2000

SUPPLY DEPOT

Hangar

This is a repair facility. The closest vehicle within 50 meters of a Hangar will start to be repaired. Park vehicles near a Hangar for repair.

Cost: 7

Hit points: 4000

HANGAR

From: Commander William Stahl

To: General George Collins

Re: Field Commanders Guide

Date: July 3, 1959

General, we have completed our strategic assessment of the proposed designs coming from Wilhelm Arkin's lab. We've created this guide taking his vehicle designs, environmental considerations, and the scale of any likely confrontations into account. The following are our findings.

VEHICLE OVERVIEW:

We are very impressed with the basic concepts for vehicular design. The idea of referencing many of our more conventional designs as models for ways to apply this new technology will help make pilots familiar with the strategic implications of each vehicle despite the alien nature of the underlying technology.

Of great importance is Arkin's special attention to the need to create highly manoeuvreable vehicles. While we believe that pilots may have a hard time getting trained on Arkin's concept of vehicular momentum, we do believe that in the long run this will lead to a superior combat platform.

The momentum will allow field commanders to maintain constant motion and thereby always present their enemies with moving targets. These vehicles will be much more dynamic in combat than traditional tanks and such, and it is our assessment that their speed and agility would easily overwhelm any of our current ground based vehicles.

Arkin's design for a pulsing radar system is also a brilliant concept. Field commanders will get the benefit of being able to track enemy units without the cost of constantly giving away their position. Commanders should bear in mind, however, that we do not believe that they will be able to locate stationary vehicles and quite possibly even vehicles that are moving slowly.

The concept of a single ammo supply being converted into the fired ordinance as needed seems like an intelligent way to ensure that field commanders can most efficiently use the munitions that they carry. This will, however, force pilots to monitor and learn the ammo usage of each weapon system, but Arkin seems to have accounted for this by adding in the numerical display for remaining shots for the currently active weapon hard point.

The weapon hard point systems for each vehicle seem to make sense, and it is logical that we construct weapons so they fit into pre-designated hard points. The ability to link weapons into groups will give field commanders the extra punch when needed, but they will need to take care not to deplete their ammo supply too rapidly.

The command system developed by Arkin is nothing short of brilliant. It will give field commanders unprecedented situational awareness and control over units in their command. Furthermore, the stealth component of this command system will make it impossible for enemy units to either detect commands or break the encoded messages.

THE MOBILE FACTORY SYSTEM:

The mobile factory system also seems to be well conceived. It would be great if they did not require geysers for power supplies, but given that they are the beginning of a vast construction tree, it is understandable that they would have to tap into some naturally occurring power source in order to accomplish their functionality.

The centre piece of the mobile factory system is the Recycler, and we suspect that the incredible importance of this factory will make it the centrepiece of most engagements using this technology. We will have to protect this unit at all cost. Losing a foundation vehicle like this would undoubtedly be the beginning of the end for any brigade depending on this structure.

We like the idea of tooling the Recycler to build only basic repairs, ammo, defensive units and combat units which should allow it to sustain itself. Using the remaining building capabilities to construct other factories makes perfect sense.

The Mobile Unit Factory (MUF) and Armoury will be dependent on natural power supplies similar to the Recycler. These factories are tooled to construct specialised vehicles and more advanced weaponry respectively. We are particularly impressed with the catapult like design of the Armoury, which will allow field commanders to stage supplies around the battlefield. (The mobile construction rigs are assessed below under BUILDING A PERMANENT BASE.)

Finally, we like the idea of making all factories mobile. Should an area's resources be depleted, or it becomes indefensible, or if an enemy finds our base, we like the versatility of being able to pack everything up and relocate to a more advantageous position.

GATHERING BIO-METAL:

Given the nature and method of construction for bio-metal vehicles, it is essential that field commanders effectively manage their resources. Several issues will come into play if we enter into combat using vehicles constructed from bio-metal. Battlefields in this combat scenario would likely have two sources of bio-metal: scrap from destroyed vehicles as well as remnants from meteor showers. Several issues to consider:

1. Controlling scrap fields created by meteor showers would hold special strategic importance. Keep in mind that every piece of scrap that we don't control is one that the enemy can throw against us.

2. Establishing bases in close proximity to scrap fields will allow for faster resource gathering.

3. Making decisive attacks will be essential because lost vehicles will be recycled quickly by enemy forces.

4. Arkin's design for Scrap Silos should be used whenever large scrap fields are far from the main base. This will greatly increase the speed at which we can gather resources.

PROTECTING SCAVENGERS:

In order to maximise cargo carrying capacities, Arkin's Scavenger design does not provide for any weapons on Scavengers. These vehicles will be an essential part of any war machine, and it will be essential that field commanders ensure that they are protected. We suggest that commanders provide escorts to Scavengers whenever they believe there are enemies in the area.

As a side note, should the enemy make the same trade-off on weapons for cargo space, their Scavengers would provide excellent targets. Taking out their bio-metal gathering units would eliminate their ability to gather resources for re-manufacturing into combat vehicles.

ESTABLISHING AND PROTECTING BASES:

Several issues will make establishing bases in solid strategic locations essential. The increased speed and firepower of these bio-metal class vehicles will leave unhardened bases open to nearly immediate destruction.

First off, field commanders should always attempt to establish bases in areas with as many resources as possible. Commanders should look for sufficient geo-thermal activity for powering factories as well as ample

supplies of bio-metal. Given the speed of all of these vehicles, it will be especially difficult to protect wide open areas. Commanders should take special precautions to ensure that they set up in geographically defensible areas by looking for terrain features that will provide natural boundaries to intruders.

When protecting bases, Arkin's designs will provide a wide range of options for fortifying areas. The M173 Badger is an excellent defensive turret. It is easy to manufacture and can be re-deployed quickly. Commanders should take time to learn the range of the M173 turret so that it can be positioned in formations with good lines of fire while also maximising their coverage. The M173, however, will remain incredibly vulnerable when it is mobile. Field commanders should not attempt to move the M173 when enemies are nearby. Mobile M173s will be destroyed before they have an opportunity to deploy and bring their weapons to bear.

Minelayers could be used in conjunction with the M173 turret. Field commanders should only assume that mines will slow down attacking forces as they take time to clear the mine field. When used in combination with the M173, however, mines should provide enough of a distraction to allow the deployed M173's guns to shred most attackers.

Arkin's gun towers, which can be built by the mobile Construction Rig (see below section), will serve an equal function to the M173s although they will have greater fire power and range at the expense of mobility. The choice of separating the gun tower's power supply from the actual structure seems to make sense in allowing multiple structures to share a common power supply. Field commanders will have to take special care to build their power supplies in areas that are both well protected yet central in order to allow many buildings to take advantage of the structure. Given that many units could be rendered useless if a power supply were destroyed, field commanders may want to consider building redundant power structures.

BUILDING A PERMANENT BASE:

The mobile construction rig, as conceived by Arkin, is a brilliant concept for quickly establishing bases in unsettled territory. It is unfortunate that the construction rig does not have a "deconstruction" option, and we would submit this suggestion to Arkin's lab for consideration. Given the current design, however, field commanders should assume that once they create a structure with the construction rig they will not be able to reclaim the resources allocated to that building.

When commanders feel that they have a well fortified base, they should take advantage of the mobile Construction Rigs' vast array of building options. The Supply Depot is a logical choice for efficiently reloading combat vehicles, while the hangers will help repair damaged vehicles.

By far the most significant structure that Arkin has conceived is the Communication Tower. When constructed, this building can establish a link with our orbiting satellite, Skyeye. Connection to Skyeye will allow commanders to access a satellite overview of the battlefield. All friendly units as well as enemy units within their radar range will appear in the display. From this view, field commanders will be able to direct units from a broad strategic perspective.

Connection to Skyeye is not perfect, however. Field commanders should be aware that this communication uplink will be easily detected by enemy forces. An open connection to Skyeye would be akin to flying into night combat with your headlights on… everybody will know where you are.

ATTACKING HARDENED TARGETS:

Arkin seems to have created a well rounded arsenal of vehicles that should give field commanders a wide range of choices when attacking hardened targets. The APC with its extensive EDD armour and good speed is well suited to transporting infantry into position for attacking hardened targets. While the casualties of such a tactic may lead to a seemingly Pyrrhic victory, under certain circumstances it seems that this could be a justifiable cost.

His design for the Sasquatch provides an excellent alternative to field commanders that cannot justify the personnel losses associated with using the APC. In order to pack all of the weaponry and ammunition into the Sasquatch, Arkin has paid a significant price in performance. It appears that he could not carry all of the offensive fire power that he has loaded onto the Sasquatch and still make it hover. The loss of speed and agility will force field commanders to make sure that these lumbering units are amply protected by some of his more nimble designs.

The artillery designs from Arkin's labs seem solid. These units could be effective in shelling targets from a long distance away. They are, however, completely at risk to units attacking them. We would suggest that field commanders take appropriate precautions to protect their artillery with either mobile units, turrets, or mine fields.

CLOSING REMARKS:

In all, we find the technology associated with Arkin's research truly amazing. The extent to which these weapons could overpower conventional forces is frightening. Controlling the raw materials that would create this technology should become a key strategic initiative in our global geo-political planning.

I am confident that we will come out on top of this conflict, as we have all others.

Cm. William Stahl

MAIN MENU

Single Player

Choose **Single Player** to begin playing *Battlezone*.

Multiplayer

To begin a multiplayer game with a modem, over the Internet, or on a Local Area Network, select this option. See Multiplayer Games on page 80.

View Credits

Select this option to see a list of all the fine people (and animals) that worked on this wonderful game.

Replay Intro

This will play the opening movie again.

Options

This will take you to the Options screen where you can choose to adjust graphic, sound, controller, and play options.

Exit Game

Click on **Exit Game** if you wish to exit.

SINGLE PLAYER

Stars and Stripes

Select **Stars and Stripes** to start the American campaign. The Stars and Stripes campaign is the main campaign designed to introduce players to first-person action-strategy.

The Red Brigade

Select **Red Brigade** to start the Red Brigade campaign. In the Red Brigade missions you are commander of the Soviet forces on the moon fighting against the American Black Dog Brigade. The Red Brigade campaign is an advanced set of missions for experienced players.

Combat Exercises

Select **Combat Exercises** to start the training missions. For new players, Combat Exercise will provide orientation to the Battlezone universe and instruction on how to move your vehicle, fire at enemies, and control and build units. Complete the four training missions and commanders are ready to lead troops.

Load Saved Game

Use this menu to load a previously saved game.

OPTIONS

On the Options screen, players can adjust the Play Options, Graphic Options, Audio Options, and Input Configuration for *Battlezone*.

If you're experiencing performance problems, try turning detail levels lower. Options that increase visual and sound quality can slow down the game on older computer systems. If the game is running too slow, experimenting with the Play, Graphic, and Audio options will probably speed it up for you.

PLAY OPTIONS

Game Difficulty

Change the difficulty of *Battlezone* from easy to hard. The default level is medium.
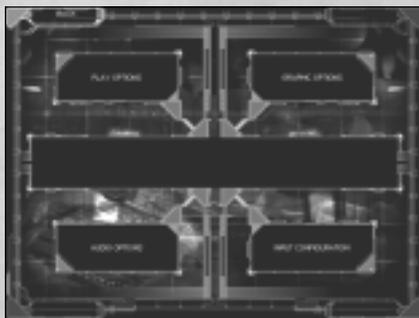
Automatic Levelling

Automatic Levelling will keep your vehicle level during gameplay. Turning this option **Off** will allow more control of the vehicle for advanced players, but it may make your vehicle harder to control.
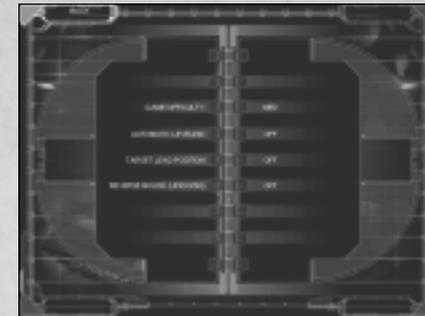
Target Lead Position

With this option **On**, a small indicator will be displayed during gameplay which will assist pilots in accurately firing at moving targets. When a targeted vehicle is moving, pointing the reticle at that target and firing can waste ammo; the targeted vehicle will move out of the way of the shot and projectiles will miss. The Target Lead Position indicator will demonstrate where the aim needs to be placed in order to hit the targeted vehicle.

Reverse Mouse (Up/Down)

This option will reverse the input of the mouse. Pointing the mouse down will cause your vehicle to move down, and vice versa.

Mouse Sensitivity

This option will give the game more or less sensitivity to mouse movement.

Strategy Help

With Strategy Help enabled, objects will be automatically identified when they are pointed at.

GRAPHIC OPTIONS

3D Card

Turn this option **On** if you have a 3D card for 3D acceleration of *Battlezone*. Note that when the acceleration option is changed, Battlezone will have to be quit and restarted before the change will take effect. If you experience problems with 3D acceleration, check the help file. (see page 98)

Screen Resolution

Lower screen resolution will run faster, so try turning Screen Resolution down if you are experiencing performance problems.

Monitor Brightness

Adjust the slider to change the brightness of your monitor.

Video Line Skip

Turning this option **On** will cause the program to only draw every other line of the visual display. Video Line Skip On will decrease the visual quality, but will increase game performance. this is an excellent option for improving frame rate. You may need to adjust your brightness level to get optimal results.

Sky Detail

Turn the sky detail from **Flat** to **Full** depending on your preference and the speed of your processor. We recommend the highest detail settings only for very fast PCs and PCs with hardware acceleration.

Terrain Detail

Terrain Detail can also be adjusted from **Flat** to **Hi Res**. **Flat** will increase game performance with less visual quality to gameplay. The Terrain Detail setting will effect the way that the terrain is drawn in the following way: **Flat** detail will give you flat-shaded terrain; **Smooth** will give you gourad-shaded terrain; **Low Res** will give you simple texture maps and **Hi Res** will give you complex texture maps. We recommend the highest detail settings only for very fast PCs and PCs with hardware acceleration.

Object Detail

Decrease Object Detail to speed up the gameplay. Flat Object Detail will turn texturing of game objects off; Mixed will cause textures to be drawn only when objects are close to you; Textured causes objects to always be textured and Hi Res will turn on dynamic lighting. We recommend the highest detail settings only for very fast PCs and PCs with hardware acceleration.

Cockpit Detail

Adjust Cockpit Detail depending on your preference. **Off Cockpit detail** will turn off the vehicle cockpits. **Solid detail** draws the cockpit flat-shaded and **Textured** will draw the cockpit textured.

Shadow Detail

Shadows can be turned **On** or **Off**. **On** will produce a more realistic looking game: **Off** will produce a faster game.

AUDIO OPTIONS

Music Volume

Adjust the slider to change the music volume.

Effects Volume

Adjust the slider to change the volume of the sound effects.

Voice Volume

Adjust the slider to change the volume of the in-cockpit voices.

Sound Channels

Change the number of sound channels depending on your preference. The higher the Sound Channels number, the greater the number of sounds that will play simultaneously. A high number of sound channels may cause performance problems on slower systems.

Stereo Sound

This option allows you to turn stereo sound **On** or **Off**. Stereo sound requires stereo speakers. Having this option **On** may slow down the game.

INPUT CONFIGURATION

See the Keyboard Commands or the reference card to learn the default controller configurations. To change the default configurations, choose **Input Configuration**. On this screen you can change the keyboard keys and joystick buttons that control vehicle movement.

KEYBOARD COMMANDS

CONTROL

Q	Slow Forward
W	Forward
A	Strafe Left
S	Stop and Back
D	Strafe Right
F	Pitch Up
C	Pitch Down
Mouse Left	Turn left
Mouse Right	Turn Right
E	Jump

WEAPONS

Left Mouse Button	Fire Weapon
Right mouse button	Select Weapon
F8 through F12	Select Weapon Hard Point
Ctrl-F8 through Ctrl-F12	Group Weapon Hard Points

VIEWS

Shift-F1	Cockpit and HUD View
Shift-F2	HUD Only View
Shift-F3	Over Vehicle View
Shift-F4	External Camera View
Shift-F5	No HUD or Cockpit View
Arrow Keys	External Camera Controls
+/-	Zoom In/Out

COMMAND INTERFACE

Esc	Game Options Menu
1 through 9 and 0	Activate Command Interface Menus
Ctrl & Select Unit	Multiple Select Units
Space Bar	Issue Smart Reticle Command to Selected Unit
Alt	Issue Smart Reticle Command On Selected Target
Tab	Cancel Selected Command Menu
Shift	Mouse Control of Menu

UNIT GROUPING

Ctrl & Select Unit	Select Multiple Units
Ctrl-F1 through Ctrl-F7	Map Selected Units to Quick Key
F1-F7	Select Player-Mapped Group

OTHER

T	Target Enemy On or Off/Turn Off Nav Beacon
N	Select Next Nav Beacon
P	Drop Nav Beacon
I	Get information on Object Under Reticle
H	Hop Out of Vehicle
Ctrl-B	Bail Out of Vehicle
K	Deploy/Pack Up Deployable Vehicles
Ctrl-C	Chat to Another Player in Multiplayer.
Pause	Pause Game
Alt-X	Exit Mission
M	Multiplayer Information
O	Review Mission Objectives
R	Repeat Radio Transmission
Caps Lock	Toggle Radar/Map

SAVING AND RESTORING GAMES

Battlezone will temporarily retain your mission progress within the campaign as long as you are running the game. However, you must save a game to have it permanently stored. Save a game within a mission as follows:

You can save a game from the Esc menu. Press **Esc** then select **Save Game**. Name the saved game and press **Enter** to finish.

Load a saved game from the Single Player menu by choosing **Load Saved Game**. Select your saved game to launch.

MULTIPLAYER GAMES

LOGGING ON

Choose **Multiplayer** from the Main menu to begin the process of starting a multiplayer game.

For information on accessing and using HEAT.NET to play Battlezone within North America, please refer to the HEAT.NET insert included in the box.

Note: it is required that each player in a multiplayer game have a Battlezone CD in their CD-ROM drive.

Press **New** to create a new player. To personalise your online gaming character for *Battlezone*, input your in the Name field. Under **Description**, write a guiding principle or catch phrase that will briefly describe your character. Select the player name in the Characters field and select the desired connection type.

Select the player name in the **Characters** field and select the desired connection type.

Internet

Play a multiplayer game on Activision's ActivLink server.

IPX

Play a multiplayer game over a Local Area Network.

Modem

Play a multiplayer game by dialling directly to another modem.

When you choose **Modem**, windows will appear that will allow you to adjust the modem speed (baud rate) and com port, and allow you to input a modem init string if it is necessary for your hardware. Choose the highest baud rate that your computer will support.

Press **New** to enter a new opposing player for your modem game. Enter that player's name and telephone number in the field provided.

Press **Dial** or **Answer** to begin your modem game.

Null Modem

Play a multiplayer game with a direct serial cable linkage.

When you choose **Null Modem**, a window will appear that will allow you to select the com port.

Press **Next** to begin your null modem game.

SETTING UP AND LAUNCHING

When you choose an Internet game you will have to pick a server. Select the server with the lowest latency number. Press **Next** from the Multiplayer Setup screen to log on to a game server or to a LAN. *Battlezone* will automatically connect you to Activision's ActivLink server.

If you select either **Internet** or **IPX** on the multiplayer menu, the next screen will give the option of creating or joining a game. Menus will show available rooms, players in each room, games available, and players in each game.

To join a room, select one of the available rooms. To send messages to other players, enter your message in the message field at the bottom of the screen and press **Enter** to send the message to all players in the selected room. Select **W** for **Whisper** to send a message to only one other player, and M again for Unmute, which will restart messaging.

To get a description of another player in a room, click on that player's name and then press I to access their characterization of themselves. Send e-mail to a selected player by pressing E. Pressing P after selecting a player's name will launch their Web page if that player has entered a Web address.

When you are the host and you click on other players, you can choose K for Kick which will kick that player out of the room.

Press **Create Room** to create a new room that will allow player chat while waiting for new games to launch.

To join a game, select one of the available games. Press **Join Game** to launch.

To create a new game select **Create Game**. Enter your name in the field and enter a password if you want to keep your game private. If you enter a password, only other players who know that password will be allowed to enter your game.

Press **OK** to go to the next screen.

You will then be prompted to choose a mission for your game, choose a vehicle, and choose which team number that you want to be on. Some missions are Deathmatch missions (DM) and some are Strategy missions (S).

When you click on each mission, a description of that mission's map will be displayed.

A Deathmatch map creates a game where it's every pilot for himself and you must kill or be killed. In Deathmatch, building options are not available. Various power-ups can be found throughout the map that will restore spent ammo, repair damaged vehicles, and provide pilots with alternative weaponry.

In Multiplar mode, the vehicles that you can choose from are different from those available in single-player Battlezone.

New players can join a Dynamic Deathmatch game at anytime (Sync Join Off).

Choose a **Strategy** map to launch a mission that allows pilots to build a base and defend it. A Recycler will be available and a pilot must use strategy to launch lethal attacks against enemy bases. Still, the main objective is to kill or be killed.

This screen will also display the status of players in the game and allow chat between players while they're waiting for others to join.

Press **Launch** to launch your new game. Wait for other players to join the game and then kill them.

Once in the mission, press M to get information on the players currently fighting. An information bar with the Name, Kills, Deaths, and Latency of current players will appear. Latency is the rate at which the information on a player's movements and actions is communicated to your console. A player with a high Latency level will appear to move in a jagged manner and may require enemy pilots to alter their kill strategies.

MULTIPLAYER FEATURES

During a multiplayer game, various messages will appear on the screen with status information. If a new player joins the game, pilots will be informed.

When a vehicle is destroyed in multiplayer Battlezone, he or she will be ejected from the vehicle and will land on the ground. The pilot must then commandeer another vehicle before being destroyed. Only by being killed while outside of a vehicle can a pilot be destroyed in multiplayer.

Choose **Bail Out (Ctrl-B)** to eject from your vehicle. The vehicle will then self-destruct. Choose **Hop Out (H)** to jump from your vehicle with the vehicle remaining intact.

When Pilots are on the ground they can fire on enemy pilots and vehicles using sidearms or shoulder weapons. By killing an enemy pilot with the Sniper Rifle, a pilot can commandeer that pilot's vehicle.

MULTIPLAYER GAMES HAVE THE FOLLOWING OPTIONS:

Sync Join (On/Off)

Sync Join games start simultaneously for all players. New players may not join the game once the game begins. This option is available for both Strategy and Deathmatch games and is recommended for all Strategy games.

Team

The **team** button lets you choose which team you're on. In **Strategy**, each player must be on a unique team. In **Deathmatch**, all players may choose to play on the same team number. Players on the same team share victory conditions.

Comm Sat On/Off

When the **Comm Sat On/Off** option is set to **On**, players may build Communication Towers. Comm Towers enable the satellite view of the battlefield to be turned on. This option is only relevant to Strategy games.

Barracks On/Off

When the **Barracks On/Off** option is set to **On**, players may build barracks. A Barracks gives a player more pilots, allowing the player to control more units simultaneously. Players may want to shut off Barracks building in Internet games in order to limit the number of possible active units. This option is only relevant to Strategy games.

Player Lives

This number sets how many times a player may die in a Strategy game and still be allowed to control forces. This option is only relevant to Strategy games.

Player Limit

This option sets how many players may join the game. Player Limit applies to both Deathmatch and Strategy games.

Time Limit

This sets how long the game will last before it ends automatically. Time Limit is only relevant to Deathmatch games.

Sniper

This option determines whether players will have Sniper Rifles when they are outside of their craft. It applies to both Deathmatch and Strategy games.

Kill Limit

This sets the number of kills a player must attain for the game to end automatically. Kill Limit is only relevant to Deathmatch games.

Flag Limit

This sets the number of times you need to capture the flag before the mission ends. This option applies only to Capture the Flag Death match games.

TIPS FOR MULTIPLAYER STRATEGY GAMES

- Keep yourself alive! No matter how strong your forces are you will lose the game if you let yourself die more times then the Player Lives limit. Try to keep yourself out of harm's way and let the computer fight for you.

- Build effective defenses. Human opponents are much more able attackers than a computer. Expect your defenses to be tested.

- Learn to use your units effectively. Each unit in Battlezone is best suited to a particular style of attack or defense. Learn the strengths of each unit and try to use them in the most potent manner.

- Numbers count. Battles are usually won by the larger force. Try to keep your forces together or bring them together at a particular point on the battlefield for a decisive action.

- Control the scrap supply and build Silos near deposits.

- Control the map. Use the on-screen image (press Caps Lock) to identify areas that you want to control.

BASIC COMBAT

ACTION

Movement

Pilot your vehicle by using the keyboard and mouse. Check Keyboard Commands on page 76-77 and the reference card to get a complete listing of the commands.

Basic forward vehicle movement uses the **W** key. When advancing forward by pressing and holding the the **W** key, use the **mouse left and right** to turn while moving.

Use the **A** key to sidestep left and the **D** key to sidestep right.

When travelling around the worlds you will often encounter obstacles such as craters or hills that your vehicle will have difficulty traversing. Use the **E** key to use your vehicle's turbo thruster to jump. This capability works best when a forward motion key is also in use. The greater your vehicle's forward momentum, the higher it will jump.

The Battlezone Combat Exercises are vital to players new to this type of game. They will talk you through learning to pilot the vehicle, communicating with other units, and targeting enemies.

Basic Shooting and Weapon Controls

Use the left mouse button or the numeric keypad Insert key to fire your weapon. The **right mouse button** or the numeric keypad **Enter** key will allow you to scroll through the weapons to select one. Use the **F8** through **F12** keys to have single-touch access to the weapons. The **F8** key will select the first weapon, the **F9** key will select the second weapon, and so forth. Press **Ctrl-F8** through **Ctrl-F12** to link similar weapons to one another.
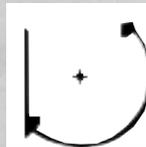
Targeting

To target an enemy, press **T** when the enemy is in visual range. The on-board computer will automatically lock on to the heat signature of the enemy vehicle and remain locked. The targeting brackets will be displayed which show the range to the vehicle and any damage that the vehicle has sustained. The target camera will be displayed which will continually show the location and actions of the targeted vehicle. If an enemy has not been previously targeted and it is hit by a pilot's fire, it will be automatically targeted and the targeting information will be collected.

On Foot

Press **H** to hop out of your vehicle with the vehicle remaining intact. Press **Ctrl-B** to bail out of your vehicle. After bail out, the vehicle will self destruct.

When on the ground, use the keyboard and mouse to move in the same way it is used for vehicles. Pilots travelling around outside of a vehicle can call a friendly unit for pickup or commandeer an enemy unit.

However, pilots are more vulnerable when outside of their vehicles. They can be fired upon by enemies. Yet, no pilot is defenceless when on foot. Each is issued a plasma weapon and a sniper rifle and can fire at enemy vehicles or other pilots outside of vehicles.
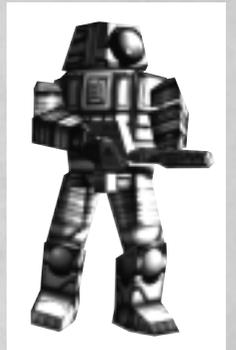
Switching Vehicles

A pilot can hail a vehicle and asked to be picked up by an available friendly. Select the friendly unit and use the **Pick Me Up** command. The other soldier will hop out and the commanding pilot can use the vehicle. The first pilot will get into the nearest unmanned friendly vehicle, or walk back to base.

Commandeering Vehicles

When on foot you may use your standard-issue sidearm in long-range sniper mode to fire upon enemy vehicles, killing the pilot and thus making the vehicle available for your use.

Switching to the Sniper Rifle will cause you to crouch and raise the rifle to your shoulder, activating the thermal sniper scope.

The Sniper Rifle will show an enemy pilot as a bright white dot when the enemy vehicle is in visual range. Eliminate the enemy pilot and that vehicle will become available for confiscation.

Vehicles that may be commandeered:

APC	Artillery	Heavy Razor
Minelayer	Razor	Rocket Tank
Scavenger	Tank	Turret

STRATEGY

The Smart Reticle

The Smart Reticle is a basic combat tool that enables pilots to issue commands to units. Point the targeting reticle at a unit and press the **space bar** to access a list of possible commands. Those commands can then be issued when a pilot presses the numeric keys **1 through 0**. The **Tab** key can be used to return to the top command menu. NSDF Engineers have simplified the battle process by enabling pilots to issue commands with one-button ease. Even in harsh conditions, accidents with friendly fire and battle errors have been minimised. Rest assured that NSDF Command trusts pilot's judgment, but also understands the life or death situations its soldiers face and the possibility for inadvertent errors.

Controlling Units

Use the Smart Reticle to control friendly units. This targeting reticle also serves as a communications link to the Recycler, buildings, and mobile units. Point the reticle at the desired apparatus and press the **space bar** to communicate. Possible commands will be listed in the upper left of the console. Choose the desired command and press the corresponding button. Capable structures will carry out commands immediately and check in when completed.

Quick Keys

F1 through F7 can be mapped to command multiple player-selected units as a group. To do this, hold down the Ctrl key and select a unit or units from the Command Interface. Then, while holding down the Ctrl key, press a function key from F1 to F7. You should hear a click. Now, whenever you press the selected function key, you can send commands to all of the units in that group at once.

The Map

A topographical map is located to the lower left of the vehicle console. Many hours of surveying were done and the latest satellite information has been implemented. This map has been engineered to alert pilots to topographic hazards as well as to ensure that the planet's environment can be used as an asset to skilled dogfighters. A floating directional compass is superimposed on the map to allow pilots to chart their courses and move according to orders.
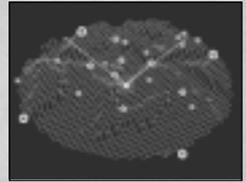
Radar information is also shown on this map. Enemy vehicles and encampments are displayed in red, friendlies in green.

Command Interface

The command interface will display the location of units on the map when friendly units are selected. The command interface allows a pilot to build and control units. The highest level of the command interface is unit categories: offensive, defensive, etc.

(1) Offensive Units

This menu will allow you to select and control offensive units. When you select this category you will get a list of all available offensive units. Select a unit and a list of possible orders will be displayed. Press the corresponding number to issue that order. Offensive units include Tanks, Scouts, APCs, and Walkers.

(2) Defensive Units

This menu will allow you to select and control defensive units. When you select this category you will get a list of all available defensive units. Select a unit to get a list of commands. Press the corresponding number to relay that command. Defensive Units include Howitzers, Turrets, and Minelayers. Turrets and Howitzers can only fire when deployed. To deploy or undeploy a Turret or Howitzer that you are driving, press **K**.

③ Utility Units

This menu will allow you to select and control utility units. Select a utility unit to get a list of available commands. Press the corresponding number to instigate the command. Utility units consist of Scavengers and Tugs.

④ Nav Beacons

This menu displays a list of all active Nav Beacons. Pressing the number corresponding to a specific beacon will select that beacon and display its camera view. Once a beacon is selected, then friendly units can be ordered to reconnoiter at its location. NSDF Command has placed Nav Beacons at some locations. Nav Beacons can be placed anywhere on the map by launching them from the Amoury if an Amoury is available.

Note: A selected Beacon will rotate with your vehicle, allowing you to see in all directions around the Beacon.

⑤ Recycler

Selecting this menu will display all of the units that are currently available to build. Units that require more scrap than has been collected will be unavailable for building. A number will be displayed next to each unit showing how much scrap is required. A **P** will be displayed indicating if a soldier is required to pilot that unit. If no pilot is available the unit cannot be built.

If a Recycler is deployed on a geyser and you wish to move it, you must first order the Recycler to pack up. To pack up a Recycler, open a communications channel with the Recycler by pressing **5**, then press **0**. Once packed up, the Recycler will accept movement orders.

⑥ Mobile Unit Factory

The Mobile Unit Factory is very similar to the Recycler, however it has been configured to build much more advanced vehicles. Selecting this menu will display all of the units that are currently available to build. Units that require more scrap than has been collected will be unavailable for building. A number will be displayed next to each unit showing how much scrap is required. A P will be displayed indicating if a soldier is required to pilot that unit. If no pilot is available, the unit cannot be built.

If the MUF is deployed on a geyser and you wish to move it, you must first order it to pack up. To pack up a MUF, open a communications channel by pressing **6**, then press **0**. Once packed up, the Mobile Unit Factory will accept movement orders.

⑦ Armoury

The Armoury can build and distribute supplies on the battlefield. Selecting the Armoury will display a list of available supplies and weapons. Select the desired weapon, ammo cache, or repair piece to build and then point the smart reticle at a desired location to direct the Armoury where to launch the supply.

If an Armoury is deployed on a geyser and you wish to move it, you must first order it to pack up. To pack up a Armoury, open a communications channel by pressing **7**, then press **0**. Once packed up, the Armoury will accept movement orders.

⑧ Construction Rig

Selecting this menu will display all of the buildings that are currently available to build. Buildings that require more scrap than has been collected will be unavailable for building. A number will be displayed next to each unit showing how much scrap is required. Select a building and then use the smart reticle to indicate where the building will be built. Some buildings require power. if a building requires power, the cursor will turn yellow if power is not available.

⑨ Satellite

Once a Satellite has been deployed, press **9** to display the satellite view. This can be used in addition to the radar map information to choose battalion commands and receive intelligence on enemy deployments.
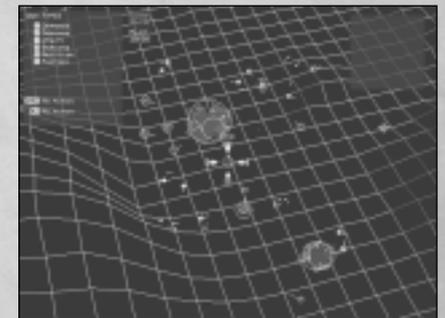
Pilots and Scrap Meters

Next to the command interface there are two important resource indicators: **Pilots** and **Scrap**.

Pilots will indicate how many pilots you have under your command. Most vehicles that you build will require a pilot. If you do not have any pilots available, you will not be able to build that unit. Every mission starts with a fixed number of pilots. If you need more pilots, you must build a barracks, which will add five more pilots. When a vehicle is destroyed there is a possibility that the pilot will eject and return to base. If this happens, that pilot will become available to command another unit.

The Scrap Indicator shows how much of the bio-metal scrap you have collected with your Scavengers. Everything that you build will require a certain amount of scrap. If you do not have enough scrap, items that you cannot build will be unavailable in the **Build** menu. If you run out of scrap, it is possible to take units that you have built and order them to be recycled. Select a unit and choose the **Recycle** option from the Command menu and that unit will return to the Recycler and turn into scrap.

BUILDING AND POWERING STRUCTURES

BASIC BUILDING

Commanders in the field have access to a great deal of construction and may deploy new offensive and defensive structures according to in-battle needs. First, access communications with the Recycler. This strategic piece can build defensive Turrets, Scavengers, Scouts, and several other offensive and defensive allies.

The Recycler must initially be directed to a geyser for thermal power. When the Recycler is fully powered, it is then available to build other things. Direct the unit to travel to the nearest geyser by pointing the smart reticle at the Recycler and pressing the **space bar**. Then either point the reticle at a nearby geyser and press the **space bar**, or choose the third command option, **Go to Geyser**.

When the Recycler is fully powered, again press the **Space bar** to open a communications channel. The unit will respond and a menu of currently available units will appear in the upper left of the console. Press the corresponding command key of the unit that you wish to build and the Recycler will begin immediately. After each unit is finished, the Recycler is then available to build more units.

ADVANCED BUILDING

Some units are unavailable in the field until certain battalion prerequisites have been fulfiled. Until these prerequisites are covered, commanders must fight with only the basic offensive and defensive units. These prerequisites change from battle to battle due to power and materiel issues that are not constant. A fully informed pilot will be aware of these limitations which are initially learned in the mission briefing.

When mission guidelines call for advanced building, command the Recycler to build a Mobile Unit Factory. This building has the ability to construct advanced units.

When necessary, field commanders can order the Recycler to build a Supply Launch Facility. This building enables units in the field to have access to basic repair and ammunition as well as advanced weaponry. The Armoury delivers its payload by catapulting it to field units.

A Construction Rig is another unit engaged in assembly. Its primary directive is to engineer buildings such as defensive towers, comm units, and power sources.

ALTERNATIVE POWER SOURCES

There are two types of power: power provided by geysers and electrical power that is provided by wind, lightning, or the sun.

Geysers providing geothermal power are the most common power sources in this conflict. However, the differing terrains of the planet and moons that have been surveyed allow for several alternate sources to supply units with energy.

Geysers are used to power the Recycler, the Mobile Unit Factory, and the Armoury. In order to provide power to buildings, other energy sources must be utilised.

A Construction Rig can be commanded to manufacture power plants that collect lightning, solar energy, or wind energy. Commanders must use the information in this manual and in their mission briefings to learn the intelligence survey teams have provided regarding planet terrain and environment. This information is vital to allow pilots to know what structure to build where.

MINIMUM SYSTEM REQUIREMENTS

- 100% Microsoft Windows® 95 compatible computer system (including compatible 32-bit drivers for CD-ROM drive, video card, sound card, and input devices)
- Processor Type: Pentium® 120 MHz. (Pentium® 166 Mhz recommended for 640x480 resolution with textures on)
- RAM: 16 MB.
- Microsoft® Windows 95 operating system.
- Requires DirectX 5 (included) or later
- Requires 160 MB of uncompressed hard disk space for game files plus 50 MB for the Windows swap file.
- Double-speed CD-ROM drive (300 K/second sustained transfer rate).
- 16-bit High Colour video card with minimum 1 MB RAM.
- 100% Windows 95-compatible sound card and drivers.
- 100% Windows 95-compatible mouse and driver.
- Modem play requires 100% Windows-95 compatible 28.8Kbps modem or faster.
- Internet (TCP/IP) and LAN (IPX) play also supported.
- 100% Windows 95-compatible joystick optional.

3D Cards Optional Feature – This game uses Microsoft's Direct 3D to support 3D hardware acceleration. It has been tested on many **but not all** of the major cards incorporating the chipsets listed below. **Some 3-D accelerator card brands utilising the chipsets whose logos appear on this box may not be fully compatible with the 3-D acceleration features of this product.** For a complete list of the cards and drivers that have been tested, please visit www.activision.com.

Chipsets tested as of ship: 3Dfx, Rendition, ATI Rage Pro, Nvidia Riva 128, PowerVR, PCX2, and Permedia 2.

Important Note – Requires your system to have the latest Windows 95-compatible drivers for CD-ROM, video card, sound card, modem, and input devices.

INSTALLING BATTLEZONE

Please make sure your computer system is 100% Windows 95 compatible. *Battlezone* is not compatible with Windows 3.1 or other operating systems.

Note: For *Battlezone* to operate the best, it requires that your system have the latest drivers for your CD-ROM drive, sound card and video card, as well as any other peripherals you want to use (e.g., joysticks). If you have any problems running the program, older sound or video drivers are the most likely cause.

If you need help on how to obtain the latest sound and video drivers, check out our Technical Help file accessible from the Start menu or the Battlezone title screen. The title screen displays shortly after inserting the Battlezone CD into your CD-ROM drive. Just press the More button then the **Help** button. We have supplied a list of major computer hardware companies and their telephone numbers to help you with most problems. You can find them listed under Vendor List. This file has a lot of other helpful information on installation and system setup, as well as game-specific technical help.

HOW TO INSTALL

1. Before installing, close all other applications. Also make sure Virtual Memory is on (located in your System Control Panel). Verify that you have 210 MB of free hard drive space.

2. Insert the Battlezone CD into your CD-ROM drive and wait a few moments until the Battlezone title screen appears. (If the title screen does not appear, please refer to AutoPlay in the Troubleshooting section.)

3. There are three buttons on the title screen. Click the **Install** button to begin the installation process and then follow the on-screen instructions.

After Battlezone setup is complete, your computer will install the Microsoft DirectX 5.0 drivers if you do not already have them. When DirectX 5.0 installation is complete, you will need to restart your computer for the new drivers to take effect. For more information on DirectX 5.0, see page 99 of this manual. As part of the installation process, the Intel Indeo drivers will also be installed.

Now you can run *Battlezone* by choosing **Programs/Battlezone /Battlezone** from the Start menu or by clicking **Play** on the CD title screen.

Please register your copy of *Battlezone* by completing the Registration Card and returning to Activision at the address supplied.

TITLE SCREEN BUTTON FUNCTIONS

Install – Installs the game. Once the game has been installed, this button will change to Play.

Play – If the game has already been installed to your system, click this button to play *Battlezone*.

More – Click this button to access the Registration, Help, Technical Help, and Uninstall buttons.

Previews – Click this button to see previews of some exciting Activision games.

Quit – Click this button to close the title screen and exit *Battlezone*.

Help – Click this button to view the latest technical information not found in this install guide.

Technical Support – Click this button to view information on how to contact Activision.

Uninstall – Click this button to remove all Battlezone files from your computer.

www.activision.com – If you have Internet access, clicking this button will take you to Activision's Web site.

TROUBLESHOOTING

ONLINE HELP

We have supplied a technical help file that can help you in troubleshooting problems. There are three ways to access this help file:

1. Right-click on the Battlezone CD icon and select **Technical Help**.
2. From the title screen, click on **More** then **Help**.
3. After installation, from the Start menu, select **Programs/Battlezone/Battlezone Help**.

AUTOPLAY

If the Battlezone title screen does not appear, try performing the following steps:

1. Double-click on the **My Computer** icon on your desktop or right-click on the icon and choose the **Open** option.
2. Select the **Refresh** option located in the **View** pull-down menu.
3. Double-click on the **Battlezone** CD icon in the window or right-click on the icon and choose the **AutoPlay** option.
4. After the Battlezone title screen appears, click on the **Play/Install** button.

If the AutoPlay feature does not function, please check the following:

1. Make sure the CD is clean and properly placed in the CD-ROM drive.
2. Your CD-ROM driver may not be optimised for use with Windows 95. To verify this, perform the following steps:

   a. Open the Windows 95 **Control Panel** folder and double-click on the **System** icon.

   b. Click on the **Performance** tab. If any of your hardware drivers are not fully optimised for use with Windows 95, they will be listed here with an explanation of the exact problem and suggestions on how to fix it.

DIRECTX 5.0

Upon completion of the Battlezone setup, the installation process will continue by determining if Microsoft's DirectX 5.0 needs to be installed on your computer. If so, the appropriate files will be installed on your computer automatically.

Q. What is DirectX 5.0 and why do I need it?

A. Microsoft's DirectX 5.0 is a set of functions that gives Windows 95 games and other applications their power. Using these functions allows applications to perform advanced functions in networking, graphics, sound, and input beyond what's possible on other operating systems and accounts for many of the performance gains associated with Windows 95 games. Battlezone uses Direct3D, DirectDraw, DirectSound and DirectInput, four of the DirectX 5.0 functions.

Q. If I don't have DirectX 5.0 will Battlezone install it for me?

A. Yes. If InstallShield does not detect DirectX 5.0 on your computer, it will install DirectX 5.0 for you, if you choose. After the entire installation is complete, you will need to restart your computer in order for DirectX 5.0 to take effect.

Q. I already have other Windows 95 games installed on my computer. Will the Microsoft DirectX Installer change my DirectX files?

A. If you already have other Windows games on your computer, chances are you already have the initial version of DirectX installed. In this case, the Microsoft installer will detect and overwrite any previous versions with DirectX 5.0. At that point, you will need to restart your computer for the changes to take effect.

If, however, you already have DirectX 5.0 installed on your computer, the Microsoft DirectX 5.0 installer will detect that and not overwrite any DirectX 5.0 files. You will not need to restart your computer after installation in order to run *Battlezone*.

Abnormal Termination

In the unlikely event your copy of Battlezone terminates abnormally, information will be recorded in the file ATVILOG.BIN.

You might want to attach this file if you e-mail our customer support department – it will help them track down the cause.

This file is usually located in c:\windows\temp, however the actual location depends on your computer.

You can also just connect to a Battlezone server to send in the file, although if you do this, no return address or identifying information will be given, so you won't get any reply. The file will then be erased from your system.

If you prefer, the following procedure will prevent transmission of this file to Activision servers:

1. Create a text file named, "DP.INI" in the game folder

2. Write the following information in the DP.INI file:

    [debug]

    nouploadcrash=1

The file will still be on disk, and can still be e-mailed to our customer support department.

MOVIES DON'T PLAY PROPERLY

- Make sure your system meets the minimum requirements for the program, especially your CD-ROM drive. The program requires a CD-ROM drive with a minimum sustained transfer rate of 300K/sec (a double-speed drive).
- You may not have enough RAM to run movies. Check to make sure you have sufficient RAM to run this product. You need 16 MB.
- Too many other applications may be running. Close down other applications (especially DOS boxes or modem programs) and try again. We strongly recommend that you not run other applications while running *Battlezone*.
- Make sure you have the correct version of the Intel Indeo drivers installed. *Battlezone* requires Indeo 5.0.

GAME FREEZES

- Make sure your computer has at least 16 MB of RAM.
- Make sure you are using the latest 32-bit drivers for all your peripheral devices.
- If you are using a 3D card, make sure you have the latest drivers installed for your card.

NO SOUND, PARTIAL SOUND, OR NO VOICES OR SOUND EFFECTS

- Make sure you have a 100% Windows-compatible sound card in your computer.
- Make sure your speakers are plugged in correctly and turned on, and make sure the volume is turned up to an audible level.
- Make sure you are using the latest 32-bit sound drivers for your sound card.
- Make sure your audio card is properly installed and that you have the correct audio drivers installed. Check your audio card's installation and its setup parameters within Windows 95 to be sure all are correct. See your card's manual and your Windows 95 manual for details.
- Check your settings in your Control Configuration.

GAME TOO SLOW

- Make sure you are running *Battlezone* on a Pentium 120 or higher system. Any P100 or lower system usually will not run *Battlezone* satisfactorily.
- Try turning off some game options in the Graphic Options screen. See Graphic Options, page 74.
- Make sure you have no other applications running in the background.
- Make sure your screen resolution is set as low as it can be in the Graphic Options screen.
- The game may run faster if more RAM is available. Increasing the RAM in your system to 24 or 32 MB of RAM may make the game run faster.

CUSTOMER SUPPORT

Before contacting customer support, please consult the technical help file. It contains the answers to some of our most frequently asked questions and may quickly and easily provide a solution to your difficulty. If after reviewing the technical help file you are still experiencing problems, please feel free to contact us through any of the services listed.

So that we can better help you, please be at your computer and have the following information ready:

1. Complete product title

2. Exact error message reported (if any) and a brief description of the problem

3. Your computer's processor type and speed (e.g., Pentium 120)

4. Video and sound card make and model (e.g., Diamond Stealth 64 video, Sound Blaster 16)

Note: Support for the multiplayer component is provided online only.

ONLINE SERVICES WITH ACTIVISION FORUMS, E-MAIL, AND FILE LIBRARY SUPPORT

• Internet: support@activision.com or http://www.activision.com

• America Online: Use keyword "Activision" to locate the Activision forum.

• CompuServe: 76004,2122 or [GO ACTIVISION]

• Activision BBS: +1 (310) 255-2146 Up to 33,600 Baud; Settings: 8 Bits, No Parity, 1 Stop Bit (8, N, 1)

CUSTOMER AND TECHNICAL SUPPORT IN EUROPE

For Technical Support, please contact Activision in the UK on: 0990 143 525.

For Customer Support you can contact Activision in the UK on 01895 456 700 between the hours of 1.00pm and 5.00pm (UK time) Monday to Friday with the exception of holidays.

For Technical Support and Customer Service in areas not listed, please contact your local distributor or Activision via online. (Please note the online support is available in English only).

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John Platten (writing)
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from Rendition
Jason Della Rocca and Elio Del
Giudice from Matrox
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from Softimage
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