

TOP SECRET/S.I.
Game

G4 File: Guns, Gadgets, and Getaway Gear

by Merle Rasmussen





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Introduction

SECURITY CLEARANCE LEVEL: Alpha in all bureaus

BEGIN MESSAGE

TO: *Top Secret /S.I.*™ Espionage Roleplaying Game Administrators and Agents

BY AUTHORITY OF: Merle M. Rasmussen, Director of Administrations

PURPOSE: To expand the current *Top Secret/S.I.*™ game system by presenting new technical data.

MESSAGE: This text is supplementary and is not complete by itself. To be of value, it must be used in conjunction with the *Top Secret /S.I.*™ espionage roleplaying game.

All material included in this rules supplement is optional. This material is intended to supplement the existing rules, not to replace them. Each Administrator must decide which devices to include in his or her game.

Comments and suggestions from players were considered when this work was written. Many popular items were given detailed coverage. Military weaponry, hypothetical devices and real-world inventions are all brought together in this text.

A few surprises await the users of this accessory. New equipment may be encountered during future missions, and both Administrators and Agents should be briefed about them in advance.

The hypersensitive eyes and ears of modern technology have extended the range of an intelligence agent's ability to observe. Satellites and high-altitude aircraft provide *photint* (photographic intelligence) and *elint* (electronics intelligence) both day and night. Ships and ground vehicles intercept radio messages and listen to moving forces beyond the horizon and under the sea. Although physical and chemical evidence can be sensed and minutely measured by such devices, the careful agent is still needed to provide *humint* (human intelligence). Weapons and hardware are tools to be used by an agent, as are the agent's creativity, resourcefulness and perception; technology, no matter how exotic, can never replace a good field agent.

I wish to thank those Agents and Administrators who have helped make the game so popular. I hope this equipment supplement exceeds your expectations and aids you in developing a more complete rules system to enhance the play of your game. Your continued support made this product possible; it is presented with hopes of bigger and better projects in the future. Keep in touch and don't hesitate to send in your honest opinions and suggestions.

I would also like to acknowledge and thank in writing my Chief Assistant, General Secretary, Adjutant, Collaborator, Research Technician, Co-Author, Pre-Editor, Overworked-Underpaid Partner and Deeply Loved and Loving Wife, Jackie. Thank you!

That is all.

Director of Administrations,

Merle M. Rasmussen

Merle M. Rasmussen

Acknowledgements

A few sources were of particular use in compiling this accessory book, and four deserve special mention as follows:

Bergier, Jacques, *Secret Armies*, Indianapolis, Indiana: The Bobbs-Merrill Company, Inc. (1975).

This book was essential in compiling the On the Drawing Board chapter; with the exceptions of the entries on hyperacids, crystal marking, computer hardware and software, genetic engineering and sea mammal anti-submarine warfare, all the topics in this chapter were touched on in Bergier's book.

Brassey's Infantry Weapons of the World, 1950-1975, New York: Bonanza Books (1975).

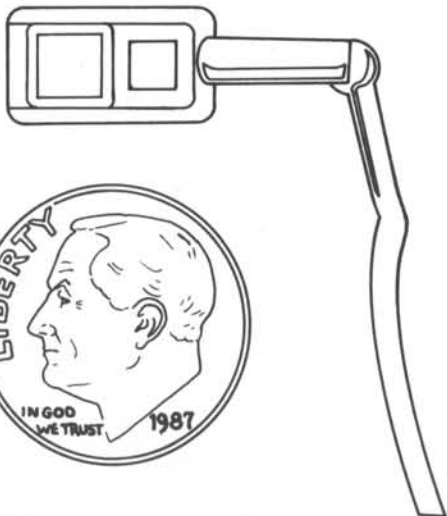
Most of the information on the Infantry Weapons of the World's Armies table came from this excellent source.

Dobson, Christopher and Ronald Payne, *The Terrorists: Their Weapon, Leaders and Tactics*, Facts on File, Inc., 1982.

Scholastic Update, New York: Scholastic Inc. (May 16, 1986).

Most of the information compiled in the section on Special Forces in Appendix 1 and Terrorist Organizations in Appendix 2 came from these two sources.

1. Equipment



Surveillance, Counter-surveillance and Communication

It is often difficult to define the difference between surveillance, counter-surveillance, and communication devices. In some cases, the same piece of equipment can be used for all three purposes. In general, an item's most common use defines its equipment class. Surveillance equipment is used to closely observe a person or group. Counter-surveillance equipment is used to detect or counteract surveillance. Communication equipment is used to exchange information.

Extremely complex and ingenious means of combining electronics equipment have been developed for espionage and counterespionage. Little attempt will be made in this book to explain all the possible combinations. The components are listed, and agents can try to configure them as needed to complete the job.

NOTE: Keep in mind that transmitting devices transmit on a particular, set frequency. Unless a scanner is used to locate the proper frequency, the chance of tuning in the correct one by accident is 1 in 10,000 (roll 00 on percentile dice twice in a row).

CAUTION: In Great Britain and most other European countries, the sale of eavesdropping devices is legal. It is illegal to sell surreptitious surveillance (bugging) devices in the United States. It is also illegal to bring eavesdropping devices into the United States.

Surveillance Equipment (Sonic Devices)

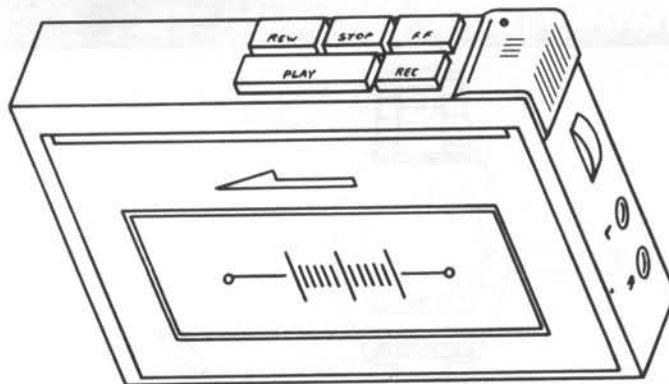


Item Name	Weight	Cost (\$)
Transmit Mike	—	100
Infinity Microphone	1	100
Miniature Tape Recorder	1	100
Telephone Oscillograph	15	1000

Item Name	Weight	Cost (\$)
Telephone Tap, Transmitter	1	100
Wired Mike (probe, drop or contact)	—	100
Voice Stree Analyzer	15	6500
Tonal Activity Transmitter	—	25
Parabolic Mike	5	500
Infrared Beam or Laser Microphone	10	300

Transmit Mike: This device is about the diameter of a dime (though not necessarily the shape) and is about 1/2" thick. It will transmit continuously up to 1 mile for 2d6 weeks. No skill check is required to pick up its signal within a mile. At greater distances, the radio operator listening in must make a skill check every minute or lose the signal. A successful skill check on a subsequent turn brings the signal back in. Modify the roll by -10 for every mile beyond the first from mike to receiver. Transmit mikes come in an astonishing range of sizes, shapes, and styles. Possibilities are limited only by the imagination of the players, and the capriciousness of the Administrator. However, permutations of which the agents should be aware include the following: limpet mike; spike mike for couches, chairs, and carpets; picture-hook bug which uses picture-hanging wire for an antenna; slab bug slipped into book bindings; rod device bug which can be concealed in a ball point pen, an executive's desk, or inside a picture frame; cigarette lighter transmitter; olive and toothpick transmitter; handbag transmitter; printed-circuit transmitters and batteries sewn in suit linings; mini-microphones powered by energy from radio waves; micro-transmitter disguised as a matchbox, fountain pen, felt-tip pen, cigarette lighter, inkwell, brooch, or powder box; wall dart transmitter; door lock transmitter; aspirin tablet transmitter, and wooden peg spike mike.

Infinity Microphone: An infinity microphone uses a "carrier current device" such as a table lamp or TV set. Sounds are picked up by a microphone hidden in an ordinary electrical appliance. The microphone is linked to a low-frequency transmitter that sends the message via the electric line to another outlet where a low frequency receiver picks up the signal. The signal is then routed to a loudspeaker, earphone and/or a recording device. Some nursery monitors are designed on this principle.



Miniature Tape Recorder: This device is the size of a pack of cigarettes and includes a microphone. It can pick up conversations within 10' and uses miniature, 120-minute tapes. An agent should also be aware of the following types of recorders: handbag recorders; self-destructing tape recorders; cuff link mini-recorders; short-sleeved, open-collared, pocketless sport shirt recording devices, and wire recorders which use wire instead of tape.

Telephone Oscillograph: This device is the size of an average dictionary. It can record the dialing sound of a tapped phone and then identify any number called from that phone.

Telephone Tap, Transmitter: This device, about the size of a quarter, must be installed in a telephone. It will transmit up to 1 mile away.

Wired Mike (probe, drop or contact): This device is the size of a banana. It can be attached to a wire or to a rigid pole and will pick up sounds of normal speech within 20'. If concealed by anything that muffles sound, the range is halved. Additional varieties include the radio transmitter with neck-cord antenna worn under a shirt and a bug which is hung by its own 12" antenna in draperies or chandeliers.

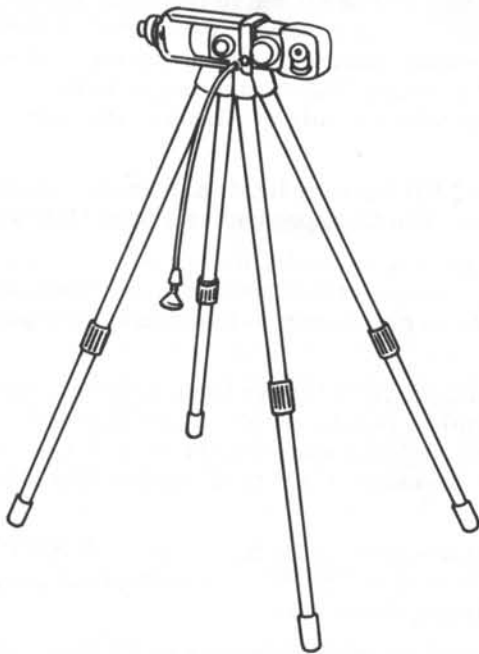
Voice Stress Analyzer: This briefcase-sized device measures the degree of stress in the human voice. Analyzers measure involuntary, sub-audible changes called micro-tremors. These are tiny frequency modulations that are detected, measured, and interpreted by the analyzer as simple digital values. Values that are sufficiently above the speaker's normal voice range indicate the speaker is lying or concealing information. Results are displayed as lighted, numerical readouts or on a computerized digital printout. The device can be used during a personal interview, over the telephone, or to analyze a recorded conversation. This device will detect a lie on a percentile dice roll of 75 or less. The VSA may also be used as a cassette tape recorder with up to 120 minutes per side of cassette (\$1 each).

Tonal Activity Transmitter: This dime-sized device is too small and weak to transmit meaningful voice sounds, but will indicate the presence of sound waves or disturbances in a room. It is powered by a 50-minute battery that activates only when there is a noise in the room. It has a broadcast range of 440 yards.

Parabolic Mike: This device resembles a megaphone. A successful Radio Operator check allows it to pick up sounds as faint as conversational speech at distances up to 1,000 yards. The skill check is at -10 for each additional hundred yards. Windy conditions or loud background noise halve the range.

Infrared Beam or Laser Microphone: This device bounces a beam off a miniature mirrored modulator in a room or on a window and is read by a collector. A successful Radio Operator check allows the listener to eavesdrop on conversations hundreds of yards away.

Surveillance Equipment (Optical Devices)



Item Name	Weight	Cost (\$)
Camera Briefcase	5	450
Miniature Camera	—	1200
Minox EC	—	300
Minox LX	—	400
SC5000 Lighter Camera	—	250
Soviet FD3 Wristwatch Camera	1	450
Microfilm Camera	—	1500
Microfilm Containers	—	50
Borescope	1 per foot	1000 per foot

Item Name	Weight	Cost (\$)
Nikon F3 Remote Shutter Release	1	150
Revolver Camera	2	150
Light-intensifier Scope	2	300
Wireless Television Monitoring System	15	1000 (monitor)
	10	500 (camera)
TV Camera File Cabinets	8	500 per drawer

Camera Briefcase: Some police forces, journalists, and other agencies have used cameras hidden in briefcases, inside purses, and under clothing. The camera briefcase has a small oval opening on the side of the case covered with a fine screen. The screen is nearly (95%) undetectable. The shutter is controlled by a button on the briefcase handle. The camera usually used is a 35mm because it produces a large enough negative for identification use. Journalists and agents have mounted battery-operated video cameras inside purses and cases when going undercover.

Miniature Camera: Cameras are used for both active and passive surveillance. Active surveillance can be secret or obvious depending on the needs and setting of the mission. Active means an agent is aiming, focusing, and controlling the camera equipment. Passive means the camera is set up to work when a trap is triggered or set up to photograph intermittently or continuously. Banks use the intermittent method to spot suspects. Miniature cameras have been disguised as pocket watches, jewelry, guns, walking sticks, cigarette lighters, and wristwatches. The camera uses a 24-exposure roll of film and takes 1 minute to reload.

Minox EC (\$300): The Minox EC measure " $\times 1" \times \frac{3}{4}"$ and can be hidden in the palm of one's hand. With batteries and film, it weighs two ounces. The Model EC has a 15mm fixed focus f5.6 aperture, electronic shutter with speeds of 8 seconds to $\frac{1}{500}$ of a second, automatic CdS metering, and a red warning diode indicating exposure times greater than $\frac{1}{30}$ of a second. Minox cameras were first manufactured in Riga, Latvia, U.S.S.R. The Minox EC was made commercially available in the North America in 1981.

Minox LX: This camera weighs only 3.5 ounces. It has LED warning lights and an electronic leaf shutter which can be set from 12 seconds to $\frac{1}{2000}$ of a second. The film speed adjusts from 15 to 400 ASA.

Most models are built of aluminum and come in either chrome or black finishes. Accessories include FL4 cube flash unit, pocket tripod, cable release bracket, copy stand, binocular attachment, M811 microfilm reader, Minox HP 24 and Minox HP 24 autofocus projector, plus a Minox II enlarger and day-light developing tank.

SC5000 Lighter Camera: This attractive gas electronic cigarette lighter has a built-in camera capable of taking either 15 or 36 exposures. The SC5000 requires regular MINOX type film with a choice of either 100 or 400 ASA, depending on lighting conditions, in black and white or color. It has an f-stop of 5.6 and a shutter speed of $\frac{1}{100}$ of a second. The SC5000 measures 4" x 1" x $1\frac{1}{2}"$ and weighs 2 ounces. It is available in silver, chrome, or black.

Soviet FD3 Wristwatch Camera: The Soviet FD3 is manufactured at Riga, Latvia, U.S.S.R. It looks like a fine timepiece and is (98%) undetectable as anything else. The FD3 takes excellent photographs, and with a slight modification, can be used for microfilming documents.

Microfilm Camera: Cameras like the Minox or FD3 produce small negatives which can be turned into microfilm or microdots by photographing them again with a specially lensed microfilm camera. Microfilm cameras are almost always concealed due to their widespread use as espionage devices. Some of the ordinary objects inside which microfilm cameras are hidden include cigarette cases, cigarette boxes, fountain pens, hearing aids, pocket transistor radios, makeup compacts, glasses cases, and clothes brushes.

Microfilm Containers: Developed microfilm can be hidden in just about any hollowed out or narrow space. Only unexposed microfilm need be carried in a light-proof container. Microfilm containers have included flashlights, talcum powder cans, shaving brushes, common nails, pencils, and cuff links.

Borescope: The borescope technology was made possible through industrial and medical research. Utilizing fibre optics, the borescope cable is inserted into a hole leading into the room or container to be viewed. The borescope can be fitted with a variety of lenses depending on whether a wide-angle or close-up view is desired. The image is then carried via cable to the human eye, camera, or TV monitor. Not only can the occupants and contents of a room be viewed, but so can the contents of barrels, envelopes, and fuel tanks.

Nikon F3 Remote Shutter Release: This two-component system consists of a radio transmitter and a radio receiver. The transmitter is placed where it can be triggered. When triggered, it sends a radio signal to the receiver which is connected to a self-winding camera. The radio signal releases the camera's shutter, and a photograph is taken. Using this type of passive surveillance, a building's occupants or visitors can be monitored by placing the transmitter in a doorway so that each time a door is opened the transmitter is triggered. The only catch with such a system is that if discovered, the equipment may be placed under surveillance to see who comes to change the film.

Revolver Camera: This camera is mounted on the side of a standard revolver. Each time the weapon's trigger is pulled, the camera's shutter is released. The device will photograph the target at which the gun is aimed. The device was developed to verify that a target was actually hit by a particular weapon.

Light Intensifier Scope: A character using this treats twilight as daylight (skill checks are unmodified) and darkness as twilight (all vision-related checks are made at 1/2 skill or attribute level).

Wireless Television Monitoring System: Remote cameras can be connected to a monitoring station via microwave transmitters instead of cables. Each camera and monitor usually operates from its own AC power source.

TV Camera File Cabinets: It was discovered that someone was selling file cabinets to United States embassies which had battery-powered television cameras mounted inside. This arrangement allowed someone to see the names on each file placed in a drawer. Tens of thousands of dollars were spent to locate and remove these devices, and no outside contractors were then used to supply file cabinets to U.S. embassies.

Surveillance Equipment (Chemical Devices)

Item Name	Weight	Cost (\$)
Factory Fume Collector	1	65
Internal Combustion Exhaust Octane Collector	1	55
Body Chemistry Collector	1	45
Walk-through Narcotics Vapor Detector	350	2500

Factory Fume Collector: This device comes in a plastic airtight tube or pocket package. It resembles a white handkerchief. The collector is removed from its package and exposed to the air, indoors or outdoors. After 60 seconds, the collector is put back in its airtight container and returned to a laboratory for analysis. Traces of factory waste fumes collected can be identified and products surmised. For best effect, the collector should be downwind from the factory or placed near a smoke pipe or exhaust port to collect specific factory fumes. Otherwise, the gaseous waste products of several factories may be combined. Radioactive discharges cannot be detected with this device.

Internal Combustion Exhaust Octane Collector: This device is similar to the factory fume collector both in appearance and use. The difference is that the octane collector identifies waste hydrocarbons from automobile exhaust or an entire city's air pollution. Radioactive discharges cannot be detected with this device.

Body Chemistry Collector: This device looks like a desk sponge for wetting stamps. To use it, the top is removed and the device is left open to the air of a room. Up to 24 hours later the sponge can be covered and taken to a laboratory for analysis. Traces of "body chemistry" reveal what persons were in the room during the time the sponge was exposed. Perfumes, colognes, body odor, dead skin cells, and hair particles are absorbed by the special sponge. Stamp mucilage also is detected if the sponge is used normally.

Walk-through Narcotics Vapor Detector: The entrance of the detector is a gate made of seven intermeshing, 2' long bars. These bars have about a dozen tiny holes called sampling ports that pull in air samples from a passenger's clothes as he or she pushes through. Once the passenger is 2' inside the gate, he or she is again sampled. Here, within a door frame similar to that of a metal detector, he or she is asked to pause while 16 fans stacked in the left column blow air across the body. The vapor samples are drawn into the column on the right, where they are funneled into a device called a thermionic sensor. The thermionic sensor responds to chemicals, such as chlorine and iodine, that belong to a group called halogens.

This sensor cannot actually detect drugs themselves or the organic materials associated with them, such as ketones, ethers, or alcohols, but scientists have devised a way to change the drug-related com-

pounds into halogens. The vapors pulled into the frame's right column are mixed with chlorine gas and then heated to 1500 to 1700 degrees Fahrenheit. Heating the mixture causes some of the drug-related organic compounds, if there are any, to exchange a hydrogen atom for a chlorine atom. Next, the sample is cleansed of any excess chlorine gas and drawn into the thermionic sensor. If enough of the chlorinated molecules are present (as little as 30 parts per billion), the sensor sets off an alarm.

Officials can move people through the device at a rate of one person about every 15 seconds, and the false alarm rate is low (1-9%) By turning up the detector's sensitivity, officials will be able to more closely monitor certain air routes. But that will also result in a higher false alarm rate.

The thermionic sensor is not perfect and responds to a variety of organic compounds. A freshly applied perfume that contains alcohol could be enough to alert authorities, but once the alcohol has dried, the perfume's aroma will not set off the alarm. U.S. Customs hope the electronic nose will act as a deterrent as well as a detector.

Surveillance Equipment (Wire Devices)

Item Name	Weight	Cost (\$)
Telephone Time and Call Recorder	5	250
Telephone Number Decoder/Recorder	10	300
Automatic Telephone Dialer	5	200
Metal-to-Metal Telephone Tap	1	100
Inductive Tap	1	200
Computer Bank Tap	2	1000

Telephone Time and Call Recorder: This device is an automatic, voice-activated system which records the message and time of all incoming and outgoing calls. It can be connected to an answering machine which records incoming calls when the phone is not answered. The cassette tape has a capacity for 60 one-minute recorded messages.

Telephone Number Decoder/Recorder: This typewriter case-sized device gives a hard-copy printout of all outgoing telephone numbers dialed on push button or rotary dial telephones. It also records the date and time of both outgoing and incoming calls, including unanswered ones. The device can be used to record all incoming and outgoing messages on cassette tapes (120 minutes per side).

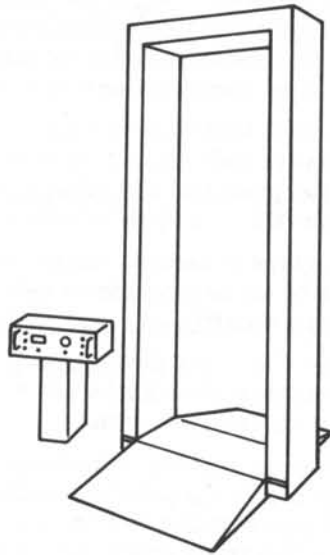
Automatic Telephone Dialer: This device automatically dials a preselected series of up to 176 telephone numbers and plays a one-minute recording each time a telephone is answered. The automatic dialer can also be programmed to dial the same number once every 10 minutes until the telephone is answered. When a called phone is answered, the calling phone rings once to notify the caller. The automatic telephone dialer does not interfere with incoming calls.

Metal-to-Metal Telephone Tap: A physical telephone tap is made by connecting an audio transformer and resistor across the microphone and earphone of a telephone set, or across the terminals of the line at a junction box. The output wires or the transformer then feed into a tape recorder and/or earphones. A professionally installed wiretap does not create any perceptible noise on a telephone line. It is, however, detectable with an instrument called a capacitance bridge which measures a line's capacitance. (A tapped line will have a slightly greater capacitance than a normal line.) If a tap is indicated, the telephone, line and junction box should be physically inspected.

Inductive Tap: An inductive tap is not a physical, metal-to-metal connection. A coil of wire is concealed in the desk underneath the telephone set or inside the wall beside a wall telephone. The coil is then connected to the agent's tape recorder or earphones. The only way the inductive tap can be detected is by physical inspection or by a highly sensitive balanced bridge device permanently connected to the telephone line and monitored by security forces. Detection of an inductive tap is difficult at best.

Computer Bank Tap: In this age of hackers, home computers, and modems, few computer banks are safe from infiltration. Although security is now being tightened, bright, persistent computer operators and programmers continue to break codes and scan memory banks. The ubiquitous telephone seems to be the weak link in these break-ins. Some hackers have turned professional and help financial and other institutions to better protect their files. The United States armed forces employs tiger teams to attempt to break into military computer banks in order to improve computer security.

Surveillance Equipment (Miscellaneous)



Item Name	Weight	Cost (\$)
Walk-through Metal Detector	200	2000
Hand-held Metal Detector	8	750
Sonar	20	1500
Automobile Headlight Radar	5	2500
Hand-held, Continuous-wave Radar	4	1250
Spring-steel Vibrator Radar	12	25
Electrically Conductive (EC) Glass	1/square ft	10/square ft
Fingerprint Scan (Computer Security Device)	10	2000
Retinal Scan (Computer Security Device)	15	4000
Printed Circuit Shadow	1	\$20,000 plus 20 per transponder
Typewriter Ribbon Reconstruction	—	0
Soviet Spy Dust	—	25
U.S. Tracking Powder	—	15
Radioactive Trace Powder	1	100
Geiger counter	4	1000
U.S. Transmitter Antenna Umbrella	3	100

Walk-through Metal Detector: This device will detect the presence of even a small amount of metal — a roll of coins, a knife, even a bulky key chain or belt buckle will set off the detector. The walk-through detector, the kind seen in airports, is the size of a doorway and can detect metal that passes through it.

Hand-held Metal Detector: This device will detect the presence of an amount of metal as small as a single coin. The detector looks like a walkie-talkie, and detects metal up to 24" away.

Sonar: Sonar is the abbreviation for SOund NAvigation Ranging. The apparatus uses transmitted and reflected acoustic waves to detect and locate objects. This briefcase-sized device has an effective range of 1/2 mile in air or 2 miles if the transmitter and hydrophone are placed in water.

Automobile Headlight Radar: A doppler radar microphone can be installed in an automobile headlight. The radar can be aimed using the headlight for targets up to 500' away. With the headlight turn-

ed off, the unaimed radar signal travels up to 1 mile. The radar can be tuned in on the car radio.

Hand-held, Continuous-wave Radar: This portable device is easy to operate even at night. The set emits an audible tone into the agent's headphones. An easily and quickly trained agent can distinguish the difference in sound between a man and a woman, someone who is walking or running, a car and a truck, a dog, and a horse, even at a range of 900'.

Spring-steel Vibrator Radar: A highly sensitive continuous-wave radar set aimed at a U-shaped piece of metal fastened to a spring-steel vibrator can pick up conversations up to 300' away.

Electrically Conductive (EC) Glass: EC glass is a special leaded glass with a thin, transparent film of tin oxide on its surface. Highly sensitive continuous-wave radar is able to detect vibrations of the EC glass and convert them into intelligible speech. Metal foil placed on a window pane can be used the same way. In fact, conventional metal foil burglar alarm ribbon is ideal for this purpose.

Fingerprint Scan (Computer Security Device): This type of security device matches fingerprint ridges stored in the computer's memory. The device can be set to memorize a new set of prints, activate alarms, lock or unlock doors, or identify persons passing a security station.

Retinal Scan (Computer Security Device): This type of security device matches retinal patterns stored in the computer's memory. The device can be set to memorize a new set of patterns, activate alarms, lock or unlock doors or identify persons passing a security station.

Printed Circuit Shadow: This West German invention is composed of a miniaturized printed circuit with a normally dormant energy source. (This tiny chip is called a passive transponder.) The chip can be concealed in a business card. When struck by a special type of radar, the chip emits an identifying signal. Linked to a computer, the signal appears as a light on a transparent map of a city or countryside. The device is detectable at a range of 15 kilometers. One drawback is that the device can be left behind by the target being shadowed.

Passive transponders can be imbedded in the bodies of plastic guns to make them detectable. However, illegal plastic guns could also be manufactured without passive transponders.

The same type of device is also used for physical building security. Black panels, 9" square, conceal the chip reader. Anyone wishing to pass through a doorway into the building must pass the proper chip in front of the reader. The chip is imbedded in a plastic square the size of a credit card. The reader can even read the chip through a wallet or pocket. A computer linked to the reader activates the electromagnetic door lock and the card holders (and anyone else with them) can pass through. The computer can keep track of what cards are used, when they are used and can even limit access to certain persons during certain hours of the day. One drawback to the system is that if the door is left ajar, anyone can bypass the security.

The same type of technology has been used to produce credit cards with imbedded integrated circuits. Unfortunately, even these cards are now being duplicated.

Typewriter Ribbon Reconstruction: This is actually more of a method than a device. By removing a typewriter ribbon, its most recent use can be read. The problem with this technology is that inked-ribbon typewriters are becoming obsolete. New technologies to secretly read typewriter memories and computer disks are already being developed.

Soviet Spy Dust: Soviet spy dust is a powder which contains 5-(4-nitrophenyl)-2, 4-pentadienal (NPPD). NPPD has been proved to be a mutagen and possibly a carcinogen with a fairly low health risk. The use of Soviet spy dust has been known since the mid-1970s. In the Soviet Union, the powder was used to verify meetings between foreigners and Soviet citizens, among other purposes. NPPD is said to be very persistent and detectable in minute quantities with secret analytical methods. It is not known whether these include scanning for fluorescence under an ultraviolet light.

United States Tracking Powder: Tracking powder was designed as an aid to police surveillance. American banks and robbery detectives employ a similar method for marking and tracking stolen money. Zinc sulfide, a toxic substance, is used. Zinc sulfide glows when exposed to ultraviolet light.

Radioactive Trace Powder: This fine dust can be placed on the ground, on tires or on shoes, in order to trace something. It leaves a faint trail on the ground for 2d10x100 yards. Beyond that, it leaves no trail, but traces of the powder will remain on the marked character or vehicle.

Geiger Counter: This box-shaped device detects radioactive particles in the environment. It can detect radioactive trace powder, a nearby atomic weapon, a leak from a nuclear power plant, or any source of nuclear pollution.

United States Transmitter Antenna Umbrella: The spines of a raised and unfurled umbrella make an ideal antenna, especially for a transmitter in the handle of the umbrella.

Counter-surveillance Equipment (Detectors, etc.)

Item Name	Weight	Cost (\$)
Microlab/FXR Transistor Detector	5	18,000
Transmitter Locator/Verifier	20	900
Radio Frequency Detection System	15	18,000
Field Strength Meter	5	9000
Tape Recorder Detector	1	350
Electronic Counter-measures (Jammers)	12	250
Variable Magnetic Field Tape Eraser	10	1000/100 cubic ft
X-ray Film Fogger	10	2000/100 cubic ft
Telephone Scrambler	1	400
Telephone Tap Detector	4	50
Telephone Tap Analyzer	4 to 30	100 per line checked (25,000 max)

Microlab/FXR Transistor Detector: The Microlab/FXR transistor detector is a portable microwave transmitter containing non-linear junction detectors. The transistors used in most modern bugs are non-linear junctions. The transistors are detected even after the batteries powering the transmitter cease to work. The detector can locate bugs (both active and inactive) up to a range of 48". Unfortunately, the detector will not detect direct, metal-to-metal wiretapping devices on telephone wires.

Transmitter Locator/Verifier: This device is the size of a large suitcase and must be used with an antenna. When activated and homed onto a frequency, it will indicate the direction to the nearest transmitter using that frequency.

Radio Frequency Detection System: This built-in system of 18 bug detectors is linked to a control panel and monitoring station elsewhere in the building. Concealed, highly sensitive sensors detect transmitted signals; gauges on the control panel indicate the transmitter's location, whether it is stationary or being carried by someone.

Field Strength Meter: If a discreet search for hidden transmitters is required, a portable field strength meter can be used. The meter is concealed in a shoulder holster and the probe antenna is hidden in a coat sleeve. The meter indicates an active listening device at a range of 48" or less by swinging its meter needle when the bug is approached.

Tape Recorder Detector: This device measures 3 1/2" x 1 1/2" x 1 1/2" and is connected by a 24" wire to a 2 1/2" diameter detection coil. The detection coil will indicate the presence of a working tape recorder within 3' by flashing an alarm light, which will remain lit until switched off by the operator of the detector. The device also can be used to locate hidden working tape recorders by lighting a series of lights as the recorder is approached.

Electronic Counter-measures (Jammers): This briefcase-sized device broadcasts an interfering pattern of static over a circular area with a 150' radius. Electromagnetically transmitted or received messages within this area will be so badly garbled they cannot be understood. Line or cable-connected devices are not affected.

Variable Magnetic Field Tape Eraser: Iron oxide audio and videotapes are erased in a strong magnetic field. A built-in system can sweep an office several times a day to erase any tapes left behind. Erasing systems can also be installed in exit corridors to erase any tape being removed from the premises. A variable magnetic field will not affect photographic film or living organisms, but it may harm watches and sensitive electronic devices.

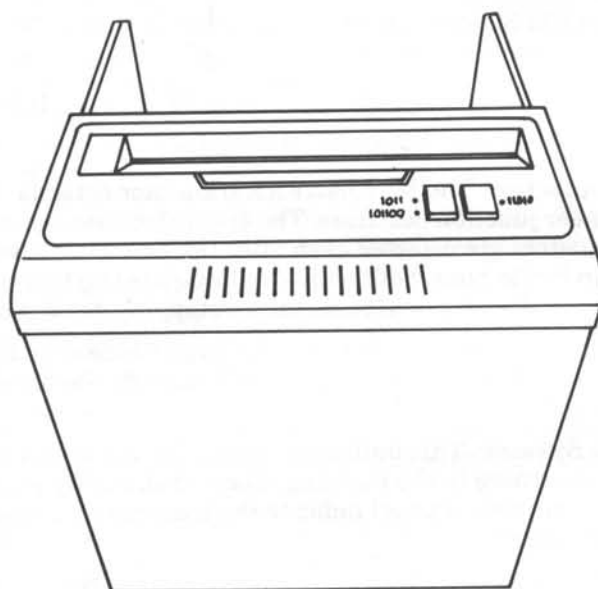
X-ray Film Fogger: This device exposes photographic film with X-rays. A built-in film fogger can be installed in entrance or exit corridors to expose any film being brought into or removed from the premises. Only a lead-lined camera or film carrier will prevent film fogging. An X-ray film fogger will not affect audio or videotapes, but it may harm living organisms and sensitive electronic devices.

Telephone Scrambler: A scrambler consists of a replacement earpiece and a replacement mouthpiece for any standard phone. When these are placed in phones on both ends of a conversation, the message is scrambled (as far as anyone tapping either phone is concerned) and unscrambled for the ears of the intended listener.

Telephone Tap Detector: This cigar box-sized device contains a signal light which is activated when an extension phone is lifted. The light also flashes when a transmitter or telephone bug is placed on the telephone line or in the telephone itself. The light stays lit until reset by the user. The telephone tap detector cannot be detected by a wiretapper.

Telephone Tap Analyzer: Tap analyzers range from the size of cigar boxes to suitcases. Within minutes after being connected to a telephone, a tap analyzer can locate and verify the presence of all telephone tap devices on any connected line out to 10 miles. The larger the device, the more tests it can perform and hence, the more the device will cost. When a tap is detected, a signal light comes on and a digital or printed readout indicates the location of the tap. A recorder can be activated to record the tapped conversations. Most tap analyzers cannot be detected by a wiretapper.

Counter-surveillance Equipment (Document Security Devices)



Item Name	Weight	Cost (\$)
Flash Paper	1	5
Edible Paper	1	4
Water Soluble Paper	2	3
Incendiary Document Destroyer	50/85/20	150
Paper Shredder	15	100
Document Photography Detector	5	1/page
Metered and Key-operated Copying Machines	1	40/20

Flash Paper: This chemically-treated, fast-burning, 8½" x11" white paper comes in pads of 50 sheets. An open flame or any temperature above 250 degrees Fahrenheit will destroy the paper instantly.

Edible Paper: This highly soluble, non-toxic paper comes in 3¼" x5" sheets, 100 sheets per pad.

Water Soluble Paper: This highly soluble 8" x11" white paper comes in 100-sheet pads. Water of any sort (rain, saliva) dissolves the paper immediately wherever it touches. This paper is not recommended for internal consumption.

Incendiary Document Destroyer: This device can be the size of a 30-gallon barrel, a 50-gallon barrel, or a 3.3-cubic foot locker. Each device can destroy 50, 120, and 20 pounds of paper, respectively. Each is lined with sodium nitrate and an incendiary starter mix which, when ignited, will destroy any paper inside the container in no more than 100 seconds. The device will destroy its contents even if it is sealed shut after ignition.

Paper Shredder: This table mounted, A.C.-powered shredder can process a single sheet of 8" x 11" paper in one second.

Document Photography Detector: This West German invention is more chemical than electronic. If a document marked with this device is photographed and then exposed to ultraviolet light, a bright spot will appear. Unfortunately, the device does not indicate if a document has been reproduced in any other way. No doubt this is being worked on. In France, photographing certain documents is the same as theft.

Metered and Key-Operated Copying Machines: These physical means of accounting for copying machine use are sufficient for most offices handling sensitive materials. Some copying machines contain belts or rollers which retain a series of images of what has recently been copied. Such parts should be removed before unauthorized service personnel attempt maintenance or repair of such devices.

Counter-surveillance Equipment (Miscellaneous)

Item Name	Weight	Cost (\$)
Electronic Voice Mask	8	300
Radar Absorbing Paint	7	75/gallon
Smoke Pots	5	25

Electronic Voice Mask: This device electronically transforms a person's normal telephone voice into something unrecognizable, while speech remains clear and undistorted. Closing a single switch makes the speaker's voice anonymous and defeats voice stress analyzers. A woman's voice becomes a man's, and a man's voice becomes something else. A single knob controls depth of voice. The knob is marked in five places so a modified voice used before can be re-created.

Radar Absorbing Paint: This paint is applied to military aircraft to reduce their chance of being detected by radar devices. It could be applied to ground or water vehicles for the same reason. Two gallons will cover an average automobile. All colors are available. Neutral gray and dark colors are recommended.

Smoke Pots: There are two types of smoke pots: floating and ground. Each emits either opaque black or white smoke covering an area of 10,000 cubic feet in 10 minutes. Without wind, the smoke screen dissipates in an additional 10 minutes.

Communication Equipment

Item Name	Weight	Cost (\$)
All-wave Radio	10	1000
Miniature Radio Transceiver	—	250
Radio Receiver	3	300
Written Message Transmitter	8	450
Panic Button/Hotline	4	100
Red Phone	4	10,000/junction box
Cheesebox	4	500
Walkie-talkie	1	50

All-wave Radio: This battery-powered device comes packaged in an attache case. It can send and receive messages for an unlimited range if the antenna is set up. Without the antenna, the radio's range is limited to 50 miles.

Miniature Radio Tranceiver: This device is about the size of a fountain pen and can send and receive messages. It has a range of 5 miles in an urban environment and 20 miles in a rural one. Notification of an incoming message can be via a beeper or slight vibration.

Radio Receiver: This device is about $\frac{1}{3}$ the size and weight of the all-wave radio. It can receive messages with the same range capability as the all-wave radio, but it cannot be used to send messages.

Written Message Transmitter: This device is similar to the electronic keyboard telephone, except it transmits handwritten messages and drawings over ordinary telephone lines. After dialing a selected number and placing the handset in a special coupler, the user writes or draws a picture on the working surface of the device. When the transmit button is pressed, the written message appears on a matching device at the receiving end of the telephone line. Audio eavesdropping is not possible, as no words are spoken. The handset can be lifted at any time for verbal communication. The system is virtually tap-proof unless the eavesdropper has a matching unit. Even this possibility can be countered by linking the transmitter to a scrambler.

Panic Button/Hotline: This intercom-style device instantly connects the caller with a predetermined location without dialing or operator assistance. It operates as an internal intercom system, but can be connected to the regular external telephone line and activated with a one-symbol code. The hotline can also be immediately connected to security or public address systems when called.

Red Phone: The famous Washington, D.C., red phones linking the offices of highly placed officials and employees are key security devices. No red phone has a dial or push buttons. To use a red phone you pick up the handset and talk to the specially cleared military operator. You then tell the operator the person you wish to reach and you are patched through. All telephone circuits are continuously monitored by balanced capacitance bridges which are recalibrated each time a new piece of equipment is added to the system. Telephone trunk cables are enclosed in airtight shields filled with dry air or nitrogen under pressure. If the trunk line is cut, the pressure drop is sensed by a leak detector. Specially trained security guards protect the junction boxes where these cables terminate in each building.

On highly secret telephone lines, the capacitance balanced telephone line is run on tri-coaxial cable. The center wire is surrounded by two woven metal braid flexible tubes separated by polystyrene. The center wire and innermost sheath carry the telephone message. The outside sheath carries a high-level electrical noise. This noisy outer sheath prevents wiretapping by induction.

Precautions used against wiretappers on the "hot line" connecting Washington, D.C. and Moscow are even more elaborate and secretive. Even the exact route of the direct line is sensitive information. Similar protective systems are employed by the military. Add the complexity of scrambling and burst telecommunications, and you have nearly impregnable communication defenses.

Cheesebox: A cheesebox is an electronic device linking two telephones. A cheesebox allows two people to call a telephone number known only to them and be connected via cheesebox at a prearranged time. If either call is traced, the trace leads to the cheesebox which can be rigged to disconnect both callers if someone enters the room in which the cheesebox is located.

Walkie-talkie: These devices, about twice as big as a pack of cigarettes, can be used for person-to-person communication within 1 mile ($\frac{1}{2}$ mile urban).

Physical Protection Equipment

Item Name	Weight	Cost (\$)
Explosive Vapor Bomb Detector	4	115
Nitrogen Bomb Detector	25	5000
Thermal Neutron Activation Bomb Detector	30	25,000
Dielectric Analysis Bomb Detector	25	50,000
Radio-controlled Bomb Sweep Detonator	6	8500
Bomb Suppression Wrap	2	175
Bomb Cover	18	350
Bulletproof Glass	1/square ft.	10/square ft.
Fire Bomb Detector and Suppressor	30	150
Burglar Alarm Switches	1	25

Item Name	Weight	Cost (\$)
Metal Ribbon	1/foot	1/foot
Trip Cord -	1/2 per ft.	1/2 per ft.
Acoustical Alarm	1	25/microphone
Acoustical Safe Alarm	1	25/microphone
Vibration Safe Alarm	1	35
Thermal Safe Alarm	1	45/thermo-couple
Barometric Safe Alarm	1	55
White Light Projection Electric Eye	5	25 plus 5 per reflector
Infrared Projection Electric Eye	5	35 plus 5 per reflector
Modulated Projection Electric Eye	5	45
Laser Electric Eye	8	150 plus 5 per reflector
Capacitance-type Perimeter Protection	1000/400'	150/400'
Ultrasonic Beam Projection	10	500
Ultrasonic Volume Projection	15	100/1000 cubic ft.
Bulletproof Shield Umbrella	5	300

Explosive Vapor Bomb Detector: This hand-held, gunlike device flashes a light when suspicious gases are detected. An audible alarm will sound if the vapor is explosive. Since explosives constantly emit traces of vapors, the device will detect at a maximum range of 3' in still air. The device operates on batteries with a life of up to 8 hours.

Nitrogen Bomb Detector: Chemiluminescence is the ability to excite certain molecules so they give off a glow that is detectable by a common photomultiplier. Nitrogen compounds, such as those that exist in explosives, can easily be made to glow. The problem with a nitrogen detector is that new non-nitrogen-based explosives, chlorates, are undetectable by such a device.

Thermal Neutron Activation Bomb Detector: A chemical analysis of a package is performed by a gas of low-energy neutrons, which causes the contents to emit gamma rays. These gamma rays are emitted with energies that are specific to the elements in the package. Thermal neutron activation will identify non-nitrogen-based explosives, such as chlorates. The problem is this high-energy method has a 50% chance of setting off explosives booby-trapped to explode when exposed to such procedures.

Dielectric Analysis Bomb Detector: All materials have dielectric properties, numbers that reflect their ability to store electrical charge and the ability to move the electrical charge. Differences in material can be identified by differences in their dielectric constants and conductivity. A machine with a library of dielectric properties of ordinary materials indicates extraordinary materials which should be inspected. Explosives, because of their basically unstable molecules and dispersion in inert materials, have fairly high dielectric constants. Such a device working with letters or luggage has 98% accuracy in detecting explosives and a false alarm rate of 2%. Dielectric analysis adds so little energy to any package being screened that most (95%) electronic booby traps will not be triggered.

Radio-controlled Bomb Sweep Detonator: This 2-cubic-foot device broadcasts on every radio frequency, detonating any radio-controlled bomb up to 1 kilometer away.

Bomb Suppression Wrap: This device is 18" with a diameter up to 24". It can be wrapped like a blanket around a briefcase-sized object. If a bomb explodes inside the wrap, its force will be directed primarily into the surrounding wrap and upward.

Bomb Cover: This thick, heavy, 6'x6' blanket can be used to contain an explosive force equivalent to 32 ounces of plastique.

Bulletproof Glass: This acrylic material is 1/4" thick and will stop a 9mm full-metal jacket bullet at a distance of 5'.

Fire Bomb Detector and Suppressor: This device can be installed inside a building, like a sprinkler system. Sensors are activated by the shock and heat of a pyrotechnic device exploding within 25'. With-

in 0.1 seconds of a fire blast, the activated sensors release copious amounts of CO₂ foam in order to smother any resulting flame within 25' of the sensor.

Burglar Alarm Switches: These simple devices complete an electrical circuit. They are placed on windows, doors, vaults, safes, and skylights. If the electrical circuit is broken, an alarm is actuated. One problem is that such simple systems can be bypassed with a short-circuit wire. If the system has a set capacitance (\$25 more), a short-circuit wire will not work.

Metal Ribbon: A metal ribbon applied to window, door, or skylight glass works the same as a burglar alarm switch. If the glass and metal ribbon are broken, the alarm is sounded. Sophisticated glass cutters allow the glass to be cut without tripping the alarm. The metal foil also makes an excellent reflective surface for laser beams to bounce off to eavesdrop on conversations behind the glass.

Trip Cord: Wire trip cords do not carry electrical current but activate alarms if stretched or broken. The problem is they are visible and might be avoided by careful, slow-moving intruders.

Acoustical Alarm: One microphone installed in each 9-square-foot area of floor, wall, or ceiling will trigger an alarm if anyone attacks the protected surface with an ax, hammer, or drill.

Acoustical Safe Alarm: One microphone installed in each 9-square-foot area of vault or safe floor, wall or ceiling will trigger an alarm if anyone attacks the vault or safe with an explosive, striking tool, or drill.

Vibration Safe Alarm: Similar to the acoustical alarm, a vibration switch will trigger an alarm if a vault or safe is moved, drilled, struck, or shaken by an explosion.

Thermal Safe Alarm: The interior of a vault may be cooled below the temperature of the outside air. If the vault is opened, the warmer outside air will trigger the thermal switch inside the vault. There may be a delay of up to 30 turns before the thermo-couple heats up.

Barometric Safe Alarm: A vault may be made airtight and the air pressure inside maintained at a higher level than the air outside. If the vault is opened, the air pressure inside drops immediately and a barometric alarm switch is actuated.

White Light Projection Electric Eye: An electric eye is actually a photoelectric cell which is wired to an electrical relay in an alarm circuit. A source of electromagnetic energy is projected at the electric eye. If the electromagnetic energy is interrupted, an alarm is activated. Visible white light can be reflected several times before striking a photocell. The total distance a focused white light can travel effectively is 500'. The photocell in a white light system can be fooled by an intruder shining a bright flashlight at the photocell while the beam is being broken.

Infrared Projection Electric Eye: Invisible infrared beams can be reflected several times before striking a photocell. The total distance the infrared light can travel effectively is 500'.

Modulated Projection Electric Eye: White light or infrared beams can be modulated or chopped at a rate of 500 to 1500 cycles per second. A rotating disk or strobe light will do this. A photocell synchronized to such a modulation cannot be easily fooled by a heat source or flashlight beam. A would-be intruder would have to chop the deceptive beam at exactly the same rate. A modulated beam can also be reflected and cast a total of 1000'.

Laser Electric Eye: Laser beams are ideal for electric eye projection systems because they spread out very little and can be cast up to 5000'. Laser beams can be reflected many times to blanket an area with a fine network of invisible beams. The beams can be made visible by using a fine mist or dust cloud.

Capacitance-type Perimeter Protection: A three-wire fence is erected, supported by stakes spaced 25' apart. Two wires are strung 18" above the ground and a third 48" above the ground. At corners or critical areas, a radio frequency oscillator energizes the fence wires for 200' on either side. The fence completes a tuned circuit. If an intruder (including a rabbit or tree limb) approaches within 36" of the fence, there is a change in the fence's capacitance, which in turn causes a sharp increase in current which actuates an alarm.

Ultrasonic Beam Projection: An ultrasonic signal which is too high in frequency for the human ear to detect can be sharply focused from one magnetostrictive transducer onto another. If this beam, which cannot be easily reflected, is interrupted by an intruder, a signal can be actuated. Ultrasonic beams of this type must be cast in a straight line up to 500'.

Ultrasonic Volume Projection: A volume of up to 20,000 cubic feet may be filled with ultrasonic energy. When an intruder moves into the protected space, ultrasonic energy is reflected to a second transducer. Any change in the set signal actuates an alarm. The same ultrasonic alarm system can also detect flame or smoke.

Bulletproof Shield Umbrella: Treat this the same as bulletproof glass, except it is not transparent.

Unusual (Uncommon or Illegal) Equipment

Item Name	Weight	Cost (\$)
Abrasive Oil Contaminant	—	15
Invisible Ink	1	1
Holographic Projector	50	10,000
Jelly Bearings	—	1
Grain Taggants	10	1 per ton of grain
Explosives Taggants	0.1 % of weight of explosive	1% of value of explosive
Paper Taggants	10	100 per ton
Portable Telescopic Ladder	12	250 (metal) 350 (plastic)
Radiation Projectors and Detectors	variable	variable
Radar Detector	2	100
Vertical Beam Transmitter	35	3500
Watch Crystal Magnifying Glass	1	20
Truth Drugs	—	100 per dose
Undetectable Chemicals and Bacteria	—	100 to 10,000

Abrasive Oil Contaminant: This oil contaminant is used to sabotage bearings, rings, and sleeves in internal combustion engines and oil-lubricated machines.

Invisible Ink: This common material becomes invisible when it dries. When treated to appear, either with another chemical or heat, it becomes permanently visible.

Holographic Projector: This holographic projector has three special clear glass reflectors each 10 feet square. The projector is set up to shine through a hole in the fourth opaque wall that makes up the cube. Nearly any three dimensional object can be photographed and projected into the cube including moving objects.

Jelly Bearings: These gel encapsulated lubricants burst when stepped on, releasing a clear, low viscosity, slippery liquid. Ten capsules can be held in one hand and should be spread randomly 2 per square foot for maximum efficiency. It has been discovered that persons wearing spike heels or running are less likely to step on a capsule. On average one person will fall per 2 capsules per square foot.

Grain Taggants: Small shreds of colored paper are mixed into government-owned grain to prevent thieves from selling the grain as their own. The tiny shreds are digestible and biodegradable so the value of the grain is not altered.

Explosives Taggants: Micro-tagants are tiny chips of melamine plastic resin laminates 10 layers thick measuring .8 millimeters which can be added to explosives during manufacture. The top and bottom layers are magnetic and florescent to aid location and recovery after an explosion. The other eight layers are different colors and can be arranged in a multitude of combinations. Each of the millions of color combinations is a code which can be used to trace the source of the explosive. Not only can large amounts of water gelatin explosives used in demolition, quarrying, and road construction be tagged, but so can individual self-loaded bullets. By knowing the source of an explosive, its user might in turn be identified. Terrorist bombings might be decreased by deterrence. Switzerland has required explosive tagging since July 1980. Great Britain, Turkey, West Germany, and the United States have explored the possibility of tagging all explosives with variable legal and technological success.

Paper Taggants: Paper used in printed currency and some special documents contains colored fibers. In the United States, these tiny fibers look like red and blue lint beneath the green and black ink. These fibers are introduced during the paper manufacture to reduce the chances of counterfeiting by increasing the difficulty. Specially marked paper is guarded as if it were already printed money.

Portable Telescopic Ladder: This climbing pole in its collapsed state measures 3' long and 4" in diameter. As the pole telescopes to its full length of 12', short pegs fold out to provide footholds. It takes 6 turns to extend the ladder and another 6 turns to fold out the climbing pegs. It takes twice as long to

retract and fold the ladder back to its original size.

Radiation Projectors and Detectors: Some of these widely varying devices are on the leading edge of technology. Visible electromagnetic radiation and radio waves are the most common, easiest to project and detect, and least expensive. Other electromagnetic radiations such as X-rays, gamma rays, alpha particles, and beta particles are rare, difficult to project or detect, and very expensive. Suitable radiation projectors and detectors will be issued dependent upon mission needs. A few common projectors include flashlights, radar guns (vehicle speed detecting device), shortwave radios, walkie-talkies, infrared remote TV/VCR controls, and radio remote controls for model plane, or boats.

Radar Detector: These hand-sized devices are popular in the United States for detecting radars used by law enforcement officers to catch speeding motorists. Mounted to a dashboard or clipped to a visor, these detectors beep and/or flash when radar beams are detected.

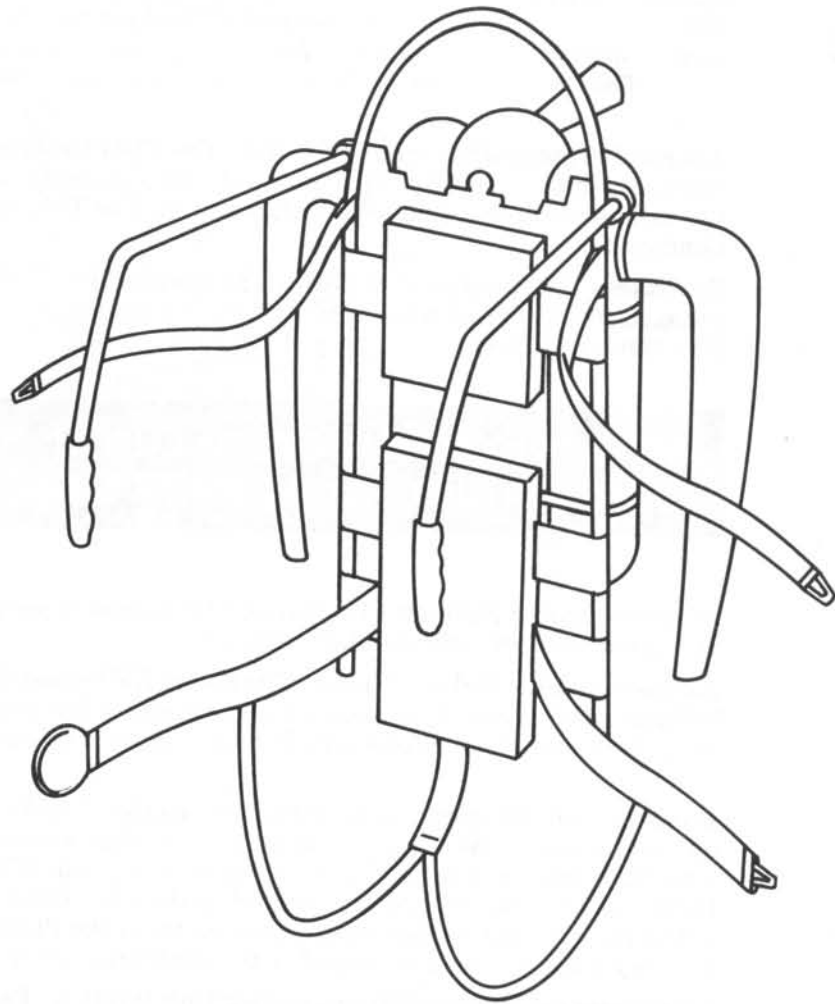
Vertical Beam Transmitter: This West German electronic device transmits an infrared laser undetectable from the ground at a satellite traveling overhead. A message can then be beamed to an exact spot on earth without anyone on the ground able to detect or intercept the communication.

Watch Crystal Magnifying Glass: This simple device swivels or hinges away from the clock face to become a 5x power magnifying lens.

Truth Drugs: A character given a dose of truth drugs has his or her WIL score halved for purposes of resisting questioning. Whenever a full WIL check is called for, roll a $\frac{1}{2}$ WIL check; when a $\frac{1}{2}$ WIL check is called for, roll a $\frac{1}{4}$ WIL check. A Bad Break means the character loses consciousness for 2d6 hours.

Undetectable Chemicals and Bacteria: These harmful chemicals and bacteria can induce anything from a mild headache to a hallucination. They can be transmitted to the victim in a variety of ways including an ordinary letter. One problem is limiting their effect. Each person's metabolism and body defensive mechanisms are different. Dosage is also difficult to regulate when secretly supplying a self-administered chemical.

2. *Space Equipment*



NASA Experimental Lunar Extra-vehicular Activity Suit (ELEVA)

Extra-vehicular Helmet: This EVA helmet is bulletproof and protects against high-speed projectiles and hand-to-hand blows. The auxiliary antenna serves as a backup for the main radio link atop the PLSS (see below). The EVA helmet also contains a liquid refreshment dispenser and an abrasive/absorbent "nose scratcher."

Extra-vehicular Helmet Visor: The EVA Helmet Visor assembly supports two heat-reflective visors optically coated against specific radiations, especially ultraviolet. The face-plate is bulletproof and protects against micrometeoroids. It is also light sensitive and darkens instantaneously in the presence of intense illumination. This photosensitive device was developed for aircraft pilots to protect their vision from being blinded by nuclear blasts. The face plate lightens as the illumination fades.

Portable Life Support System (PLSS): The PLSS backpack is permanently attached to the upper torso of the extra-vehicular mobility unit (EMU) and connects to the modified EVA helmet via an oxygen purge system umbilical. The communications antenna serves as the primary radio link. The PLSS is controlled by a chest-mounted display and control module.

Liquid Cooling and Ventilation Garment: Beneath the suit is a one piece mesh cooling and ventilation garment. Cool water from the PLSS circulates through plastic tubing woven into the mesh to remove excess body heat. Air ducts attached to the garment provide ventilation to the limbs.

Experimental Lunar Manned Maneuvering Unit (ELMMU): The detachable ELMMU is mounted below the PLSS backpack and connects via cable umbilicals to propellant nozzles worn around the ankles. The ELMMU reportedly has a lift capacity of 200 pounds (33.3 on the moon) and an operational lifetime of 20 hours. It has a velocity of 150 feet per turn and a maximum speed of 20 mph just above level ground. Used sparingly, the device has a maximum range of 28.7 miles and can climb 90-degree slopes. The flight controls can be held in one hand and allow straight line motion along the X, Y, and Z axes.

Thermal Meteoroid Garment (TMG): The TMG has four more layers than the standard EMU suit. Together with the liquid cooling and ventilation garment, a damage-reducing barrier is formed. Projectile and hand-to-hand damage is reduced by 1/2. The TMG is temperature resistant from 0-800 degrees Centigrade.

Recoilless Uzi Submachine Gun: The modified Uzi SMG has an enlarged trigger guard and a gas-engaged recoil damper which slides its mass against the weapon's recoil, reducing the chance of the firer tumbling backward.

Soviet Experimental Lunar Extra-vehicular Activity Suit

Extra-vehicular Helmet: The Soviet EVA helmet is designed along the same lines as NASA's. The Soviet version lacks the auxiliary antenna.

Extra-vehicular Helmet Visor: The Soviet EV helmet duplicates NASA's model, except an opaque, bulletproof blast shield replaces the photosensitive face plate. The blast shield must be positioned manually. Although vision is obscured during use, the blast shield doubles the face plate's bulletproof quality.

Portable Life Support System (PLSS): Unlike NASA's PLSS, the Soviet version is detachable and has ventilation tubes built into the suit rather than a cooling garment. The PLSS ventilation tube umbilicals stretch from the PLSS to connect to the side of the suit under the cosmonaut's arm. The PLSS controls and monitors are located on the suit's chest protector. An omni-directional antenna with a flashing red light locator is positioned on top of the PLSS. The rotating light can be turned on by the wearer for use as a distress signal or to identify the wearer as a cosmonaut.

Experimental Manned Maneuvering Unit (MMU): The Soviet MMU is mounted behind and below

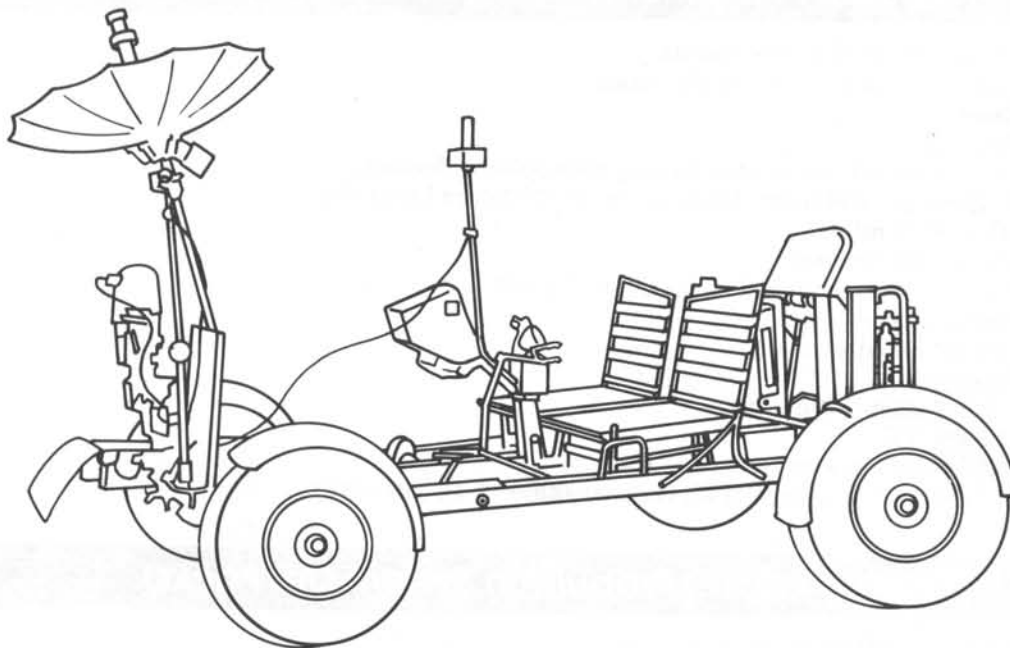
the PLSS. The detachable unit is used on the lunar surface and in the weightless environment of space. Equipment specifications and movement statistics are similar to NASA's MMU and ELMMU. The Soviet device's flight controls are located on the suit's chest protector and allow straight line motion in lunar gravity. In weightless conditions, the orientation controls allow for pitch, roll, and yaw.

Extra-vehicular Activity Overshoes: These reinforced foot coverings protect against punctures and have 33 insulating layers of materials which protect against temperatures from 120 degrees to negative 120 degrees Centigrade.

Chest Protector: This bulletproof vest doubles as a display and control carrier for the PLSS and MMU. The chest protector is useless against explosives and always reduces the wearer's REF, MOV, and DEX by 5%.

Bulletproof Shield: This opaque hand-held device has a bulletproof glass window. Mounted through the shield is a recoilless rifle with a modified scope attached. The gas-engaged recoil damper reduces the chance of tumbling backward when the weapon is fired. The scope's wide-angle eyepiece lens allows the gun to be used with a space helmet. The shield reduces the holder's REF, MOV, and DEX by 30%. Attaching or detaching either the recoilless rifle or scope from the shield takes 3 combat turns. Attaching or detaching both takes five turns.

Recoilless Missile Launcher: This recoilless missile launcher sports a laser sight with a modified wide-angle eyepiece for use with a space helmet. Laser sights in clear atmospheres and vacuums improve the accuracy of a telescopic sight so that a prepared shot taken with one has a +40 modifier, as long as the player takes 2 turns sighting in on the target. The red pinpoint of light from a laser sight can be seen on the target at the aiming point of the weapon. This device can be used to intimidate would-be aggressors, since their attention can be drawn to the fact a particular part of their body is being aimed at. Where the laser light hits, the bullet will strike!



Lunar Vehicles

NASA Lunar Roving Vehicle (Moon Buggy)

Weight: 462 pounds (77 on the moon).
Storage capacity: 182 pounds (30 on the moon).
Drive: 4-wheel.
Steering: 4-wheel.
Power sources: 2 36-volt silver-zinc batteries.
Operational lifetime: 78 hours during lunar day.
Range: 92km (57.5 miles).
Climbable slope: 25 degrees.
Maximum speed: 16km/hour (10 mph) on level ground.
Velocity: 75 feet/turn.
Wheels: Wire mesh.
Fenders: Fiberglas.
Antennae: 1 low-gain, 1 high-gain.
Cameras: 1 16mm, 1 color TV.
Seating: 2 200-pound passengers in spacesuits with under seat bag stowage.
Number available: Armstrong Base (1-6), Shepard Base (1-4).

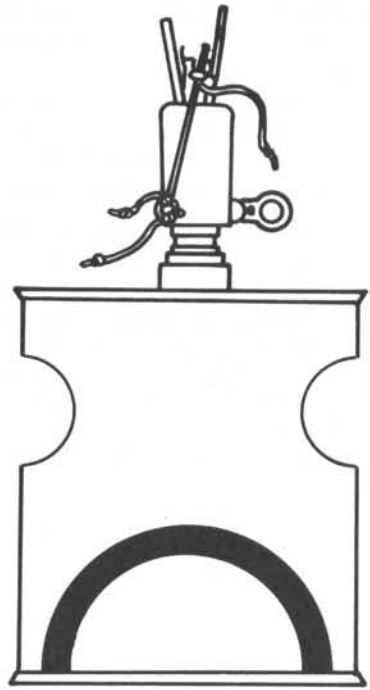
Soviet Individual Personnel Carrier (Go-Cart)

Weight: 231 pounds (38.5 on the moon).
Storage capacity: 90 pounds (15 on the moon).
Drive: 4-wheel.
Steering: 2-wheel.
Power sources: 1 36-volt silver-zinc battery plus solar collectors.
Operational lifetime: 156 hours lunar night or 355 hours lunar day.
Range: 184km (83.6 miles).
Climbable slope: 30 degrees.
Maximum speed: 32km/hour (20 mph) on level ground.
Velocity: 150 feet/turn.
Wheels: 4 oversized wire mesh.
Fenders: Fiberglas.
Antennae: 1 low-gain, 1 high-gain.
Cameras: 1 color TV.
Seating: 1 200-pound passenger in spacesuit.
Number available: Soyuzskaya (1-2), Gagarinskaya (1-4), Titovskaya (1-6).

NASA Individual Rocket Propulsion System (Jet Packs)

Weight: 115.5 pounds (19.25 on the moon).
Lift capacity: 200 pounds (33.3 on the moon).
Propulsion: Ignited gases.
Flight controls: Right hand — Orientation (pitch, roll, and yaw); Left hand — Straight line motion (X-, Y-, and Z-axes)
Power sources: 1 18-volt silver-zinc battery.
Operational lifetime: 39 hours.
Range: 92km (57.5 miles).
Climbable Slope: 90 degrees.
Altitude: 2000 meters (6540 ').
Maximum speed: 64km/hour (40 mph) just above ground level.
Velocity: 300 feet/turn.
Antennae: 1 low-gain, 1 high-gain.
Number available: Armstrong Base (1-4), Shepard Base (1-2).

3. On the Drawing Board



These processes and devices represent the leading edge of today's technology. This makes these hypothetical cases of great interest to rival industries and governments. These devices may be the targets of industrial, scientific, or strategic espionage. Information on any of these ideas, inventions, or processes is of great interest to various agencies, and the unauthorized possession of such valuable or sensitive information may be a capital offense. Whether any of these devices exist in a *Top Secret/S.I.*™ campaign is the choice of the Administrator. Whether they actually exist in the real world is a question for real intelligence agencies.

Prices listed are possible maximum dollar values for one working model or prototype of the device or process if a buyer can be found. The first value is what the item is worth on the open market to the agent's home organization, a legitimate government, or a related industry. The second value, following the slash, is the possible value of such a device on the "black" or "illegal" market to enemy nations, criminals, opportunists, or industries not interested in competition from the new technology.

Industrial Processes and Inventions

Stealing the secrets to some of the newest technological breakthroughs would save rival corporations many years and much money in research and development. For a fraction of the cost and time, some corporations resort to bugging, phone tapping, and bribing competitors in order to gain the desired information.

Regaining lost arts would be extremely valuable to some modern industries. Such information, perhaps worthless by itself, might help answer modern scientific questions on related subjects. Some alchemists claimed to be able to produce items and perform processes which cannot be reproduced by today's science. Unraveling their well-guarded secrets might provide modern scientists with new understanding of the laws of physics and chemistry.

Hyperacids (\$10,000/\$1,000,000): A hyperacid is a chemical solution which is so powerful an oxidizing agent that it will burn through any substance. The major problem with creating such a substance is that it could not be contained and would melt its way to the center of the earth. One theory for containing a hyperacid would be to place it in a "magnetic jar" floating in a powerful magnetic field. Plasma research may create this fourth state of matter.

Crystal Marking (\$3,000/\$300,000): Precious stones, such as diamonds, can be microscopically marked by a laser which slightly alters a few crystals that make up the gem. Marked gems appear normal to the naked eye but can contain any graphic symbol visible only with a microscope. Crystal marked gemstones could then be traced if stolen, even if cut into smaller stones and polished.

Computer Hardware and Software (\$100,000/\$10,000,000): The latest computer technology is high on the list of industrial secrets to be stolen by rival companies and nations. Microchips, diodes, and entire computer systems are worth more than their weight in gold. In the United States the CIA, DIA, FBI, Customs Service, and Postal Service set up a "Critical Technology Task Force" to identify potential hardware and programming targets. The CIA and DIA are in charge of making sure that computer products requested by foreign companies are not being used for military purposes. Ironically, the task force uses computerized information banks to identify the targets of foreign industrial espionage. Wouldn't such a list be worth something to an unscrupulous hacker with foreign connections?

Genetic Engineering (\$10,000,000/\$1,000,000,000): Other than the creation of life itself, genetic engineering could be used to alter existing life forms. Living cells could be altered before development. Microbes, plants, animals, and people could be designed and grown to the manufacturer's specifications. Designer genes bearing the mark of a genetic engineer could make synthetically produced life forms traceable. Imagine the surprise of a scientist using a microscope to examine some living tissue and seeing the trademark of a bioengineer.

Hermetic Sealing (\$100,000/\$10,000,000): Hermetic sealing is a process of completely sealing a container against the escape or entry, even at the highest temperature, of any material or gas.

Food Preservation (\$100,000/\$10,000,000): The development of a process for preserving food indefinitely without freezing would be worth much to the starving world.

Rustproof Iron (\$30,000/\$3,000,000): It is believed that 100% pure iron would be more rustproof than gold. It may even be able to withstand aqua regia, a mixture of hydrochloric and nitric acids, capable of dissolving gold and platinum.

Super-sharp Steel (\$15,000/\$1,500,000): Along with the creation of rust-free iron, alchemists sought to produce super-sharp steel blades which could cut through a slab of cold steel. Perhaps the secret of such a blade relied on the correct combination of catalysts, foreign matter, magnetism, and factors unknown today.

Cold Light (\$50,000/\$5,000,000): The production of a heatless, perpetual, white light would be valuable for security and many other purposes. So far, electrophotoluminescence has only produced a dim, green glow which fades.

Incandescent Stone (\$25,000/\$2,500,000): This lost invention, used as the setting for a ring, produced enough heat to light a pipe. Such a feat would be impossible even with radioactive materials.

Greek Fire (\$1,000/\$10,000): The formula for this ancient mixture included some petroleum derivative, sulphur, and pine resin. The exact ingredients, proportions, and combination process wait to be rediscovered. Will it be the new homemade napalm in the next brush-fire war?

Purification of Diamonds (\$30,000/\$3,000,000): If the imperfections which discolor a diamond could be removed, the value of the diamond would increase. Bombarding the crystal with neutrons might do the trick. Where would alchemists have gotten a particle accelerator?

Making Gold (\$20,000,000/\$2,000,000,000): The transmutation of elements has only been recently attempted with atomic bombardment. If thallium were to lose an alpha particle, composed of two protons and two neutrons, it would become gold. The secret of making gold has been the target of espionage since before the age of alchemists. Some alchemists claimed to have perfected the process.

Transmutation Element (Philosopher's Stone) (\$200,000,000/\$20,000,000,000): Does a material exist which can change one element into another? Atomic bombardment by particle accelerator is the closest technology we have to that reportedly used by the alchemists. Was Philosopher's Stone an alloy of radioactives, thallium, antimony, or some other rare earth? Was it a ruby-colored glass or magnetic lodestone? Perhaps we will rediscover it.

Smelting of Quartz (\$20,000/\$2,000,000): This lost technology was first patented in 1659. The process involved melting rock crystal for making vases and glass for mirrors. Quartz stops ultraviolet radiation and can be used to contain powerful acids.

Flexible Glass (\$40,000/\$4,000,000): This invention is lost to us in antiquity. Perhaps the new research in non-carbon-based polymers will bring it back to us.

Oil Paint Colors (\$50,000/\$5,000,000): There were paint colors mixed by master artists that cannot be duplicated today. A skilled chemist teamed with a talented painter could restore or copy valuable originals.

Silk and Wool Dye Processes (\$100,000/\$10,000,000): There are ancient silk and wool dye processes we cannot re-create nowadays. Perhaps by rediscovering the process we could revitalize those industries in silk- and wool-producing countries.

Ink Copying (\$1,000/\$100,000): This lost process uses some medium that changes color on contact with the ink on a page, producing an exact copy which fades in a few hours.

Scientific Ideas (General Interest)

These scientific ideas are divided into two groups. The first group consists of hypothetical possibilities generally known to all scientific and military circles. Any nation or corporation may be sponsoring current research on these projects. This research may or may not be performed in secret. The other group consists of technologies being pursued by particular countries.

Intermediate Explosive (\$30,000/\$300,000): An intermediate explosive is one more powerful than a chemical explosive, but less powerful than a nuclear one. The fear is that such a weapon would fall into the hands of a terrorist or urban guerrilla who by design or accident would destroy an entire building or neighborhood. If the intermediate explosive released light instead of destructive shock waves, it would be called a chemical laser. Electrical intermediate explosives are also possibilities.

Field of Force (\$500,000/\$50,000,000): A field of force which would convert all insulators into conductors and vice versa would prevent all electrical devices from working.

Parity Inverter (\$1,000,000/\$100,000,000): The operation and results of this theoretical weapon are only understood by a handful of mathematical physicists. Some have suggested that if the weapon was targeted against a computer, which contains a "parity bit," the "parity bit" could be lost, or the computer's parity reversed, both resulting in computer failure.

Antipetroleum Microbe (\$300,000/\$30,000,000): Microbes are being grown, altered, and patented to do a wide variety of tasks. Imagine a microbe capable of turning all petroleum-based products, from fuels to lubricants, into gases. Without the proper antiseptic, a modern mobile army would be stopped dead in its tracks, except for missiles. Oil-producing nations could be held for ransom and the price of oil increased through shortages.

Catalyst C (\$150,000/\$15,000,000): This theoretical catalyst causes non-living cellulose to combine with atmospheric oxygen at room temperature. Paper products, lumber, and cardboard containers would crumble into worthless powder. Could a counter-agent be found in time to prevent the loss of documents, records, maps, money, books, construction, and fast-food cartons?

Water Gel (\$75,000/\$7,500,000): Imagine alginates or cellulose derivatives used to turn water into a sluggish sticky mixture. If water were jelled in a river, flooding could be caused upstream and water shortages downstream. Man-made canals and narrow straits could be made impassable. Reservoirs and aquifers could be made undrinkable. The defense against such a simply concocted device is uncertain.

H-bomb Lightning Rod (\$5,000,000/\$500,000,000): This theoretical device channels the high level of energy produced by an atomic explosion into a four-dimensional ocean of negative energy beneath our three-dimensional level of existence. For simplicity, the closest parallel we have to explain this phenomenon is when the energy of lightning follows a metal lightning rod into the ground.

Invisibility (\$2,000,000/\$200,000,000): If the photon could be broken into its parts on one side of a barrier and then reconstructed on the other side, an object could be made invisible to both the naked eye and radar.

Daser Effect (\$10,000/\$1,000,000): Daser stands for Darkness Amplification by Stimulated Emission of Radiation, the opposite of a laser. The effect observed in space could be reproduced here on earth. Total darkness, which no natural or artificial source of light could penetrate, would be a terrifying weapon easily put to military use.

Scientific Sociology (\$300,000/\$30,000,000): Sociology is not an exact science because human behavior cannot be predicted mathematically. There are too many variables involved. Propaganda, education, indoctrination, advertising, philosophy, and religion can all be used to attempt to alter human behavior, but none can produce predictable results. If a mathematical instrument could be developed to accurately measure and verify human reactions, human groups could be experimentally manipulated. Someone using such a method could artificially produce war or peace between two groups or among many. Such a formula could become a formidable weapon.

Subfascination (\$1,000/\$10,000): Subfascination is the technical term for projecting subliminal light frequencies on a screen which reinforce the effect of a film. The brain is affected directly via the optic nerve without the viewer realizing he or she is being brainwashed. Subliminal suggestion in motion pictures is reportedly illegal in the United States due to its possible abuse by advertisers.

Artificial Nose (\$5,000/\$50,000): This electronic device smells as efficiently as a natural nose does. It can be used beneficially to detect gas leaks, smoke, and explosives containing nitrates. It has been used to detect jungle fighters in Vietnam. It could be used for tracking, locating lost persons, and detecting smuggled drugs. Work continues on giving weapons sniffers guidance systems which aim at human targets. Many other industrial and military uses can no doubt be developed.

Delta Transmitter (\$50,000/\$5,000,000): It is theoretically possible to produce a transmitter whose signals could be received at only one point in the world. Such a device could not be jammed or detected, and any missiles guided by the beam could not be obstructed. Missiles could automatically home in on pre-placed transmitters with extreme accuracy.

Economic Saltwater Desalination (\$300,000/\$30,000,000): If an economical method of removing salt from seawater could be found, desert states bordered by oceans would have fresh water. Arid parts of

the world could become major food producers, reducing the need for food imports and increasing the value of the land itself through food exports.

Economic Solar Energy Harnessing (\$400,000/\$40,000,000): If an economic method of producing electricity from solar energy could be found, equatorial countries could become energy exporters. Space-based solar energy collectors could provide a new source of cheap energy to the nations that build them. The need for air polluting fossil fuels would be reduced, and so would their prices.

United States Scientific Ideas

Electrical Behavior Modification (\$200,000/\$20,000,000): It has been theorized that the mental capabilities of a group of people in a part of the world could be modified through exposure to electrical oscillation fields. The fields which reduce cerebral activity could be produced by artificial lightning or by causing lightning to strike over a geographical region for an extended period of time. The result of such behavior modification would be a part of the world with artificially retarded or deranged people.

Incapacitating Drug (\$2,000/\$20,000,000): The best known incapacitating drug is BZ gas. BZ gas causes hallucinations, vertigo, and sometimes insanity. Anyone exposed to BZ gas sits and drools unless disturbed by someone and then they may attack that person viciously. Incapacitating drugs are not designed to kill, though an overdose may be fatal. Most such weapons are produced as aerosols. The active ingredient is dissolved in a liquid which can be sprayed in tiny droplets.

Toxic Chemicals (\$100/\$10,000): The efficiency of a toxic chemical is measured by LD, or lethal dose coefficient. The LD of the gas sarin, developed during World War II by the Germans along with tabun and soman, is $\frac{1}{30}$ that of phosgene. Two to 4 milligrams of sarin, per liter of air, or one whiff, is lethal to an adult. The lethal dose is .01 milligram of sarin for each kilogram a person weighs. The average adult would die after exposure to .7 milligrams.

Other toxic materials have far greater LDs. Plant poisons are deadlier than those from animals such as fish and snakes. Microbes such as botulism can also be extremely lethal to large numbers of people. The method of delivering such poisons is usually through the air, although drinking water can also be a vector. By mixing poisons with other common chemicals, the toxins can be absorbed through the skin.

Rationality-loss Drugs (\$4,000/\$400,000): Chemicals which alter the amount of monoamine oxidase, a chemical in the human brain, cause hallucinations. The result of these hallucinations is a loss of rationality. Unlike an incapacitating drug which causes a trance or inactive state, rationality-loss drugs produce unpredictable activity. As with any drug, an overdose can be lethal, and no two persons may react the same.

Immunological Substances (\$40,000/\$4,000,000): An immunological substance reduces the body's ability to fight infection. By reducing this natural immunity, a microbe, even the common cold virus, could cause death. Artificially produced Acquired Immune Deficiency Syndrome (AIDS) would be a frighteningly effective biochemical warfare weapon.

Vulnerability Viruses (\$20,000/\$2,000,000): A vulnerability virus could be engineered that would make people vulnerable to a common substance in the environment. Imagine persons infected with the virus not knowing that exposure to the chlorine in city drinking water makes them sick. Such a virus could also cause a common substance such as carbon dioxide to be toxic. Antidotes to such viruses could also be manufactured and used by blackmailers to enrich themselves or gain control of a country.

Anti-nerve Gas Serum (\$5,000/\$500,000): It has been reported that the lowly horned toad is immune to nerve gases. Perhaps an anti-nerve serum could be produced from the horned toad's body. Tetanus serum is derived from infected horses who have survived. Snake anti-venoms are produced from the venoms of the snakes themselves. Antidotes to many artificially produced biological weapons would be more valuable than the weapons themselves.

Telepathic Communication (\$1,000,000/\$100,000,000): Imagine the value of being able to communicate from behind enemy lines, in a submarine or in a spacecraft without telltale radio waves to betray your position. Studies in parapsychology might reveal these and other exciting possibilities. The United States Navy may have done research on communication between a sub and the surface. Telepathic experiments have been conducted in space. The Soviets are very interested in parapsychological research including telepathy.

Ultra-powerful Electric Condensers (\$100,000/\$10,000,000): Extremely powerful electric condensers can be used as detonators for H-bombs. Strong, focused electrostatic charges could shoot down missiles or produce personal ray guns to zap enemies. Powerful jammers could interfere with the electronic controls aboard missiles and bombers. Ultra-powerful and ultra-lightweight electrical condensers could be used for long-distance underwater photography. Shock waves could be produced which could kill underwater at a distance.

New Opium Derivatives (\$50,000K/\$50,000,000): New opium derivatives may be produced that cure addiction without painful side effects. The same research may produce a derivative so strong it causes incurable addiction with one use, not unlike crack or rock cocaine.

Anti-poppy Virus (\$500,000/\$500,000,000): Thanks to bacteriological research, viruses can be tailored to affect particular species. Such a virus could be used to attack and destroy the Old World poppy plant. Since morphine can now be synthetically produced, the cultivation of the plant is no longer necessary for medicinal purposes.

Gravitational Implosion (\$5,000,000/\$500,000,000): We know from astronomical observation that tremendous amounts of energy are released by implosion when the matter in a gravitational field is condensed a certain amount. The more matter that is condensed, the stronger the gravitational field becomes. If such a field of gravitational condensation could be artificially produced, small amounts of matter would produce enormous amounts of energy. Either a weapon or a power plant could be created with such technology.

Project Mirror (\$400,000/\$40,000,000): A plastic film coated with reflective material could be placed in earth orbit. Without wind or gravity, such a mirror could be unfurled without a firm support. Sunlight bouncing off the orbiting mirror could eliminate nighttime darkness over a city or a battlefield. Project Mirror was dropped by the United States Air Force during the Vietnam War. With the Space Shuttle and interest in economic solar energy production, Project Mirror is back on the drawing board.

Soviet Union Scientific Ideas

Time Energy Harness (\$100,000,000/\$10,000,000,000): Soviet astronomer N.A. Kozyrev has theorized that the passage of time can be harnessed and used as an energy source. The first stages of building such a machine are already under way.

Plasmas (\$10,000,000/\$100,000,000): Through research with plasmas, at least two devices have been theorized. Directionalized thunderbolts used as anti-aircraft weapons could instantaneously knock aircraft out of the sky. Artificial suns could be produced using controlled thermonuclear reactions to produce tropical weather conditions in temperate or arctic parts of the globe.

Synthetic Sugar (\$500,000/\$50,000,000): Imagine turning carbon acid gas, water, and nitrogen into fats and sugars by electronic or nuclear bombardment. Some theorize that such a process already exists and the only reason the Soviets have not revealed it is because such a discovery would destroy the Cuban economy and probably cause an anti-Communist revolution.

Crude Oil Ionization (\$150,000/\$15,000,000): By giving oil an electrical charge, it can be steered by attracting electrodes. Instead of moving oil by tanker or pipeline, streams of oil could be directed from the well to the refinery without a container.

Super-heavy Water (\$75,000/\$7,500,000): Super-heavy water is a polymer of ordinary hydrogen and oxygen, not the combination of oxygen with isotopes of hydrogen. The chemical symbol for superheavy water is $(H^2O)_n$. Super-heavy water freezes at minus 60 degrees Centigrade (minus 76 degrees Fahrenheit). If all the water in an organism could be replaced with super-heavy water, it is theorized that even humans could be placed in hibernation indefinitely without producing tissue-damaging ice.

Neutrino Telescope (\$1,000,000/\$100,000,000): Neutrinos can pass through large masses of solid objects. A telescope or device designed to see these particles could see through the entire mass of earth to spot any source of neutrinos, especially atomic piles or H-bombs. A beam of neutrinos could be sent between terminals and used like X-rays to examine the inside of the earth. The military applications of such technology are unknown.

Holograms (\$200,000/\$20,000,000): Holograms are being used to speed up computer operations and expand computer memory. It is possible that a computer using holograms could perform 10 to the 20th power operations per second. Computers using holographic memory and programming would be extremely powerful, especially if used to track missiles in modern warfare. Accurate long range military or weather forecasting also have important applications.

Climate Control (\$2,500,000/\$250,000,000): The ability to accurately forecast weather far in advance would not be as useful as being able to control weather itself. If climate could be controlled, perhaps through the use of artificial suns, space-based mirrors, atmospheric explosives or cloud seeding, meteorological warfare could be developed. The peaceful use of climate control could turn non-arable land into new bread baskets of the world.

Cosmic Biology (\$300,000/\$3,000,000): To know what type of environments and atmosphere in which humans can survive is useful in planet exploration. It has been reported that humans can live in atmosphere containing up to 4% carbon dioxide, similar to earth's atmosphere in the past. Turtles and frogs are reported to have survived simulated Martian environments. Living organisms can also survive in vacuums and in various radioactive areas for various amounts of time.

Neutron Bomb (\$2,500,000/\$250,000,000): A neutron bomb is designed to irradiate and destroy invading personnel leaving their vehicles, hardware, and buildings unharmed. The advantage to such an anti-personnel weapon is the use of captured hardware against the would-be aggressors.

Antimatter Bomb (\$10,000,000/\$1,000,000,000): One theory suggests that antimatter is destroyed by contact with any normal matter. Another theory suggests that antimatter is only destroyed by contact with normal matter of opposite structure. If the second theory is true, antihelium could be bottled and would only explode if mixed with normal helium. An exploding H-bomb converts 8% of its mass into energy. An antimatter warhead could produce the equivalent destruction of millions of megatons of TNT.

Anti-gravitation (\$1,500,000/\$15,000,000): By supercooling alloys to nearly absolute zero, not only will electrical current flow indefinitely, but anti-gravitational effects occur. Supercooled fluids flow up and out over the lid of containers. Supercooled electronic components are used in computer memories.

Very Long Distance Radar (\$20,000/\$2,000,000): By bouncing direct-current long waves, as produced by lightning, off the ionosphere, the echoes from metal objects, radioactive clouds, and rocket gas trails can be detected beyond the curve of the earth's surface.

Military Linguistics (\$8,000/\$800,000): Forgotten or little-known languages are excellent for teaching to agents. They can then converse secretly with a limited number of persons who also know the language. Even coded messages normally deciphered by computer can be made impossible to understand if the computer is not programmed in the proper language.

Military Speleology (\$4,000/\$40,000): The location and extent of underground caverns would be very beneficial information in wartime. Not only can underground locations be protected from attack, but underground activities can be better concealed from the enemy.

Very High Energy Particle Accelerators (\$5,000,000/\$50,000,000): Particle accelerators which can produce speeds of 100 GEV or higher have produced the first few atoms of antimatter. Such machines may also produce free magnetic poles within masses only five to 10 times as dense as a proton. Free magnetic poles, once considered theoretically impossible, would provide many answers about matter. Such tools might be useful in both nuclear and anti-nuclear research. It was discovered that particles speed up by themselves in a vacuum. Such an invention may have practical applications in space.

Telepathic Picture Transmission (\$500,000/\$50,000,000): The sending of pictures between two cities using only the mental abilities of a sender and a receiver sounds like science-fiction. Non-mechanical communication would be extremely valuable in many fields. Could telepathic messages or pictures be intercepted, altered, or blocked like radio transmissions?

Muonium (\$50,000/\$5,000,000): Muonium is a theoretical substance made up of a proton with a muon (mu meson) attached. Muons appear naturally in outer space. This particle has the same charge as an electron, but is much heavier. Artificially produced muons in isolated atoms have quickly disappeared. If muons could be stabilized in an atom. The resulting element would be extremely dense and have a high fusion point. It could be used as H-bomb shielding or space capsule heat shielding.

Iron, Aluminum, Germanium Polymers (\$75,000/\$7,500,000): Polymers of carbon (plastics) and silicon (glass) already exist. Imagine a polymer of iron, aluminum, or germanium. One such polymer can resist temperatures of over 600 degrees Centigrade (over 1100 degrees Fahrenheit). The material can also withstand extreme pressure and is transparent. Bulletproof vests and helmets have been made from it. Rockets and submarines may someday be made of such new material.

Activated Water (\$10,000/\$1,000,000): If the structure of water could be altered, it is possible it could be "activated" in some way. Activated water could dissolve any material. It could be used for drilling stone, tooth enamel, plate metal, or possibly even gemstones.

Proton Radiation (\$1,000,000/\$10,000,000): Natural radiation from an unstable nucleus usually gives off an alpha particle, beta particle, or gamma radiation. It has recently been discovered that another form of natural radiation gives off a proton. The use of a proton radiator is as yet unknown.

Polar Research (\$50,000/\$5,000,000): In subfreezing temperatures oil and grease become stiff, gasoline gels and electronic equipment fails. Silicone-based lubricants, gasoline decomposition retardant additives, and techniques for making thermostatic electronic components are all important to cold weather exploration or warfare. Thermostatic devices are not affected by temperature changes. The Soviets have many research facilities in Siberia and Antarctica. Such research is semi-public in nature.

Lithium Research (\$10,000/\$1,000,000): Lithium is a metal used in the production of hydrogen bombs, super-fuel for missiles, and extremely light electrical accumulators. The world's largest lithium lode is in the USSR on the Kola Peninsula. Such research is semi-public in nature.

China Scientific Ideas

Anti-cereal Virus (\$1,000,000/\$100,000,000): Viruses can be tailored by bacteriological research to affect particular species. The United States fears that if it develops and uses a virus against the Old World poppy, the Chinese will counter with an anti-cereal virus. The Soviets would do well to fear such a biological and economic weapon too, although an anti-rice virus could probably be developed as a counter-threat.

South Africa Scientific Ideas

Uranium Isotope Separation (\$600,000/\$60,000,000): It is believed that the South Africans have developed a new method, possibly ultrasonic, for separating uranium isotope from the dross of their gold ore. It is also believed they have used this new technology to build an atomic weapon which they tested over the South Atlantic.

United Kingdom Scientific Ideas

Doomsday Bug (\$30,000/\$3,000,000): The doomsday bug could be a new bubonic plague or cholera bacillus transmitted by air rather than by contact. There is no natural defense against this manufactured mutation.

New Bubonic Plague Vaccine (\$300,000/\$30,000,000): This manufactured vaccine can be injected and provides six months of protection against the human-made bubonic plague. Unfortunately, it will not protect against normal bubonic plague or any other disease, natural or manufactured.

Strategic Information

When performing strategic espionage, that is, locating and evaluating the enemy's armed forces, it is important for the spy to report the enemy's capabilities, not his intentions. The enemy's intentions are the concern of analysts, not spies. The following bits of information, except dolphin anti-submarine warfare, are credited to no particular nation but are of great interest to military intelligence agencies.

Orbital H-bomb (\$1,500,000/\$150,000,000): The threat of this type of weapon has been with us since the invention of the atomic bomb. Much of the public assumes such weapons already exist. The Soviet people have been told and many United States citizens believe the Strategic Defense Initiative involves placing nuclear weapons in orbit above strategic targets or cities. (SDI is defensive and does not involve nuclear weapons in orbit.)

Californium Bullets (\$600,000/\$60,000,000): The critical mass of the synthetic element californium is only a few grams. A single rifle bullet loaded with the proper mass of californium could be fired by a competent sniper. The mini-A-bomb could be triggered by a miniaturized control system or by the impact of the bullet against a solid surface. Californium emits neutrons through spontaneous fission,

and any neutron absorbing partitions inside the critical mass would be crushed upon impact, resulting in an automatic explosion. Possible targets of strategic importance could be a single large building, missile launch site, submarine, aircraft carrier, or hydroelectric dam.

Quasar/Quark Weapon (\$7,500,000/\$750,000,000): Quasars are celestial objects smaller than stars but radiating as much energy as a galaxy. Quarks are theoretical subatomic particles which make up all matter as we know it. When quarks join to produce matter, huge quantities of energy are released. We see this release of energy as quasars. Neither quasars nor quarks are currently understood by modern science. If an understanding of quarks or a tiny sliver of a quasar could be produced, humankind could theoretically destroy the entire planet.

Atomic Mines (\$2,500,000/\$250,000,000): Undetectable, tamper-proof, radio- or wire-detonated atomic mines could be buried along the border of a country. This effective deterrent would destroy any invading army the moment it entered the country.

Sound Triggered Underwater Missiles (\$50,000/\$5,000,000): Missiles in watertight containers could either rest on the ocean floor or float with known currents. The underwater missiles could then be launched by signals in the form of sound waves, such as a series of depth-charge explosions.

Underwater H-bomb (\$750,000/\$75,000,000): Instead of launching missiles from a submarine or an underwater container, any country with nuclear capability could drop watertight H-bombs off the coast of another country. Triggering an underwater H-bomb close to shore would cause a gigantic tidal wave which would flood and destroy large coastal regions.

Doomsday Machine (\$1,000,000,000/\$100,000,000,000): This "hyper-superbomb" would destroy all life on this planet as we know it. The doomsday machine would be triggered automatically if radioactivity from a nuclear exchange reached a given level. The deterrence idea behind the doomsday machine is that the final result would be so terrible that no one would start such a war. The problem with the theory is that the deterrent is not credible and no one would believe such a weapon really exists or would be used.

Anti-satellite Devices (\$30,000,000/\$3,000,000,000): The United States has proposed the Strategic Defense Initiative as a means of destroying nuclear missiles in flight. SDI could just as easily shoot down satellites. The Soviets have developed "killersats" which track and destroy satellites in low orbit. The U.S. can launch anti-satellite missiles from high-altitude aircraft. Anti-satellite devices have been designed to project laser beams, particles, plasmas and pellets. A conflict could break out in space that would electronically blind and deafen both superpowers. So far, destroying another country's satellite, on purpose or by accident, is not considered an act of war.

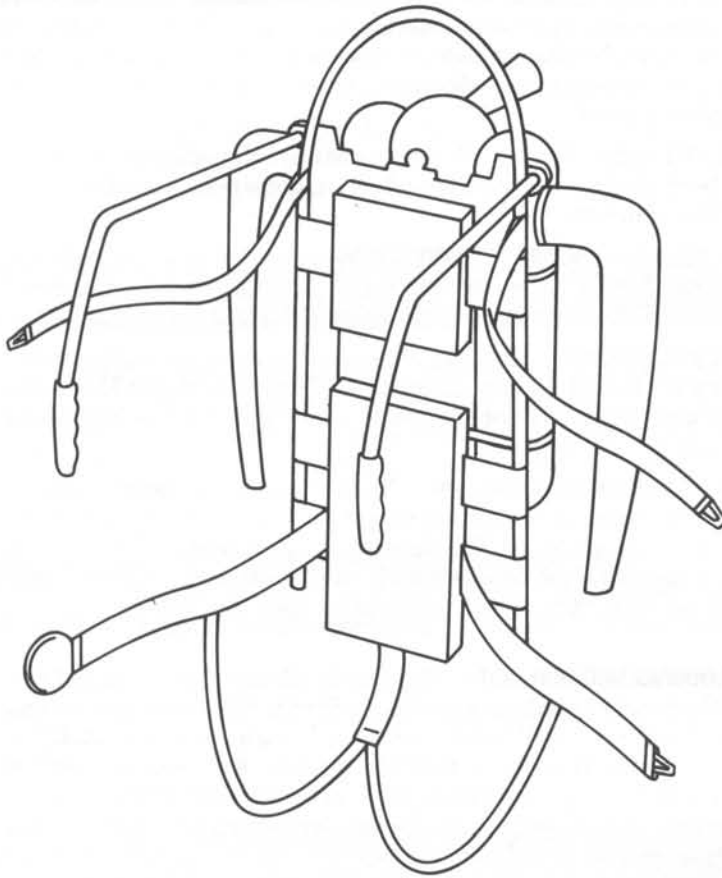
Armor Plate Solvent Shells (\$20,000/\$2,000,000): Hyperacids which could melt through armor plate, ceramics, or high-density plastics could be launched in hollow artillery shells. The components that make up the hyperacid would not mix until the shell impacted on the target, thus mixing the powerful corrosive. Chemical warfare agents could be launched in similar hollow shells.

Laser Projectors (\$75,000/\$750,000): Tank-carried laser projectors can produce powerful pulses which can melt through heavy plate in a matter of seconds. Currently, the maintenance down-time for such sophisticated weaponry is 10 times the time in the combat field. Laser targeting systems paint prospective targets, and then computers lock onto them, directing conventional missiles directly to the moving targets.

Vegetable Anti-hormones (\$10,000,000/\$100,000,000): These poisons are the opposite of growth hormones. They are applied to soil in which crops are or will be planted. The developing plants are stunted and misshapen. Animal anti-hormones may also be developed to decrease a country's agricultural production.

Flying Tanks (\$1,500,000/\$15,000,000): These heavily armed and armored helicopters are the logical progression from the missile- and electric cannon-toting gunships of today. Used for both troop transport and offensive airborne artillery support, these vehicles are only possible through the use of efficient fuels and lightweight but durable high-density plastics and polymers.

Rocket-borne Infantry (\$25,000/\$2,500,000): These jet packs allow individual soldiers to advance over rough terrain by leaps and bounds. The pressurized gases emitted from the nozzles also serve to disturb enemy-concealing foliage to allow airborne reconnaissance and suppression.

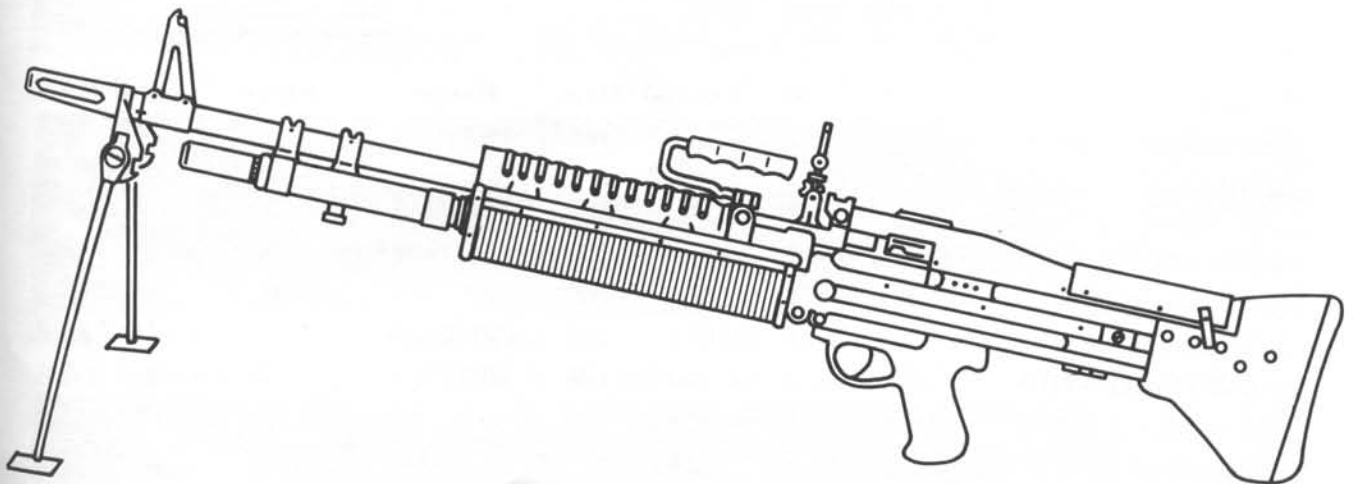


Individualized Motorized Exoskeletons (\$50,000/\$5,000,000): These self-contained mobile fighting platforms are ideal for jungle combat or forest firefighting. The devices look like robots and surround a single human. Armed with explosive rockets, californium bullets, or flame retardants, the exoskeletons march between the trees. The exoskeleton's ceramic or polymerized armor deflects bullets, shells, and small rockets. They can also be armed with ultrasonic projectors that kill everything within a range of 50' or bomb sweeps that detonate any radio-controlled bomb within range. Inside, the soldier lives in comfort on recycled oxygen and water immune to chemical, radiological, or bacteriological agents used on the outside. In open terrain, such an exoskeleton would be easy prey to tanks, helicopters, or airplanes. In the trees, they are hidden and can climb where no wheeled or tracked vehicle can travel.

Decontamination Research (\$25,000,000/\$250,000,000): In the event that chemical, biological, or nuclear war breaks out, protection, antidotes, and cures will be needed. Methods of decontamination will be needed. The transmutation of radioactive elements into less-harmful compounds would be a lifesaving development. Bone marrow transplants are known to have worked in cases of extreme radiation poisoning. The use of transplanted organs and blood substitute transfusions may also save lives. Self-administered detoxification and immunological mixtures would have to be distributed. The cleaning of air, water, and soil would be necessary. The development of hardy strains of plants and animals would also be necessary, possibly from surviving stock with natural immunities to pathological agents.

Sea Mammal Anti-submarine Warfare (ASW) (\$400,000/\$4,000,000): Dolphins, seals, sea lions, and whales have reportedly been trained by the US Navy to detect mines, recover torpedoes, hook up cables, and possibly attach explosives to enemy ships. The U.S. Navy's Undersea Center at San Diego has experimented with dolphins in ASW roles. (The center has also developed cable-controlled underwater vehicles for recovery and reconnaissance.) Sea lions have retrieved anti-submarine rockets in water 750' deep. The Soviets have made it illegal to hunt dolphins, suggesting that we humans share this planet with fellow creatures of equal intelligence.

4. Firearms



The columns on the Firearms Table are:

Weapon — The weapon's name and the type of ammunition used. The weapon's country of manufacture is indicated in parenthesis after the weapon as follows: Argentina (Arg), Australia, Austria, Belgium (Bel), Brazil (Bra), Canada (Can), China (PRC), Czechoslovakia (Cze), Denmark (Den), Dominican Republic (DomRep), East Germany (EGer), Egypt, Finland (Fin), France (Fra), Hungary (Hun), Iran, Israel (Isrl), Italy, Japan (Jap), Mexico (Mex), North Korea (NKor), Norway (Nor), Poland (Pol), Portugal (Por), Rumania (Rum), South Africa (SouAfr), Spain (Spa), Sweden (Swe), Switzerland (Switz), USSR, United States (US), United Kingdom (UK), Vietnam (Viet), West Germany (WGer) and Yugoslavia (Yug).

Weight (Wt) — The weight of the weapon when fully loaded.

Cost — The cost of the weapon in dollars.

Damage (Dam) — The die an attacker rolls to determine how many points of wound damage a successful attack with the weapon inflicts.

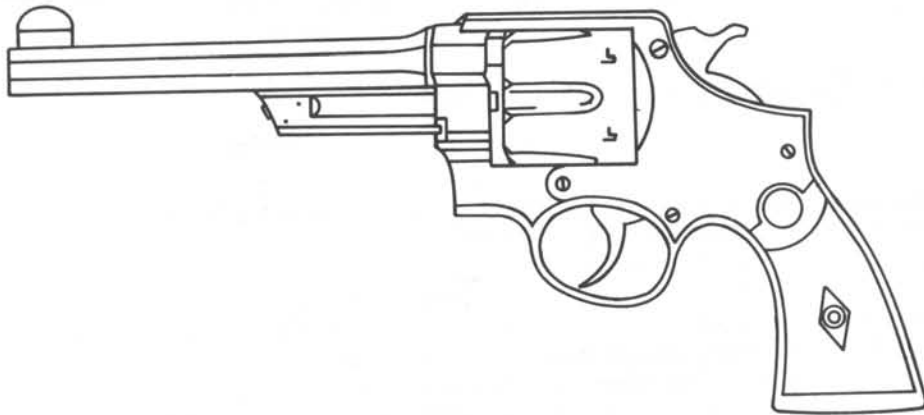
Range — Each weapon has short, medium and long range categories, measured in feet. Weapons are ineffective beyond long range.

Ammunition (Ammo) — The number of rounds making up a full load. Weapons with more than one number in this column can use a variety of loads.

Load — This column lists the number of turns needed to reload the weapon. A reload time followed by the letter "q" indicates a quickloader is necessary (for revolvers only); a "b" means the weapon uses a belt; a "c" means the weapon uses a clip; a "d" indicates the weapon uses a drum.

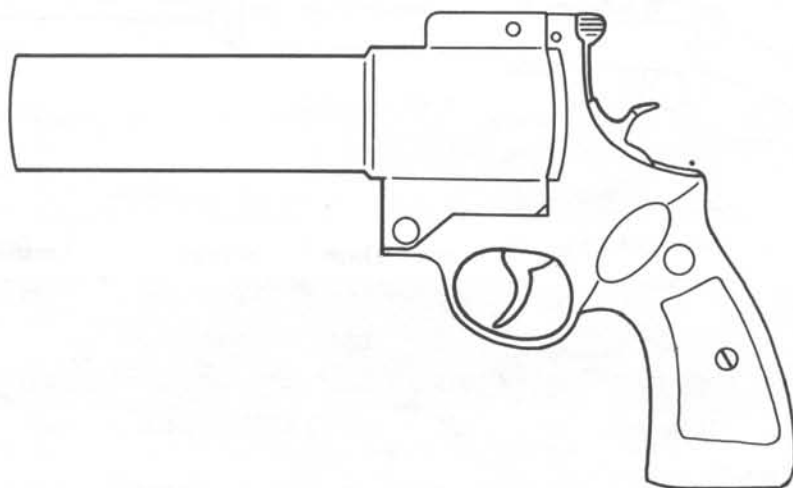
Modifiers (Mods) — This number is added to or subtracted from the *Initiative roll* of any character using the weapon.

Pistols



Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7.62mm 48-M (Hun)	2	375	1d6	15/50/150	8	1c	1
.22 Ariminius (Weirauch) HW-3 (WGer)	1	400	1d6	15/55/165	8	2c	2
.45 Ballister Molina M-1927 (Arg)	2	300	1d8	60/90/180	8	1c	1
.22 Beretta (Italy)	1	450	1d6	20/60/200	6	1c	2
.32 Beretta M-1951 (Italy)	1	675	1d6	45/150/450	8	1c	2
.45 Colt M-1911-A1 (US)	2	300	1d8	60/90/180	8	1c	1
.45 Colt Revolver (US)	2	275	1d8	60/90/180	6	3/1q	1
9mm FN Browning HP-35 (Bel)	2	450	1d6 + 1	20/70/200	13	1c	1
.38 Enfield No.2 Mk I (UK)	1	275	1d8	10/40/120	6	3/1q	1

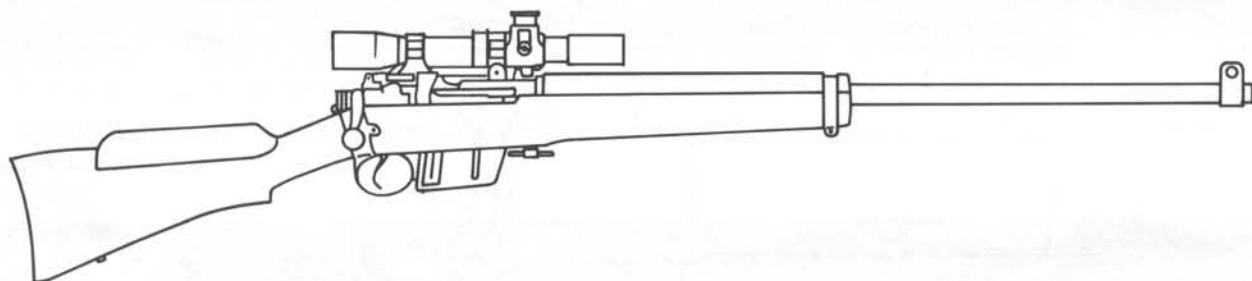
Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
9mm Lahti M-35 (Fin)	2	250	1d6	15/50/150	8	1c	1
9mm Luger P-08 (WGer)	2	400	1d6	20/60/180	8	1c	1
9mm M-39 (Swe)	2	400	1d6	10/40/120	8	1c	1
9mm M-40 (Swe)	2	250	1d6	15/50/150	8	1c	1
9mm M-50 (Fra)	2	375	1d6	15/50/150	9	1c	1
7.62mm M-51 (PRC)	2	375	1d6	15/50/150	8	1c	1
7.62mm M-52 (Cze)	2	375	1d6	15/50/150	8	1c	1
7.62mm M-57 (Yug)	2	375	1d6	15/50/150	8	1c	1
7.65mm M-67 (Yug)	2	375	1d6	15/50/150	6	1c	1
9mm M-67 (Yug)	2	375	1d6	15/50/150	6	1c	1
.45 M-1914 (Nor)	2	300	1d8	60/90/180	8	1c	1
9mm Makarov (USSR)	2	375	1d6	10/35/105	8	1c	1
9mm Model 64 (Pol)	1	375	1d6	10/35/105	8	1c	1
.45 Obregon (Mex)	2	275	1d8	15/50/150	7	1c	1



Olin Flare Pistol (US)	2	400	1d10		1	1	1
With 12-gauge meteor flares				20/65/200			
With 25mm meteor flares				35/125/375			
With 25mm parachute flares				100/330/1000			
9mm PA-63 (Hun)	1	375	1d6	15/50/150	7	1c	1
9mm Parabellum Mauser (WGer)	2	1625	1d6	25/80/240	10	1c	1
9mm Pistole M (EGer)	2	375	1d6	10/35/105	8	1c	1
7.62mm Pistolet TT (Pol)	2	375	1d6	15/50/150	8	1c	1
9mm Radom Wz-35 (Pol)	2	275	1d6	15/50/150	8	1c	1
7.65mm SIG M-49 (Switz)	2	375	1d6	20/60/180	8	1c	1
9mm SIG M-49 (Switz)	2	375	1d6	20/60/180	8	1c	1
Smith & Wesson .357-magnum (US)	2	400	1d8	30/100/270	6	3/1q	1
Smith & Wesson .357 Snub-nose (US)	2	300	1d6 + 1	20/60/180	5	3/1q	2
9mm Stechkin (USSR)	2	400	1d6	20/60/180	20	1c	1
9mm Super Star (Spa)	2	375	1d6	15/50/150	8	1c	1

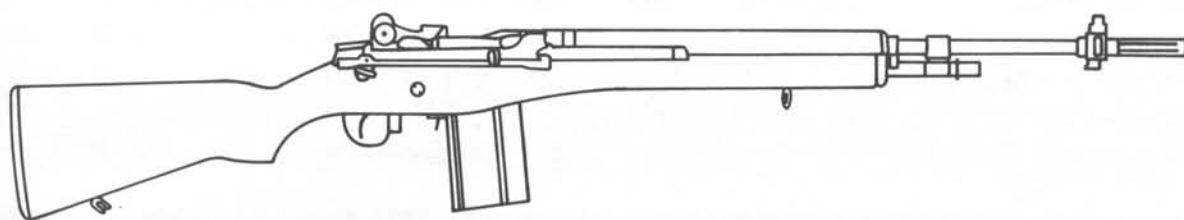
Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7.62mm Tokarev TT-33 (USSR)	2	375	1d6	15/50/150	8	1c	1
7.62mm Type 54 (PRC)	2	375	1d6	15/50/150	8	1c	1
9mm Walther P-38 (P1) (WGer)	2	400	1d6	10/40/120	8	1c	1
7.65mm Walther PP (WGer)	2	450	1d6	10/35/105	8	1c	1
9mm Walther PP (WGer)	2	450	1d6	10/35/105	8	1c	1
6.35mm Walther PP (WGer)	2	450	1d6	10/35/105	8	1c	1
.22 Walther PP (WGer)	2	450	1d6	10/35/105	8	1c	1
9mm Walther PPK (WGer)	2	350	1d6	10/40/120	7	1c	2
.22 Zip Gun	3	25	1d4	10/35/100	1	1	2

Rifles and Carbines



Weapon	Wt	Cost	Dam	Range	Ammo	Load	Mods
7.62mm AMD-65 (Hun)	9	350	1d8	120/400/1200	30	2c	—
7.62mm BM-59 Alpine Rifle (Italy)	10	375	1d8	150/500/1500	20	2c	—
7.62mm BM-59 Paratroop Rifle (Italy)	10	375	1d8	120/400/1200	20	2c	—
.30-06 Browning Automatic Rifle (US)	19	320	1d6 + 1	240/800/2400	20	2c	—
7.62mm Browning Automatic Rifle (US)	19	320	1d6 + 1	240/800/2400	20	2c	—
7.62mm CETME (reduced charge) (Spa)	9	325	1d8	150/500/1500	20	2c	—
7.62mm CETME (full charge) (Spa)	9	325	1d8	165/550/1650	20	2c	—
5.56mm Colt Commando Rifle (US)	6	300	1d6	60/200/600	20	2c	—
5.56mm FA MAS (Fra)	7	350	1d6	90/300/900	25	2c	—
5.56mm FN CAL (Bel)	7	375	1d6	120/400/1200	20/30	2c	—
5.56mm FN FNC (Bel)	10	375	1d6	180/600/1800	30	2c	—
7.5mm FRF-1 (Fra)	8	400	1d8	255/850/2550	10	2c	—
7.62mm FRF-1 (Fra)	8	400	1d8	255/850/2550	10	2c	—
7.62mm FRF-2 (Fra)	13	425	1d8	240/800/2400	10	2c	—
5.56mm Galil SAR (Isrl)	8	350	1d6	120/400/1200	35/50	2c	—
.22 Galil Semiautomatic (Isrl)	8	350	1d6	200/600/1800	10	2c	—
5.56mm H&K-33 (WGer)	8	450	1d6	150/500/1500	20/30/40	2c	—
4.7mm H&K G-11 (WGer)	9	750	1d6	240/800/2400	50	2c	—
5.56mm H&K G-41 (WGer)	9	375	1d6	180/600/1800	30	2c	—

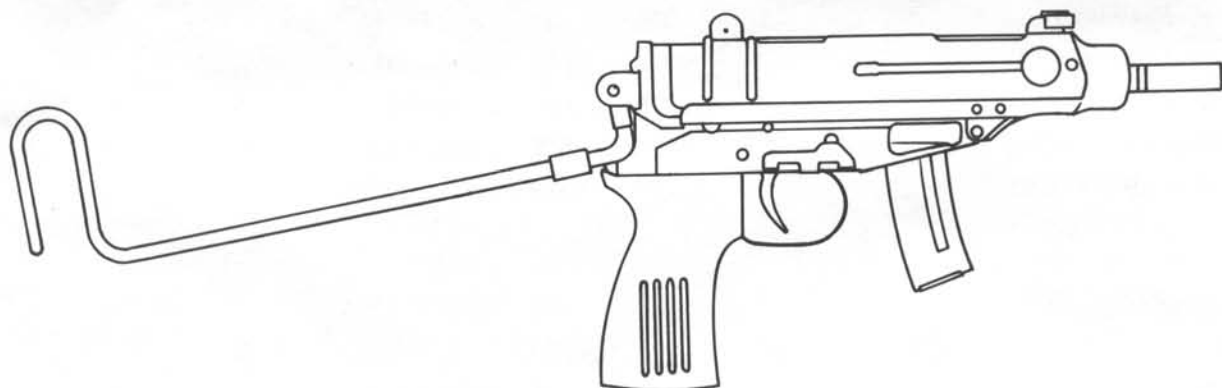
Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7.92mm Hakim (Egypt)	10	325	1d6	175/580/1740	10	2c	—
.30 Johnson Semiautomatic (US)	8	350	1d6 + 1	150/500/1500	16	2c	—
7.62mm L1-A1 (UK)	11	450	1d8	180/600/1800	20	2c	—
7.62mm L1-A1 F1 (Australia)	12	475	1d8	180/600/1800	20	2c	—
.303 Lee-Enfield No.4 Mk I (UK)	8	300	1d6 + 1	150/500/1500	16	5	—
7.62mm Lee-Enfield No.4 Mk I (UK)	8	300	1d6 + 1	150/500/1500	16	5	—
6.5mm Ljungman AG-42 (Swe)	10	350	1d6	175/580/1740	10	2c	—
.30 M-1 Carbine (US)	6	300	1d8	90/300/900	16	2c	—
.30-06 M-1 Garand (US)	9	250	1d6 + 1	165/550/1650	8	2c	—
7.62mm M-14 and M-14E2 (US)	9	350	1d8	165/550/1650	20	2c	—



7.62mm M-21 Semiautomatic (US)	8	400	1d8	200/600/1800	10	2c	—
7.5mm M-49 (Fra)	10	350	1d6	160/540/1620	10	2c	—
7.5mm M-49/56 (Fra)	9	350	1d6	160/540/1620	10	2c	—
7.62mm M-54 (Cze)	9	375	1d6	240/800/2400	5	2c	—
7.62mm M-59/66 (Yug)	8	300	1d8	135/450/1350	10	2c	—
.30-06 M-1903A (US)	11	245	1d6 + 1	270/900/2700	5	2c	—
7.5mm M-1936-CR39 (folding stock) (FRA)	8	325	1d6	135/450/1350	5	2c	—
7.5mm MAS-36 (Fra)	8	325	1d6	150/500/1500	5	2c	—
7.92mm Mauser Kar 98k (WGer)	9	400	1d6 + 1	165/550/1650	5	2c	—
7.62mm Model 64 (Jap)	9	425	1d8	150/500/1500	20	2c	—
7.62mm Moisin-Nagant M-1944 (USSR)	9	325	1d6	180/600/1800	5	2c	—
5.56mm R-4 (SouAfr)	11	375	1d6	120/400/1200	35	2c	—
7.62mm RASHID (Egypt)	9	475	1d6	135/450/1350	10	2c	—
7.62mm Remington Model 700 (US)	7	450	1d6	245/820/2460	5	2c	—
5.56mm Ruger Mini-14(US)	7	200	1d8	115/375/1125	20	2c	—
.30 SAFN Model 49 (Bel)	10	475	1d6	205/680/2040	10	2c	—
7mm SAFN Model 49 (Bel)	10	475	1d6	205/680/2040	10	2c	—
7.65mm SAFN Model 49 (Bel)	10	475	1d6	205/680/2040	10	2c	—
7.92mm SAFN Model 49 (Bel)	10	475	1d6	205/680/2040	10	2c	—
5.56mm SC-70 (Italy)	9	475	1d6	180/600/1800	30	2c	—
5.56mm SG-540 (Switz)	8	500	1d6	120/400/1200	20/30	2c	—
7.62mm SG-542 (Switz)	9	525	1d8	120/400/1200	30	2c	—
7.62mm SIG-510-4 (Switz)	9	550	1d8	150/500/1500	20	2c	—

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
5.56mm SIG-530 (Switz)	8	575	1d6	120/400/1200	30	2c	—
5.56mm SIG-550 (Switz)	10	600	1d6	180/600/1800	30	2c	—
7.62mm SKS (USSR)	8	300	1d8	135/450/1350	10	2c	—
5.56mm Steyr AUG (Austria)	9	600	1d6	180/600/1800	30	2c	—
7.5mm Stg-57 (Switz)	12	550	1d8	135/450/1350	24	2c	—
5.56mm Stoner 63 XM-22 (US)	7	30	1d6	150/500/1500	30	2c	—
7.62mm SVD Dragunov (USSR)	10	425	1d8	270/900/2700	10	2c	—
7.92mm Type D Browning (Bel)	20	350	1d6 + 1420/1400/4200		20	2c	—
.30-06 Type D Browning (Bel)	20	350	1d6 + 1420/1400/4200		20	2c	—
7.62mm Type 53 (PRC)	9	325	1d6	180/600/1800	5	2c	—
7.62mm Vz-58 (Cze)	7	575	1d8	120/400/1200	30	2c	—
.300-magnum Walther 2000 (WGer)	18	750	1d8	360/1200/3600	6	2c	—
.30-06 Winchester Model 70 (US)	8	500	1d8	240/800/2400	5	2	—
5.56mm XM-19 Serial Flechette Rifle (US)	9	500	1d4	150/500/1500	50	2c	—

Submachine Guns



Weapon	Wt	Cost	Dam	Range	Ammo	Load	Mods
9mm Beretta 38/49 (Model 4) (Italy)	7	400	1d6	45/150/450	20/40	2c	—
9mm Beretta Model 12 (folding stock)(Italy)	7	400	1d6	30/100/300	20/30/40	2c	—
9mm Beretta Model 12 (wooden stock)(Italy)	9	400	1d6	30/100/300	20/30/40	2c	—
5.56mm Bushmaster (US)	6	400	1d6	180/600/1800	30	2c	—
9mm Carl Gustav M45-B (Swe)	7	400	1d6	45/150/450	36	2c	—
.30 Cristobal Model 2 (DomRep)	8	400	1d6 + 1	90/300/900	25/30	2c	—
9mm F1-A1 (Australia)	7	400	1d6	35/120/360	34	2c	—
9mm FBP M/48 (Por)	8	400	1d6	30/100/300	32	2c	—
9mm H&K 5-A2 (WGer)	5	400	1d6	45/150/450	10/15/30	2c	—
9mm H&K 5-A3 (WGer)	6	400	1d6	45/150/450	10/15/30	2c	—
9mm H&K MP-5 (WGer)	5	400	1d6	45/150/450	10/15/30	2c	—

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
9mm Hovea M-49 (Den)	7	400	1d6	45/150/450	36/50	2c	—
9mm INA 953 (Bra)	7	500	1d6	45/135/450	32	2c	—
.45 Ingram MAC-10 (US)	6	175	1d8	75/125/375	30	2c	—
9mm Ingram MAC-10 (US)	6	175	1d6	75/125/375	32	2c	—
9mm Ingram MAC-11 (US)	8	225	1d6	60/100/300	36	2c	—
7.62mm K-50m (Viet)	9	375	1d6	45/150/450	35/71	2c/3d	—
.45 M3-A1 (US)	8	400	1d8	40/150/420	30	2c	—
7.62mm M-22 (Iran)	9	375	1d6	45/150/450	35/71	2c/3d	—
9mm M-23 (fixed stock) (Cze)	7	400	1d6	60/200/600	24/40	2c	—
7.62mm M-24 (fixed stock) (Cze)	9	400	1d8	60/200/600	32	2c	—
9mm M-25 (folding stock) (Cze)	7	400	1d6	60/200/600	24/40	2c	—
7.62mm M-26 (folding stock) (Cze)	9	400	1d8	60/200/600	32	2c	—
7.62mm M-48 (Hun)	9	375	1d6	45/150/450	35/71	2c/3d	—
7.6mm M-56 (Yug)	7	400	1d6	20/75/225	32	2c	—
9mm M-63 (without stock) (Pol)	4	375	1d6	15/50/150	15/25	2c	—
9mm M-63 (with stock) (Pol)	4	375	1d6	60/200/600	15/25	2c	—
9mm Madsen M-53 (Den)	7	500	1d6	45/135/450	32	2c	—
9mm Madsen M-53 Mk II (Den)	7	525	1d6	45/135/450	32	2c	—
9mm MAT-49 (Fra)	8	400	1d6	45/150/450	32	2c	—
9mm Owen Mk I (Australia)	9	450	1d6	35/120/360	32	2c	—
7.62mm PPS-43 (USSR)	8	375	1d6	20/75/225	35	2c	—
7.62mm PPS-43/52 (USSR)	8	375	1d6	20/75/225	35	2c	—
7.62mm PPS-41 (USSR)	9	375	1d6	45/150/450	35/71	2c/3d	—
9mm Schmeisser MP-40 (WGer)	9	400	1d6	60/100/300	32	2c	—
9mm Sten Mk II (UK)	6	250	1d6	20/75/225	32	2c	—
9mm Sterling C-4 (Can)	6	350	1d6	60/200/600	34	2c	—
9mm Sterling L2-A3 (UK)	6	350	1d6	60/200/600	34	2c	—
Sterling Mk IV (UK)	8	400	1d6	45/90/270	32	1c	—
9mm Steyr MP-69 (Austria)	6	525	1d6	30/100/300	25/32	2c	—
.45 Thompson M1-A1 (US)	11	400	1d8	30/100/330	20/50	2c/3d	—
.45 Type 36 (PRC)	8	375	1d8	30/100/300	30	2c	—
9mm Type 36 (PRC)	8	375	1d8	30/100/300	30	2c	—
7.62mm Type 43 (PRC)	8	375	1d6	20/75/225	35	2c	—
7.62mm Type 49 (NKor)	9	425	1d6	45/150/450	71	3d	—
7.62mm Type 50 (PRC)	9	425	1d6	45/150/450	35	2c	—
9mm Uzi (Isrl)	8	400	1d6	60/90/270	25/32/40	2c	—
9mm Vigneron M-2 (Bel)	7	475	1d6	45/150/450	32	2c	—
7.65mm Vz-61 Skorpion (Cze)	3	550	1d6	20/75/225	10/20	2c	—
9mm Z-62 Star (Spa)	6	425	1d6	30/100/300	20/30/40	2c	—

Assault Rifles

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7.92mm 30-J (Yug)	21	475	1d8	270/900/2700	20	2c	—
7.65mm 30-J (Yug)	21	475	1d8	270/900/2700	20	2c	—
7.0mm 30-J (Yug)	21	475	1d8	270/900/2700	20	2c	—
.303 30-J (Yug)	21	475	1d8	270/900/2700	20	2c	—
.30 30-J (Yug)	21	475	1d8	270/900/2700	20	2c	—
5.56mm Armalite AR-18 (US)	7	300	1d8	135/450/1350	20	2c	—
7.62mm BM-59 Standard Rifle (Italy)	10	375	1d8	150/500/1500	20	2c	—
7.62mm Bren L-4 (UK)	24	400	1d8	180/600/1800	30	2c	—
7.62mm Bren L-4A1 (UK)	24	400	1d8	180/600/1800	30	2c	—
.303 Bren Mk III (UK)	19	450	1d8	190/640/1920	30/50/100	2c/3d	—
7.62mm Bren Mk III (UK)	19	450	1d8	190/640/1920	30/50/100	2c/3d	—
7.92mm Bren Mk III (UK)	19	450	1d8	190/640/1920	30/50/100	2c/3d	—
5.56mm CAR-15 (US)	7	450	1d8	120/400/1200	30	2c	—
7.62mm DP/DPM (USSR)	20	450	1d8	240/800/2400	47	3d	—
7.62mm FN FAL (FAR) (Bel)	10	450	1d8	150/500/1500	20	2c	—
.30-06 FN FAL (FAR) (Bel)	10	450	1d8	150/500/1500	20	2c	—
7mm FN FAL (FAR) (Bel)	10	450	1d8	150/500/1500	20	2c	—
7.65mm FN FAL (FAR) (Bel)	10	450	1d8	150/500/1500	20	2c	—
7.92mm FN FAL (FAR) (Bel)	10	450	1d8	150/500/1500	20	2c	—
5.56mm Galil ARM (Isrl)	9	325	1d6	180/600/1800	35/50	2c	—
7.62mm Galil SAW (Isrl)	11	500	1d8	180/600/1800	50	2c	—
7.62mm H&K 11-E (WGer)	19	550	1d8	180/600/1800	20	2c	—
5.56mm H&K 13-E (WGer)	19	525	1d8	180/600/1800	30	2c	—
7.62mm H&K 21 (WGer)	16	575	1d8	240/800/2400	20/80	2c/3d	—
5.56mm H&K 21 (WGer)	16	575	1d8	240/800/2400	20/80	2c/3d	—
7.62mm H&K G3 (WGer)	9	300	1d8	150/500/1200	20	2c	—
7.62mm IMG-K (EGer)	11	500	1d8	240/800/2400	30/40/75	2c	—
7.62mm Kalashnikov AK-47 (USSR)	9	450	1d8	120/400/1200	30	2c	—
5.45mm Kalashnikov AK-74 (USSR)	8	350	1d8	120/400/1200	30	2c	—
7.62mm Kalashnikov AKM (USSR)	10	450	1d8	120/400/1200	10/20/30	2c	—
5.56mm M-16 (US)	6	450	1d8	120/400/1200	20	2c	—
5.56mm M-16A2 (US)	8	300	1d8	180/600/1800	30	2c	—
7.5mm M-51 (Switz)	35	500	1d8	240/800/2400	50/250	3b	—
7.62mm M-65A/M-65B (Yug)	11	500	1d8	240/800/2400	30/40/75	2c	—
5.56mm M70-78 (Italy)	13	450	1d8	180/600/1800	40	2c	—
7.5mm M-1925/29 (Fra)	20	450	1d8	240/800/2400	25	2c	—
.303 Madsen (Den)	22	550	1d8	270/900/2700	30	2c	—
.30-06 Madsen (Den)	22	550	1d8	270/900/2700	30	2c	—
7.92mm Madsen (Den)	22	550	1d8	270/900/2700	30	2c	—

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7mm Madsen (Den)	22	550	1d8	270/900/2700	30	2c	—
6.5mm Madsen (Den)	22	550	1d8	270/900/2700	30	2c	—
7.62mm Madsen Saetter (Den)	34	525	1d8	240/800/2400	50	3b	—
6.5mm Madsen Saetter (Den)	34	525	1d8	240/800/2400	50	3b	—
7mm Madsen Saetter (Den)	34	525	1d8	240/800/2400	50	3b	—
7.92mm Madsen Saetter (Den)	34	525	1d8	240/800/2400	50	3b	—
7.62mm MG-3 (with bipod) (WGer)	26	550	1d8	240/800/2400	50	3b	—
7.92mm MG-42 (with bipod) (WGer)	26	500	1d8	240/800/2400	50	2c	—
7.62mm MG-42/59 (with bipod) (WGer)	26	550	1d8	240/800/2400	50	3b	—
5.56mm M-249 Minimi (US)	22	650	1d8	180/600/1800	200	3b	—
5.56mm Model 70/223 AR (Italy)	8	500	1d8	120/400/1200	30	2c	—
7.62mm PKM (USSR)	25	425	1d8	240/800/2400	100	3b	—
.30-06 RM-2 (Mex)	14	450	1d8	240/800/2400	20	2c	—
7.62mm RP-46 (USSR)	29	575	1d8	240/800/2400	47/250	3d/3b	—
7.2mm RPD (USSR)	15	475	1d8	240/800/2400	100	3b	—
7.62mm RPK (USSR)	11	500	1d8	240/800/2400	30/40/75	2c	—
5.45mm RPK-74 (USSR)	11	525	1d8	180/600/1800	40	2c	—
7.92mm SARAC (with bipod) (Yug)	26	475	1d8	240/800/2400	50	2c	—
7.92mm SB-30 (Rum)	21	475	1d8	270/900/2700	20	2c	—
7.65mm SB-30 (Rum)	21	475	1d8	270/900/2700	20	2c	—
7.0mm SB-30 (Rum)	21	475	1d8	270/900/2700	20	2c	—
.303 SB-30 (Rum)	21	475	1d8	270/900/2700	20	2c	—
.30 SB-30 (Rum)	21	475	1d8	270/900/2700	20	2c	—
5.56mm Steyr LSW (WGer)	12	550	1d8	180/600/1800	42	2c	—
7.62mm Type 56/56-1 (PRC)	20	450	1d8	240/800/2400	47	3d	—
7.62mm Type 62 (USSR)	20	450	1d8	240/800/2400	47	3d	—
7.62mm Type 67 (PRC)	25	425	1d8	240/800/2400	100	3b	—
7.62mm Vz-52 (Cze)	20	475	1d8	240/800/2400	25/100	2c/3b	—
7.62mm Vz-52/57 (Cze)	20	475	1d8	240/800/2400	25/100	2c/3b	—
5.56mm XL-86E1 (UK)	15	575	1d8	180/600/1800	30	2c	—
7.92mm ZB-26/30 (Cze)	21	475	1d8	270/900/2700	20	2c	—
7.65mm ZB-26/30 (Cze)	21	475	1d8	270/900/2700	20	2c	—
7.0mm ZB-26/30 (Cze)	21	475	1d8	270/900/2700	20	2c	—
.303 ZB-26/30 (Cze)	21	475	1d8	270/900/2700	20	2c	—
.30 ZB-26/30 (Cze)	21	475	1d8	270/900/2700	20	2c	—

General Purpose Machine Guns

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7.62mm H&K 21-E (WGer)	27	550	1d8	180/600/1800	100	3b	—
5.56mm H&K 23-E (WGer)	25	575	1d8	180/600/1800	200	3b	—
7.62mm L-7 (on bipod) (UK)	24	675	1d8	240/800/2400	250	3b	—

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7.62mm L-7 (on tripod) (UK)	24	675	1d8	420/1400/4200	250	3b	—
6.5mm L-7 (on bipod) (UK)	24	675	1d8	240/800/2400	250	3b	—
6.5mm L-7 (on tripod) (UK)	24	675	1d8	420/1400/4200	250	3b	—
7.62mm M-60 (US)	23	1500	1d8	270/900/2700	250	3b	—
7.62mm M-60E3 (US)	25	2000	1d8	180/600/1800	100	3b	—
7.62mm M-62 (Jap)	24	750	1d8	240/800/2400	250	3b	—
7.62mm MAG (FN MAG) (Bel)	24	675	1d8	240/800/2400	250	3b	—
7.62mm MAG (FN MAG) (Bel)	24	675	1d8	420/1400/4200	250	3b	—
6.5mm MAG (FN MAG) (Bel)	24	675	1d8	240/800/2400	250	3b	—
6.5mm MAG (FN MAG) (Bel)	24	675	1d8	420/1400/4200	250	3b	—
7.5mm MAS (ATT) 52 (heavy barrel) (Fra)	25	650	1d8	240/800/2400	50/100	3b	—
7.62mm MAS (ATT) 52 (heavy barrel) (Fra)	25	650	1d8	240/800/2400	50/100	3b	—
7.5mm MAS (ATT) 52 (light barrel) (Fra)	22	650	1d8	240/800/2400	50/100	3b	—
7.62mm MAS (ATT) 52 (light barrel) (Fra)	22	650	1d8	240/800/2400	50/100	3b	—
7.62mm MG-3 (WGer)	31	800	1d8	180/600/1800	100	3b	—
7.92mm MG-34 (WGer)	26	850	1d8	240/800/2400	50/75	3b/3d	—
7.62mm PK (USSR)	20	650	1d8	300/1000/3000	50/200/250	3b	—
6.5mm SIG 710-1 (Switz)	25	875	1d8	240/800/2400	250	3b	—
7.92mm SIG 710-1 (Switz)	25	875	1d8	240/800/2400	250	3b	—
7.62mm SIG 710-1 (Switz)	25	875	1d8	240/800/2400	250	3b	—
6.5mm SIG 710-2 (Switz)	24	900	1d8	240/800/2400	250	3b	—
7.92mm SIG 710-2 (Switz)	24	900	1d8	240/800/2400	250	3b	—
7.62mm SIG 710-2 (Switz)	24	900	1d8	240/800/2400	250	3b	—
7.62mm SIG 710-3 (Switz)	21	925	1d8	240/800/2400	50/250	3b	—
7.62mm Vz-59 (with tripod) (Cze)	42	1000	1d8	300/1000/3000	50/250	3b	—
7.62mm Vz-59L (without tripod) (Cze)	19	1000	1d8	300/1000/3000	50/250	3b	—

Medium Machine Guns

Most medium machine guns weigh between 25 and 60 pounds. They are usually belt-fed with up to 250 rounds per belt. They can be fed with drums and clips, but these hold fewer cartridges. At least one interchangeable barrel should be kept with the weapon if firing exceeds 100 rounds per minute. If more than 100 rounds are fired per minute, the heated barrel should be replaced. This takes 4 turns. Medium machine guns can be watercooled, like the Vickers Mk I, but the cooling equipment is heavy and bulky. Machine guns usually are mounted on a tripod or vehicle and require at least two (and preferably three) persons to be moved, fired and supplied with ammunition. Once in place, the gun can be fired by one person, but ammunition supply may become a problem.

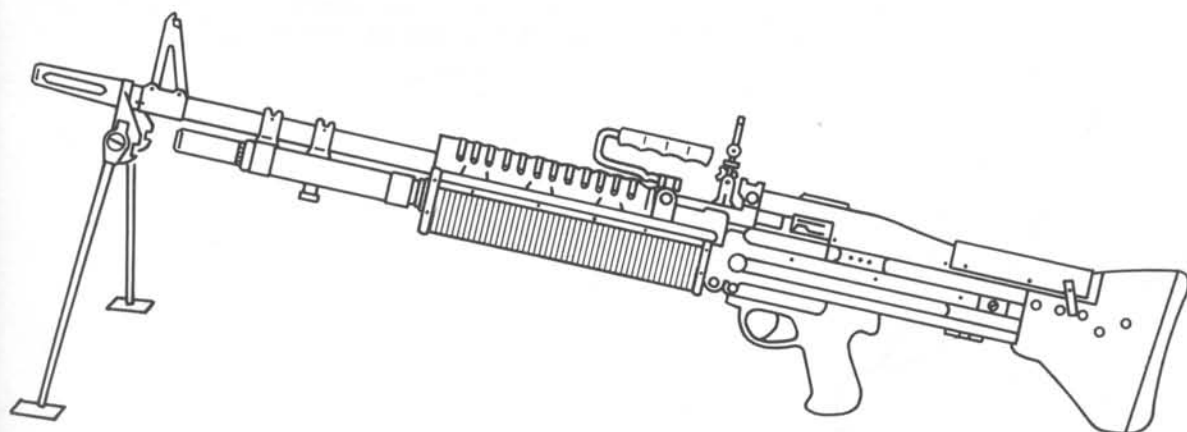
Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
.30 Browning (US)	31	580	1d8	270/900/2700	250	3b	—
.30 C-1 (Can)	31	580	1d8	270/900/2700	250	3b	—

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
7.62mm Goryonov SG-43 (USSR)	30	600	1d8	450/1500/4500	250	3b	—
7.62mm Goryonov SGM (USSR)	30	600	1d8	450/1500/4500	250	3b	—
7.62mm Type 53 (PRC)	30	600	1d8	450/1500/4500	250	3b	—
7.62mm Type 57 (PRC)	30	600	1d8	450/1500/4500	250	3b	—
.303 USMG Model 1915 (US)	33	450	1d8	600/2000/6000	250	3b	—
.30 USMG Model 1915 (US)	33	450	1d8	600/2000/6000	250	3b	—
.303 Vickers Mk I (UK)	33	450	1d8	600/2000/6000	250	3b	—
.30 Vickers Mk I (UK)	33	450	1d8	600/2000/6000	250	3b	—
7.62mm Vz-43 (Cze)	30	600	1d8	450/1500/4500	250	3b	—
7.62mm Wz-43 (Pol)	30	600	1d8	450/1500/4500	250	3b	—

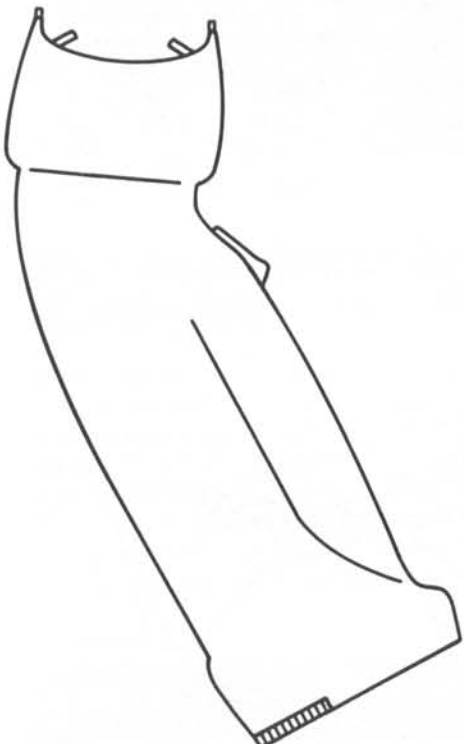
Heavy Machine Guns

This type of weapon is .50-caliber or larger. The design and mechanical characteristics are large scale modifications of the medium machine gun. Heavy machine guns may be tripod mounted, but are generally mounted on vehicles. They may also be used in multiples as low anti-aircraft weapons.

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
.50 Browning M-2 (US)	66	850	1d10	420/1400/4200	100	3b	—
.50 Browning M-2HB (US)	84	850	1d10	420/1400/4200	100	3b	—
12.7mm DSLK-38/46 (USSR)	78	900	1d10	600/2000/6000	250	3b	—
anti-aircraft version	78	900	1d10	300/1000/3000	250	3b	—
14.5mm KPV (USSR)	108	1000	1d10	330/1100/3300	100	3b	—
15mm Kulomet ZB-60 (Cze)	343	1200	1d10	720/2400/7200	40	3d	—
20mm M-621 (Fra)	99	1300	1d12	600/2000/6000	250	3b	—
20mm M-693 Modele F1	155	1200	1d12	600/2000/6000	250	3b	—
20mm Mk 20 Rh-202 (WGer)	269	1400	1d12	600/2000/6000	250	3b	—
12.7mm NSV (USSR)	116	1500	1d10	240/800/2400	50	5b	—
12.7mm Type 54 (PRC)	78	900	1d10	600/2000/6000	250	3b	—
anti-aircraft version	78	900	1d10	300/1000/3000	250	3b	—



5. *Special Weapons*



Non-Lethal Projectile Weapons

Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
Aerosol Spray Device	.5	25	Special	5/15/40	1	1	2
Air (Pellet) Gun	2	50	1d3-1	15/50/150	100	2	—
Dart Gun	3	250	1d4/Special	12/40/120	1	3	1
High Intensity Light Device	2	220	Special	5/20/50	1	2	2
High Intensity Sound Device	4	5	Special	5/15/45	1	2	2
Taser	4	70	Special	5/20/50	1	2	1
Crossbow Pistol	2	40	1d6	45/150/450	1	1	1

Aerosol Spray Device (Mace): This lipstick case-sized device propels one dose of mace in either a stream or a cloud of atomized droplets. The mace must hit the target's head to be effective. If effective, it will temporarily blind the target and temporarily reduce REF, MOV, and DEX by 1-100%. These effects last 30-300 turns. A corrosive spray is also available, which causes 1d6 wound damage.

Air (Pellet) Gun: Air gun projectiles do 1d3-1 wound damage (if the projectile does 0 points damage, then the shot failed to puncture the skin). These pellets are propelled by compressed air and are either lead, butterfly-shaped target ammunition or BBs. BBs are lead shot spheres, 0.18 inch in diameter, and are sometimes coated with copper. Pellets from an air gun can puncture the skin or the eye and have been known to be lethal.

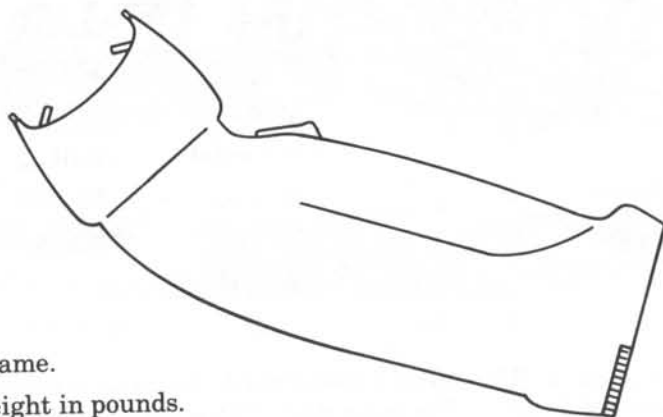
Dart Gun: A projectile from a dart gun will do 1d4 wound damage in addition to whatever damage the contents of the dart may do. Darts are like hypodermic syringes fired from guns and can be filled with a single dose of any liquid. The fluid can be anything — poison, alcohol, truth serum, water, pancake syrup, or any exotic or mundane drug. A drug administered in this fashion usually takes effect in 1-50 turns.

High Intensity Light Device: This flashlight-sized device produces a single, 20,000 candle power burst of light. This flashbulb-type blast temporarily blinds a sighted attacker for 30-300 turns, and disorients the character for 1-10 hours (temporary loss of 1-100% REF, MOV, and DEX). Shielding one's eyes or turning away from the device helps little because of the light's intensity and reflection from nearby objects.

High Intensity Sound Device: This device, about the size of a lipstick case, produces a high-pitched scream which temporarily deafens and disorients a hearing attacker for 30-300 turns. Shielding one's ears or turning away from the device helps little due to the noise's intensity and echoes from nearby objects. The temporary deafness includes a temporary loss of 1-100% REF, MOV and DEX.

Taser: A taser is a dart-like device connected by uninsulated wire to a CO2-powered dart gun. The taser dart is designed to penetrate only 1/2 inch into a target. Upon impact, a powerful electrical charge lasting five seconds is delivered to the target. The dart itself inflicts 1 point of wound damage. The electrical shock inflicts constitution damage, and touching the uninsulated wire while the charge is going through it will cause additional constitution damage. The taser dart and connecting wire can be retracted into the launcher by the operator. A separate CO2 capsule must be loaded for each shot fired.

Close-Combat Weapons



Weapon — The weapon's name.

Weight — The weapon's weight in pounds.

Cost — The weapon's cost in dollars.

Damage — The amount of damage the weapon does. The listing will give the die a player rolls on a successful hit and, if applicable, a number to be added to or subtracted from the number rolled. B means the weapon does bruise damage (the damage heals at a rate of 1 point per hour); C means the weapon does constitution damage (the damage results in unconsciousness rather than death); W means the weapon does wound damage (the damage heals at a rate of 1 point per day).

Close-Combat Value (CCV) — The number added to a character's skill when making a close-combat attack or defense with the weapon.

Weapon	Weight	Cost (\$)	Damage	CCV
Blackjack	2	10	1d6B	15
Bo (6' Wooden Staff)	1	5	1d6W/1d6B	15/25
Bola (Weighted Ropes)	5	15	1d8B	20
Brass Knuckles (Hand-held Weight)	1	5	1d4 + 1B	10
Bullwhip (Braided Leather Whip, 15')	4	15	1d3 + 1W	15
Caltrops (Spikes)	1	1	1B	5
Electrical Shock Device (Prod)	1	50	1d4C	10
Garrotte (Strangling Cord)	1	1	1d4W/1d4C	10/20
Katar (Punching Dagger)	2	25	1d6W	20
Lasso (Rope With Noose)	3	10	1d4B	15
Net	2	5	0	10
Nunchuka (Wooden Flail)	4	15	1d6B	25
Sai (Wrenching Dagger)	2	55	1d4B	15
Butt, Pistol	1	—	1d4 + 1B	10
Butt, Rifle	3	—	1d6 + 1B	25
Fiberglas Knife	1	25	1d6W	20
Shuriken (Thrown Folding Knife or Caltrop)	1	15	1d4W	10

Blackjack: Large, blunt, heavy, hand-held objects like blackjacks do bruise damage.

Bo (6' Wooden Staff): When used as a strangulation device, the bo does constitution damage. If the bo is used as a striking weapon, it does bruise damage. The bo does wound damage if the end of the staff is sharpened or carries a sharpened edge.

Bola (Weighted Ropes): A target hit by a bola is ensnared by the weighted ropes. A hit to the head reduces REF, MOV, and DEX by 1-100% for at least 1 turn or until the bolas are removed. A hit to the arm, hand, abdomen, or chest constricts an arm against the body for at least 1 turn. A hit to the leg or

foot entangles the legs together for at least 1 turn or until removed. If the target is moving when hit, it will be forced to stop. If the target is running when hit, it will fall.

Brass Knuckles (Hand-held Weight): Brass knuckles, like other blunt, heavy, hand-held objects do bruise damage.

Bullwhip (Braided Leather Whip, 15'): Any hit by a bullwhip may cause wound damage or entanglement, whichever the whip user chooses. If the head or neck is entangled, the blow does constitution damage, otherwise, the damage is wound damage. If an arm, hand, leg, or foot is entangled, that limb cannot move for 3 turns. If the target is running when a leg or foot is entangled, the target will fall prone. A bullwhip can also be used to entangle overhead beams, doorknobs, or hand-held weapons.

Caltrops (Spikes): Caltrops are sharp tetrahedral tacks which, if stepped on, cause 1 point wound damage. When a character crosses a 10' by 10' area scattered with 1-10 caltrops, roll percentile dice. If the number rolled is greater than the character's DEX, the character steps on a caltrop. A thrown caltrop can be treated as a shuriken.

Electrical Shock Device (Prod): This wristwatch-sized device produces a single electrical shock when in contact with conductive material such as skin. The shock produces constitution damage, not wound damage.

Garrotte (Strangling Cord): Damage caused by a garrotte is constitution damage, not wound damage. When a strangling cord or wire is used as a whip or slashing weapon, the damage is wound damage.

Katar (Punching Dagger): Any hit with a katar does wound damage, not constitution damage. A broken bottle can be used as an improvised katar.

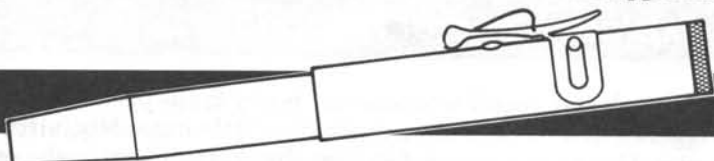
Lasso (Rope With Noose): When a target is hit with a lasso, the target is ensnared by the noose. Damage from strangulation or constriction is constitution damage, not wound damage.

Net: A net is any large, flat sheet of material at least 3' square used during a hand attack to cover or entangle an opponent. Its effects in combat are similar to the bola. A net generally causes no constitution or wound damage.

Nunchuka (Short Flail): Damage from a nunchuka when used for strangling is constitution damage. When the nunchuka is used as a striking weapon, it does bruise damage.

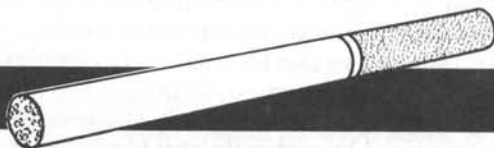
Sai (Wrenching Dagger): Damage from one of these trident-shaped daggers is bruise damage. A defender engaged in close combat using a pair of sais can entangle an opponent's weapon over 1' long during the opponent's attack. A player using a sai in this fashion will not be able to attack his opponent in the same combat turn.

Secret Weapons



A harmful device, the true nature of which is not revealed until used against a human target, is a secret weapon. Some secret weapons, like a sword cane, are designed to look harmless until they are actually drawn and used. Other secret weapons, like an explosive booby trap, are designed to escape detection until activated.

Projectile Secret Weapons



Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
.22 Ball Point Pen Gun	1	250	1d4 +1	0/30/100	1	5	—
.22 Cigarette Gun	1	70	1d4 +1	5/10/30	1	—	—
.22 Wrist Gun	1	280	1d4 +1	5/20/60	1	1	—
.22 Safety Razor Gun	1	25	1d4 +1	5/10/30	1	1	*
.22 Umbrella Gun	6	350	1d8	45/150/450	1	3	*

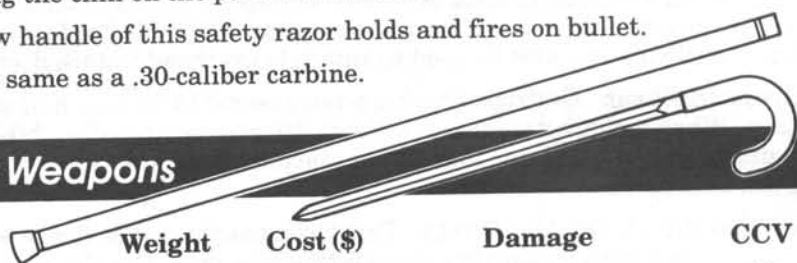
.22 Ball Point Pen Gun: The one-shot .22 ball point pen gun is fired by depressing the pen top and then squeezing the pocket clip trigger. Besides one bullet, the pen can hold regular or invisible ink.

.22 Cigarette Gun: The one-shot .22 cigarette gun is fired by a delay fuse 3 combat turns after the cigarette is lit. This allows the user to take one puff and then aim the cigarette. The bullet passes through the ignited tobacco. Larger caliber bullets can be fused inside cigars. Tobacco smoking can be harmful to others.

.22 Wrist Gun: The one-shot .22 wrist gun is strapped to the bottom of the forearm and fired by a quick flex of the wrist. The device is very dangerous to the inexperienced wearer due to misfires caused by accidental wrist flexing or resting the chin on the palm of the hand.

.22 Safety Razor Gun: The hollow handle of this safety razor holds and fires on bullet.

.30 Umbrella Gun: Treat this the same as a .30-caliber carbine.



Close-Combat Secret Weapons

Weapon	Weight	Cost (\$)	Damage	CCV
Bulgarian Sphere Injector Umbrella	3	150	NA	10
Kicking Shoe Blades	1	20	1d4 + 1	10
Plastic Death Ring	1	5	1	1
Razor-edged Throwing Hat	1	20	1d6	20
Sword Cane	3	50	1d8	30

Kicking Shoe Blades: Kicking shoe blades are unsheathed by pressing a small trigger concealed in the shoe heel.

Plastic Death Ring: The plastic death ring can be carried through metal detectors and can contain 1 dose of any material.

Razor-edged Throwing Hat: The razor-edged throwing hat is tossed horizontally like a popular recreational flying disk.

Sword Cane: The sword cane is concealed in a scabbard which appears to be a walking stick or an umbrella.

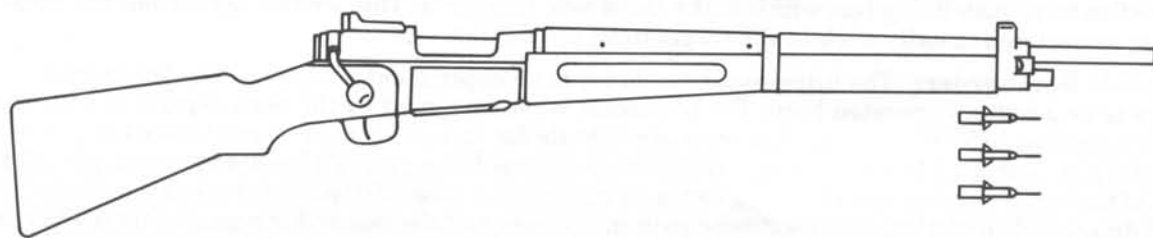
Explosive Secret Weapons

Most explosive secret weapons are booby traps packed with powerful plastic explosives, which can be triggered in a variety of ways. With a little ingenuity, virtually anything can be turned into a lethal device. Guns can be rigged so that the ammunition or the entire gun explodes when the trigger is pulled. Booby traps can be placed in telephone handsets, flashlights, transistor radios, briefcases, smoking pipes, cigarette packs, packages (letter bombs), or wired to automobile ignitions.

A number of devices can be employed to set off a bomb as well. A wristwatch can be customized to work as a timer for a miniature detonator, and a small explosive activator with a time delay can be fashioned as well. Detonators can be hopelessly complex, filled with secondary fuses which are activated when the primary fuse is deactivated, to thwart anyone who might try to disarm the bomb, or quick and simple "black boxes" which contain only the necessary actuator switches and sensors. Actuator mechanisms can be triggered by virtually any identifiable signal including movement (anti-disturbance, "trembler"), a fixed time period, mechanical pressure (released or applied), light (either presence or absence of), X-rays, audio (voice or noise level), or changes in humidity, altitude, or barometric pressure. A remote-controlled, light-activated sensor can detonate a bomb when the indoor lights are turned on or off, or when hit by an invisible laser beams 8 miles away during day or night, or a flashlight beam or automobile headlights. In short, the array of possible explosive booby traps is only limited by one's imagination.

Most explosives use nitrogen as a base ingredient. However, in recent years, chlorate-based explosives that cannot be detected by bomb sniffers (which identify nitrogen) have been developed. Chlorate-based explosives come from the Middle East, and it is hoped that surveillance devices which can also detect non-nitrogen-based explosives will soon be operational.

Unconventional Weapons



Weapon	Wt	Cost (\$)	Dam	Range	Ammo	Load	Mods
Combination Billy Club and Tear Gas Gun	4	225	Special	25/85/250	1	1	—
Compressed Air Dust Thrower	7	500	Special	0/5/15	12	2	—
Double-shot Speargun	4	200	1d6W	5/15/30	2	7	—
Knife Gun	1	275	1d6 + 1W	5/20/50	1	1	1
Linear Combustion Motorized Gun	9	890	Special	5/10/30	25	3b	—
Paint Pellet Gun	2	125	NA	10/30/100	3	1	1
Tranquilizer Gun	6	175	Special	25/85/250	1	1	—
Ultrasonic Bombarder	4	20,000	Special	0/10/20	24	2	—

Combination Billy Club and Tear Gas Gun: This anti-riot device can be used as a baton or as a one-shot tear gas launcher. As a baton, it does 1d6 bruise damage.

Compressed Air Dust Thrower: A compressed air dust thrower looks like a steel scuba tank attached to a short hose. The stream of dust can be regulated by a small knob on the right side of the hose nozzle and can be set as a fine mist or a steady stream. Set to project a fine mist, the device can be used to cover tracks in an unused area or to set up a cloud to reduce visibility. As a steady stream, the accelerated dust can be shot like tear gas.

Double-shot Speargun: This device is essentially the same as a standard speargun, except it can be fired twice before being reloaded rather than once. The speargun projectiles can be outfitted with a number of different types of tips. Standard tips (\$1) do the same wound damage as most bullets, 1d6. Barbed tips (\$2) increase the amount of wound damage to 1d6 + 2. Explosive tips (\$5) increase the wound damage to 1d6 + 3.

Knife Gun: Spring-fired knife guns are illegal in the United States, supposedly because they are easily concealed and can pass through bulletproof vests.

Linear Combustion Motorized Gun: The motorized gun is powered by a patented linear combustion motor. A rechargeable nickel-cadmium battery powers the gun's ignition system for 4000 shots. A red light warns when the battery charge is getting low. A disposable hydrocarbon fuel cell (\$5) provides power enough to fire up to 1400 flechettes. A valve in the cell, acting like a carburetor, injects a precise amount of fuel at the start of each cycle. The gun fires flechettes 3" long at a rate of three per combat round. The flechettes are joined in strips in a variety of styles and to one to two points of damage. Poison or drags can add to the damage. To operate the gun, simply grip the handle to depress the fan switch. The fan draws fresh air into the combustion chamber to dissipate exhaust. Then, aim the weapon and squeeze the trigger with your index finger. The 9-pound gun has a belt clip, a clear magazine with visible flechette load, and a durable, lightweight nylon housing. The weapon comes with a high-impact plastic carrying case, battery cell, AC battery charger, and safety glasses.

Paint Pellet Gun: Paint pellet guns are devices powered by carbon dioxide capsules used to mark trees and cattle. Their use has been extended into a territorial hunting game outlawed in some municipalities. The object of these games is to be the last individual or team not marked with paint. Sometimes the unused pellets of "dead" combatants can be taken and used. Sometimes a flag or base must

be captured and/or returned to a home base. These guns do no damage, but can blind foes.

Tranquilizer Gun: Tranquilizer guns are devices powered by carbon dioxide capsules used to fire hypodermic syringes at animals. Various chemicals can be loaded into the hypodermic needles and various sizes are available for animals ranging in size from cats to grizzly bears to elephants. The hypodermic needles have stabilizing fins which make them look like darts. The needles inject their chemical loads on impact and usually stick in the target until pulled free.

Ultrasonic Bombarder: The ultrasonic bombarder is an experimental weapon. The bombarder appears to be a battery-operated horn. The ultrasonic waves given off by the horn expand in a 20' long cone pattern that is 3' in diameter. The horn can operate for up to 60 combat turns before the power in the battery is used up. For every 3 turns the weapon is aimed at a person's head, the victim takes 1d10 points of Constitution damage. Once the victim is unconscious, the 1d10 points of damage become wound damage. The victims suffer extreme pain in the ears and sinuses and automatically try to protect themselves by covering their ears. This action reduces REF, DEX, and MOV by 50%, unless the victim's WIL is over 60, in which case REF, DEX, and MOV are only reduced by 25%. After 60 turns of continuous bombardment, the weapon is useless. The bombarder can be used against multiple targets, but 3 turns of the 60-turn battery power is wasted each time the weapon is shifted to a new target, unless 2 combat turns are used to turn the bombarder off and back on.

Anticoagulant Ammunition: Bullets and shotgun shells can be manufactured to contain just about any chemical. Anticoagulant ammunition increases damage from standard ammunition by +1.

Anti-riot Guns: An anti-riot gun is usually a sawed-off shotgun loaded with large shot, tear gas, or an anti-riot baton. Anti-riot batons are designed to knock down, not kill, human targets. Rubber bullets have killed in Northern Ireland, even when ricocheted off pavement to slow them down. Ricocheting reduces both the accuracy and range of anti-riot batons by 1/2. Anti-riot batons come in a number of varieties. Plastic bullets (\$3) cut damage by -2, while rubber bullets (\$2) cut damage by -1. Fabric or "pancake" rounds (\$4) reduce damage by -3.

Byron Plastic Pistol: A \$400 advanced version of the plastic pistol made almost entirely of high-strength plastics and ceramics is under development. The caliber is unknown. The gun will be manufactured with a passive transponder molded into the barrel so that any attempt to remove it will destroy the weapon. Passive transponders bounce radio beams back to their sources where they can be picked up, amplified, and tracked. (Similar devices are used against shoplifters.) The major problem is that a plastic gun could be manufactured without the required passive transponder incorporated into it.

Crossbow Bolt Tips and Arrowheads: Crossbow bolt tips and arrowheads come in a number of varieties. Standard tips or arrowheads (\$1) do the same wound damage as bullets, 1d6. Hunting tips or arrowheads (\$1) inflict 1d6 + 2 damage. Explosive tips or arrowheads (\$4) do 1d6 + 3 wound damage when they hit a target. Armor-piercing tips or arrowheads (\$3) do 1d6 + 1 damage. A knock-down tip or arrowhead (\$2) does reduced wound damage of 1d4, while an incendiary tip or arrowhead (\$4) does 1d6 + 2 damage.

Glock-17 Plastic Pistol: The Glock-17 is a plastic pistol developed by Gaston Glock, an Austrian ordnance manufacturer. Probably available in 9mm, the quality handgun retails at \$450. An assembled Glock is easily detected by conventional airport security magnetometers because it contains nearly a pound of metal in the slide, barrel, and springs. Disassembled, it could theoretically escape detection. High-density plastic-detection devices will be needed to identify concealed plastic guns of this type.

Harpoons: A harpoon with a standard head (\$2) does the same wound damage as a bullet, 1d6. A barbed head (\$4) increases the wound damage to 1d6 + 2, and an explosive head (\$6) increases the wound damage to 1d6 + 3.

Plastic Gun: It is assumed that projectile weapons constructed from high-strength plastics and ceramics will soon be available in many calibers and styles at reduced prices.

Weapon Without a Serial Number: This modification to a conventional weapon is not the same as having the serial numbers filed off. In this case, the serial numbers were never impressed during the manufacturing process. Such a virtually untraceable weapon is worth three to five times the weapon's normal value on the black or illegal market.

Unconventional Close-Combat Weapons

Weapon	Weight	Cost (\$)	Damage	CCV
Chain, 10'	5	10	1d6 + 1B	15
Chainsaw (operating)	10	200	1d10W	35
Chair	4	25	1d8B	15
Cleaver	2	10	1d8W	30
Cutting Board	2	10	1d4B	15
Diver's Knife	1	25	1d6W	20
Machete	2	25	1d6 + 1W	20
Outboard Motor (operating)	15	250	1d8W	30
Purse	3	35	1d4B	5
Soldering Gun	1	30	1d4W	10
Steel-toed Shoes or Boots	1	45	1d4 + 1B	10
Telescopic Metal Whip (10')	2	35	1d6B	20
Tent Stake	1	1	1d6W	20

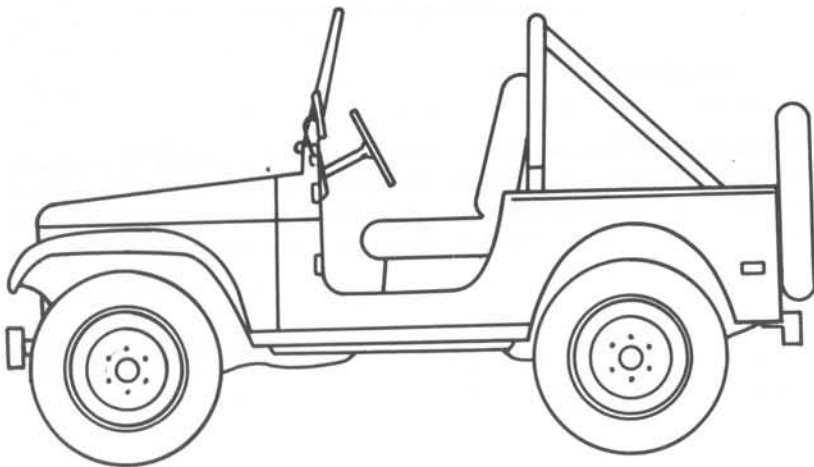
Chemical Weapons

Contact Poisons: Contact poisons are absorbed through the skin and usually work slowly into the system. Some of the popular methods of administering contact poisons include impregnating clothing with them, putting them inside shoes, covering automobile steering wheels with them, or loading them into felt-tip pens.

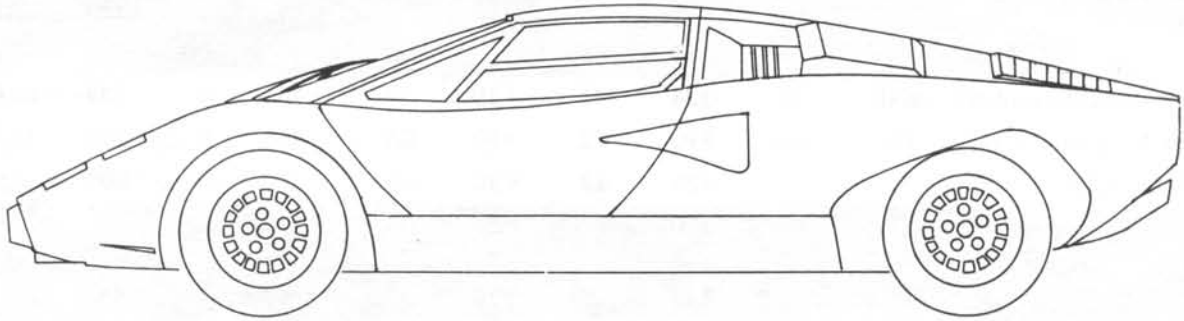
Carbonophage Microbes: A rather exotic method of harming both a human or an inanimate target was devised by a Web operative, working through a neo-Nazi laboratory in the Amazon rain forest. Web agents released carbonophage microbes from cylinders disguised as fire extinguishers in the vicinity of the space shuttle. The microbes consume carbon in any form and convert it into carbon dioxide and water. The leading edges of the shuttle's wings and nose are lined with reinforced carbon-carbon heat tiles, and if the microbes had reached the tiles before launch, it is possible they could have burrowed in and pitted the surfaces. During re-entry, the damaged surfaces might have failed to protect the spacecraft, and the vehicle and crew could have perished in a ball of flame with no trace of the microbes which caused the damage.

Carbonophage microbes thrive on solid carbon. They could theoretically be used to sabotage cold-weather machinery lubricated with graphite instead of motor oil. Carbonophage microbes cost \$13,000 per cylinder.

6. Land Vehicles



Automobiles

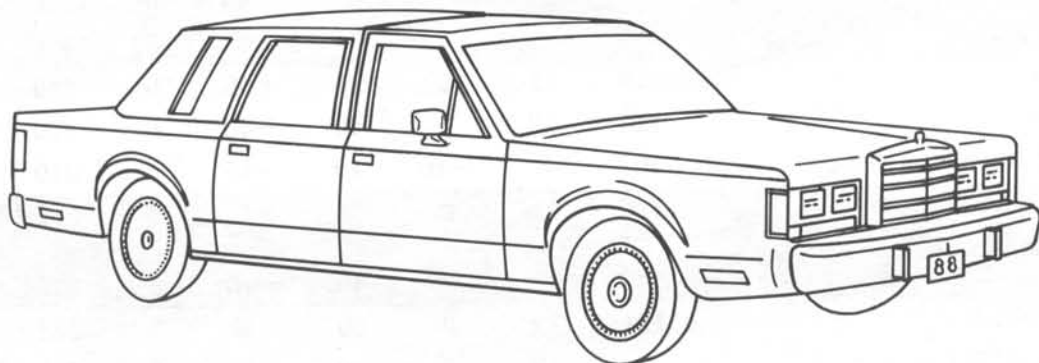


Vehicle Type	Max							Range	Cost (\$)
	Spd	Accel	Handl	Brake	Prot	#Pass			
Acura Integra	121	14	+10	40	-30	4	395	12,700	
Acura Integra LS	117	14	+10	40	-30	4	415	12,600	
Acura Legend	129	15	+5	35	-30	5	330	20,000	
Alfa Romeo Graduate	103	12	+10	40	-30	2	380	14,000	
Alfa Romeo Milano Silver	127	13	15	35	-30	5	350	16,825	
Alfa Romeo Milano Verde	135	14	+20	40	-20	5	350	22,000	
Alfa Romeo Quadrifoglio	113	11	+15	45	-20	2	350	20,500	
AMG Mercedes Hammer	183	24	+20	50	-45	5	289	161,400	
Aston Martin Lagonda	140	19	+10	40	-30	4	190	167,000	
Aston Martin Vantage	168	23	+15	35	-30	4	160	65,000	
Aston Martin Vantage Zagato	189	24	+15	35	-30	4	160	65,000	
Aston Martin Volante (Convertible)	160	20	+10	35	-20	2	160	73,000	
Audi 4000S	115	11	+15	50	-30	4	285	12,980	
Audi GT Coupe	115	13	+10	40	-30	4	380	16,125	
Audi Turbo Quattro	124	15	+5	45	-30	4	340	35,335	
Audi 5000 S	113	10	-10	40	-30	5	392	19,975	
Audi 5000 CS Turbo Quattro	139	16	+5	40	-30	5	270	30,000	
Avanti II	120	13	+10	40	-30	4	320	17,675	
Bentley T-2	118	14	0	35	-45	6	280	65,000	
Bentley Turbo R	135	16	+5	40	-45	6	265	98,400	
Bertone X1/9	105	10	+30	50	-30	2	400	30,000	
BMW 325es	122	14	+20	45	-30	5	450	24,375	

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
BMW 325ix	132	13	+10	35	-30	5	420	21,000
BMW 528e	113	10	+5	45	-30	5	300	28,325
BMW 535i	131	15	+5	45	-30	5	270	35,000
BMW 635 CSi	131	15	+20	45	-30	4	280	46,315
BMW 735i	119	13	+5	50	-30	5	270	33,900
BMW M5	153	19	+20	50	-30	5	270	26,500
Buick Century Estate Wagon	81	8	-20	25	-50	6	260	15,000
Buick Electra	108	9	-10	30	-45	6	320	17,120
Buick LeSabre T-Type	112	14	0	35	-45	6	400	15,000
Buick Regal Grand National	124	24	+10	35	-45	5	235	17,025
Buick Riviera T-Type	110	12	-10	35	-45	5	360	22,550
Cadillac Allante	123	13	+10	35	-30	2	360	55,000
Cadillac Cimarron V-6	110	12	0	35	-45	4	360	15,025
Cadillac Eldorado Touring Coupe	113	10	+10	30	-30	4	325	27,300
Cadillac Fleetwood	105	10	-20	25	-45	6	340	20,900
Cadillac Seville Elegante	110	10	-10	25	-45	6	325	34,225
Cadillac Touring Sedan	109	12	-10	35	-45	6	290	26,550
Cars & Concepts Mark VII GTC	116	12	+10	40	-30	5	290	38,675
Chevrolet Beretta/Corsica	120	14	+10	30	-45	4	325	13,000
Chevrolet Corsica	110	12	0	30	-45	5	325	12,000
Chevrolet IROC-Z Convertible	128	15	+20	40	-45	4	250	17,000
Chevrolet Camaro IROC-Z	129	17	+40	40	-45	4	225	15,000
Chevrolet Caprice Classic	118	11	-10	25	-45	6	440	12,025
Chevrolet (Cavalier) Z24	116	15	+20	35	-45	4	350	12,750
Chevrolet Celebrity Eurosport	102	10	+10	30	-45	5	315	12,350
Chevrolet Celebrity Wagon	116	12	-10	25	-50	6	300	10,675
Chevrolet Citation X-11	119	13	+20	30	-45	5	300	12,000
Chevrolet Corvette	154	21	+50	50	-20	2	305	27,475
Chevrolet Corvette (Callaway Turbo)	178	24	+50	60	-20	2	250	28,000
Chevrolet Monte Carlo SS	118	15	0	35	-45	4	315	14,425
Chevrolet Nova	95	9	-10	35	-45	4	480	8,250
Chevrolet Sprint	85	9	0	40	-30	4	720	6,250
Chevrolet Turbo Sprint	105	15	+5	45	-30	4	226	8,200
Chrysler Laser XE Turbo	122	12	+10	45	-45	4	300	14,500
Chrysler LeBaron Convertible	101	11	-10	25	-30	5	460	13,500
Chrysler LeBaron Coupe	129	13	-10	25	-45	5	465	11,875
Chrysler New Yorker Turbo	112	11	-10	35	-45	5	260	16,000

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Citroen CX25 GTi	119	12	0	40	-30	5	325	31,700
Datsun 240Z	130	18	+20	50	-30	2	340	12,000
DeLorean DMC-12	120	11	+20	35	-20	2	320	20,000
De Tomaso Pantera GT5	180	22	+30	50	-20	2	210	55,000
Dodge 600 ES Turbo	114	11	+10	45	-45	5	285	13,000
Dodge Colt Turbo	108	18	+15	40	-45	4	430	10,150
Dodge Colt Vista	105	8	-20	25	-50	7	420	10,150
Dodge Conquest TSi	123	18	+20	40	-45	4	380	14,600
Dodge Daytona Turbo Z	125	13	+20	40	-45	4	330	11,300
Dodge Omni GLH Turbo	119	16	+25	35	-45	5	350	9,700
Dodge Shadow ES	111	15	0	40	-45	5	465	11,575
Dodge Shelby Charger	124	15	+20	40	-45	5	320	13,000
Dodge Shelby Charger GLHS	134	18	+25	40	-45	5	320	13,625
Dodge Shelby GLHS	130	18	+20	40	-45	5	380	10,800
Dodge Shelby GLH-S	120	18	+40	40	-45	5	320	13,625
Ferrari 3.2 Mondial	145	17	+30	40	-30	4	210	38,250
Ferrari 308 GTB	140	12	+30	45	-20	2	160	36,000
Ferrari 328 GTS	153	21	+30	50	-20	2	265	69,700
Ferrari 412	147	18	+20	60	-20	2	250	40,000
Ferrari Testarossa	185	24	+40	50	-20	2	360	102,500
Ferrari GTO	179	25	+40	60	-20	2	400	125,000
Ford Escort EXP	109	12	0	35	-30	2	325	10,125
Ford Escort GL	99	11	-20	30	-45	4	325	8,800
Ford Escort GT	109	13	-20	35	-45	4	325	10,525
Ford Escort L	105	11	-20	30	-45	4	465	11,000
Ford Mustang GT	148	18	+20	35	-45	4	250	15,850
Ford Mustang GT Convertible	133	16	+20	35	-30	4	250	17,275
Ford Mustang SVO	135	19	+20		-45	4	380	15,000
Ford RS 200	146	24	+20	60	-30	2	305	40,000
Ford Scorpio Ghia	124	11	+10	50	-45	5	335	28,350
Ford Scorpio 4X4	127	13	0	50	-45	5	340	31,425
Ford Sierra RS Cosworth	142	20	+20	45	-45	5	300	28,500
Ford Sierra XR4x4	130	14	0	45	-45	5	320	14,525
Ford Taurus	116	11	0	35	-45	6	480	15,250
Ford Taurus LX	114	12	0	40	-45	6	372	15,075
Ford Tempo All Wheel Drive	103	8	-10	40	-45	5	310	10,550
Ford Tempo Sport GL	106	12	0	35	-45	5	320	9,725
Ford Thunderbird Turbo Coupe	137	15	+5	40	-45	4	370	17,025
Honda Accord LX	121	12	0	30	-30	5	385	14,950
Honda Accord LX-i	116	13	0	30	-30	5	400	12,700

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Honda Accord LX Sedan	102	10	0	30	-30	5	430	10,300
Honda Accord SE-i	106	12	0	30	-30	5	365	13,125
Honda Civic	90	9	+10	40	-30	4	285	9,775
Honda Civic Wagon	102	8	-10	40	-45	4	340	7,400
Honda Civic Si	118	11	+10	45	-30	4	285	9,100
Honda Civic CRXSi	115	15	+20	50	-20	2	560	9,395
Honda Civic CRX 1.5	103	12	0	40	-20	2	300	7,675
Honda Prelude Si	115	12	+20	35	-30	4	380	12,425
Honda Prelude 2.0 Si	115	13	+20	40	-30	4	400	13,025
Honda Today F-type	69	4	-10	35	-30	4	230	4,100
Hyundai Excel GL	90	7	-20	25	-30	5	385	7,275
Hyundai Excel GLS	92	9	-10	30	-30	4	505	6,550
Isuzu I-Mark	92	10	0	35	-30	4	570	9,500
Isuzu I-Mark Turbo	110	14	0	35	-30	4	550	11,000
Isuzu Impulse Turbo	127	18	+10	40	-30	4	415	12,050
Isuzu Impulse Turbo RS	127	14	+20	45	-30	4	330	14,950
Jaguar XJ6 Series III	120	16	0	30	-30	5	270	19,000
Jaguar XJ12	130	13	0	40	-30	5	240	25,000
Jaguar XJ6 Vanden Plas	120	16	0	40	-30	5	285	40,100
Jaguar XJ-6 3.6	125	13	0	35	-30	5	300	36,300
Jaguar XJ-S	125	13	+10	35	-30	4	160	37,500
Jaguar XJ-SC Cabriolet	135	14	+5	35	-20	2	335	43,500
Jaguar V-12 XJ-S HE	148	13	+10	40	-20	2	320	41,000
JMX Taurus (Ford Taurus Conversion)	116	11	+10	40	-30	5	480	19,500
Lamborghini Countach	160	16	+20	50	-20	2	360	52,000
Lamborghini Countach 5000	168	21	+20	50	-20	2	200	100,000
Lamborghini Countach Quattrovalvole	179	24	+40	50	-20	2	166	122,000
Lamborghini Jalpa	148	21	+20	45	-20	2	317	57,850
Lincoln Mark VII LSC	131	14	+10	35	-30	2	440	27,466
Lincoln Town Car	104	11	-20	30	-45	6	270	29,375



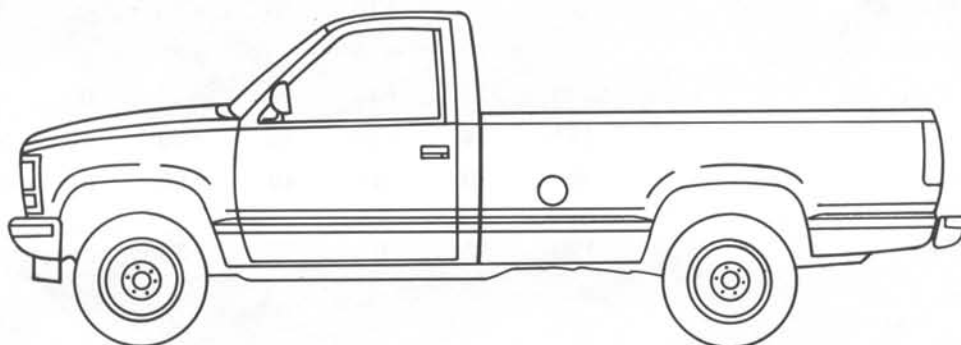
Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Lotus Turbo Espirit	152	21	+35	45	-20	2	250	57,000
Lotus Elite	120	12	+20		-20	4	240	29,600
Lotus Eclat	120	12	+20	40	-20	4	240	28,500
Maserati Biturbo E	129	19	+20	40	-30	4	290	30,000
Maserati Biturbo Spyder	132	15	+10	35	-30	4	290	31,000
Maserati 425 Biturbo	122	15	+10	35	-30	4	280	32,775
Maserati Merak	135	14	+15	45	-30	4	308	40,000
Maserati Quattroporte	143	14	0	25	-30	5	230	60,000
Mazda 323	120	12	-10	30	-30	4	435	6,200
Mazda 323 Deluxe	12	12	-10	30	-30	4	435	8,400
Mazda 323 LX 1.6i	106	11	-5	30	-30	4	435	10,025
Mazda RX-7 GSL-SE	128	16	+20	40	-20	2	285	15,100
Mazda RX-7 GXL	128	16	+20	40	-20	2	290	18,500
Mazda RX-7 Turbo	145	18	+30	50	-20	2	305	20,400
Mazda 626 GT Turbo	130	15	+10	45	-30	5	300	13,350
Mazda 626 GT	123	15	0	45	-30	5	385	14,600
Mercedes-Benz 190E	124	14	+10	45	-30	4	315	23,425
Mercedes-Benz 190E 2.6	128	15	+10	45	-30	4	250	32,200
Mercedes-Benz 190E 2.3-16	137	16	+20	50	-30	4	335	34,800
Mercedes-Benz 300E	140	16	+20	50	-30	5	350	39,650
Mercedes-Benz 300SE	140	16	+20	50	-30	5	395	42,725
Mercedes-Benz 300TD	115	12	0	50	-30	5	350	22,000
Mercedes-Benz 300TD Turbo	123	10	0	50	-30	5	350	40,950
Mercedes-Benz 380SL	118	12	-10	40	-20	2	360	45,275
Mercedes-Benz 450SLC	125	13	-10	40	-30	4	190	34,750
Mercedes-Benz 560SEC	145	17	+10	45	-30	6	230	66,400
Mercedes-Benz 560SL	137	18	+10	50	-20	2	270	53,300
Mercury Lynx XR3	110	13	0	30	-45	4	255	9,500
Mercury Sable LS	115	10	0	35	-45	6	315	14,550
Mercury Sable Wagon	115	11	-10	35	-50	6	315	15,100
Mercury Tracer	105	12	-10	40	-45	4	380	9,175
Merkur XR4Ti	123	15	+10	30	-45	4	370	17,825
Mitsubishi Conquest TSi	137	18	0	40	-30	4	300	11,000
Mitsubishi Cordia Turbo	115	14	0	35	-30	4	310	11,325
Mitsubishi Galant	101	10	0	40	-30	5	270	14,300
Mitsubishi Mirage	100	10	-10	35	-30	4	470	6,050
Mitsubishi Mirage Turbo	109	15	-10	40	-30	4	470	10,575
Mitsubishi Starion ESI	126	15	+20	40	-30	4	295	15,275
Mitsubishi Starion ESI-R	125	15	+20	45	-30	4	295	17,400
Mitsubishi Wagon LS	117	9	-10	25	-45	7	255	16,125
Nissan 200SX SE	122	14	+10	40	-30	4	240	15,750
Nissan 200SX Turbo	123	13	+10	40	-30	4	335	13,475

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Nissan 300ZX 2 + 2	124	16	+20	40	-20	4	375	16,000
Nissan 300ZX Turbo	137	20	+20	40	-30	2	340	23,150
Nissan Maxima SE	117	12	+10	50	-30	5	285	16,500
Nissan MID4	161	20	+50	60	-20	2	345	30,000
Nissan Pulsar NX SE	115	12	+10	40	-30	2	385	13,000
Nissan Sentra SE	100	9	+10	35	-30	4	355	10,800
Nissan Stanza GXE	104	11	-10	30	-30	5	410	12,250
Nissan Stanza Wagon	99	9	-20	25	-45	5	285	10,500
Oldsmobile Calais Supreme	109	11	0	25	-45	5	400	12,225
Oldsmobile Cutlass Ciera GT	111	13	+10	35	-45	5	285	15,850
Oldsmobile Delta 88	111	12	-10	25	-45	6	360	17,600
Oldsmobile Firenza GT	122	12	+10	35	-45	4	245	11,025
Oldsmobile Toronado	110	12	+10	30	-45	4	470	20,000
Panther Kallista	126	9	0	45	-20	2	230	24,875
Peugeot 505 STX	114	13	+10	50	-30	5	300	24,225
Peugeot 505 Turbo	121	15	+5	40	-30	5	295	20,140
Plymouth Horizon America	106	12	-10	25	-30	5	325	7,000
Plymouth Sundance Turbo	114	14	0	25	-30	5	465	10,825
Pontiac Bonneville SE	110	13	+10	30	-45	6	430	19,650
Pontiac Fiero GT	126	16	+30	40	-20	2	340	14,800
Pontiac Firebird Trans Am	121	15	+30	35	-30	4	245	16,000
Pontiac Firebird Trans Am GTA	135	16	+40	40	-30	4	310	18,900
Pontiac Grand Am	115	11	+20	40	-30	5	235	9,500
Pontiac Grand Am SE	111	11	+20	40	-30	5	235	14,200
Pontiac Grand Prix	119	13	+10	30	-30	5	235	18,214
Pontiac LeMans	100	10	0	25	-45	4	505	9,400
Pontiac LeMans SE	100	9	0	25	-45	4	505	7,000
Pontiac Sunbird Turbo GT	120	17	+20	35	-30	4	245	13,825
Pontiac 2000 Sunbird SE	125	13	+20	30	-30	4	285	12,425
Pontiac 6000 STE	112	12	+10	35	-45	5	285	16,000
Porsche 911 Turbo	155	26	+30	50	-30	2	270	49,725
Porsche 911 Cabriolet	130	21	+10	45	-30	2	300	38,500
Porsche 924S	136	16	+20	45	-30	2	350	22,250
Porsche 928	145	17	+20	40	-20	2	255	30,000
Porsche 928S	154	19	+20	50	-20	2	375	50,700
Porsche 928S 4	165	22	+30	60	-20	2	365	62,250
Porsche 930 Turbo	165	24	+25	50	-30	2	240	38,500
Porsche 944	131	15	+30	45	-20	2	570	28,000
Porsche 944S	142	16	+30	45	-30	2	570	28,000
Porsche 944 Turbo	157	20	+50	50	-20	2	570	31,400
Porsche 959	198	30	+50	60	-30	2	475	230,000

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Rapido Merkur (Conversion)	132	18	+10	40	-45	4	270	23,125
Renault Alliance	105	9	+10	30	-30	4	250	6,400
Renault (Alliance) GTA	101	13	+30	40	-30	4	225	13,500
Renault Alpine	147	16	+30	50	-20	2	470	32,000
Renault Encore GS	97	9	+20	30	-30	4	460	8,675
Renault Fuego Turbo	116	12	+20	35	-30	4	320	13,500
Renault Medallion LX	117	12	+5	35	-30	5	450	13,000
Rolls-Royce Camargue	118	12	-20	35	-45	5	160	115,000
Rolls-Royce Silver Shadow	118	12	-20	35	-45	6	160	65,000
Saab 900S	104	12	+10	30	-30	5	300	16,400
Saab 900 Turbo	128	14	+10	40	-30	5	380	21,400
Saab 900 Turbo Convertible	128	14	+10	40	-20	4	380	26,000
Saab 9000	124	16	+10	35	-30	5	335	21,800
Saab 9000 Turbo	141	16	+15	40	-30	5	320	26,075
Sterling 825S	130	13	+10	40	-30	5	450	18,500
Sterling 825 SL	131	14	+10	45	-30	5	340	24,000
Subaru GL	98	10	0	40	-30	5	285	11,900
Subaru 4wd Turbo XT Coupe	120	12	0	35	-30	5	335	14,525
Subaru GL 4wd Turbo 3-Door	118	11	0	40	-30	4	240	10,600
Subaru GL Wagon	107	9	0	35	-45	5	285	10,250
Subaru Justy GL	91	11	-30	45	-30	4	260	7,500
Toyota Camry LE	112	11	0	40	-30	5	285	13,000
Toyota Celica GTS	122	15	+20	40	-30	4	380	14,200
Toyota Corolla FX16	107	14	+20	45	-30	4	395	12,000
Toyota Corolla GTS	115	11	+10	45	-30	4	430	10,600
Toyota Cressida	118	12	0	35	-30	5	335	19,350
Toyota MR2	121	15	+30	45	-20	2	420	14,430
Toyota Supra	131	17	+30	40	-30	4	335	18,500
Toyota Supra Turbo	145	19	+30	40	-30	4	335	23,600
Toyota Tercel	99	11	0	35	-30	4	720	10,250
Toyota Tercel Wagon	103	8	-5	35	-45	5	240	8,700
Toyota 2000 GT	120	12	+10	40	-30	2	350	7,225
Vector W2 Twin Turbo	180	31	+20	45	-20	2	300	150,000
Volkswagen GT	107	13	+20	40	-30	4	430	9,750
Volkswagen GTI 16V	118	14	+30	45	-30	4	430	14,350
Volkswagen Fox GL	95	11	+10	35	-30	4	335	7,500
Volkswagen Golf GL	101	11	+15	30	-30	4	290	8,750
Volkswagen Jetta GLI	115	12	+20	45	-30	4	290	11,500
Volkswagen Quantum Syncro	103	11	+15	45	-30	5	315	17,600
Volkswagen Quantum Syncro Wagon	113	11	0	40	-45	5	370	16,650

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Volkswagen Scirocco GTX 16V	124	15	+20	45	-20	4	315	13,875
Volvo 240DL	113	10	0	40	-30	5	380	15,725
Volvo 480ES	118	12	+10	40	-30	4	380	15,000
Volvo 740 Turbo	115	14	0	40	-45	5	385	22,650
Volvo 740 Turbo Wagon	127	17	0	40	-45	5	220	28,825
Yugo GV	86	9	-30	35	-20	4	200	5,450
Zimmer Quicksilver (Pontiac Fiero Conversion)	112	12	0	30	-20	2	175	51,950

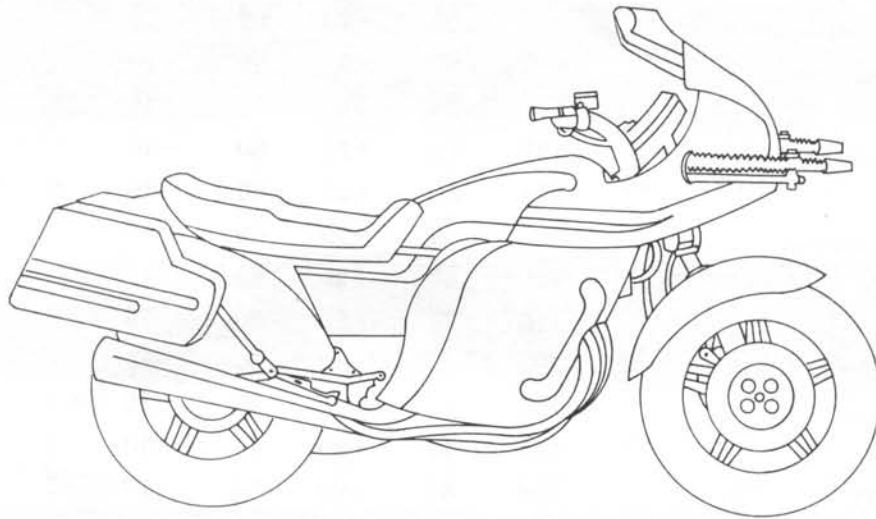
Specialty Vehicles



Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Caterpillar D-8N (earthmover) tractor	7 to 9 revolutions	1	-30	1	-30	1	570	270,000
Ford Aerostar XLT	90	8	-20	25	-50	7	305	15,100
Hovertechnics Hoverstar (Hovercraft)	30-water 251-land 50-ice	8	-20	-20		2	50	7,325
Lamborghini LM002 (Off-road)	118	16	+20	35	-60	4	610	120,000
Nissan King Cab 4X4 (Mini-truck)	90	13	-10	25	-30	4	485	13,000
Nissan Pathfinder XE	73	9	-10	35	-30	5	160	17,000
Range Rover	95	10	-10	25	-40	5	340	30,825
Suzuki Samurai (Mini-truck)	77	7	0	25	-30	4	210	7,650
Toyota 4Runner SR5 (Mini-truck)	71	9	-20	30	-30	5	250	12,800
Toyota SR5 Turbo (mini-truck)	105	11	-30	30	-30	3	220	12,075
Vixen 21TD (Two-door Motorhome)	100	6	-20	25	5	5	470	36,600

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Volkswagen Vanagon Syncro	85	8	-40	35	-45	8	370	16,900
Volkswagen Vanagon Syncro Camper	79	7	-40	30	-45	6	295	18,950

Two-Wheeled Vehicles

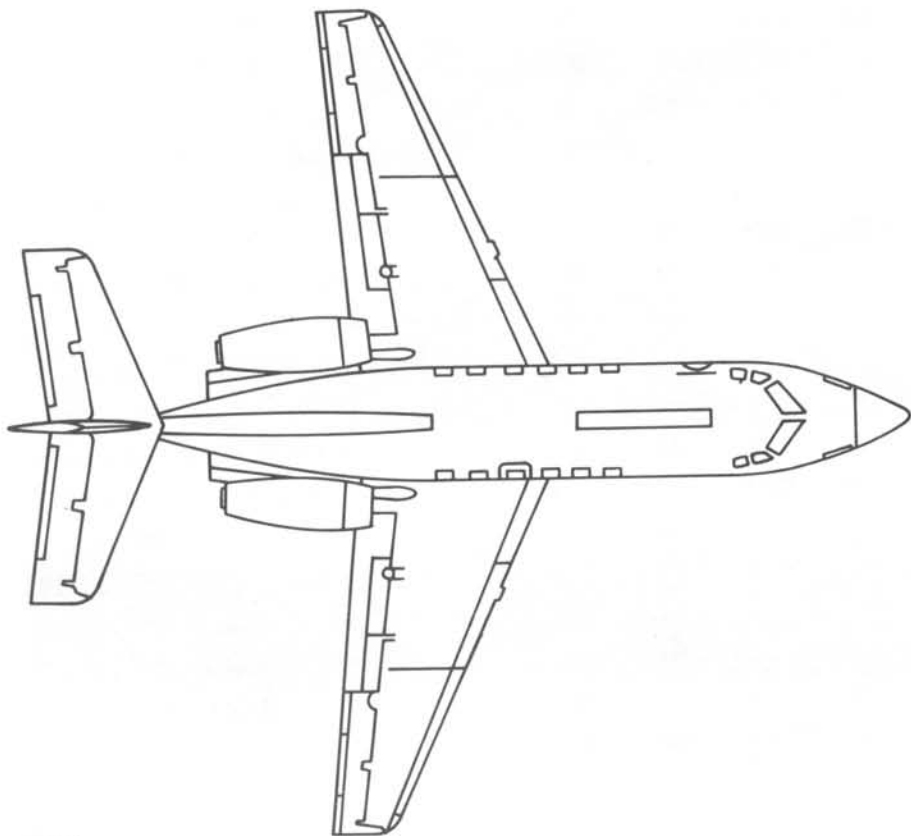


Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Bicycle	35	4	+20	10	0	1	—	300
BMW K75C	111	31	+20	50	-10	2	300	4,700
BMW K75S	113	32	+20	50	-10	2	300	5,950
BMW K75T	104	28	+20	50	-10	2	300	4,850
BMW K100	121	36	+20	60	-10	2	400	6,000
BMW K100RS	111	32	+20	50	-20	2	400	7,200
BMW R80	106	28	+20	50	-10	2	320	4,300
Cagiva 650 Elephant	105	28	+20	60	-10	2	260	4,625
Cagiva/Ducati Paso 750	123	28	+20	60	-10	2	286	6,377
Harley-Davidson 883 Sportster	113	24	+20	50	-10	2	111	3,995
Harley-Davidson FLST Heritage Softail	103	27	+20	50	-10	2	540	9,000
Harley-Davidson FLHTC Tour Guide	100	24	+20	50	-10	2	195	10,895
Harley-Davidson FXLR Low Rider Custom	107	29	+20	50	-10	2	540	9,250
Harley-Davidson FXR Super Glide	106	29	+20	50	-10	2	540	7,350
Harley-Davidson FXRS Low Rider	102	26	+20	60	-10	2	194	9,245
Harley-Davidson FXRS Sport Edition	106	28	+20	50	-10	2	540	8,800
Honda CB450SC Nighthawk	94	23	+20	50	-10	2	270	2,000

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Honda CB700SC Nighthawk S	118	35	+20	50	-10	2	280	3,400
Honda CBR250 Four	110	33	+20	50	-10	2	300	3,600
Honda CMX450C Rebel	99	25	+20	50	-10	2	270	2,400
Honda GL1200 Aspencade	98	27	+20	50	-10	2	235	7,900
Honda GL1200 Limited Edition	113	32	+20	50	-10	2	235	10,000
Honda VF500C Magna	113	32	+20	50	-10	2	200	2,600
Honda VF500F Interceptor	116	33	+20	50	-10	2	200	2,950
Honda VF700C Magna	119	35	+20	50	-10	2	280	4,000
Honda VF700S	119	35	+20	50	-10	2	280	3,400
Honda VF1000F Interceptor	131	42	+20	60	-10	2	400	5,500
Honda VF1000R	128	40	+20	60	-10	2	400	5,700
Honda VF1100C Magna	128	39	+20	60	-10	2	380	4,100
Honda VFR750F Interceptor	125	41	+20	60	-10	2	450	5,298
Honda VT1100C Shadow	115	33	+20	50	-10	2	320	4,200
Honda VT700C Shadow	103	27	+20	50	-10	2	420	3,600
Honda V65 Magna	129	29	+20	60	-10	2	370	4,050
Honda V65 Sabre	134	43	+20	60	-10	2	320	4,550
Kawasaki 454 LTD	108	30	+20	50	-10	2	270	2,000
Kawasaki EL250 Eliminator	106	25	+20	60	-10	2	120	2,299
Kawasaki EX250R Ninja	101	25	+20	60	-10	2	250	2,300
Kawasaki EX500	112	32	+20	50	-10	2	200	2,900
Kawasaki GPX750R	135	44	+20	60	-10	2	250	4,800
Kawasaki GPz900R Ninja	138	45	+20	60	-10	2	280	4,600
Kawasaki KLR600	99	25	+20	50	-10	2	225	2,450
Kawasaki KZ700A1	120	36	+20	60	-10	2	280	3,300
Kawasaki VN700 Vulcan	105	28	+20	50	-10	2	280	3,300
Kawasaki ZG1000 Concours	125	39	+20	60	-10	2	400	5,700
Kawasaki ZG1200 Voyager	115	33	+20	50	-10	2	380	7,400
Kawasaki ZL600	117	35	+20	50	-10	2	340	3,500
Kawasaki ZL900 Eliminator	132	45	+20	60	-10	2	380	4,500
Kawasaki ZL1000 Eliminator	131	43	+20	60	-10	2	360	4,900
Kawasaki ZX600R Ninja	118	38	+20	50	-10	2	350	3,300
Kawasaki ZX600RX Ninja	123	37	+20	60	-10	2	350	4,000
Kawasaki ZX1000R Ninja	135	44	+20	60	-10	2	300	5,200
Moto Guzzi 1000 LeMans	120	38	+20	60	-10	2	380	4,675
Suzuki GS700ES	120	36	+20	60	-10	2	340	3,300
Suzuki GSX-R750	126	41	+20	60	-10	2	350	4,300
Suzuki GSX-R1100	136	46	+20	60	-10	2	310	5,400
Suzuki GS1150E	137	46	+20	60	-10	2	320	4,400
Suzuki GS1150ESE	135	44	+20	60	-10	2	320	4,775
Suzuki GV1200 Madura	127	39	+20	60	-10	2	300	4,500

Vehicle Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
Suzuki GV1400GDG Cavalcade LX	107	29	+20	50	-10	2	270	8,000
Suzuki LS650 Savage	93	23	+20	50	-10	2	330	2,000
Suzuki VS700GL Intruder	106	29	+20	50	-10	2	420	3,200
Yamaha FJ600L	114	33	+20	50	-10	2	420	2,900
Yamaha FJ1100	137	45	+20	60	-10	2	320	5,000
Yamaha FJ1200	140	47	+20	60	-10	2	340	5,200
Yamaha FZ600	116	33	+20	50	-10	2	320	3,400
Yamaha FZ750	128	41	+20	60	-10	2	350	4,600
Yamaha FZX700S Fazer	126	108	+20	60	-10	2	340	3,500
Yamaha RZ350L	109	29	+20	50	-10	2	275	2,400
Yamaha VMX12N V-Max	142	45	+20	60	-10	2	330	5,300
Yamaha XJ700 Maxim	117	34	+20	50	-10	2	340	3,000
Yamaha XJ700 Maxim X	124	38	+20	60	-10	2	340	3,500
Yamaha XV500	98	26	+20	50	-10	2	300	2,500
Yamaha XV535T Virago	101	26	+20	50	-10	2	310	2,700
Yamaha XV700	111	30	+20	50	-10	2	340	3,050
Yamaha XV1000N Virago	111	31	+20	50	-10	2	300	4,500
Yamaha XV1300 Venture Royale	115	33	+20	50	-10	2	360	8,500
Yamaha XVZ12TK Venture Royale	114	32	+20	50	-10	2	340	8,300
Yamaha YX600S Radian	117	34	+20	50	-10	2	460	2,400

7. Aircraft



Acceleration: In level flight, propeller-driven aircraft accelerate at 1% of Maximum Speed (Max Spd) per turn. This can be increased to 10% of Max Spd by diving at least 100'. Prop-driven aircraft can't accelerate and climb at the same time — they must lose 10% of Max Spd if they climb more than 100'. Jet aircraft accelerate up to 10% of Max Spd speed in level flight or climb. This can be doubled in a dive.

Deceleration: In a single turn, aircraft in level flight can decelerate by as much as 1% of Max Spd. They can lose up to 10% of Max Spd in a single turn by climbing 100' or more.

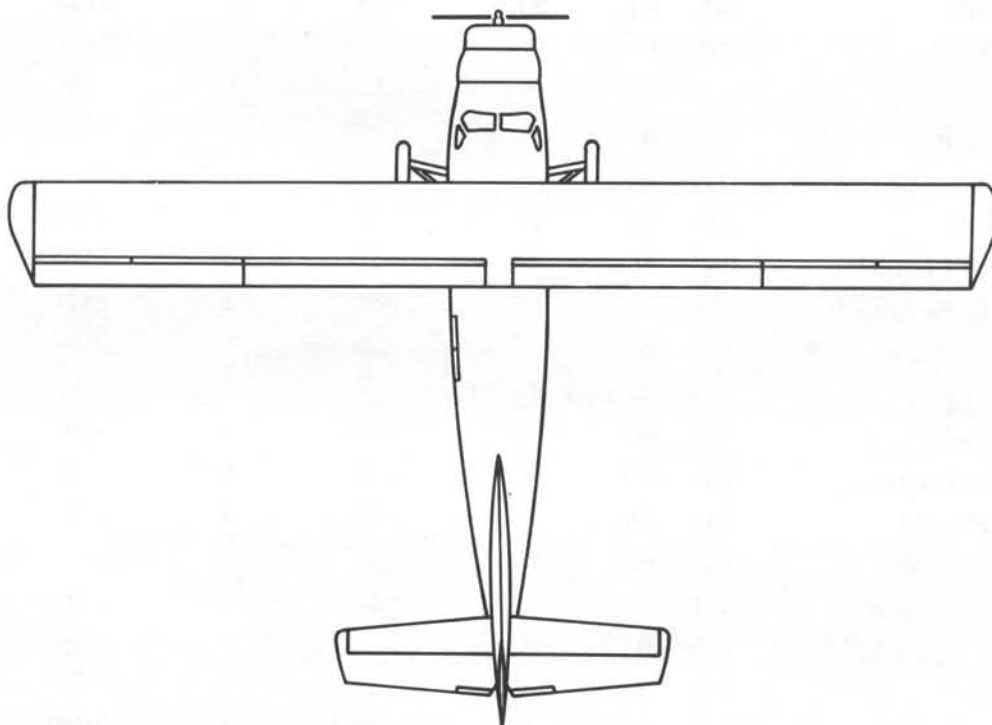
Maneuvering: Helicopters turn and use special maneuvers like automobiles. All other aircraft turn very gradually in a two second *Top Secret/S.I.*™ turn — up to 15 degrees to the right or left if the pilot makes a Driving check. If the check is unsuccessful, the aircraft turns only 5 degrees.

Stl Spd (Stall Speed): The minimum speed an aircraft must maintain in order to remain airborne.

Ceilg (Ceiling): The maximum altitude an aircraft can attain measured in thousands of feet.

@: This symbol indicates that an aircraft can be outfitted with floats, allowing landings and takeoffs from water.

Civilian Single-Engined Airplanes



Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Aerospatiale Tobago	146	60	13	-25	4/5	750	83,625
Aerospatiale Trinidad TC	230	68	25	-25	4	1185	109,800
Air America Javelin (Cessna P210 Conversion)	224	67	23	-25	6	1255	161,500

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Beech Bonanza A-36	202	60	19	-25	4/6	875	295,800
Beech Bonanza A-36 TC	201	80	18	-25	6	845	111,250
Beech Bonanza F-33A	187	80	8	-25	5	900	91,950
Beech Bonanza V-35B	187	80	8	-25	5	900	91,950
Beech Sierra 200	144	80	8	-25	4	905	53,900
Beech Skipper	110	80	8	-25	2	450	19,950
Beech Sundowner 180	124	80	8	-25	4	780	39,525
Bellanca Aries T-250	200	80	8	-25	4	1200	66,750
Bellanca Citabria 7ECA@	116	80	8	-25	2	545	18,750
Bellanca Decathlon	132	80	8	-25	2	685	26,400
Bellanca Scout@	115	80	8	-25	2	840	28,500
Bellanca Super Viking	186	80	8	-25	4	950	62,500
Cessna 152@	115	80	8	-25	2	780	16,950
Cessna 180@	153	80	8	-25	6	1115	41,975
Cessna 182 Skylane	182	56	15	-25	4	1195	114,500
Cessna 185@	159	80	8	-25	6	940	51,275
Cessna Hawk XP@	137	80	8	-25	4	945	35,950
Cessna Centurion (Pressurized)	245	80	23	-25	6	1135	1 17,3 00
Cessna Skyhawk	132	80	8	-25	4	860	27,250
Cessna Skylane RG	170	80	8	-25	4	1205	58,750
Cessna Stationair 6	161	80	8	-25	6	1000	58,750
Cessna Stationair 8	164	80	8	-25	8	950	68,450
Cessna T-210R	238	63	29	-25	6	1380	265,825
Cessna Turbo Centurion	259	80	18	-25	6	1155	84,100
Cessna Turbo Skylane RG	183	80	18	-25	4	1210	65,500
Cessna Turbo Stationair 6	164	80	18	-25	6	950	66,175
Grob G-109B	118	45	16	-25	2	615	64,600
Lake Buccaneer	150	80	8	-25	4	840	64,400
Maule Lunar Rocket@	154	80	8	-25	4	770	32,050
Mooney Turbo 231	231	80	18	-25	4	1235	57,775
Mooney Turbo 252	252	68	28	-25	4	1290	176,575
Mooney 201	201	63	19	-25	4	1110	98,900
Mooney 205	205	62	8	-25	4	990	101,300
Piper Archer II	148	56	14	-25	4	870	92,375
Piper Arrow IV	147	80	8	-25	4	1060	50,600
Piper Dakota	158	80	8	-25	4	930	41,075
Piper Saratoga	159	80	8	-25	7	1020	66,700
Piper Super Cub@	115	80	8	-25	2	610	27,110
Piper Tomahawk	106	80	8	-25	2	550	19,050
Piper Turbo Arrow IV	185	80	18	-25	4	1205	55,725
Piper Turbo Dakota	168	80	18	-25	4	1200	46,575

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Piper Turbo Saratoga	189	80	18	-25	7	1040	74,900
Piper Turbo Saratoga SP	189	80	18	-25	7	1040	88,400
Piper Warrior II	129	80	8	-25	4	785	27,800
Prescott Pusher	179	66	18	-25	4	775	36,500
SAH-1	127	46	8	-25	2	555	35,000
Socata Rallye 235 GT	144	80	8	-25	4	750	44,900
Task Research Silhouette (Kit)	121	49	8	-25	1	425	9,500
Varga Kachina	121	80	8	-25	2	545	22,950
Valentin Taifun 17-E	136	44	19	-25	2	775	61,400

Civilian Twin-Engined Airplanes

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Beech Baron 58	233	85	21	-35	4/6	1575	493,995
Beech Baron 58 P	244	100	18	-35	6	1220	271,500
Beech Baron 58 TC	244	100	18	-35	6	1220	227,300
Beech Baron B-55	207	100	18	-35	6	1220	141,500
Beech Baron E-55	219	100	8	-35	6	1335	173,750
Beech Duchess 76	179	100	8	-35	4	950	107,000
Beech Duke	238	100	18	-35	6	1430	341,700
Cessna 310	209	100	8	-35	6	1380	137,600
Cessna 335	225	100	18	-35	6	1440	209,950
Cessna 340-A	225	100	18	-35	6	1555	235,950
Cessna 402-C	225	100	18	-35	8	1350	236,950
Cessna 414-A	258	83	31	-35	6/8	1495	725,800
Cessna Chancellor	219	100	18	-35	8	1465	307,475
Cessna Golden Eagle	239	100	18	-35	8	1600	357,470
Cessna Skymaster	184	100	8	-35	6	1345	104,200
Cessna Skymaster (Pressurized)	220	100	18	-35	5	1365	159,000
Cessna Turbo 310	223	100	18	-35	6	1585	160,650
Cessna Turbo Skymaster	207	100	18	-35	6	1345	121,000
Grumman G-111 (HU-16) Albatross (Amphibious)	237	100	8	-35	28	345/575	2,500,000
Piper Aerostar 600-A	238	100	8	-35	6	1380	186,125
Piper Aerostar 601-B	253	100	18	-35	6	1440	212,275
Piper Aerostar 601-P	253	100	18	-35	6	1440	273,250
Piper Aztec F	194	100	8	-35	6	1415	143,300
Piper Chieftain	227	100	18	-35	10	1250	268,925
Piper Navajo C	221	100	18	-35	8	1390	234,900
Piper Navajo C/R	225	100	18	-35	8	1305	249,850

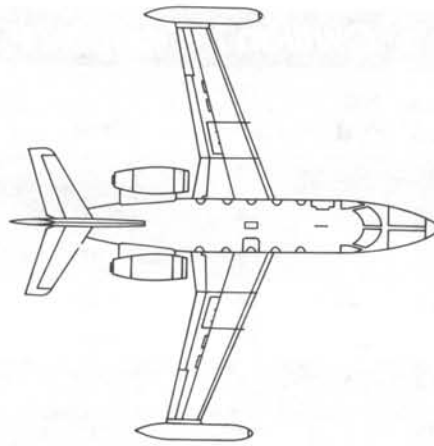
Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Piper Seminole	178	100	8	-35	4	1105	86,950
Piper Seneca II	202	100	18	-35	7	1295	112,225
Piper Seneca III	222	74	25	-35	6/7	890	276,725
Piper Turbo Aztec F	223	100	18	-35	6	1295	179,200
Wing Derringer	209	100	8	-35	2	1150	125,000

Civilian Turboprop Airplanes

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Beech King Air A-100	278	100	22	-30	10	1335	2,000,000
Beech King Air B-100	300	100	22	-30	10	1500	2,000,000
Beech King Air C-90	251	100	18	-30	10	1355	2,000,000
Beech King Air E-90	282	100	18	-30	10	1495	2,000,000
Beech King Air F-90	297	100	18	-30	10	1515	2,000,000
Beech Super King Air 200	338	86	35	-30	8/15	2230	2,215,000
Cessna Conquest I	297	91	30	-30	6/8	1630	1,536,300
Cessna Conquest 441	312	100	22	-30	11	2650	1,500,000
Cessna Corsair	296	100	22	-30	8	1685	1,500,000
Fairchild Metro III	306	100	31	-30	21	2415	2,800,000
Mitsubishi Marquise MU-2B-60	336	100	20	-30	11	1780	2,500,000
Mitsubishi Solitaire MU-2B-40	360	100	20	-30	9	1585	2,500,000
Piper Cheyenne I	269	100	22	-30	7	1480	2,000,000
Piper Cheyenne II	282	100	22	-30	8	1860	2,000,000
Piper Cheyenne III	325	100	22	-30	8	1790	2,000,000
Rockwell Commander 840	308	100	22	-30	11	2250	3,000,000
Rockwell Commander 980	345	100	22	-30	11	2105	3,250,000
Saab-Fairchild SF-340	319	97	25	-30	38	2100	6,300,000
Saab SF-340	305	97	31	-30	15/35	1980	6,000,000
Swearingen Merlin IIIB	330	100	22	-30	11	2770	2,000,000
Swearingen Merlin IVA	284	100	22	-30	12	2270	2,084,000

Civilian Jet Airplanes

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Aerospatiale/BAC Concorde	1450	100	60	-70	144	4490	10,000,000
Airbus A-310-200	562	100	33	-70	255	3740	4,000,000
Beech Beechjet	530	100	41	-25	11	3000	3,189,400
Boeing 727-200	599	100	34	-70	125	2800	11,000,000
Boeing 747	608	100	45	-70	500	7090	22,000,000



Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
British Aerospace HS-125-700	512	100	24	-25	14	3050	3,540,000
Canadair Challenger	529	100	24	-25	28	3100	6,000,000
Cessna Citation I	407	100	24	-25	8	1900	1,470,000
Cessna Citation II	443	100	43	-25	8/10	2100	2,195,000
Cessna Citation III	543	102	51	-25	8/10	2300	3,795,000
Dassault Falcon 10	522	100	24	-25	10	1900	2,300,000
Dassault Falcon 20-F	521	100	24	-25	12	1955	5,800,000
Dassault Falcon 50	497	100	24	-25	14	2000	7,442,000
Dassault Falcon 200	542	93	42	-25	10	3750	7,500,000
Dassault Falcon 900	582	100	51	-25	18	4830	13,500,000
Gates Learjet 24-F	511	100	45	-25	8	3000	1,730,700
Gates Learjet 25-D	511	100	45	-25	10	3000	3,000,000
Gates Learjet 35-A	542	112	45	-25	12	2635	3,782,400
Gates Learjet 36-A	498	100	45	-25	8	3000	2,688,000
Gates Learjet Longhorn 28	507	100	45	-25	10	3000	1,970,000
Gates Learjet Longhorn 29	508	100	45	-25	8	3000	2,025,600
Gulfstream Aerospace Gulfstream IV	528	121	45	-25	19	4945	15,000,000
Gulfstream American Gulfstream III	512	100	45	-25	23	5000	18,366,000
Israel Aircraft Westwind I	488	100	24	-25	12	4000	2,639,000
Israel Aircraft Westwind II	489	100	24	-25	12	4250	3,147,500
McDonnell-Douglas DC-8	583	100	30	-70	189	4500	11,200,000
Rockwell International Sabreliner 65	495	100	24	-25	10	4000	4,275,000
Swearingen Fanjet	475	92	45	-25	10	2070	1,600,000
Aerospatiale A-Star 350	147	—	14	-10	5	660	277,000
Aerospatiale Dauphin	168	—	14	-10	14	590	75,000

Civilian Helicopters

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Aerospatiale Dauphin 2	156	—	14	-10	14	405	1,100,000
Agusta 109-A	163	—	14	-10	8	425	797,500
Bell 205-A	129	—	14	-10	15	660	895,000
Bell 212	174	—	14	-10	15	715	1,140,000
Bell 214-B	161	—	14	-10	16	225	1,800,000
Bell 222	166	—	14	-10	10	465	975,000
Bell Long Ranger II	135	—	14	-10	7	365	390,000
Bell Model 206	141	—	14	-10	5	390	245,000
Brantly-Hynes 305	104	—	14	-10	5	200	103,500
Brantly-Hynes B2B	90	—	14	-10	2	215	57,450
Enstrom Shark 280-C	101	—	14	-10	3	275	108,000
Hiller 12-E4	70	—	14	-10	4	275	109,000
Hughes 300-C	100	—	14	-10	3	430	86,000
Hughes 500-D	164	—	14	-10	5	345	250,000
Jet Ranger III	141	—	14	-10	5	390	245,000
MBB BO-105 CBS	145	—	14	-10	5	375	680,000
McDonnell-Douglas MD 500-ES	150	—	15	-10	5/7	335	469,725
OH-58 Kiowa	141	—	14	-10	5	390	245,000
Robinson R-22	108	—	14	-10	2	260	43,800
Sikorsky S-76 Spirit	174	—	14	-10	14	660	1,275,000
TH-57 Sea Ranger	141	—	14	-10	5	390	245,000

Military Combat Airplanes

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Boeing B-52G Stratofortress	595	100	55	-40	6	7500+	10,000,000
Convair F-106A Delta Dart	1525	100	65	-25	1	1200	15,000,000
General Dynamics F-16A Fighting Falcon	1400	100	60	-25	1	2000	24,900,000
General Dynamics F-111F	1650	100	60+	-25	2	3800	17,125,000
General Dynamics FB-111A	1650	100	60+	-40	2	4100	15,000,000
Grumman A-6E Intruder	685	100	24	-25	2	1800	35,700,000
Grumman F-14A Tomcat	1544	100	60	-25	2	2000	40,704,000
McDonnell-Douglas AV-8B VSTOL	760	100	50	-25	1	3000	25,700,000
McDonnell-Douglas F-4E Phantom II	1606	100	71	-25	2	2600	9,888,000

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
McDonnell-Douglas F-15C Eagle	1676	100	103	-25	1	3570	42,700,000
McDonnell-Douglas/Northrop A-18 Cobra	1118	100	40	-25	1	230	31,900,000
McDonnell-Douglas/Northrop F-18A Hornet	1118	100	40	-25	1	230	31,900,000
Northrop F-5E Tiger II	1082	100	54	-25	1	1545	1,600,000

Military Attack and Observation Airplanes

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Cessna O-2A	199	100	19	-35	2/3	1060	550,000
Cessna OA-37B Dragonfly	507	100	42	-25	2	460	534,000
Fairchild Republic A-10 Thunderbolt II/Warhog	449	100	30	-25	1	290	11,083,000
Greenville AC-130A/H	374	110	33	-70	97	2355	8,000,000
Rockwell OV-10A Bronco	281	100	30	-35	2	230	2,430,000
Vought A-7D Corsair II	698	100	40	-25	1	2870	8,812,000
Vought A-7K Corsair II	698	100	40	-25	2	2870	10,038,000

Military Reconnaissance and Special-Duty Airplanes

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Beech RC-12D Guardrail	299	100	31	-30	10	1825	8,810,000
Bell/Boeing V-2 Osprey	400	—	15	-30	45	2000	30,000,000
Boeing E-3A Sentry (AWACS)	600	100	40	-40	20	1000	71,250,000
Boeing EC-135	600	110	50	-70	126	7000	21,307,000
Grumman E-2C Hawkeye	374	100	30	-30	24	1700	56,966,000
Grumman EF-111A Raven	1377	100	45	-25	2	930	30,000,000
Grumman X-29 Forward Swept-wing Demonstrator	1056	100	45	-25	1	1000	36,000,000
Lockheed EC-130	374	110	33	-70	97	2355	16,000,000
Lockheed EC-130Q TACAMO	374	110	33	-70	2+	2355	38,250,000
Lockheed P-3C Orion	473	100	30	-30	12	3165	51,666,000
Lockheed SR-71A Blackbird	2189	100	86	-40	1	2980	21,616,000
Lockheed SR-71B Blackbird	1980+	100	80+	-40	2	2980	24,616,000
Lockheed TR-1A	520	100	70	-25	1	2600	52,650,000
Lockheed U-2D	520	100	85	-25	2	4000	22,060,000
Lockheed WC-130E/H	374	110	33	-70	97	2355	16,000,000
McDonnell-Douglas RF-4C	1320	100	40	-25	2	1300	36,000,000

Military Trainer, Transport and Tanker Airplanes

Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Beech UC-12B Huron	299	100	31	-30	10	1825	1,238,000
Boeing C-18A	627	100	42	-40	2+	7000	1,500,000
Boeing C-135B Stratolifter	600	110	50	-70	131	7000	21,307,000
Boeing C-137	627	100	42	-40	43	7000	20,000,000
Boeing C-137C ("Air Force One")	627	100	42	-40	43	7000	21,000,000
Boeing KC-135A Stratotanker	585	110	50	-70	85	9200	21,307,000
Boeing T43A	462	100	35	-25	22	2995	1,000,000
Cessna T-37B	426	100	35	-25	2	870	750,000
Cessna T-41A Mescalero	139	80	13	-25	2	720	500,000
de Havilland UV-18B	210	100	27	-35	22	805	750,000
Fairchild Republic T-46A	436	100	47	-25	2	1150	12,670,000
Grumman VC-4 Gulfstream II	334	100	30	-30	9	2205	6,000,000
Lockheed C-5B Galaxy	571	110	36	-70	275	2730	69,340,000
Lockheed C-130H Hercules	374	110	33	-70	97	2355	8,560,000
Lockheed C-140 JetStar	550	100	45+	-25	5/11	2280	8,750,000
Lockheed C-141 StarLifter	566	110	45	-70	5/154	6140	8,780,000
Lockheed HC-130	384	110	33	-70	12/92	5135	8,825,000
Lockheed T-33A Shooting Star	610	100	48	-25	2	1345	307,700
MC-130E Talon Special Operations Transport	374	110	33	-70	97	2355	46,300,000
McDonnell-Douglas C-9A Nightingale	565	100	35	-40	48	2000+	5,650,000
McDonnell-Douglas C-9B Nightingale Skytrain II	565	100	35	-40	40	1485	5,650,000
McDonnell-Douglas C-17	518	100	35	-40	3+	2765	10,000,000
McDonnell-Douglas KC-10A Extender ATCA	528	100	42	-40	4+	4370	80,870,000
Northrop T-38 Talon	812	100	55+	-25	2	1095	875,000
Rockwell International CT-39 Sabreliner	595	100	36	-25	9	2120	1,750,000
Short Brothers C-23 Sherpa	218	100	10	-35	2	700	1,500,000

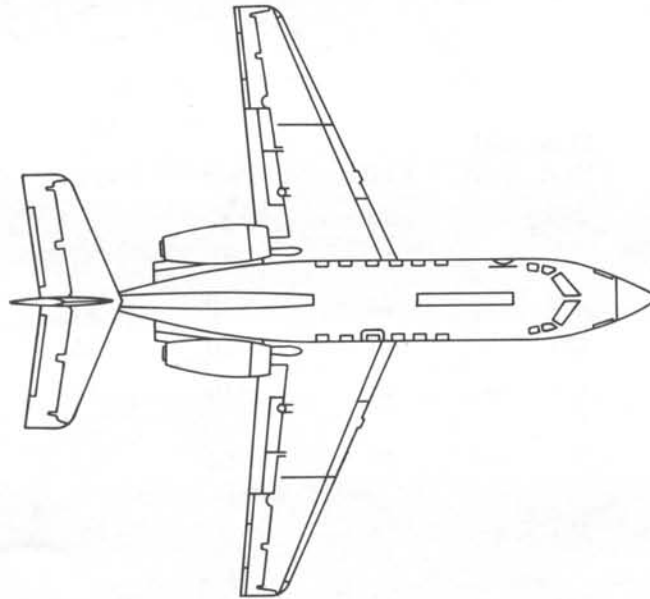
Military Helicopters



Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Bell AH-1S Cobra	207	—	13	-10	11	360	2,000,000
Bell AH-1T Sea Cobra	219	—	13	-10	11	360	8,772,000
Bell UH-1F	138	—	13	-10	11	350	1,100,000
Bell UH-1H Iroquois	127	—	14	-10	15	320	242,850
Bell UH-1N	126	—	13	-10	15	415	1,541,000
Boeing Vertol CH-47D Chinook	189	—	18	-30	44	230	9,310,000
Hughes AH-64 Apache Advanced Attack Helicopter	197	—	18	-10	1	425	8,900,000
Kaman SH-2F Seasprite LAMPS MK I	168	—	18	-10	11	445	13,222,000
MH-53E	196	—	18	-30	43	540	29,300,000
Sikorsky CH-3E	162	—	11	-30	28	465	29,300,000
Sikorsky CH-53C	196	—	18	-30	43	540	29,300,000
Sikorsky CH-53E Super Stallion	196	—	18	-30	43	540	29,290,000
Sikorsky EH-60A	167	—	17	-30	13	800	11,127,000
Sikorsky HH-3E Jolly Green Giant	162	—	11	-30	28	465	29,300,000
Sikorsky HH-53B	186	—	18	-30	43	540	29,300,000
Sikorsky HH-53C	196	—	18	-30	43	540	29,300,000
Sikorsky HH-53H Pave Low III	196	—	18	-30	43	540	29,300,000
Sikorsky HH-60A Night Hawk	167	—	17	-30	13	800	61,000,000
Sikorsky SH-60B Seahawk LAMPS Mk III	167	—	17	-30	13	800	21,422,000
Sikorsky UH-60 Blackhawk	198	—	19	-30	13	415	8,207,000
Sikorsky UH-60A Blackhawk	184	—	19	-30	13	1350	6,400,000

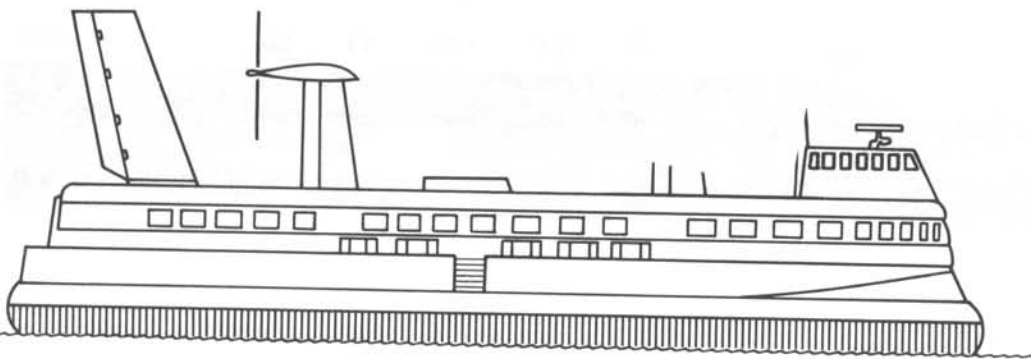
Other Aircraft

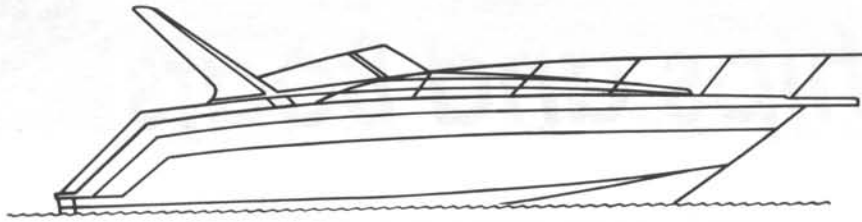
Aircraft Type	Max Spd	Stl Spd	Ceilg	Prot	#Pass	Range	Cost (\$)
Eipper Quicksilver Ultralight	55	14	12	0	1	95	5,625
Sunbird Nova Hang Glider	40	14	12	0	1	45	1,250
Volmer VJ 24-E Sunfun Powered Hang Glider (Kit)	40	14	12	0	1	95	130



8. Ships and Boats

TOP SECRET/S.I.



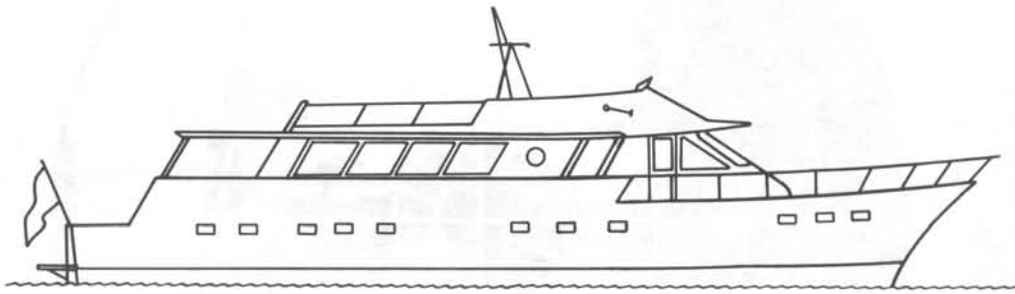


Powerboats

Boat Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
22'-24' Powerboat	50	8	+10	20	-20	4	735	28,625
24'-26' Powerboat	55	7	0	20	-25	6	1400	44,975
26'-30' Powerboat	60	6	-10	15	-30	8	1500	100,250
30'-35' Powerboat	65	5	-20	15	-35	10	1650	106,875
35'-40' Powerboat	70	4	-30	10	-40	12	1800	170,500
40'-50' Powerboat	75	3	-40	10	-45	14	2300	312,750
50'-120' Powerboat	80	2	-50	5	-50	16	3500	1,722,000
Chris-Craft 216 WA Scorpion (21'6" Powerboat)	37	3	+10	20	-20	4	215	28,625
Davis 61 (61' Sport-fishing Yacht)	80	2	-50	5	-50	16	700	745,500
Grand Banks 49 Motor Yacht (50'6")	18	2	-50	5	-50	16	1480	352,000
Hinckley 51 (51'3" Cruising Yacht)	9	2	-50	5	-50	16	3500	415,000
Hunter 23 (23'3" Sailboat With Outboard)	50	8	+10	20	-20	4	735	10,500
Jersey 36 (36'4" Fish/Cruising Boat)	40	4	-30	10	-40	12	1800	145,000
Larson 230 (23'4" Sport Boat)	40	8	+10	20	-20	4	735	22,500
Present 35 (34'4" Pleasure Yacht)	12	5	-20	5	-35	10	1650	86,275
Nauticat 40 (39'4.5" Cruising Yacht)	8	4	-30	10	-40	12	1800	162,500
Seafox 29 (29' Sport Boat)	40	5	-20	20	-35	4	1650	59,500
Shannon 43 (43'10" Power/Sail Cruiser)	35	3	-40	10	-45	14	2300	257,200
Symbol 44 (44'2" Sport-Fishing/Motor Yacht)	28	3	-40	10	-45	14	2300	259,000
USS Yorktown (Aegis- class Missile Cruiser)	50	1	-50	5	-75	366	6000	1,000,000,000

Sailboats

Boat Type	Max Spd	Accel	Handl	Brake	Prot	#Pass	Range	Cost (\$)
20'-24' Sailboat	40	7	+10	20	-20	4	—	24,950
24'-28' Sailboat	40	6	0	15	-25	6	—	34,450
28'-32' Sailboat	40	5	-10	15	-30	8	—	48,150
32'-36' Sailboat	40	4	-20	10	-35	10	—	71,450
36'-40' Sailboat	40	3	-30	10	-40	12	—	106,250
30'-50' Sailboat	40	2	-40	5	-45	14	—	196,000
50'-87' Sailboat	40	1	-50	5	-50	16	—	491,000
Cal 28 (28'3" Sailboat)	40	6	0	15	-25	6	—	44,000
Catamaran (60')	42	1	-50	5	-50	16	—	500,000
Sailboard	45	7	+10	20	0	1	—	2,500
Yacht (12-meter)	15	4	-20	5	-35	10	—	3,000,000



Appendix 1: *Special Forces*



Special forces include militarized civilian police forces trained in riot control and hostage negotiations, specially equipped elite military units with anti-terrorist capabilities, and para-military "third forces" which fill the security gap between police and military organizations.

Australia

Victoria Police Special Operations Group
No information available.

South Australia Police Special Tasks and Rescue Force (formerly the Armed Offenders Apprehension Group)
No information available.

Egypt

Unit 777

Capabilities: Amphibious incursion.

Weapons: Soviet-made, AKM folding-stock assault rifles, and RPD light machine guns.

Great Britain

22nd Special Air Service (SAS) Regiment

Personnel: 1000

Capabilities: Held on three-minute standby; personnel have above average intelligence, are assertive and self-sufficient without being too extroverted or introverted; trained on mock aircraft with special weapons.

Weapons: Ingram MAC-10 SMGs, Browning 9mm HP pistols, H&K MP-5 SMGs (called "Hocklers"), Parker-Hale .222 high velocity rifles, and flash-bang stun grenades.

Metropolitan Police Special Patrol Groups

No information available.

France

Gendarmerie National Intervention Group (GIGN, Gigene)

Personnel: 40.

Compagnies Republicaines de Securite (CRS)

Capabilities: Highly mobile anti-riot organization under the control of the Ministry of the Interior.

Honduras

Cobra (Anti-riot Unit)

No information available.

Hong Kong

Police Tactical Unit

Capabilities: Crowd control at public functions and crime-prevention patrols.

Israel

Saiyeret Matkal ("Ha Yehida" — "The Unit" or "Ha Heyreh" — "The Guys")

Personnel: Drawn from Israeli paratroop forces.

Capabilities: Conventional warfare, close combat, night operations, explosives, can speak Arabic, English and Hebrew.

Weapons: Captured AK-47s, Galil SARs, Uzi 9mm SMGs, and Beretta .22-caliber pistols.

General Intelligence and Reconnaissance Unit 269

Personnel: 1000 or so; personnel wear no unit designation on their uniforms and are forbidden to admit 269 exists.

Capabilities: Continuous training includes parachuting, sniping, sabotage, silent killing, evasive driving, electronics, communications, and lone operations.

Detachment 101

No information available.

Italy

Squadra Anti-Commando

Personnel: 50 to 150 men from Italian Carabinieri's parachute battalion.

Weapons: Beretta Model 12 SMGs, 9mm Beretta Corto pistols, and Italian paracadutisti version of NATO BM-59 rifles.

Malaysia

Royal Malaysia Police Field Force

Capabilities: Suppress uprisings and subversion and destroy criminal elements operating from jungle bases; patrol frontiers and sparsely inhabited areas; major disaster and public order duties.

Netherlands

Royal Netherlands Marine Corps

Personnel: Rifle company of 113 volunteers, all hand-picked and organized into three platoons with a headquarters and 14 officers.

Capabilities: Forced airliner entry, riot control, street fighting, storming buildings and close combat; one unit on 24-hour standby.

Weapons: Corp equipped with 9mm Uzi SMGs and .38-caliber U.S. police lawman Mark 111s.

New Zealand

Armed Offender Squads

No information available.

Spain

GEO

No information available.

Thailand

Border Patrol Police Bureau

Capabilities: Maintain security and public order throughout the kingdom; prevent and suppress subversion, insurgency, and drug trafficking; develop hill tribes and inhabitants of remote areas; major disaster relief.

United States

U.S. Army Ranger Battalions (Black Berets)

Personnel: 588 men in two battalions.

Location: Fort Stewart, Ga., and Fort Lewis, Wash.

USMC Battalion Landing Team

Personnel: 1200.

Location: Camp LeJeune, N.C., Camp Pendleton, Calif., and Okinawa.

Capabilities: Can be air dropped.

USMC Marine Amphibious Unit

Personnel: 1800.

Location: West Pacific (WESTPAC) and Mediterranean Sea.

Capabilities: Immediately available, but location varies; can be landed by helicopters.

U.S. Army Special Forces (Green Berets)

Personnel: Nine battalions of 242 men.

Location: Fort Bragg, N.C. (five battalions), Fort Devens, Mass. (two battalions), Canal Zone (one battalion), and West Germany (one battalion).

Capabilities: Response time varies depending on current operations/training missions under way; parachute qualified; language qualified for many areas.

U.S. Marine Force Reconnaissance Company

Personnel: One company of 190 men.

Location: Camp LeJeune, N.C.

Capabilities: Parachute and scuba qualified; extensive training suitable for counter-terrorist operations.

U.S. Navy Sea, Air and Land (SEAL) Platoons

Personnel: 19 platoons of 14 men each.

Location: Little Creek, Va. (seven platoons), Coronada, Calif. (10 platoons), and Subic Bay, The Philippines (two platoons).

Capabilities: Infiltration by submarine, boat, ship, aircraft, and parachute. Exfiltration by submarine, boat, ship, and aircraft. Full year's training in hand-to-hand combat, underwater demolition, parachuting, wilderness survival, and scuba diving.

Weapons: Silenced Mark 22 "Hush Puppy" and Stoner commando light machine gun.

SEAL Team 6

Personnel: 175 elite of the SEAL platoons.

Location: Little Creek, Va.

Capabilities: Counter-terrorist action.

First Special Operations Wing

Personnel: 5000, including reservists.

Location: Based at Eglin AFB, Fla.

Capabilities: Fly specially adapted fixed-wing transports (MC-130E Combat Talon) and helicopters capable of infiltration underneath radar in zero-visibility weather called nap-of-the-earth penetration methods.

Location: Florida, Okinawa, and West Germany. (Combat spectre gunships located in Florida dropped First Rangers into Grenada.)

Task Force 160 (TF-160) "Night Stalkers"

Personnel: Unknown.

Location: Fort Campbell, Ky.

Capabilities: Transport Delta Force, Rangers, and Green Berets into action by piloting Black Hawk, Hughes 500-MD, Chinook, and other helicopters; pilots outfitted with infrared night-vision equipment; high crash rate due to daring aerial maneuvers.

Blue Light/Delta Force

Personnel: Combined force of 200 Army, Navy, Air Force, and Marine personnel. Squadron is composed of 80 to 100 "shooters" and more than 150 logistical and support troops.

Location: Fort Bragg, N.C.

Capabilities: Counter-terror in response to attacks on Americans anywhere in the world; continuous training includes jumping blindfolded from planes and storming buildings or aircraft in rescue missions; personnel train with live ammunition and make some of their own special equipment, including silencers for machine guns.

Weapons: Beretta low-powered .22 bullets for inside aircraft, HK MP-5s, accurized M-1911A1 pistols, M-60 machine guns, M-16s, Remington 700 sniper rifles, M-79 grenade launchers, and M-203 grenade launchers.

Dress: Black pants, boots, long-sleeved shirts, gloves, ski masks, night-vision goggles, blackened hands, ropes over shoulders, grenades on belt.

FBI Hostage Rescue Team (HRT)

No information available.

FBI Special Weapons and Tactics (SWAT) Teams

Capabilities: Fast deployment by air to various parts of the country.

FBI Special Support Group (SSG)

Personnel: Number unknown; known as "G's."

Capabilities: Foreign counterintelligence investigation; routine surveillance, photography, and communications.

Weapons: Unarmed.

Warsaw Pact Countries

Spetsnaz, Soviet/Warsaw Pact Special Forces

Capabilities: Trained and equipped to impersonate NATO troops for raids and sabotage in NATO rear areas; training includes languages, strategic sabotage, terrorism, and assassination behind enemy lines in time of war.

Weapons: Warsaw Pact and NATO weapons.

West Germany

Grenzschutzgruppe Neun (GSG9, Leatherheads) – Border Protection

No information available.

Group Nine

Personnel: 180.

Capabilities: Volunteers are capable of remaining calm under severe stress and possess a minimum IQ of 110; rigorous training in martial arts, hand-to-hand combat, scuba diving, and special weapons.

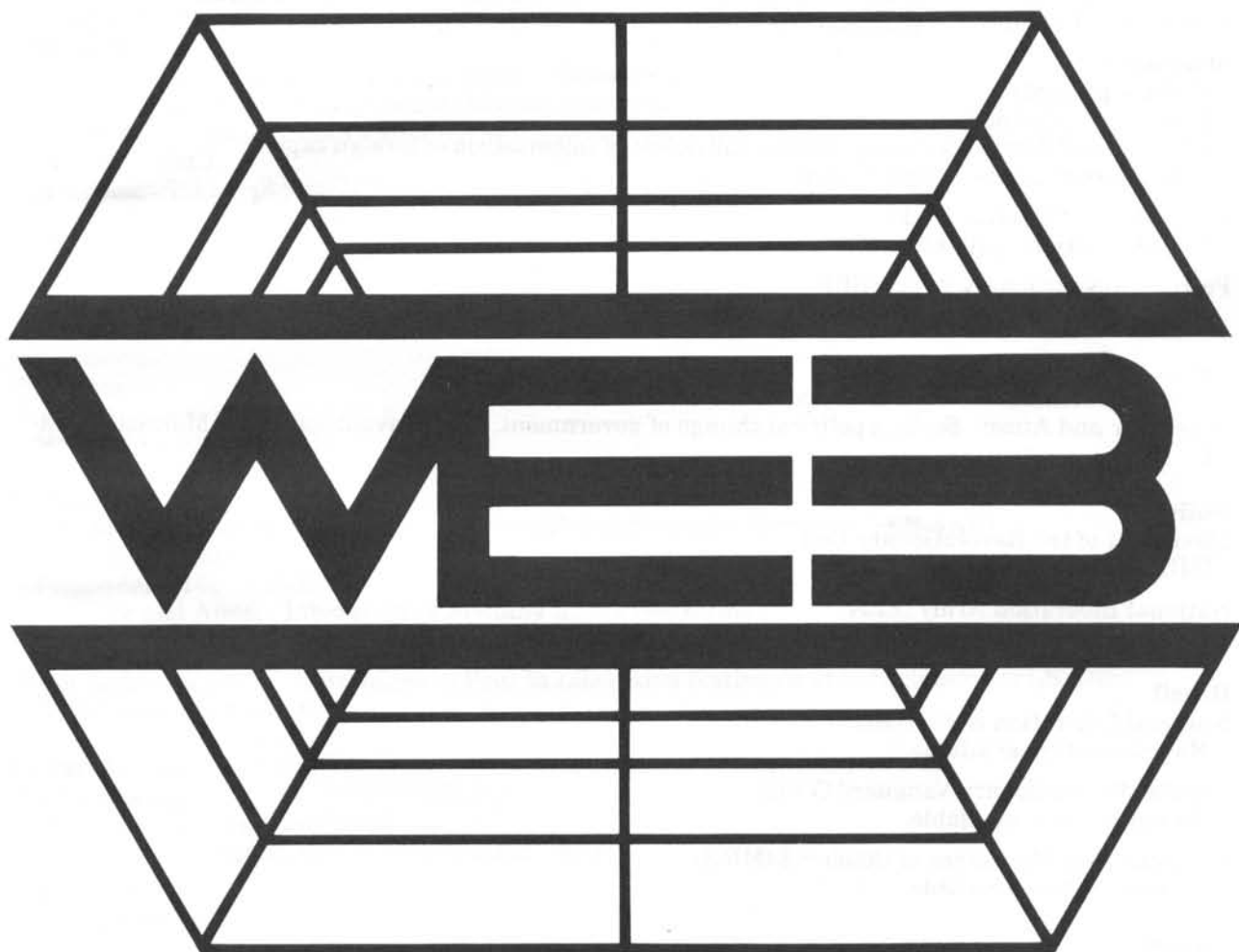
Weapons: Walther P38s, H&K 9mm P7 pistols, Steyr SSG 7.62mm NATO sniper rifles, H&K G-3 sniper rifles, H&K MP-5 submachine guns, H&K MP-5 SD-1 silenced submachine guns, flash-bang stun grenades, and DT-11B1 assault grenades.

Bereitschaftspolizei – Emergency Police

Location: Various centers throughout the North Rhine-Westphalia lander.

Appendix 2:

Terrorist Organizations



Algeria

Front de Liberation Nationale (FLN)

No information available.

Argentina

Armed Liberation Forces (FAL)

No information available.

Argentine Nationalist Organization Movement (MANO)

No information available.

Ejercito Revolucionario del Pueblo (ERP)

(People's Revolutionary Army, 1969 to present)

Personnel: Unknown.

Ideology and Aims: Marxist-Leninist, with a strong vein of Trotskyism; dedicated to the overthrow of the capitalist system in Argentina and other South American countries.

International Links: South American, European, and Palestinian terrorist groups; Junta de Coordinacion Revolucionaria (JCR) stationed in Paris which includes Bolivia's National Liberation Army (ELN), Chile's Movement of the Revolutionary Left (MIR), Paraguay's National Liberation Front (Frepalina), and Uruguay's Tupamaros (MLN).

Montoneros

(1975 — present)

Personnel: Unknown.

Ideology and Aims: Social revolution and defeat of imperialism of foreign capital.

International Links: None known.

Peronist Armed Forces (FAP)

No information available.

People's Revolutionary Army (ERP)

No information available.

Belgium

Fighting Communist Cells (or Communist Combatant Cells)

Ideology and Aims: Seeks a political change of government, world revolution; often Marxist oriented.

Bolivia

Movement of the Revolutionary Left

(MIR — Bolivia/Chile/Venezuela)

National Liberation Army (ELN)

No information available.

Brazil

National Liberation Action (ALN)

No information available.

Popular Revolutionary Vanguard (VPR)

No information available.

Revolutionary Movement of October 8 (MR-8)

No information available.

Canada

Front de Liberation Quebecois — Quebec Liberation Front (FLQ)

No information available.

Chile

Mirista radicals

No information available.

Manuel Rodriguez Patriotic Front

Ideology and Aims: Seeks political change of government, world revolution; often Marxist oriented.

Movement of the Revolutionary Left

(MIR — Bolivia/Chile/Venezuela)

Colombia

M-19

Ideology and Aims: Seeks a political change of government, world revolution; often Marxist oriented.

National Liberation Army

No information available.

Revolutionary Armed Forces of Colombia (FARC)

No information available.

Corsica

Front for the National Liberation of Corsica

Ideology and Aims: Seeks independent homeland, control of territory.

Cuba

C-4 Cuban Movement

(U.S.-based anti-Castro terrorists)

Egypt

Al Takfir Wal Higma — Atonement and Holy Flight

Personnel: 1000.

Ideology and Aims: Aims to revive Islamic fundamentalism.

International Links: Fundamental Islamic groups in the Arab world, Libya, Sikh separatists.

Ideology and Aims: Seeks independent homeland, control of territory. (Responsible for assassination of Anwar Sadat.)

Weapons: Tokagyp pistols, Kalashnikov AK-74s, grenades.

El Salvador

Military Death Squads

Ideology and Aims: Right-wing, government-sponsored terrorism designed to keep political control in hands of a select few military or civilian rulers.

Ethiopia

Eritrean Liberation Front (ELF)

No information available.

France

Front de Liberation de la Bretagne — Armee Revolutionnaire Bretonne (FLB-ARB)

(1966 to present)

Personnel: 150 to 200.

Ideology and Aims: Liberation of Brittany from French rule.

International Links: Basque Euzkadi Ta Azkatasuna and IRA.

Front de Liberation de la Bretagne — Pour la Liberation Nationale et le Socialisme (FLB-LNS)

No information available.

Great Britain

Angry Brigade

(Militant left-wing anarchists)

Weapons: Thompson SMGs, Sten Mark II SMGs.

Column 88

(Neo-fascist group)

Eleventh Hour Brigade

(Neo-fascist group)

Dark Harvest Commandos

(Scientists protesting chemical warfare research)

Weapons: Bacteriological warfare agents sent in letters.

Guatemala

Mano Blanco — White Hand

(Right-wing para-military group)

New Anti-communist Organization

(Right-wing para-military group)

Anti-communist Council of Guatemala
(Right-wing para-military group)

FAR (Rebel Forces)
No information available.

India

Sikh Separatists
Ideology and Aims: Seeks independent homeland, control of territory.

Iraq

Al Dawa — The Call
(Shi'ite fundamentalist group)
No information available.

Ireland

Provisional Irish Republican Army (PIRA "Provos") (January 1970 to present)

Personnel: 300 to 400.

Ideology and Aims: Escalate cost of military presence in Northern Ireland to the point where public opinion in the rest of Great Britain brings about withdrawal; seeks independent homeland, control of territory.

International Links: Breton and Basque terrorist movements, PFLP, Libya, Red Help, Irish-Americans.

Weapons: Kalashnikov AK-47s, AK-74s, AR-180s, Thompson SMGs, Sten Mark IIs, Sterling SMGs, M-1 carbines, Astra .357-magnums, .38 S&W revolvers, RPG-7s, M-60s, remote-control radio-detonated bombs, time bombs, homemade mortars mounted on backs of trucks.

Splinter Group: Kilburn Battalion; several free-lance squads, more or less licensed by the Provos, operate in England.

Irish National Liberation Army (INLA)
(1972 to present)

Personnel: 100. Ideology and Aims: Incorporation of Ulster into a united Ireland and establishment of socialist republic in Ireland.

International Links: Moscow, Cuba, Palestinians, and the urban guerrilla movements in Europe and South America.

Irish Republican Army, "Official" and "Provisional" Wings (IRA)
No information available.

Ulster Defense Association (UDA)

(Working-class Protestant para-military organization, August 1971 to present)

Personnel: 13,000.

Ideology and Aims: To maintain Protestant supremacy in Ulster.

International Links: Protestant Irish groups in America, Canada, and Scotland.

Splinter Groups: Ulster Volunteer Force (traditional Protestant para-military force, 1966 to present); Ulster Freedom Fighters (UFF) (anti-Catholic terrorist and murder squad, June 1973 to present); Red Hand Commandos (anti-Catholic terrorist and murder squad, mid-1973 to present).

Israel

Arab Liberation Front (AFL)
No information available.

Terror Against Terror

(Anti-Arab Israeli group)

Ideology and Aims: Seeks independent homeland, control of territory; against racial and religious minorities.

Italy

Brigate Rosse — Red Brigades (RB, "P 38ers")

(Early 1970s to present)

Personnel: 200.

Sympathizers: Thousands.

Ideology and Aims: Maoist and militant; seeks to establish communism through armed conflict; seeks to foment anarchy leading to the overthrow of government from which better way of life will emerge.

International Links: Trained and supplied by Warsaw Pact countries; Palestinian terrorists, RAF.

Weapons: Skorpion Vz-61s, Beretta model 12 SMGs, Walther P-38s, SAM 7 strela (arrow) missiles.

Prima Linea — Front Line
No information available.

Azione Rivoluzionaria — Revolutionary Action
No information available.

Nuclei Armati Rivoluzionari — Armed Revolutionary Nuclei (NAR)
(Right-wing extremist group, late 1920s to present)

Personnel: 100.

Ideology and Aims: Destruction of left-wing terrorism and the resurrection of fascism.

International Links: Neo-fascist groups throughout Europe and Latin America, particularly with Spanish troops.

Weapons: Beretta model 12 SMGs.

Terza Posizione
(Right-wing extremists)

Mussolini Action Squads
(Right-wing extremists)

Revolutionary Action Movement
(Right-wing extremists)

Ordino Nuovo
(Right-wing extremists)

Avanguardia Nazionale
(Right-wing extremists)
No information available.

Japan

Sekigun — Red Army (JRA)
(1969 to June 1981)

Personnel: 70.

Sympathizers: 30.

Ideology and Aims: Revolutionary socialistic with strong nihilistic and mystical tendencies; anti-American, pro-Palestinian.

International Links: PFLP, Carlos.

Weapons: H&K MP-5 SMGs, M-26 grenades.

Splinter Group: Arab Committee, Keihin Ampo Kyoto, Rengo Sekigun (also called Vz58), United Red Army (URA)

Lebanon

Amal — Hope

(Secular, moderate mainstream Shi'ite movement with militia.)

Hizbullah — Party of God
(Pro-Iranian radical Shi'ite fundamentalists.)

Ideology and Aims: Seeks creation of Islamic republic.

International Links: Syria and Iran.

Islamic Amal
(Militant Shi'ite faction.)
No information available.

Islamic Jihad — Holy War
(Militant Shi'ite faction.)
Ideology and Aims: Seeks creation of Islamic republic.

Libya

Arab Nationalist Youth Organization (ANYO)
(State-sponsored terrorists)

Ideology and Aims: Against U.S., Israel, and the West; seeks leadership of Islamic nations; suppression of internal dissent.

Mexico

People's Revolutionary Armed Forces
No information available.

Mozambique

Revolutionary Committee of Mozambique (COREMO)
No information available.

The Netherlands

Republik Maluku Selatan — Independent Republic of the South Moluccas
(1970 to present)
Personnel: 250.

Ideology and Aims: Independence from Indonesia and the right to set up their own nation on islands that have been internationally recognized as part of Indonesia since 1949 (the former "Dutch East Indies").

International Links: Arab groups, Moscow, Red Help.

Splinter group: Tamaela Group, Red Help (left-wing group), Red Air (left-wing group).

Nicaragua

Sandinista National Liberation Front
No information available.

Pakistan

Al Zulfiqah — The Sword
No information available.

Palestine

Jihaz al-Amaliyat al-Khassa — Black September

(PLO organization founded in 1970 to commit terrorism while the PLO assumed a moderate image, strike force formed for specific operations, November 28, 1971 to present.)

Personnel: Unknown.

Sympathizers: Unknown.

Ideology and Aims: Nationalistic; dedicated to the overthrow of Israel and its replacement by a Palestinian state governed by Al Fatah and led by Yasser Arafat.

International Links: Al Fatah, Communist world, major European terrorist groups, French sympathizers, Arab students, and workers in West Germany.

Weapons: Kalashnikov AK-47s, Makarov pistols, RPG-7 portable rocket launchers.

Splinter Group: Punishment Squad.

Popular Front for the Liberation of Palestine (PFLP)

(December 1967 to present)

Personnel: 50.

Activists: 500.

Sympathizers: Unknown.

Ideology and Aims: Nationalist and Marxist; opposed to any settlement with Israel; leads the Rejection Front and insists on the complete liberation of Palestine; aims to bring about Arab revolution in all Middle Eastern states and then join with other revolutionary groups in establishing world revolution; targets are Israel, imperialism, and capitalism.

International Links: Rejectionist countries including Libya, Iraq, Algeria and South Yemen; North Korea; China; Soviet Union; Italian, Dutch, French, Turkish, Iranian, Japanese, and South American terrorists.

Weapons: Kalashnikov AK-47s, Makarov pistols, RPG-7 portable rocket launchers.

Splinter Group: Foreign Operations Group.

As-Sa'iqah — Thunderbolt

(October 1968 to present)

Personnel: Unknown.

Activists: 2000.

Ideology and Aims: Nationalist, but subservient to Syria.

International Links: Czechoslovakia.

Weapons: Kalashnikov AK-47s, Makarov pistols, RPG-7 portable rocket launchers.

Splinter Group: Eagles of the Palestinian Revolution.

Democratic Front for the Liberation of Palestine (DFLP) (1969 to present)

Personnel: 1000.

Ideology and Aims: Marxist-Leninist.

International Links: Left-wing students in Europe and the U.S.; supported by the Soviet Union; has good relations with China.

Weapons: Kalashnikov AK-47s, Makarov pistols, RPG-7 portable rocket launchers.

Popular Front for the Liberation of Palestine — General Command (PFLP-GC)

(1968 to present)

Personnel: 500.

Ideology and Aims: Military organization opposing a Middle East peace settlement except on Arab terms.

International Links: Libya's Moammar Qaddafi and Syria.

Weapons: Kalashnikov AK-47s, Makarov pistols, RPG-7 portable rocket launchers.

National Arab Youth for the Liberation of Palestine (NAYLP)

(1972-1975?)

Personnel: Unknown.

Ideology and Aims: The use of terror to bring about a total Arab victory and the destruction of Israel.

International Links: Libya.

Black June (Corrective Movement for Al Fatah)

(late 1976 to present)

Personnel: 500.

Ideology and Aims: Precipitating the Arab revolution that alone could lead to the liberation of Palestine.

International Links: Radical Arab students, especially in London.

Weapons: Kalashnikov AK-47s, Makarov pistols, RPG-7 portable rocket launchers.

Executive Committee for the Liberation of Palestine (ECLP)

No information available.

Palestine Liberation Army

No information available.

Palestine Liberation Organization (PLO):

Al Fatah (Headquarters — Tunis; Leader — Yasser Arafat; Personnel — 60% of PLO or 35,000; Splinter Group — 417)

Weapons: RPG-7 portable rocket launchers.

North Yemen Group (Headquarters — Aden, North Yemen; Leader — Yasser Arafat; Personnel — 5% of PLO or 3,000)

National Alliance (Headquarters — Damascus; Leader — Abu Mousu; Personnel — 3.5% of PLO or 2,000; amalgam of anti-Arafat groups backed by Syria and Libya)

Democratic Alliance (Headquarters — Damascus; Marxist-oriented collection of PLO branches trying to retain freedom from Syria)

Weapons: Kalashnikov AK-47s, Makarov pistols, RPG-7 portable rocket launchers.

Ideology and Aims: Seeks independent homeland, control of territory.

Popular Democratic Front for the Liberation of Palestine (PDFLP)

No information available.

Paraguay

National Liberation Front (Frepalina)

No information available.

Shining Hand

No information available.

Peru

Shining Path

Ideology and Aims: Seeks political change of government, world revolution; often Marxist oriented.

The Philippines

Moro National Liberation Front

No information available.

Portugal

Popular Forces of 25 April (FP-25)

Ideology and aims: Seeks a political change of government, world revolution; often Marxist oriented.

South Africa

Anti-apartheid Militants, Urban Guerrillas, Assassination Gangs

Weapons: Skorpion Vz-61s.

African National Congress

Ideology and Aims: Seeks independent homeland, control of territory.

South Yemen

Front for the Liberation of South Yemen (FLOSY)

International Links: China.

Weapons: RGD-5 anti-personnel hand grenades.

Spain

Euzkadi Ta Askatasuna — Basque Homeland (Fatherland) and Liberty (ETA)

(1959 to present)

Personnel: Unknown.

Ideology and Aims: Liberation of Euzkadi from Spanish and French rule and the establishment of an independent Basque socialist state; heavily influenced by Marxist-Leninist beliefs.

International Links: PIRA, FLB-ARB, Kurdish nationalists, Palestinian terrorist groups, South American terrorist groups, especially the Tupamaros.

Splinter Group: ETA-Military Wing (ETA-M).

Grupo de Resistencia Antifascista Primo de Octubre — First of October (GRAPO)

(Anti-fascist resistance group, Oct. 1, 1975 to present)

Personnel: Unknown.

Ideology and Aims: Maoist tendencies; armed wing of the radical break-away group of the Spanish Communist Party.

International Links: RAF and RB.

Guerrilleros Del Cristo Rey — Warriors of Christ the King

(January 1977 to present)

Personnel: Unknown.

Ideology and Aims: Creation of a Fascist International to combat both capitalism and communism.

International Links: Fascist groups in South America and Italy.

Apostolic Anti-Communist Alliance

(Right-wing Neo-fascists)

Adolf Hitler Commando

(Right-wing Neo-fascists)

First of May Group

No information available.

International Spanish Communist Party

(Maoist group)

Syria

Abu Nidal Group

Ideology and Aims: Seeks independent homeland, control of territory.

Tanzania

People's Revolutionary Party (PRP)

No information available.

Turkey

Turkish People's Liberation Army (TPLA)

(early 1970s to present)

Personnel: 300.

Sympathizers: Thousands.

Ideology and Aims: Marxist-Maoist; dedicated to the violent overthrow of the Turkish government.

International Links: Palestinian terrorist movements; Carlos; East Germany, North Korea, and Bulgaria.

Grey Wolves

Personnel: Thousands.

Ideology and Aims: Extreme nationalism and hatred of communism.

International Links: West Germany through Turkish "guest workers."

Armenian Secret Liberation Army

(also Armenian Secret Army for the Liberation of Armenia)

Ideology and Aims: Attacks Turkish diplomats in Europe, Middle East, North America; seeks revenge for Turkish murder of Armenians in World War I; wants independent Armenia in eastern Turkey.

United States

Weather Underground

(1969 to present?)

Personnel: Unknown.

Ideology and Aims: Revolutionary anti-imperialistic; the destruction of imperialism, the seizure of power, and the implementation of socialism.

International Links: Urban guerrilla groups of Europe and "liberation" groups in the Americas.

Omega 7

(1975 to present)

Personnel: 100.

Ideology and Aims: Militant and violent anti-Communist opponents of Fidel Castro's regime.

International Links: None of significance.

Black Liberation Army

No information available.

Hanafi Muslims

No information available.

New World Liberation Front

No information available.

May 19 Coalition

No information available.

Black Panthers

No information available.

Ku Klux Klan (KKK)

(Right-wing reactionaries)

Ideology and Aims: Against racial and religious minorities.

Aryan Nations

Ideology and Aims: Against racial and religious minorities.

The Order

(also known as Silent Brotherhood; white supremacist group)

Croatian Nationalists

Ideology and Aims: Seeks independent homeland, control of territory.

Jewish Defense League (JDL)

No information available.

Symbionese Liberation Army (SLA)

No information available.

United States — Puerto Rico

Fuerzas Armadas de la Liberacion Nacional — Armed Forces of Puerto Rico

No information available.

National Liberation (FALN)

(also known as Armed Forces of National Liberation)

Personnel: 50.

Ideology and Aims: Nationalism; "war against the Yanqui invader;" seeks independent homeland, control of territory.

International Links: Weather Underground and black "liberation" groups on mainland.

Uruguay

Tupamaros — Movimiento de Liberacion Nacional (MLN)

(early 1960s to 1972)

Personnel: Unknown.

Ideology and Aims: Marxist and revolutionary.

International Links: PFLP, ERP and JCR in Paris; Basque separatists.

Venezuela

Movement of the Revolutionary Left (MIR)

(Bolivia/Chile/Venezuela)

West Germany

Baader-Meinhof Gang

(1967 to present)

Personnel: 50 to 60.

Sympathizers: 2000.

Ideology and Aims: Anarchist, anti-bourgeois, anti-American, revolutionary.

International Links: PFLP, Black September, RB, Armed Proletarian Cells (NAP), Armata Rossa, Red Help, Carlos groups.

Weapons: Browning HP pistols, Markarov pistols, Tokarev TT-33s or Tokagypst firebirds, M-26 grenades, RPG-7 portable rocket launchers.

Splinter Group: Red Army Faction (RAF).

Personnel: 25.

Weapons: HK MP-5 SMGs.

Wehrsportgruppe Hoffman

(Military sports group, before January 1980 to present)

Personnel: 100.

Activists: 1,800.

Sympathizers: 20,000.

Ideology and Aims: Extreme right-wing nationalism; anti-Semitic.

International Links: Palestinian and Phalangists in Lebanon, northern European right-wing groups such as the Flemish Military Order

People's Socialist Movement of Germany (VSBG)

(Neo-Nazi group)

Yugoslavia

Hrvatsko Revolucionarno Bratstvo — Croatian Revolutionary Brotherhood (HRB)

(Ustashe or, literally, insurgents)

Personnel: 30.

Ideology and Aims: Nationalist with fascist tendencies.

International Links: (EM Croatian immigrant communities in Australia, United States, Canada, Argentina, Venezuela, West Germany, Spain, and Sweden; Yugoslav workers and students in some European countries.

Zimbabwe

Zimbabwe African National Union (ZANU)

Weapons: Kalashnikov AK-47s, SAM 7 strela (arrow) missiles, RPG-7 portable rocket launchers.

ZAPU

No information available.

Other Groups

Action Directe — Direct Action (France)

(Coalition of Red Army Faction and Red Brigades which opposes NATO)

Ideology and Aims: Seeks a political change of government, world revolution; often Marxist.

Gamaat Islamiya — The Islamic Organizations

No information available.

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