GURPS®

Covert Ops™

By William H. Stoddard
and Hans-Christian Vortisch

STEVE JACKSON GAMES

GURPS

Covert Ops™

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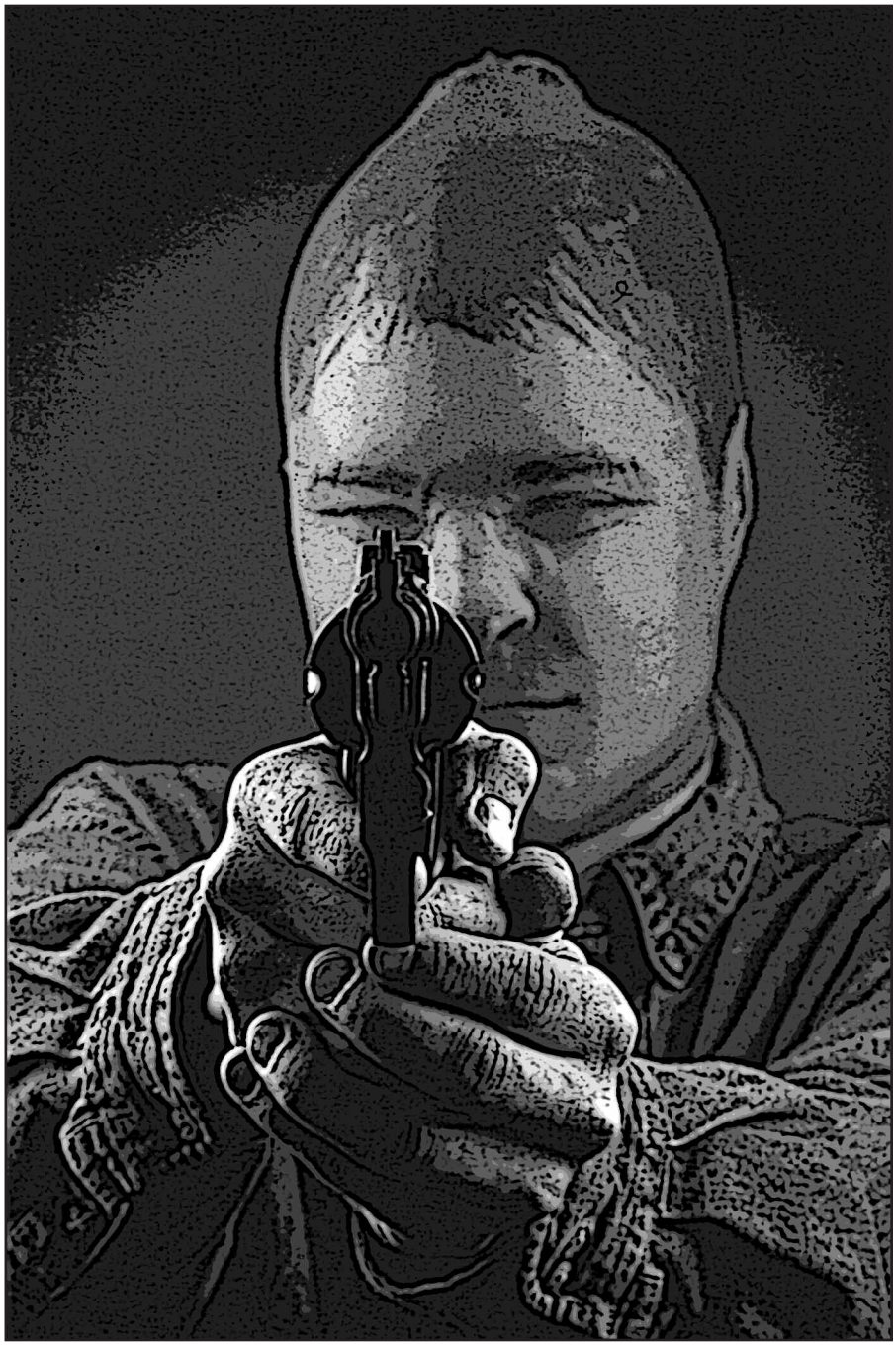

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About GURPS

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The ***GURPS Covert Ops*** web page can be found at **www.sjgames.com/gurps/books/covertops/**.

Page References

Rules and statistics in this book are specifically for the ***GURPS Basic Set,*** *Third Edition.* Any page reference that begins with a B refers to the ***GURPS Basic Set*** – e.g., p. B102 means p. 102 of the ***GURPS Basic Set,*** *Third Edition.* Page references that begin with CI indicate ***GURPS Compendium I.***

Other references are AN for ***Arabian Nights,*** BE for ***Bestiary***, BIO for ***Bio-Tech,*** C for ***Cops,*** CB for ***Cabal,*** CII for ***Compendium II,*** H for ***Horror,*** HT for ***High-Tech,*** J for ***Japan,*** LT for ***Low-Tech,*** M for ***Magic,*** MA for ***Martial Arts,*** ME for ***Mecha,*** MF for ***Modern Firepower,*** MIii for ***Magic Items 3,*** RO for ***Robots,*** SO for ***Special Ops,*** SPI for ***Spirits,*** STM for ***Steampunk,*** UN for ***Undead,*** UTT for ***Ultra-Tech 2,*** V for ***Villains,*** VE for ***Vehicles,*** VEL for ***Vehicles Lite,*** W for ***WWII,*** WWi for ***Who's Who 1,*** and WWii for ***Who's Who 2.*** The abbreviation for *this* book is CV.

For a full list of abbreviations, see p. CI181 or the updated web list at **www.sjgames.com/gurps/abbrevs.html**.

Introduction

Covert operations are the other side of the coin from espionage. The spy attempts to find out by stealth what an enemy is doing, and conceal his knowledge. The covert operative attempts to do something to an enemy by stealth, and conceal what he has done. Very similar people are involved in both activities, but the risks are higher for the covert operatives.

GURPS Covert Ops explores these dangerous undercover missions: assassination, hostage-taking, sabotage, terrorism, and similar activities – and examines the people who carry them out.

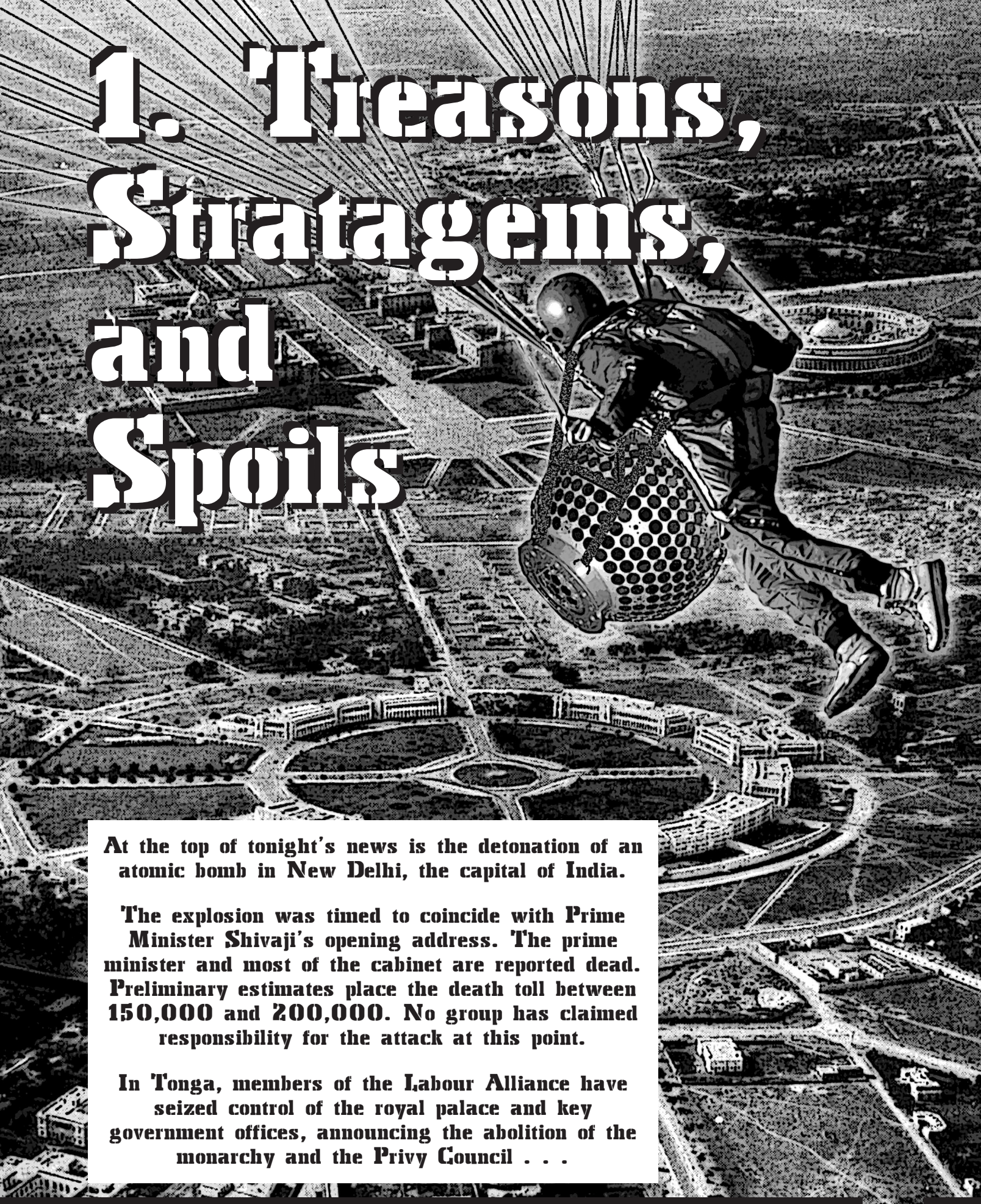
GURPS Covert Ops lets you add covert operatives to your campaign with all the realism that ***GURPS*** players look for. If you're interested in modern intrigue, from the Cold War to the latest terrorist threats, you'll find the latest high-tech equipment and the organizations that supply it to their agents. Campaigns focused on secretive conspiracies or criminals can use this information, as well. Additional material looks ahead to the future of covert methods, and back to the hidden operations of history, and suggests ways to explore these themes in worlds of fantasy or science fiction. Character templates and optional rules provide for a range of play styles from the grimly realistic to highly cinematic thrills.

About the Authors

William H. Stoddard is a freelance editor and writer who lives in San Diego, Calif. As an editor, he specializes in academic material, ranging from computer science to the history of philosophy. As a writer, he specializes in roleplaying games. His work for Steve Jackson Games includes ***GURPS Steampunk*** and, most recently, contributions to ***GURPS Blue Planet*** and ***GURPS WWII: Weird War Two***. In his spare time he edits *Prometheus*, the quarterly newsletter of the Libertarian Futurist Society, and plays with his cat, Rakshi, an aspiring killer queen.

Hans-Christian Vortisch is a writer and translator based in Berlin, Germany. He is the author of ***GURPS Modern Firepower*** and numerous gaming articles. He also revised ***GURPS Special Ops,*** *Third Edition,* and contributed to ***GURPS Cliffhangers, GURPS Cops, GURPS Vehicles Lite,*** and the ***GURPS WWII*** line, as well as a number of German ***Call of Cthulhu*** products.

1. Treasons, Stratagems, and Spoils



At the top of tonight's news is the detonation of an atomic bomb in New Delhi, the capital of India.

The explosion was timed to coincide with Prime Minister Shivaji's opening address. The prime minister and most of the cabinet are reported dead. Preliminary estimates place the death toll between 150,000 and 200,000. No group has claimed responsibility for the attack at this point.

In Tonga, members of the Labour Alliance have seized control of the royal palace and key government offices, announcing the abolition of the monarchy and the Privy Council . . .

Covert operations are attempts to inflict harm on people or organizations who are protected by the law. This is why they are covert – if such actions are attempted openly, the legal authorities interfere. Operatives are criminals, at least according to the law of the societies where they operate. One of their major goals is to avoid the attention of the authorities.

But covert operations are a special kind of crime. Ordinary crimes are committed for emotional reasons, such as rage, spite, or entertainment – or direct gain, in money or marketable goods. Covert operatives have more impersonal or indirect motives. They may serve a political or religious cause, or they may be professionals, carrying out jobs for an organization or for anyone who can afford to hire them. They profit not by taking from the victim, but by providing a service to a third party or aiding a cause.

There's a spectrum from completely covert operations to open warfare. War is also an attempt to harm an enemy, but it's not hidden from the legal authorities; rather, military forces openly contest the power of those authorities, in the name of a foreign invader or an internal rebellion. Usually, the government itself is the main target in a war; it may not be in a covert operation.

Concealment and deception are an element in military action, but within limits. For example, a uniformed soldier who shoots an enemy general on the battlefield is engaged in an act of war. But a man in civilian clothes who enters a city held by the other side and shoots an enemy general is classed as a spy and isn't protected by the laws of war – legally, he's simply a criminal. For military missions involving deception and the forces that conduct them, see ***GURPS Special Ops***.

Dangerous Trades

Covert operations differ from one another in a variety of ways: the kind of object they're intended to affect, the actions they attempt to perform upon it, the precision of their targeting, and their emphasis on physical consequences or psychological impacts. Labels such as "assassin," "saboteur," and "terrorist" are based on one or another of these aspects. A complete classification has to look at all of them.

Realistically, any operation, especially a large one, includes actions in several of these categories. For example, a kidnapper or saboteur can gain access to the target by killing a guard, or cover up aspects of the crime by killing a witness. It's simplest to discuss the various types of operations separately, classifying each operation according to its main goal, but this classification certainly doesn't exclude the possibility of other types of effects.

A useful starting place for this sort of classification is the difference between striking at individuals and striking at populations. Psychologically, human beings usually react as individuals, making choices that reflect their personal concerns. But under some conditions, they act collectively, with each individual being part of a larger human mass. All covert operations have targets, but some operations target people as individuals, while others target people as groups.

Retail

For individually targeted operations, the target may be a specific person, a particular item of physical property, or a body of information.

Assassination

An assassin is a person who kills other people for money or ideological reasons. Assassination is a premeditated act, not the product of impulse. Usually it's performed by stealth; ideally, the victim doesn't see the attack coming and doesn't get a chance to fight back or run away. The term "assassin" derives from the Arabic *hashishin* (see *The Original Assassins*, below).

To be classified as an assassination, a killing has to be targeted against a specific person. Many assassinations use precise weapons such as sniper rifles, knives, or poison that are unlikely to cause collateral deaths. But shooting automatic weapons into a crowd or setting off a bomb that destroys a building is still assassination, no matter how many innocent bystanders die, if the goal is a specific person's death.

An assassination attempt may fail to kill the victim. There are also crimes similar to assassination for which the goal isn't killing in the first place. On one hand, actions that cripple or mutilate a person, such as throwing acid in his face (see p. 78), may produce more shock and fear than simply killing him. On the other, inflicting pain without permanent injury is a way of keeping people in line, especially for a criminal organization.

The Original Assassins

The *hashishin*, also called Nizari Isma'ilya, were a sect of Shi'ite Muslims, allies of the splinter Ismaili sect led by the Egyptian-Iranian imam Abu Mansur al-Nizar. Led to prominence by the Syrian leader Hasan ibn al-Saban in the 11th century, the society indoctrinated its members with a sense of religious superiority and used them to take out political targets.

The Isma'ilya were fearless warriors, convinced that success or martyrdom earned them a private paradise in the afterlife. Their best-known name derives from the drug hashish, and popular legend claimed that the group used hashish to induce visions of this paradise. Europeans who came in contact with them during the Crusades, or heard stories of their deeds, carried the name back to Europe, where linguistic evolution turned it into "assassin."

In this book, general references to an "assassin" mean anyone who kills for money or ideological reasons such as a political or religious cause, while a capitalized reference to an "Assassin" means a member of the original *hashishin*.

Sabotage

A saboteur is a person who commits destructive acts against property. The name comes from the French *sabot*, a wooden shoe – angry French factory workers threw their shoes into the gears of machinery. Despite its origins in economic conflicts, sabotage now often takes place in military conflicts, with the goal of denying the enemy the use of vital equipment. More recently, some environmental activists have used "ecosabotage" or "monkeywrenching" – the latter term comes from Edward Abbey's novel *The Monkey Wrench Gang* (see p. 31).

Data Destruction

Rather than destroying physical property, a saboteur may want to destroy information. When information was mainly stored on paper, this meant physically destroying the paper. Now it often means gaining access to a computer and erasing its files, or introducing false information. Such actions fall into the general category of *hacking* or *cybercrime*. All of these acts are sometimes called *infowar*.

Another kind of destructive act against information is the installation of virus programs that take over a computer, disrupt its operation, and use it to make and communicate copies of the virus. With the growing volume of Internet communication, such programs can spread rapidly, taking vast numbers of computers out of service at very high costs.

Intimidation

Naturally, people are afraid of death or bodily injury, and the destruction of property or information can also be frightening. Sending agents to demonstrate that such actions are possible is a way of controlling another person's behavior. Such acts of intimidation, for example, have been attributed to the Assassins (p. 6).

One way to make such a threat credible is to carry out the threatened actions in a slightly different form. Instead of killing the primary target, an assassin kills a member of his family or one of his friends, or injures the target without killing him. Agents of a protection racket enter a store and break a display case or damage some merchandise, to show what happens if the owner doesn't pay up. Many covert actions are a means for "sending a message."

Extraction

If you can destroy something, often enough you could alternately take possession of it. Rather than being assassinated, a person can be kidnapped; rather than being destroyed, property can be stolen. A general name for such actions is *hostile extraction*.

Many such actions are performed for straightforward monetary gain. Thieves take property they can fence; kidnappers take people they can ransom. The identity of the specific property or person doesn't matter, so long as there's money to be made. This kind of crime is more or less opportunistic.

When covert operatives perform a hostile extraction, it's against a specific target, whose acquisition serves some purpose. If they get paid, it is for delivering the person or object to a specific person who commissioned the extraction. (Legal actions such as bounty hunting or property repossession have similar goals, but a wider choice of methods, since they don't have to be hidden from the police.) Or they may be performing the extraction as a duty to some cause. They may even simply want to get the acquisition out of someone else's possession or exclusive control; animal-rights activists may set animals free, and computer hackers may publish formerly confidential information via the Internet as free downloads.

Extraction of a person isn't always hostile. Methods very much like kidnapping are used to get a person out of captivity, or to help a slave escape. Hackers who believe that "information wants to be free" and animal-rights activists have similar motives in their own eyes, though not in the eyes of people who consider themselves legitimate owners of the information or the animals.

Wholesale

The biggest differences among wholesale operations aren't the kind of object or the intended action, but the strategy for affecting the target population. Broader or narrower populations can be targeted: everyone who works for a certain corporation or government agency, everyone who's wealthy or holds any official position, or even anyone who lives in a certain country.

Mass Destruction

In some covert operations, the goal is to inflict harm on a large scale, for the sake of the physical consequences of that harm. The target can be the personnel or facilities of an organization; an ethnic, religious, or other minority; or simply everyone living in a certain area. Releasing poisonous gases or plague organisms in an inhabited area, committing arson in a built-up area, and releasing a virus program that shuts down large numbers of computers are all examples of this kind of widespread effect.

Terror

Large-scale death and destruction are naturally terrifying, and any act of mass destruction may be classed as *terrorism*. It's possible to deliberately shape acts of mass destruction for psychological impact. Intentionally killing innocent victims, such as children, or destroying symbolic sites, such as religious shrines, can shock an entire society. The methods used in such acts can also increase their impact; for example, terrorists can set two bombs at a site, with the second one timed to kill rescue workers brought there by the first explosion.

Instead of killing large numbers of people all at once, terrorists can kill individuals or small groups at random. When the harm falls on randomly chosen members of a widespread population, the entire population's morale suffers. In effect, a small number of deaths or injuries threaten everyone with similar harm.

Taking Hostages

Taking hostages is another strategy often pursued by terrorists. In some ways, hostage-taking is an individually targeted operation; many hostages are chosen because they are important in some way as individuals. But the effect on the hostage isn't usually the real goal; the goal is to change the behavior of others by threatening to harm the hostage. Taking innocent bystanders hostage puts pressure on a government whose citizens expect it to protect their lives, especially if the hostages are children. Demonstrating the ability to take hostages also creates a sense of being threatened among the target populace – in essence, they are all potential hostages – making this a useful terror tactic.

The Stockholm Syndrome

One of the possible hazards of hostage situations is hostages becoming emotionally attached to their captors. This is commonly called the Stockholm Syndrome, after the first case that attracted widespread public notice. In 1973, a bank robber named Jan Olsson took hostage four employees of the Kreditbanken in Stockholm. Police acceded to his demand that a friend, Clark Olafsson, be allowed to join him, and the two men held out for six days before surrendering. To the surprise of the Swedish authorities, the hostages refused to testify against their captors and even raised money for their defense.

Psychologists put forth a variety of theories to explain this strange behavior, largely focusing on the shared experience of an ordeal terrifying to both hostages and captors. Many later incidents have been described as examples of the same pattern, including Patricia Hearst's embrace of the cause of her kidnappers. Rescuers in a hostage situation may have to contend with hostages who resist being rescued! According to most accounts, it takes about three or four days for this bond to develop.

The Stockholm Syndrome isn't universally accepted as real. The strongest bond in the original incident was between Kristin Ehnemark, a bank employee, and Olafsson, both of whom apparently wanted to end the incident without open violence – apparently Olafsson had some restraining effect on Olsson. And, in fact, the nonviolent resolution came about and everyone survived. It's arguable that Ehnemark's later support for Olafsson reflected entirely rational gratitude for the part he played in her captivity. This complexity and ambiguity surrounds many notable historical episodes involving covert acts.

Coups

A *coup d'état,* or *putsch,* is a seizure of power from an existing government – not through warfare or popular uprising – but by a strike at the heads of state. In one sense, it's targeting the individual people who hold public office, but in another, it's targeting the entire population that they rule. A coup forces them to submit by taking control of the government to which they already owe their allegiance.

Even a small coup is a large and complex operation, at the high end of covert operations. But if it's going to succeed, it has to be kept secret in spite of its scale, until the critical moment when the conspirators seize power.

Ancillary Operations

Covert organizations have the same need for resources as any other organizations; in turn, many such organizations have used their agents to obtain their resource needs.

Funding

Since very early in history, there have been ties between banditry and political revolt. Common people with oppressive rulers have made heroes of bandits, as in the Robin Hood myth, and enemies of a regime have turned to banditry to support themselves. The 20th century saw revolutionaries and terrorists taking up bank robbery, from the Russian Bolsheviks (including Stalin by many accounts) to the Symbionese Liberation Army.

Covert organizations may also have ties to smugglers or engage in smuggling themselves – for example, illegal drugs. Conversely, Colombian *narcotraficantes* were primarily smugglers, but could afford to fund large-scale covert operations in defense of their territory.

Recruitment

If getting a job done requires help from someone with special skills, or in a special position, a covert organization may not rely on voluntary cooperation. Blackmail, extortion, or kidnapping family members can force people to cooperate in illegal activities. An organization may also attempt to brainwash a captive into becoming a recruit, as the Symbionese Liberation Army did with Patricia Hearst – fanatics are likelier than professionals to try this.

Security

Covert organizations need hiding places, armories, training sites, and other secure locations – and they need to protect their key people from adversaries. The most effective security is being inconspicuous. But with high stakes involved, an organization that's already operating outside the law may not hesitate to kill people who know too much. The same applies to people who see an operation in progress. Silencing witnesses is one of the oldest motives for murder.

Propaganda

Organizations that engage in terrorist "propaganda by the deed" need some of the ordinary kind of propaganda to frame their acts as service to a cause rather than simple violent crime. In liberal societies, they can send their claims to the media and hope for sympathy or fear. In repressive societies, spreading such information may itself be a crime; secret organizations may have their own printing presses or radio stations.

Mass Destruction and Its Consequences

A successful act of mass destruction is effectively an intentionally produced disaster. Its effects are comparable to those of a natural disaster, as is the response of the community on which they are inflicted. Statistical studies of large-scale catastrophes reveal some common patterns in both sets of events.

In a major disaster, a number of people are likely to die. On average, about five times this number are likely to suffer injury; 20 times have their lives disrupted, losing their homes or families; and 100 times this number suffer some degree of property damage.

A community's response to a disaster follows a typical course in time. For a short time, generally a few days, life is totally disrupted, with normal activities simply ceasing. Temporary repairs to damaged property and restoration of normal daily routines takes about 10 times as long (a number of weeks). Permanent rebuilding of destroyed property takes about 100 times the immediate emergency (typically about a year).

The psychological effects of terrorism by mass destruction are somewhat different from those of natural disasters, since humans inflicted the harm. People often feel rage and a desire for vengeance. The possibility of a further attack may lead to chronic fear and suspicion, especially if the perpetrator's identity is uncertain. Potential victims may spend great effort on self-protective measures, which may or may not be effective. People who were actually injured, or who lost family or friends, may suffer from long-term depression.

To represent these effects in ***GURPS*** terms, choose suitable mental disadvantages. Chronic Depression, Compulsive Behavior (Precautions against attack), Delusions, Edgy, Fanaticism, Flashbacks, Guilt Complex, Intolerance, Nightmares, Paranoia, or Phobias are all appropriate. Use the Fright Check mechanic (see pp. B93-94) to judge whether a given person experiences such effects. Appropriate modifiers to Will are -5 for people directly affected by the event (seriously injured or trapped for an extended time); 0 if on the scene; +5 if an Ally or Dependent was harmed or trapped; -1 to -5 for large-scale events (-1 for the bombing of a building; -5 for the nuclear destruction of a city).

Fiction and Truth

A wide body of beliefs already surrounds the history of covert operations. These generally follow into the following categories.

Legends

Threats of assassination or terrorism are fearful, and like other causes of fear – discussed in ***GURPS Horror***, pp. 31-62 – they are the subject of legends and folklore. Covert agents are often credited with superhuman powers. Sometimes these are described as divine gifts, sometimes as the product of specialized training in secret arts. Science-fiction and superhero comics have added various technological possibilities. Chapters 3 and 4 discuss several such abilities, including disguise, invisibility, methods of bypassing defenses, magical killing abilities, and special advanced weapons. Or assassins may be inhumanly skilled with mundane weapons such as guns, knives, or bare hands.

In settings where operatives work in organized groups (pp. 114-116), the leaders have extraordinary data sources. Reading letters without opening them or hearing whispered conversations between subordinates anywhere in headquarters conveys a sense of omniscience and discourages inconvenient ambitions. Even in a more realistic view, leaders know a great deal and do not account for their sources of information. They may also be skilled at reading people's intentions from their body language.

All these abilities are likely to inspire suspicion or outright paranoia. Folklore about hidden conspiracies fascinates many people and obsesses a few. In a society where covert operations are common, or commonly feared, many people, especially the rich and powerful, may be Edgy or Paranoid.

Tales

Covert operatives have appeared in literature for a long time. For instance, Shakespeare's Macbeth hires mercenaries to pose as bandits and kill Banquo and his son. In some of Shakespeare's other plays, however, main characters do their own dirty work, from Claudius murdering his brother, the king, to the conspirators who assassinate Julius Caesar.

Edgar Allan Poe's popularization of the detective story provided a solid fictional grounding for covert operatives, later brought to fruition by Arthur Conan Doyle's Moriarty – and Sherlock Holmes himself, with his Baker Street Irregulars – and Jack London's Assassination Bureau. The heroes of espionage novels – for instance, in the Great Game of Rudyard Kipling's *Kim* – contended with operatives backed by the funding of rival governments. Sax Rohmer's Fu Manchu occupied a middle ground, acting as a criminal without official standing, but in fact wielding great political power and aspiring to even more.

Death of Holofernes

One of the legends of ancient Israel describes the invasion of Israel led by a general named Holofernes under orders from the Assyrian king Nebuchadnezzar. When the rulers of Jerusalem proved unable to organize effective resistance, a Jewish widow, Judith, took matters into her own hands.

Dressing in her most beautiful clothes, she went to the Assyrian camp and charmed the Assyrians into inviting her to a feast, where they all tried to seduce her. She accepted the invitation of Holofernes, who was so drunk that he fell asleep, whereupon she picked up his sword, grabbed his head by its hair, and chopped it off with two blows. She and her maid smuggled it back into Jerusalem in a food sack and mounted it on the city wall. Seeing it, the Assyrian army gave up the planned invasion.

This is almost certainly not historical; among other things, Nebuchadnezzar wasn't Assyrian, but Babylonian. The Book of Judith wasn't included in the Hebrew Scriptures, which suggests that it wasn't considered historical when they were compiled. But it's a vivid and dramatic story, one of the first appearances of the *femme fatale* in adventure fiction, and a favorite subject of artists – notably the Renaissance painter Artemisia Gentilleschi.

During World War II, governments made industrial production a key element in military strategy. Fear of saboteurs was widespread from the United States to the Soviet Union, so heroes of popular fiction, film, and even comic books fought against Nazi and Japanese agents.

The same theme continued during the Cold War, with new antagonists. For example, the first James Bond film showed Dr. No using advanced radio technology to sabotage American missile tests. Other fears also appeared in Cold War films, such as the brainwashed assassin of *The Manchurian Candidate.*

During the same period, both assassination and terrorism grew increasingly prevalent, and they continued to do so after the fall of Communism. Many of Tom Clancy's novels feature antagonists engaged in such plots.

Many fictional covert operatives are faceless tools of other men's plots. But novels of crime or intrigue also feature master villains, brilliant men seeking their own advantage by illegal means. Typically such villains are defeated in one novel or film; if the hero returns, he usually faces different adversaries.

Recurring opposition usually takes the form of secretive organizations hidden behind a series of master villains; Boskone in the Lensman novels, Hydra in Marvel Comics, and the Russian intelligence-agency SMERSH and international criminal-conspiracy SPECTRE in the James Bond novels and films all take this form.

History

Realistically, covert operatives range from street thugs to highly skilled assassins and saboteurs, and from religious or political fanatics to professionals whose loyalty is for sale to the highest bidder. Models for all these types can be found in history, starting with the oldest written records.

Before History

Tribal societies don't have organized governments; chieftains, priests, or shamans have influence, but no person or organization can demand obedience from every member of the society. Rather than criminal law enforced by the state, they have taboos enforced by general consensus. Poisoning other people is typically taboo, though tribal peoples commonly know about any poisons found in their natural environments and may use them in hunting. Killing other members of one's own tribe by any form of stealth is usually condemned, though duels or other open violence may not be.

People in tribal societies may also be afraid of witchcraft, which is usually defined as inflicting harm on other people by supernatural methods. The magician who can curse an enemy, or turn into a predator and stalk him, embodies the same fears as the assassin or ninja of civilized societies. People in societies that believe in witchcraft may even try to use it against their enemies.

The Ancient World

The city-states and empires of the ancient Near East, in Mesopotamia, Egypt, Crete, and Asia Minor, had power struggles on a new scale, some of which motivated political killings. For example, the historian Manetho wrote of Egypt's VIIth Dynasty, beginning 2184 B.C., as having "70 pharaohs in 70 days." Many political killings were actually commanded by rulers trying to maintain their power or using it against their enemies. However, there may have been many more secret acts of violence that never became part of the historical record; official court histories said little about people other than rulers and officials, and were likely to downplay both the crimes of the rulers and the attempts of their enemies to overthrow them. The Old Testament offers one of the most vivid pictures of this world, especially in its account of the monarchy of David, from his early years as a rebel against Saul to his suppressing the rebellion of his own son Absalom.

The Old Testament also shows the use of supernatural abilities to carry out actions that would now be described as covert operations. For example, much of Exodus could be described as a campaign of terrorism against the Egyptian monarchy, culminating in the death of a significant part of the Egyptian population.

See ***GURPS Egypt*** for more information on this era.

Greece and Rome

The classical era left much more detailed records, thanks partly to historians such as Herodotus and Thucydides in Greece and Livy and Tacitus in Rome. Both the Greek city-states and Roman republic suffered from recurring political

violence, ranging from assassinations to civil wars. The death of Gaius Julius Caesar at the hands of Brutus, Cassius, and other republican leaders is one of history's best-remembered assassinations. The Roman Empire, under Augustus and his successors, pacified much of Europe, the Near East, and northern Africa, but the imperial throne itself became the focus of intrigue – many emperors gained their position through the deaths of rivals, and some lost it by being murdered.

One of Rome's conquered provinces, Palestine, became a hotbed of covert violence, with Jewish fanatics such as the Zealots defying Roman rule. One meaning of "messiah" applied to a resistance leader in those days. Jesus' exact stance in this uprising is debated, but his mostly peaceful activities were enough to see him crucified under a politically inflammatory sign calling him "King of the Jews." One theory has it that Judas Iscariot was a Zealot operative who horribly failed while trying to squeeze Jesus into taking a more militant stance.

See ***GURPS Greece*** and ***GURPS Imperial Rome*** for more information on this era.

China

During roughly the same period, China was transformed from a group of independent kingdoms into a unified empire under Ch'in Shih Huang Ti (see pp. WWi26-27). Starting out as king of Ch'in, he conducted a ruthless campaign against the rival kingdoms from 230 to 221 B.C., aided by his first minister, Li Ssu. Bribery, espionage, and other covert measures played a key part in his conquests (see pp. V120-121 for a cinematic treatment). Three attempts were made to assassinate him, in 227, 219, and 218 B.C.; his fears of attack may have made his already repressive rule even harsher. His dynasty ended in 206 B.C., four years after his death, but left lasting marks on China, including the system of competitive civil-service examinations and bureaucratic rule.

Later Chinese history was often shaped by intrigues, frequently of the court eunuchs who guarded the emperor's wives and concubines against the bureaucrats who ran the empire's daily business. In China's heavily regulated economy, getting business done required favors from officials or outright bribery, and business shaded into crime. In turn, local judges recruited their own agents to strike back against criminals – or, sometimes, against criminals who didn't pay them off.

Under Korea's Silla Dynasty (668-935 A.D.), an elite warrior group, the Hwarang, trained some of its members not only in combat skills, but also in concealment and deception. This group, the Sulsa, was effectively an early special-ops force. In this period, the Silla first unified Korea in alliance with China's T'ang Dynasty, then made themselves independent of the T'ang.

For more information on China, see ***GURPS China***.

The Middle Ages

Under Christianity, Rome divided into two civilizations: Western Europe, under the Catholic Church, and Byzantium, under the Orthodox Church. A rival religion, Islam, gave rise to a third civilization, centered in the Near East.

Western Europe was politically divided, initially into vast numbers of feudal domains, later into emerging monarchies. The papacy became a focus of intrigue, especially during the later Middle Ages, when two rival popes in Rome and Avignon both claimed authority over the Catholic Church. Between 882 and 1303, as many as 15 popes may have died by violence. Complicated feudal laws gave rise to secular intrigues, as well. Notable incidents in English history included William II Rufus being shot in the back while hunting in 1100, possibly under orders from his younger brother Henry I; Thomas Becket's murder in Canterbury Cathedral in 1170 by four knights of the court of Henry II; and the disappearance of Edward IV's two sons from the Tower of London in 1483. The latter were rumored to have been murdered by their uncle, Richard III, but this was never proven and historians still disagree over Richard's guilt. Similar intrigues took place elsewhere in Europe.

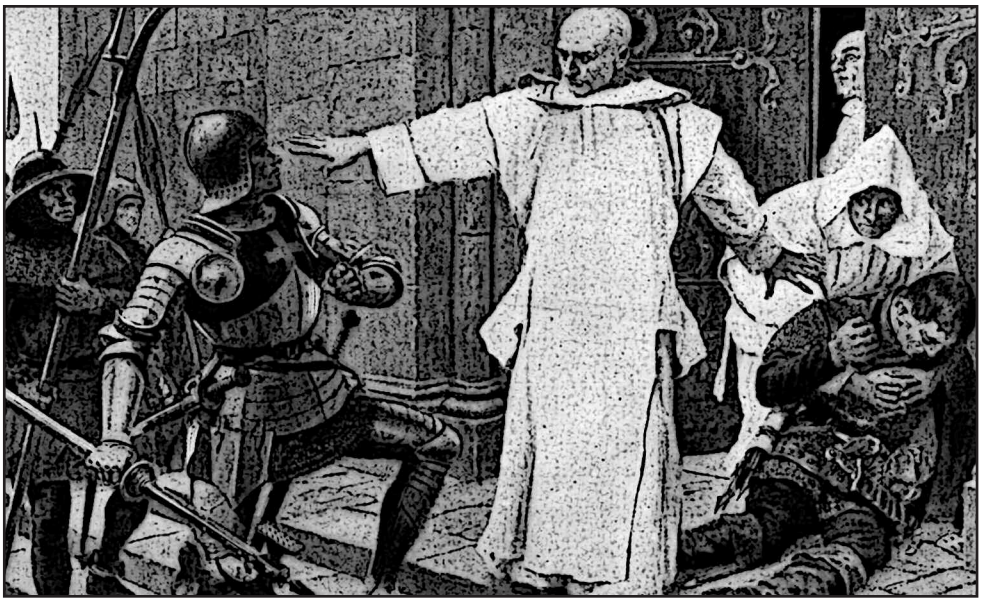
Villains or Heroes?

All these myths and stories embody a fearful view of covert operatives as potential threats. Governments normally view them that way, since government officials are prime targets for assassination, and government facilities for sabotage. Legal codes typically treat assassination, sabotage, and terrorism as especially vile crimes, and law-abiding people share this view. For example, Dante puts Brutus and Cassius, Caesar's killers, in the lowest point in Hell, side by side with Judas Iscariot.

But people who oppose their government hold other views. Throughout much of history, resistance movements have found murder and sabotage useful, and with the rise of democratic political ideas over the past few centuries, revolutionary movements have held similar views. The Puritans, for example, produced eloquent justifications of tyrannicide. The Assassins and the Zealots appear to have enjoyed the support of many people in the areas where they operated; so did resistance movements in occupied countries during World War II.

Governments may also employ covert agents, allowing them to kill inconvenient people without taking official responsibility for their actions. One of the 20th-century's most-popular literary characters, James Bond, was described as having a "license to kill," symbolized by his "00" number; in effect, he was a heroic assassin in the service of the British government – only incidentally a spy.

With such historical and fictional prototypes, either skilled professionals or ordinary people in special circumstances may be treated as heroic figures. Calling them "assassins" or "terrorists" may seem to imply condemnation, but the skills, the equipment, and the dangers are the same, whatever name the act carries.



Byzantium remained unified until it fell to the Turks in 1453. Its imperial court was fabulously wealthy, with elaborate protocol designed to impress foreign visitors. Mercenaries such as the Varangians, Scandinavians who traveled to Constantinople by way of Russia, made up a large part of the imperial forces. Foreign policy relied as much on diplomacy and intrigue as on force. Internal politics were so intrigue laden that "byzantine" became a standard word for complicated political maneuvering.

Islam started out in a simpler form, through a guerrilla war between Mohammed's allies and the rulers of Mecca, who had driven him out. But after Mohammed's death, the right to succeed him in leading the faithful was bitterly contested. Both the *shi'ah*, who limited that right to Mohammed's immediate family, and the *khariji*, who allowed it to any Moslem who was honestly devout, objected to the compromise candidates for caliph ("successor") who initially followed Mohammed. The second, third, and fourth caliphs were all assassinated – Ali, the fourth caliph, favored by the *shi'ah*, was killed by a *khariji*.

Later in the development of Islam, the *shi'ah* split into two factions, the Twelvers and the Seveners. The Assassins (see *The Original Assassins*, p. 6, or pp. AN36-37) were an offshoot of the Seveners. Unable to prevail by military force, they turned to covert measures – not only the eponymous practice of assassination, but infiltration and subversion, especially of remote mountain fortresses that they could defend with limited forces. They spread through Syria and Persia, gaining a reputation for supernatural powers, and became involved in the struggles that followed the First Crusade in 1097 (itself largely arranged by Alexius I of Byzantium; see pp. WWi46-47) and not always on the Moslem side. During the Third Crusade, the Assassins were bitter foes of Saladin, the Moslems' greatest leader, because he had driven the *shi'ah* out of Egypt. The Poor Knights of the Temple of Solomon, or Templars – founded in 1118, and destroyed in 1314 by the King of France – derived many of their methods from the Assassins, including a willingness to disguise themselves as adherents of other faiths while still working in the service of Christianity.

For more information on these eras, see ***GURPS Arabian Nights***, ***GURPS Middle Ages 1***, and ***GURPS Vikings***.

The Renaissance

Renaissance Europe saw major changes in the technology of violence, largely products of the development of chemical techniques by Near Eastern and European alchemists. The most important of these was gunpowder, useful for terrorists in bombs and for assassins in pistols. By making armor less effective on the battlefield, gunpowder may also have encouraged the development of lighter swords suited to fencing techniques, which became popular in civilian life as well, among both duelists and assassins.

Many new chemical substances proved to be poisonous, as early chemists sometimes found out the hard way by tasting their preparations. Fictional characters of the period often used poisons, and many historical figures were reputed to do so as well. The physician and alchemist Paracelsus (see pp. WWi64-65) laid the groundwork for scientific toxicology in this period.

The Italian city-states, where the Renaissance started, pioneered all these new forms of intrigue. Both the native Italian Medicis and the Spanish Borgias produced many practitioners of such methods. Both influenced Niccolo Machiavelli, whose native city of Florence, ruled by the Medici, sent him on a diplomatic mission to Cesare Borgia in 1502. Machiavelli's guide to methods of ruling a city, *The Prince*, partly inspired by the meeting, but dedicated to Lorenzo de Medici, made his name a synonym for amoral political manipulation. Italian methods were exported to the rest of Europe, notably by Catherine de Medici, queen of France from 1547 to 1589.

This same period also saw the birth of Protestantism, inspired by the corruption of the Roman Catholic Church, of which Cesare Borgia's father, Pope Alexander VI (born Rodrigo Borgia), was a major example. Europe saw three centuries of brutal religious warfare. Officially imposed religious observance drove many dissidents into secrecy and conspiracy, especially in England, France, and the Netherlands. The Society of Jesus, founded in 1540, trained many priests for duties in Protestant countries, where they were widely feared, not least because of their reputed skill in providing Christian moral justification for amoral acts. The French Cardinal Richelieu (see pp. WWi78-79) gained a comparable reputation, even among Catholics, reflected in his literary portrayal as the master intriguer of *The Three Musketeers.*

Under the rule of Elizabeth I (see pp. WWi70-71), the English became masters of this sort of intrigue. Her rule was controversial, as Catholics regarded her as an illegitimate child, and she faced constant intrigue from her cousin Mary, Queen of Scots, until Elizabeth had her executed in 1587. The same religious tensions plagued her Stuart successors for the next two centuries. Nearly all of Elizabeth's key advisors, including Cecil, the Walsinghams, Leicester, and Leicester's stepson Essex, were deeply involved in spying and intriguing. At least one major poet, Christopher Marlowe, was also a spy, and similar claims have been made for the occult experimenter John Dee (see pp. WWi68-69), who if nothing else was an early imperialist.

Murders and intrigues are a major theme in the literature of the era; Shakespeare's plays offer many examples. This was the era when Spanish playwrights developed the genre of *capa y espada*, or "cape and sword," the source of the modern phrase "cloak and dagger" for suspense fiction.

For more on this era, see ***GURPS Swashbucklers***.

The Gunpowder Plot

Under Elizabeth I, England's Roman Catholics were tolerated, but had to pay substantial annual fines for not attending Anglican church services. When James VI of Scotland became James I of the United Kingdom, he initially let the fines go uncollected. But in 1605, he reinstituted them, collecting larger amounts than ever before.

Led by Robert Catesby, a Roman Catholic nobleman who had been involved in the Earl of Essex's rebellion against Elizabeth I, a group of 11 men of good family decided to strike back. Westminster Hall, where Parliament met, was then surrounded by other buildings, and rooms in all the buildings were leased to people with government connections and subleased to various other people, including tradesmen. Catesby's group decided to kill both James I and as many members of Parliament as possible during the king's opening address to Parliament by setting off a massive charge of gunpowder. In fact, they had devised one of the first terrorist plots in the modern sense.

To help carry it out, they recruited Guy Fawkes, an English Catholic who had seen military service in the Netherlands, as a technical expert. Backup plans involved sending agents to kidnap the king's two children, "to keep them safe," but effectively making them hostages.

What gave the plot away was a letter of warning to a secretly Catholic member of Parliament, Lord Monteagle. He turned the letter over to the government, which sent searchers to look for the powder. A first search failed to find it, but a second search uncovered barrels holding 3,600 lbs. Fawkes had stayed at the site and was captured; he held out against several days of torture, hoping to let the other conspirators escape, but they were all killed or taken. Though Fawkes wasn't the instigator of the plot, his name became permanently attached to it.

Japan

During the same period, Japan developed its own version of feudalism, shaped by Oda Nobunaga (see pp. WWii50-51 and p. J32) and Tokugawa Ieyasu (see pp. WWi72-73, p. J32, and p. J36), during the 16th century, when Japan was struggling to assimilate Western cultural influences. Japanese feudalism was prolonged by the samurai class' success in keeping firearms and the West out of Japan for several centuries.

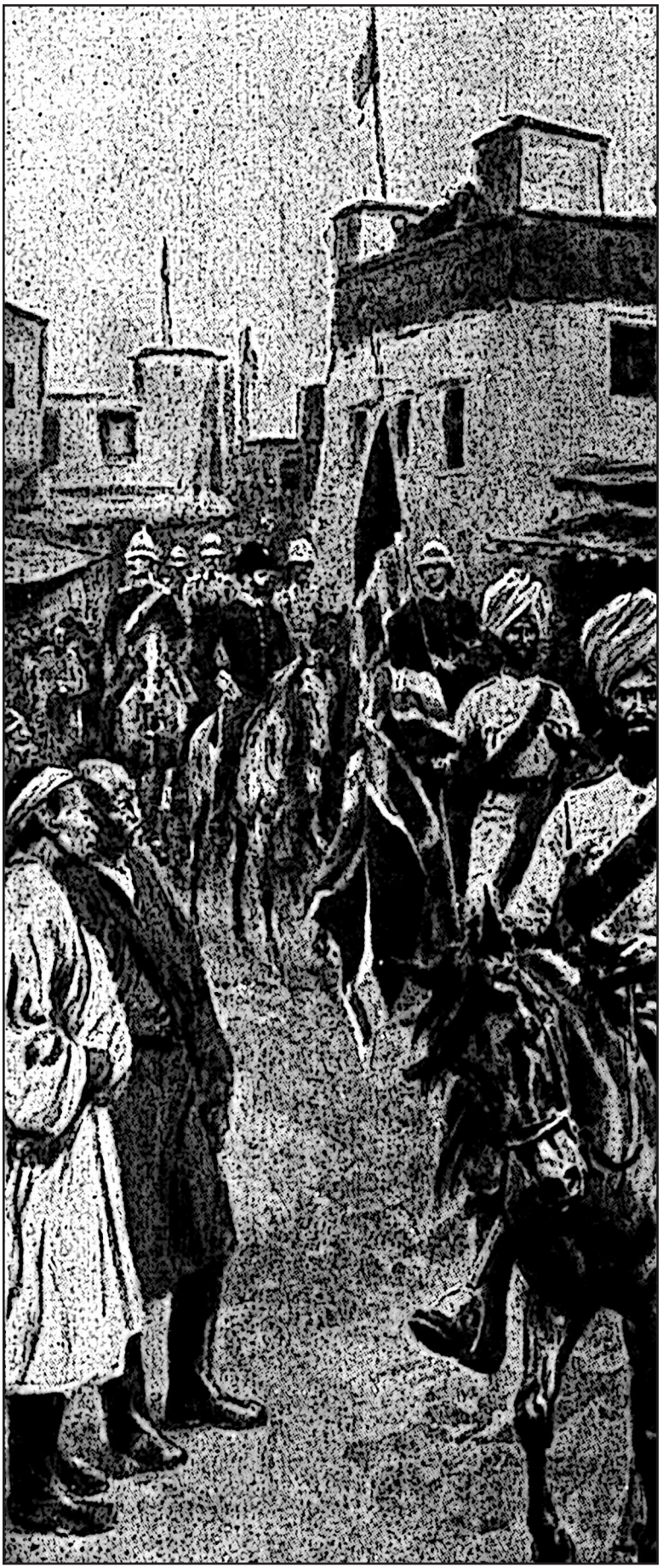
Samurai devoted their lives to "honorable" combat. The less-honorable side of struggle between feudal houses was the concern of other agents – portrayed in folklore and later popular fiction as the *ninja*, often shown as having incredible skills, supernatural powers, or both (see p. 55). Historical facts about such agents are few and debatable. However, Japanese peasants in the same era, forbidden to own weapons, developed both dual-purpose weapons that looked like farm tools such as thresher's flails and unarmed combat techniques – both useful to covert operatives.

For more on ninjutsu and other Japanese traditions, see ***GURPS Japan*** and ***GURPS Martial Arts***.

The Industrial Revolution

The American and French revolutions began a new political era. In many ways both followed the pattern of the English Civil War; but where Oliver Cromwell's regime claimed to derive its authority from God, the American and French republics claimed that theirs came from the people. Over the century that followed, movements appealing to popular sovereignty first challenged the old monarchic and aristocratic regimes – and then either destroyed them, as in Russia, or reduced them to symbolic roles, as in the United Kingdom. The growing classes of industrial laborers created by the new factory systems were much more politically active than the rural workers of past centuries, providing growing support for both reformist and revolutionary factions.

The leaders of the French Revolution, after gaining control of the state, used its powers to create a state of terror, first among aristocrats and later in anyone with insufficient revolutionary fervor. Later radical movements changed terror from a tool of the state to a method of attacking the state. Two of Europe's most-backward nations saw especially widespread use of such methods. Irish opponents of English rule, often funded by Irish emigrants to North America, adopted methods ranging from mutilating livestock to bombing government buildings. In Russia, the nihilist movement inspired by the ideas of Serge Nechayev and Mikhail Bakunin relied largely on assassination, not only of the aristocracy but also of government officials in general. Nihilists spoke of "propaganda by the deed," an attempt to undermine governments by proving that they couldn't defend citizens; the bomb-throwing anarchist became a popular stereotype. Both the Irish and Russian movements also used terrorist methods for internal discipline.



The superior accuracy of rifles, demonstrated in the American Revolution, forced soldiers to spread out and take cover; the development of cartridge ammunition allowed even faster fire and made automatic weapons practical. Both these developments also made firearms more useful to assassins.

GURPS Age of Napoleon and ***GURPS Steampunk*** offer information on this era.

India

With the incorporation of India into the British Empire, British officials encountered the practice of *thuggee*, ritual murder for religious reasons. Worshippers of the Hindu goddess Kali made a practice of waylaying travelers and garroting them with a traditional silken cord. Stamping out these practices became a goal of the British Raj, while the word "thug" came into general use, not just for cultists, but for any violent criminal. Ironically, the inspiration for *thuggee* seems to have come from "Assassins" (see *The Original Assassins*, p. 6) who took refuge in India after their Near Eastern bases were destroyed.

The World Wars

World War I began with an assassination (see box, p. 15) and the next thirty-odd years saw a number of other notable assassinations. The end of World War I saw the abolition of many of Europe's monarchies, notably those in Russia, Germany, and the Austro-Hungarian empire, and the emergence of totalitarian states in Russia and Germany, leading to the even more massive conflict of World War II. Espionage, subversion, and covert operations accompanied the open conflicts. Both the United States and the Soviet Union, in particular, were on guard against sabotage of their industrial production, which they considered essential to the war effort. In the Soviet Union, at least, this was exaggerated by Stalin's chronic fear of secret plots and by show trials of manufactured "enemies of the Revolution." All the dictatorships of the era sponsored covert operations outside their borders, and during World War II the United Kingdom and the United States built up similar capabilities in the form of the SOE and OSS.

The enactment of Prohibition in the United States immediately after World War I created a different sort of covert conflict. The purchase of smuggled liquor funded criminal empires in all the major American cities. The stereotypical mobsters were Italians such as Charles Luciano (see pp. WWii116-117), but many other ethnic groups were involved. Operating outside the law, they protected their territory and settled their disputes

through private vendettas, with forces ranging from street thugs to skilled hit men. Governmental countermeasures sometimes used similar methods, as in the killing of John Dillinger.

With the repeal of Prohibition on Dec. 5, 1933, organized crime turned to drugs, extortion, gambling, labor racketeering, and prostitution. World War II saw the recruitment of Luciano to aid the war effort, officially by guarding against sabotage on the waterfronts, and in some accounts by recruiting the Sicilian Mafia to aid the American invasion of Italy (discussed in ***GURPS WWII: Dogfaces***).

For more information on this era, see ***GURPS Cliffhangers*** and ***GURPS WWII***. ***GURPS High-Tech*** offers specific information on weapons of the period, including the Thompson submachine gun that became a cinematic trademark of American gangsters and the Browning Automatic Rifle which they much preferred over the Thompson in real life.

The Cold War and After

The development of the atomic bomb, and a few years later of the hydrogen bomb, caused a shift away from overt violence; the nuclear "balance of terror" made open war too risky. American and Soviet forces saw action largely against irregular forces in less-developed countries – and found themselves in over their heads in Vietnam and Afghanistan. Conflict through espionage and covert actions therefore became a major element in the Cold War. The most-popular fictional character of the era, James Bond, was a secret agent whose foes frequently served the Soviet Union. Eventually the cost of maintaining a huge military establishment became more than the Soviet Union could afford, leading to the liberation of former satellites and then the breakup of the Soviet Union itself. In some of its successor states, gangsters, including some former Communist Party members, came into control of much of the economy.

Moslem nations in the Near East became new havens for terrorism. Initially, these groups' main target was Israel, which itself maintained some of the world's best covert-operations forces, but many Moslems also saw the United States as a source of support for Israel, in much the same way that Western Europe had supported the Crusader states on almost exactly the same territory nearly a millennium earlier. The successful attacks on the World Trade Center and Pentagon on Sept. 11, 2001, showed that these groups had reached a level of expertise and commitment that made it possible for them to target the interior of the United States and its citizens.

The Black Hand: A Conspiracy

On June 6, 1914, 20-year-old Bosnian Serb Gavrilo Prinzip shot the Austro-Hungarian Archduke Franz Ferdinand, nephew and heir of the Austro-Hungarian Emperor Franz Joseph I, and his pregnant wife Sophie – setting in motion events that created World War I (see p. W6). The assassination was the climax of a conspiracy that included considerable parts of the Serbian military and government.

Bosnia had been under Austro-Hungarian control since 1878. In 1908, it was illegally annexed by the Austro-Hungarian Empire, which outraged the rest of Europe. After a cash settlement to the Ottoman Empire, most of the people involved settled down . . . except for the Serbs. Many ethnic Serbs living in Bosnia, as well as those in the Kingdom of Serbia proper, wanted Bosnia under Serbian control. (This is the same issue that motivated the civil war of the 1990s.)

In 1911, a number of Serbian soldiers founded a secret organization in Belgrade called *Ujedinjene ili smrt,* "union or death," or *Crna ruka,* "the Black Hand." Its purpose was the integration of Bosnia into "Greater Serbia" by the assassination of key figures in Bosnia and abroad. Among the founders were Col. Dragutin Dimitrijevic, head of Serbian secret intelligence and a member of the general staff of the Serbian army, and then-Lt. Vojislav Tankosic. The secret group recruited its members from all walks of life and was silently supported by many in Bosnia and Serbia.

The Black Hand staged many assassinations and assassination attempts, but all the investigations came to nothing – members in high positions saw to that. The Serbian government had undercover agents in the Black Hand – just as the group had in the government – but didn't dare intervene for fear of a coup. It didn't act when it learned of plans to kill the archduke, save for clouded hints.

A cell of three Bosnian Serbs led by Gavrilo Prinzip was tasked with the assassination; they had been trained and briefed in Serbia and supplied with explosives and four FN-Browning Mle 1910 pistols (p. 66). The pistols came straight from the Serbian army arsenal at Kragujevac. Four other operatives joined the men in Sarajevo.

The conspirators knew which route the archduke would take to his hotel and positioned themselves accordingly. The first one did nothing as the open car passed him, but the second threw a bomb, which bounced off the archduke's arm, raised in defense. The driver accelerated to safety, but several bystanders were injured. The others had no backup plan and scattered along possible routes to make a second attempt on the motorcade's return, with slim chances of success. By a stroke of luck, the archduke's car took a wrong turn and had to back up, five feet away from where Prinzip stood. He drew his pistol, took a step forward, and fired two shots point-blank, one hitting Franz Ferdinand in the neck, the other his wife in the abdomen. Both died shortly afterward.

Prinzip took cyanide, which failed to kill him, and died in prison four years later. He never betrayed the conspiracy, claiming to have acted alone.

The environmentalist movement also became a new source of hostility to industrial operations. Some radical environmentalists resorted to acts of ecosabotage. Usually these weren't meant to harm human beings, but some methods were potentially dangerous (see *Chainsaw*, p. 64). Animal-rights activists sometimes engaged in hostile extraction of animals, especially from laboratories.

Organized crime became much more powerful, supported by massive profits from trade in illegal drugs. The Colombian *narcotraficantes* even grew powerful enough to threaten their native countries' governments.

The United States government faced no such threat, but drive-by shootings and other gang violence made many American cities less safe. A variety of ethnic groups became involved in international crime – Russian gangsters, Chinese Triads, Japanese *yakuza*, and many others.

GURPS Atomic Horror examines the myths and fears of the Cold War era, while ***GURPS Cops*** and ***GURPS Espionage*** both describe certain covert activities in a present-day setting.

Possible Futures

The growth of technology seems likely to continue and to provide new weapons for covert violence, from more sophisticated personal firearms to genetically engineered plagues. In addition, technology itself provides terrorists and saboteurs with new targets. A virus program can bring computers throughout the world to a halt, or even destroy their stored information, as it propagates through the Internet. As control of more and more activities is transferred from human beings to computers, more opportunities arise for harming people or property by inducing computer error – and many of these will be overlooked until someone exploits them.

Barring any radical change – such as an ecocatastrophe or world war – the world population will continue to increase for some time to come. Increased strain on economic resources is a potential source of conflicts. With travel growing steadily cheaper, people with grievances can't be kept safely far away. And if space is opened up for human colonization and exploitation, there will be entirely new resources to fight over.

GURPS Y2K considers ways that humanity might be pushed off of its current historical trajectory. ***GURPS Cyberpunk*** offers a vision of where that trajectory might lead us, in a future where covert actions would be commonplace. ***Transhuman Space*** is a more optimistic vision of the future – but one that still has many conflicts.

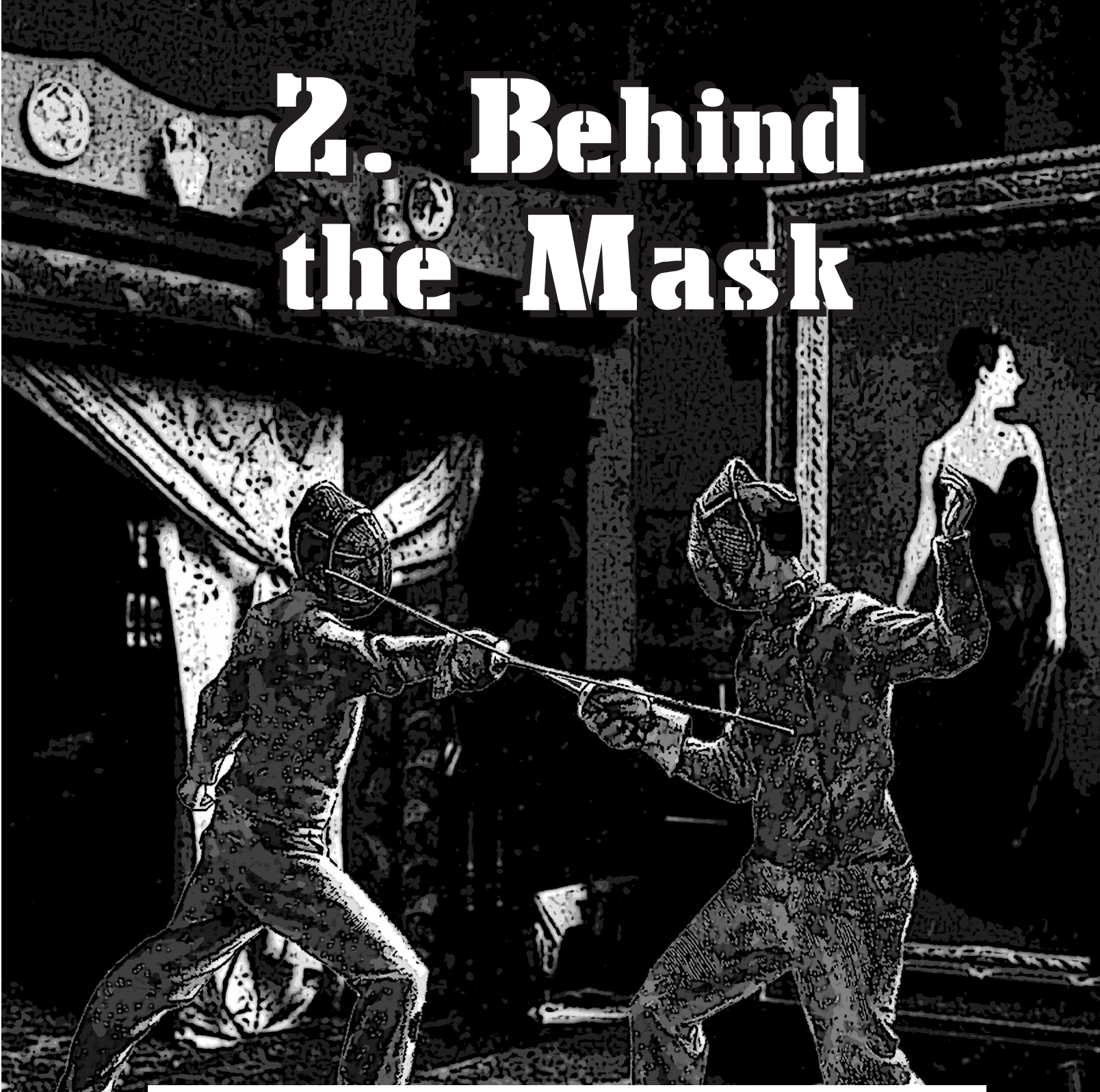
For the remoter futures of much classic science fiction, see ***GURPS Space***.

The Eichmann Arrest

At the end of World War II, Adolf Eichmann, the head of the Gestapo's Department for Jewish Affairs, escaped from an American internment camp to Argentina. A tip from a former concentration-camp prisoner who had encountered Eichmann's family brought agents of Mossad, Israel's secret service, to investigate. Eichmann had changed his name to Ricardo Klement, but insisted that his sons retain the family name and shared his anti-Semitic views with them; apparently he was confident that Argentina's government would not cooperate with his extradition.

The government of Israel appears to have agreed with him. Rather than attempt legal extradition, they ordered the Mossad team to locate him, confirm his identity, and kidnap him. On May 11, 1960, Israeli agents parked a car near Eichmann's home, pretending to have car trouble. When Eichmann got off his regular bus route and walked past, they forced him into the car and took him to a safe house, where they held him prisoner. On May 22, a special El Al flight was scheduled to leave Buenos Aires, carrying an Israeli delegation to an international celebration of Argentine independence; Eichmann was lightly drugged, dressed as a flight attendant, and taken on board to be flown back to Israel for trial.

2. Behind the Mask



Signore, your father has brought me into his house to tutor you. There is much to learn, and if you are to learn it you must be prepared to work. Now, if you please, take up the blade and stand ready to defend yourself.

No, no, no! Signore, do you think that this is a game? Learn this, if you learn nothing else: When another man approaches you with sword in hand, you must assume that he means to kill you.

Advantages, Disadvantages, and Skills

In general, covert operatives can be created with the standard ***GURPS*** advantages, disadvantages, and skills. In some cases, though, these need slightly different interpretations.

Advantages

Alternate Identity **see p. CI20**

Most operatives don't have Alternate Identity; if they're going to do a variety of jobs, they need to acquire a new identity after learning what each job requires. An operative who's in place on a long-term assignment does have an Alternate Identity suited to that assignment. An operative can also maintain an Alternate Identity as an insurance policy, letting him abandon his real name when things get hot.

Otherwise, create new identities on the spot, as needed. The simplest way to do this is to buy Temporary Identities with cash. A more obsessive operative creates his own, using Acting, Computer Hacking, Disguise, and Forgery as appropriate to the setting. There is no point cost for this.

Actually obtaining a new Alternate Identity has the normal point cost, which must be paid when the new identity is activated. A Patron may aid in the creation of a new Alternate Identity (see *Patron*, below); otherwise the delays and difficulties should be roleplayed at length.

Collected, Composed, Imperturbable **see pp. CI22, CI26**

Of these advantages, the one most appropriate to operatives is Composed. They aren't likely to assume that events are nonthreatening, or to take their lack of fear to the point of foolishness – neither behavior pattern makes for a long career.

Combat Reflexes **see p. B20**

Realistic assassins usually *don't* have combat reflexes; they aim to strike the first blow, preferably against an unprepared target, and then get out quickly. Going into combat situations is someone else's job. Cinematic assassins are more likely to be masters of combat, constantly on guard against every possible attack.

Contacts **see pp. CI22–23**

Instead of providing information, Contacts may perform small favors, such as holding a package or passing on a message. This doesn't turn the Contact into an Ally – in particular, a Contact will not go into combat or commit a crime.

High Technology **see p. CI26**

In a cinematic campaign, covert operatives have one level of this advantage. Often this reflects their working for an agency with top-secret research and development facilities. No more than one level is appropriate to the genre.

Immunity to Poison **see p. CI58**

Folklore and adventure fiction often portray assassins, or their prospective victims, as having gained immunity to poison, typically by taking repeated small doses – in a cinematic campaign this advantage is available to normal humans. It may be purchased for a limited range of poisons: a broad class of poisons (all organic compounds) is a -50% limitation, a narrower class (all snake venoms) is -60%, and a single substance (cobra venom) is -75%.

Patron **see pp. B24–25**

Some Patrons can create new identities, either legally or illegally. This ability adds 5 points to the Patron's base cost. A character who has the points available can do one or more of the following in play after a successful roll against frequency of appearance: spend 15 points to gain an illegal Alternate Identity, spend 5 points to gain a legal Alternate Identity, or acquire temporary use of a pre-existing identity for 0 points. The latter is not exactly the same as a Temporary Identity (see p. CI20); the quality of the identity is good, but

it is issued only for the duration of a specific assignment and may not be retained once the assignment ends. Make sure to specify which options a given Patron offers; very few Patrons can offer all three types!

Nothing prevents an organization that can do this from giving any of its agents a new identity, without their asking for it, and without letting the player make any choices about the new identity. This is as much an obligation as a benefit, so it has no point cost, and the recipient of the new identity need not have the organization as a Patron.

Reputation **see p. B17**

A professional operative benefits from a reputation for professionalism, such as "always carries out his contracts" or "an amazingly accurate shot." Typically this is confined to a small group; being a public figure makes for a short career.

Security Clearance **see p. CI29**

An operative working for an intelligence agency likely has a security clearance. In a modern or near-future setting, this is available at the following levels:

Level 1: The character has successfully passed a background investigation, which includes a credit search, personal interviews with friends and former schoolmates, and record searches covering the last several years. The character cannot have Addiction to illegal drugs, Alcoholism, Compulsive Gambling, Compulsive Lying, Compulsive Spending, Dead Broke, or Greed. Any Secret that is worth -10 or more points immediately results in a loss of clearance if revealed; a -5 Secret revelation results in a security re-evaluation. A revealed Secret can be turned into a negative Reputation. At this level the character does not necessarily actually *have* a clearance, but is eligible for one! *2 points.*

Level 2: The character has a Secret (S) clearance (or equivalent). This may require polygraph checks, random drug testing, signing nondisclosure agreements, and even taking loyalty oaths. Various agencies check in on the character from time to time to make sure he isn't spending more then he should or is in trouble with the law. If the character regularly engages in risky behavior, he can take any of these security agencies as an Enemy. *4 points.*

Level 3: This allows access to Top Secret (TS) information. Acquiring this level of clearance usually requires another round of security vetting and being briefed on various security protocols. Security agencies keep a very close eye on the character's finances and investments, as do foreign intelligence services, as Top Secret information can contain valuable information relating to trade deals and political dealings that have not been made public. Missions that involve assassination are almost always classified Top Secret. *6 points.*

All these levels are with respect to a specific organization, such as a corporation, government agency, or military force, which is why they cost 2 points/level. Wide-ranging clearances that open doors everywhere in a given country cost 5 points per level and should only be allowed in highly cinematic settings.

Sharpshooter **see p. CI30**

Covert operatives in general favor handguns over less concealable firearms. The ability to fire a handgun accurately without taking time to aim is appropriate to cinematic operatives. In particular, it makes opportunistic assassinations likelier to succeed.

Trained by a Master **see p. CI31**

This is basically an Unusual Background that enables an assassin to learn cinematic fighting skills and many esoteric skills. Ninja and Assassins in cinematic historical campaigns may have it.

Cyberwear

Serious operatives don't rely on body modifications, at least in realistic future settings. Any society that has bionics has medical-imaging technology that can spot it – roll vs. Electronics Operation (Medical) – and usually identify it. Having lethal weapons inside your body makes security forces nervous, and may be a crime in itself! And if the security team can't identify your implants, forget about getting close enough to use them!

Ordinary equipment avoids most of these problems. You can hide it somewhere other than inside your body, which gives you more options for smuggling it past a guard. Having it taken away is less likely to injure, incapacitate, or kill you. And it's cheaper and doesn't take surgery to install.

In a cyberpunk or cyberprep setting, where interface jacks and biomods are fairly common, cyborg operatives may be less conspicuous. And for a cinematic setting, assume that medical imaging technology lags far behind implant technology, or that operatives have access to implants that aren't generally known to exist. But remember that a character with this kind of equipment is effectively a supervillain – it may take superheroes to give him a real challenge.

Weapon Master **see p. CI32**

This advantage is appropriate to cinematic historical settings and to cinematic science-fiction settings that include archaic weapons. It enables an operative to use these weapons to extraordinarily deadly effect and to learn esoteric skills that enhance weapons use.

Zeroed **see p. CI32**

This advantage is relevant with the creation of large administrative databases at TL7 and above. It can be combined with a Temporary Identity, but not with an Alternate Identity; if a Zeroed person acquires licenses, passports, birth certificates, and the like, he is no longer Zeroed. Of course he can go without identifying documents, but anyone can do that. The important point is that the authorities can locate and contact his legal persona, so he isn't Zeroed any longer.

Disadvantages

Callous see p. CI86

This disadvantage is very common among assassins and terrorists; those who lack it are likely to have Nightmares, Post-Combat Shakes, or some similar disadvantage reflecting the stress of their work.

Code of Honor see p. B31

Two codes of honor are found among criminal operatives. Ordinary thugs have a version of the *Pirate's Code of Honor.* Highly skilled professionals have a specialized *Assassin's Code of Honor:* They must carry out their contracts, respect truces with other professionals, and do their best to avoid killing or other damage in excess of their contractual obligations. Both codes are worth -5 points. Scruples about killing certain sorts of victims, or using certain methods, may be represented as Quirks but do not usually raise the value of either Code of Honor to -10 points.

Disciplines of Faith see p. CI89

Religiously motivated operatives may adhere to a Discipline of Faith; asceticism or monasticism describes retreat from the world for special training, while ritualism may surround killing or property destruction with elaborate codes of appropriate behavior.

Fanaticism see p. B33

Fanaticism is a very common trait in ideologically motivated assassins.

Secret see pp. CI78–79

Most covert operations involve serious crimes; exposure of the operatives results in Imprisonment or Exile [-20]. In the United States, operatives who kill (assassins and many terrorists) face Possible Death [-30]. In countries that have abolished the death penalty, Imprisonment or Exile is the limit. In repressive societies, anyone who acts against the government may be classified as a traitor and face Possible Death.

This doesn't apply to secret agents who are sent on short-term missions to foreign countries; rather, those missions count as Extremely Hazardous Duty [-20]. If the agent is exposed, he can try to escape to his own country. But exposure may make it impossible to send him on any more missions; this ends an agent's career, which counts as Utter Rejection [-10].

Trademark see p. CI94

A trademark can be anything from using silver bullets to stuffing victims with tiny dolls. This disadvantage is perfect for a political or religious operative, but inappropriate for a professional. An entire group may share a trademark, such as the flame dagger of the Assassins, left on a possible victim's pillow as a warning.

Inappropriate Disadvantages

The following disadvantages seriously limit a covert operative's career and should be avoided: Absent-Mindedness, Alcoholism, Combat Paralysis, Confused, Indecisive, Pacifism (*Cannot Harm Innocents* may be viable), or Short Attention Span.

Skills

Acting see p. B62

Despite its name, Acting skill is not used to play roles on the stage or screen; use Performance for these tasks. Acting can be used to conceal true thoughts and feelings, to assume the role of someone who belongs in a certain place, or to impersonate a specific person – all tasks that many operatives need to perform.

Simply concealing thoughts and feelings behind a "poker face" is relatively easy; roll against Acting +4. Simulating different emotions is much harder, requiring an unmodified Acting roll.

Animal Handling see p. B46

Animal Handling skill can be used to handle a venomous animal safely – for example, while sneaking it into a target's shoes (see p. 76). Extra care is needed in handling such animals, applying a -2 to skill. A failure results in the animal escaping; on a critical failure, the handler is exposed to an attempted bite or sting, with no active defense possible.

Architecture see p. B59

Ideally, an operative researches the interior layout of a building before going into it on an assignment. Architecture skill can be used to read building plans, to deduce them by touring a building, or to find hidden features and escape routes quickly if an assignment runs into trouble.

Armoury see p. B53

Most operatives buy their weapons, relying on the Streetwise skill or suitable Contacts (see p. 18). A perfectionist may want to make his own weapons for special purposes. Useful specialties include hand weapons, black powder hand weapons, rifles and handguns, needle handguns, and beam handguns.

Axe/Mace see p. B49

Axe/Mace is used to attack with some improvised weapons, usually treated as heavy clubs, such as a large wrench or a sledgehammer.

Beam Weapons see p. B49

Beam weapons are specialized by the type of energy released: coherent radiation (Laser), plasma (Flamer), sound waves (Stunner), and so on. The same specialization covers both pistol and rifle versions of each type; there is no skill of Beam Weapons (Pistol) or Beam Weapons (Rifle).

Black Powder Weapons see p. B49

Black powder weapons have complex specializations, divided up *both* by the categories that apply to cartridge weapons (covered by the Guns skill) *and* by the type of lock that fires the weapon.

Cannon-lock. A weapon triggered by manually thrusting a match or hot wire through a touchhole. TL3.

Matchlock. A weapon with a mechanical apparatus for inserting a match into a touchhole. TL4.

Wheellock. A weapon with a clockwork spring that turns a serrated wheel against a chunk of iron pyrite, releasing sparks that discharge the gun. TL4.

Flintlock. A weapon with a spring that strikes a flint against a piece of steel. Late TL4; TL5.

Caplock. A weapon with a hammer that strikes against a percussion cap. TL5.

No sane assassin would use a cannon-lock handgonne; they're slow, unreliable, and hard to aim. Matchlocks are just barely suitable for a sharpshooter, but not very concealable; wheellocks can be hidden in one's clothing. Neither is as reliable as weapons can be. Flintlocks and caplocks make murder much more convenient.

For defaults between these types, see p. HT14.

Blowpipe (Fukiya) see p. CI132

This is the ability to blow powders or other materials at close-range targets. The fukiya can also be used to attack at range with small (possibly poisoned) darts; use the skill Blowpipe (p. B49) for such attacks.

Broadsword see p. B50

Used to attack with some improvised weapons, usually treated as light clubs, such as a baseball bat.

Cooking see p. B53

Digestive poisons often have a distinctive, unpleasant taste that the victim can notice with a Taste roll (see p. 73). Cooking skill can be used to disguise this. Treat this as a quick contest of Cooking vs. Taste. Modifiers for the flavor of the base recipe range from -2 for white rice to +3 for a strongly spiced curry.

Diagnosis see p. B56

Diagnosis is an enabling skill for other medical skills. A Surgery roll for an undiagnosed problem has a -5 modifier (p. B56); similarly, a Physician roll to treat a victim of poisoning has a -5 modifier if the specific poisoning agent has not been identified.

No Diagnosis roll is required for an obvious condition, such as an open wound or a missing limb. For conditions that turn up routinely, or that are currently very common, such as the newest form of influenza, roll vs. Diagnosis at +4, or vs. Physician with no modifier; for less common conditions, roll vs. Diagnosis; for rare conditions, roll vs. Diagnosis at -5.

For example, poisoning with common household chemicals or overdoses of alcohol have a +4 modifier; deliberately used poisons such as arsenic, cyanide, and strychnine require an unmodified roll; exotic poisons have a -5 modifier. For injuries, determining the internal extent of blunt trauma requires an unmodified roll; internal injuries from a knife thrust, bullet wound, or shrapnel have a -5 modifier.

At TL4 and above, diagnostic equipment comes into use, giving a modifier of +1/2TL, if it is available.

In the aftermath of a disaster – natural or man-made – large numbers of people need medical attention. To minimize the loss of life, medical personnel must engage in *triage*, dividing the injured into those who will survive without immediate care, those who can be saved by immediate care, and those who are too hurt to save. Making this distinction doesn't call for a full diagnosis; roll against Diagnosis at +4, or against Physician with no modifier, to determine the right category. In ***GURPS*** terms, those who are at -5 × HP are too hurt to save; those at -1 × HP, or suffering from bleeding (if the optional bleeding rules are used), need immediate care.

Electronics Operation **see p. B58**

At TL5, Electronics Operation (Security Systems) becomes useful to intruders who have to bypass burglar alarms. By TL9, electronic alarms have almost entirely replaced mechanical systems; an operative may take this skill rather than Lockpicking.

Fireworks **see p. CI136**

This skill can be used to create black powder from its raw materials. Flash and smoke grenades, such as the *nageteppo* (p. 58) used by ninja, are applications of Fireworks skill.

Forensics **see p. B61**

Some knowledge of criminal investigation techniques can help avoid leaving clues. Treat this as a quick contest between the Forensics skills of the investigator and the person being investigated.

Garrote **see p. CI134**

The normal use of the Garrote skill is from behind, at +4 since the victim is unaware (this may require one or several Stealth rolls) but -5 to target the neck, for a net -1.

Genetics **see p. B61**

At TL7 and above, Genetics acquires a new required specialization, Genetic Engineering. Genetic Engineering and Heredity default to each other at -2. The genetic engineering of any particular species is a familiarity (see p. B43), not a specialization. The prerequisite for either specialization of Genetics at TL7 and above is Biochemistry.

Genetic Engineering can be used to create targeted-disease organisms at TL8 and above. A success produces an organism with targeted contagion (see p. 78); a failure produces an organism with slightly enhanced contagion against everyone. At the GM's discretion, a critical failure may produce an organism with targeted contagion against the wrong group or species, or with greatly enhanced contagion against everyone (-5 to HT rolls to avoid contagion).

Guns **see p. B51**

This skill is specialized by type of weapon: pistol, machine pistol, rifle, light automatic, shotgun, grenade launcher, light antitank weapon, or flamethrower. Science-fiction campaigns may also feature needlers, electromagnetic, or gravitic guns with bores of less than 20mm. Needler and Pistol are best suited to covert operatives. Arsonists find Flamethrower useful, and sharpshooters learn Rifle.

Shooting From Strange Positions

Secret agents and assassins often must fire their weapons from positions that are less suitable than a proper firing stance. Especially in cinematic campaigns, they may shoot while dangling on rappelling ropes from helicopters . . . and hit! While elite soldiers have been known to fire machine guns one-handed while rappelling down on exercise, common sense restricts actual combat applications to handguns and light automatic weapons.

A shooter climbing a cliff or rappelling down a skyscraper façade needs to make a Climbing roll in order to stay level and a DX roll to get his weapon out. The actual Guns roll is at -4 for the strange position; in addition, Recoil may be worse if a two-handed weapon such as a submachine gun is fired with one hand only. In the case of an Australian rappel – where the shooter faces downward, instead of upward – the Guns roll is at only -2 if the target is *below* the shooter. In either case, add an additional -2 if the shooter is moving.

If the shooter is dangling on a free-hanging rope (such as from a helicopter), the Climbing roll to stay level is at -2, the Guns roll is at -4, and the Recoil is *always* doubled.

In any case, shooting can't be accomplished while *fast-roping* (see p. SO59), since that technique requires both hands on the rope at all times.

Operatives landing with parachutes may need to quickly dispatch an unwanted welcoming committee on their way down. They need to make Parachuting-4 rolls to control the chutes with only one hand, DX rolls to retrieve their weapons, and Guns rolls at -6, including the penalty for firing on the move. Recoil is *always* doubled.

In a cinematic game, the GM may reduce these penalties.

Holdout Modifiers

Below is a list of Holdout modifiers, with sample sizes and items. Use an item's largest dimension to find its modifier; for example, a rapier weighs only 2 lbs., but its average 44" length makes it difficult to conceal, giving it a -6 penalty to Holdout. A 1 lb. grenade the size of a baseball (+1) is easier to conceal than a 1 lb. grenade the size of a beverage can (+0), despite having the same weight. Shape and flexibility also have an effect; a yard of garrote wire can be coiled up in a small space, for a +4 bonus. When the weight or dimensions of an object are unknown, the GM can use the sample items below to determine Holdout modifier.

+6: less than 0.75" long; 0.01 lb.; dose of poison; listening "bug."
+5: 0.75" long; 0.1 lb.; microcassette; handgun cartridge.
+4: 1.5" long; 0.25 lb.; watch; floppy disk; garrote; rifle cartridge.
+3: 3" long; 0.5 lb.; minicamera; pocket knife; syringe; pistol magazine; HMG cartridge.
+2: 4.5" long; 1 lb.; cell phone; very small handgun; mini-hand grenade.
+1: 6" long; 2 lbs.; small PDA; pocket handgun; small hand grenade; blackjack.
0: 7.5" long; 2.5 lbs.; portable music player; compact pistol; most grenades; rifle magazine.
-1: 9" long; 3 lbs.; 35mm SLR camera; large knife; large handgun.
-2: 10" long; 4 lbs.; hardcover book; very large handgun.
-3: 12" long; 5 lbs.; machine pistol; stick hand grenade; nunchaku.
-4: 24" long; 6 lbs.; laptop; submachine gun with folding stock.
-5: 32" long; 8 lbs.; video camera; large submachine gun; carbine; smallsword.
-6: 40" long; 10 lbs.; tackle box; rifle; riot shotgun; rapier; sword.
-7: 50" long; 15 lbs.; snowboard; sniper rifle; light machine gun.

Holdout see p. B66

For attempts to conceal equipment on one's person, the more detailed modifiers above can replace the modifiers in the ***Basic Set***. Holdout skill covers both concealing *and* detecting items hidden on a person's body, in his clothing, or in his gear or vehicle; see p. B66. An optional specialization (see p. B43) of Holdout skill can differentiate the tricks of specific trades. An assassin (or bodyguard) uses a Holdout (Chemicals) specialization to conceal poisons, or Holdout (Weapons) to conceal knives or guns in inconspicuous items about his person – or find them, in either case – and a terrorist (or security agent) uses Holdout (Explosives) to smuggle bombs into a high-security area such as an airport or government installation, or, again, to find them.

Intelligence Analysis see pp. B66, CI161

Assassins use a special type of intelligence analysis. Factors such as safe places to kill, best methods of infiltration, and optimal types of kill can be determined by observing the target and reviewing any information provided by the client. Some of this can be roleplayed as a stakeout; some should be imparted by the GM after a successful Intelligence Analysis roll.

Mechanic see p. B54

A saboteur may want a machine or vehicle to fail sometime in the future, without anything being obviously wrong with it. To do so, roll vs. Mechanic-1; to determine a specific time of failure, roll vs. Mechanic-3. On a failure, the next person to operate the machine notices something wrong with it. If a mechanic inspects the machine, treat it as a quick contest of skill: Mechanic vs. Mechanic-1 or Mechanic-3 to spot the sabotage.

Mind Block see p. CI155

In a setting where psi powers are known to exist, any operative has to acquire the skill of Mind Block. If mind blocks aren't commonplace, mind blocks that plausibly simulate the mental processes of an innocent person going about his business will be at a premium; maintaining this kind of mind block is done at -4 to skill, but if it succeeds the mind block doesn't look like one.

At the GM's option, Mind Block may also be effective against magical mind-reading spells or cyberpunk technologies for probing the brain.

Poisons see p. B67

Along with its other defaults, this defaults to Naturalist-3 for finding poisonous plants and animals, and to Pharmacy-3 for selecting medicinal compounds to use as poisons.

Shortsword see p. B52

Used to attack with some improvised weapons, usually treated as batons, such as a ruler or a jack handle.

Sleight of Hand see p. B67

Can be used to add a poison to a drink or a dish of food in front of witnesses without being noticed. Specific poisons have skill modifiers based on the size of a dose. Multiple doses require multiple rolls.

Deadly Ninja Secrets

The folklore and popular fiction of East Asian cultures describes martial-arts techniques that can kill without weapons, often at a distance or undetectably. In a cinematic campaign, such techniques may really exist and highly trained covert operatives may be familiar with them.

Appropriate esoteric skills to represent advanced unarmed combat methods include Blinding Touch (p. CI138), Flying Fists (p. CI140), Hand of Death (p. CI140), Invisibility Art (p. CI141), Power Blow (p. CI143), Pressure Points (p. CI144), Pressure Secrets (p. CI144), and Throwing Art (p. CI145). Trained by a Master (p. CI31) is a prerequisite for all of these skills; many have other prerequisites as well.

Traps **see p. B68**

Can be used to circumvent security devices of various types during an unauthorized entry. In addition, while setting explosive traps is Demolition, Traps skill can be used to increase casualties in a bombed or burning building, both by rigging the exits to lock and by leaving surprises for rescue workers.

New Skills

Law Enforcement **Defaults to IQ-5**

This is the professional skill of being a police officer; it works much like Soldier skill (see below). It enables a police officer to make and process an arrest, use radios and other equipment, direct traffic around an accident or crime scene, and perform other routine tasks.

Pathology **Defaults to IQ-7, Physician-5, or Surgery-5**
Prerequisites: Physiology-12 and Chemistry-12 (TL6-) or Electronics Operation (Medical)-12 (TL7 or higher)

The branch of medicine that deals with changes in the human body caused by illness, injury, and death, Pathology differs from Diagnosis in that it bases its conclusions on laboratory tests and exploratory surgery, not symptoms. A successful Pathology roll lets you conduct an autopsy to assess the cause and time of death in a dead person.

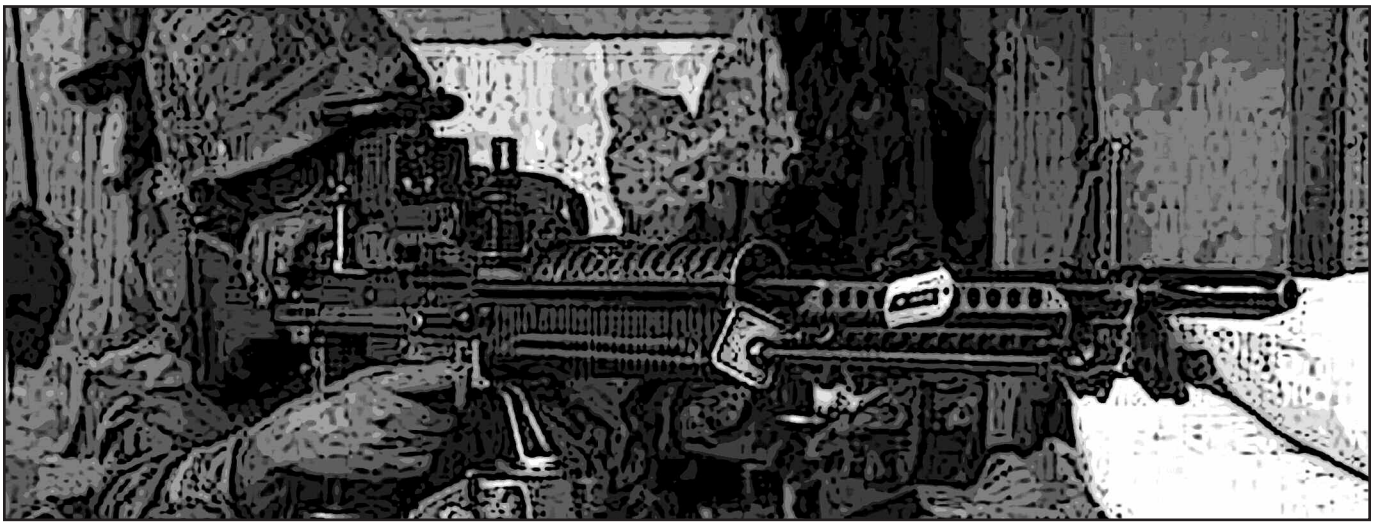
Modifiers: -5 if disease or cause of death is rare or unusual; -5 without surgical tools for an autopsy. If cause of death was an obvious wound, no skill roll is required to verify this.

Soldier (M/A) **Defaults to IQ-5 or Tactics-5**

This is the skill of surviving in the field and combat, and in implementing a tactical plan. It also includes background knowledge of military uniforms and hardware. Soldier skill includes short, easily remembered lessons in the basics of numerous skills; this permits routine use of those skills, for tasks where someone with the actual skill rolls at +4 or better, with a roll against Soldier.

For example, someone with Electronics Operation (Communications) rolls at +4 to use a radio routinely; someone with Soldier (in a World War II or later setting) rolls against Soldier to do so. Diagnosis and repair of equipment failures requires an unmodified Electronics Operation (Communications) roll, and getting through jamming requires a contest of skills against the jammer; Soldier training does not cover such nonroutine tasks.

Soldier skill never applies to new or secret technologies. It cannot substitute for weapons or combat skills, though it does include routine cleaning and maintenance of weapons. It does not include army customs and etiquette; use Savoir-Faire (Military) for that. This can show the contrast between spit-and-polish rear-echelon troops and rough combat veterans.



Maneuvers

Camouflaged Mind Block (Hard)

Defaults to Mind Block–4
Prerequisite: Autohypnosis or Mind Block

Using a standard Mind Block (see p. 23) makes it obvious that the user is hiding his thoughts. A more sophisticated mind block "sounds" like the stream of consciousness of a person with nothing to hide.

This maneuver sets up a prestructured pattern of such thoughts. A higher level in this maneuver indicates a pattern that can be carried on longer without telltale repetitions, or is more closely tailored to the person using it and therefore less obvious.

Create Binary Poison (Average)

Defaults to Poisons–5
Prerequisite: Poisons

This is a special technique of using two different substances, neither toxic by itself, which interact to kill the person who takes them together (see p. 76).

The formulas are more complex and trickier to use, but the assassin has an almost perfect cover story for his work: "He and I drank wine from the same bottle and I didn't even get a hangover!"

Disguise Taste (Average)

Defaults to Cooking
Prerequisite: Poisons; must specialize; cannot exceed Cooking skill–3

A digestive poison can often be spotted by taste (see p. 73). Specific choices of flavorings may cover up such distinctive tastes. Each poison – or group of chemically related poisons, at the GM's option – requires a separate maneuver. The upper limit on effective skill means that a suitable recipe can be as effective as a highly spiced curry in masking a poison's taste, while having a mild flavor.

Explosive Trap (Average)

Defaults to Demolition–2
Prerequisite: Demolition, Traps, or Electronics Operation (Security Systems)

This maneuver is used to set a trap that incorporates an explosive charge. Rather than going off at a fixed time, it goes off when a specific stimulus is received. This is anything from a tripwire at TL4 to a voice-recognition algorithm at TL8.

Forge Specific Document (Hard)

Defaults to Forgery
Prerequisite: Forgery

This maneuver represents close familiarity with a single type of document, such as a driver's license for a specific state or a particular country's military ID. It can be used either to cancel penalties from not having a sample of the document to copy, or to produce better forgeries if a sample is available. It does not help with altering a document of the given type.

Impersonate (Specific Person) (Hard)

Defaults to Acting–5
Prerequisite: Acting; cannot exceed prerequisite skill level

This maneuver lets the attacker reduce the penalties for impersonating an unfamiliar person. You do not roll against the maneuver to use it; instead, each level gives the attacker a bonus that can be used to offset the -5 penalty for not knowing the subject well. The bonus is from +1 if Impersonate is known at Acting-4 up to +5 if it is known at Acting; no further improvement is possible.

As noted in ***GURPS Basic Set*** (see p. B62), impersonating another person requires a disguise. The person performing the impersonation need not be the one who creates the disguise!

Pericardial Attack (Hard)

Defaults to Knife–4
Prerequisite: Sleight of Hand

The pericardial attack is a legendary favorite of the underworld, normally using piano wire as an improvised weapon (see p. 64). The attack is specifically targeted to slip between the victim's ribs and puncture the pericardium (the membrane that encloses the heart). A successfully targeted attack does triple damage immediately and also causes continued internal bleeding (see p. B130); stopping the bleeding requires internal surgery rather than first aid. No HT roll is required to avoid losing consciousness. Often, the attacker punches the victim with the wire sticking out between two fingers; a victim rolls vs. IQ to notice that he has been stabbed in addition to punched. High and Low Pain Threshold apply to this roll. If HT loss due to such bleeding reaches -HT hit points, roll vs. HT-5 to survive, and make all further survival rolls at -5, also. This is a highly cinematic maneuver, and a GM is within his rights to disallow it in a realistic game.

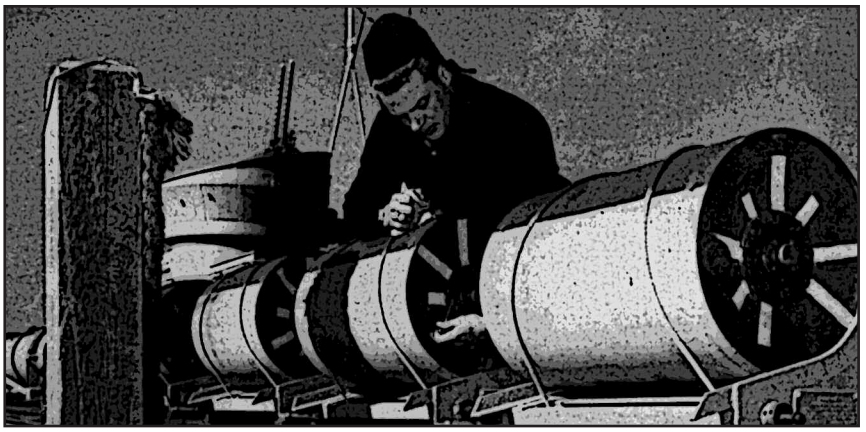
Because this attack leaves a small wound, and its effects mimic those of heart failure, Pathology rolls to identify the cause of death are at -2. This attack is very effective on sleeping, unconscious, or restrained foes.

Work by Touch (Hard)

Defaults to Lockpicking–5
Prerequisite: Lockpicking; cannot exceed prerequisite skill level

Ordinarily, picking a lock by touch alone – for example, in the dark – is done at -5 to effective skill. This maneuver can be used to buy off that penalty, in the same manner as for Impersonate (Specific Person) relative to Acting.

Templates



Covert operatives vary both in their motives and in their methods. Differences in methods of carrying out missions, the skills they require, and the natural abilities needed to develop them are the basis for this series of templates for creating operatives. Differences of motivation are expressed as lenses, each of which can be applied to several different basic templates. To create an operative, choose both a primary template and a motivational lens.

The use of templates does not grant any reduction in the point cost of characters. It's perfectly conceivable that one player could use a template to design a character, while another could choose attributes, advantages, disadvantages, and skills one by one – and come out with exactly the same final result. Both approaches are legitimate; the use of templates is never required. It's simply a way to speed up character design and make sure that characters are well designed for their intended roles. Players are free to customize templates by raising attributes, adding advantages and skills, or even removing them, though removing items from a professional template may result in a character whom other professionals regard as incompetent.

Functional Templates

Bomber — 50 points

The bomber is Mr. Collateral Damage: he eliminates his target by massively destructive methods, usually killing everyone unfortunate enough to be anywhere near. Killing all those people may be his goal, or just the price of making sure he gets one man. This template includes arsonists and thus is available back to TL1, but gets a boost at TL3, when black powder is invented, and really comes into its own at TL5, with high explosives such as nitroglycerine.

Attributes: ST 10 [0]; DX 11 [10]; IQ 13 [30]; HT 10 [0].

Advantages: Manual Dexterity +1 [3] and 10 points from Absolute Timing [5]; Composed [5]; Imperturbable [10]; Lightning Calculator [5]; Single-Minded [5]; or Toughness (DR 1) [10].

Disadvantages: Callous [-6] and -10 points from Hard of Hearing [-10]; Loner [-5]; Missing Digit [Varies]; Overconfidence [-10]; or Pyromania [-5].

Primary Skills: Demolition/TL (M/A) IQ+3 [6]-16* or Engineer/TL (Combat) (M/H) IQ+1 [6]-14.
* Includes +1 from Manual Dexterity.

Secondary Skills: Scrounging (M/E) IQ [1]-13 and Stealth (P/A) DX+1 [4]-12. Pick one of Architecture/TL (M/A) IQ-1 [1]-12; Lockpicking, Mechanic/TL (Vehicle type), or Traps (M/A) IQ [1]-13*; or Engineer (Combat) (M/H) IQ-2 [1]-11.
* Includes +1 from Manual Dexterity.

Background Skills: One of Guns/TL (Flamethrower) (P/E) DX+2 [1]-13*; Distilling (M/A) IQ-1 [1]-12; Chemistry/TL, Engineer/TL (Bombs and traps), Fireworks/TL, or Naturalist (M/H) IQ-2 [1]-11; or Genetics (Genetic Engineering) (M/VH) IQ-3 [1]-10.
* Includes +2 to skill for IQ 13.

Cleaner — 75 points

The cleaner isn't an assassin, or not primarily so, even if his job sometimes requires him to kill. His job is to go in after the assassin's work is done and make the death harder to investigate. Sometimes this means getting rid of a body tracelessly; sometimes it means cleaning up evidence, or taking it away from the scene. It can even mean finishing the job an assassin failed at, or killing a witness of some other operation.

Attributes: ST 10 [0]; DX 11 [10]; IQ 11 [10]; HT 11 [10].

Advantages: Unfazeable [15] and 10 points in Alertness [5/level]; Composed [5]; Contacts [Varies]; Legal Enforcement Powers [Varies]; Night Vision [10]; Sanctity [5]; Single-Minded [5]; or Versatile [5].

Disadvantages: Callous [-6] and -10 points from Bloodlust [-10]; Compulsive Behavior (Cleaning) [-5]; Social Stigma [Varies]; or Workaholic [-5].

Primary Skills: Forensics/TL (M/H) IQ+3 [10]-14. Pick two of Stealth (P/A) DX+2 [8]-13; Administration (M/A) IQ+3 [8]-14; Electronics Operation/TL (Security Systems), Fast-Talk, or Lockpicking/TL (M/A) IQ+3 [8]-14; or Forgery (M/H) IQ+2 [8]-13.

Secondary Skills: Acting (M/A) IQ+1 [4]-12. Pick two of Beam Weapons/TL (Disintegrator or Neural) or Guns/TL (Any) (P/E) DX+2 [2]-13*; Garrote (P/E) DX+1 [2]-12; Filch (P/A) DX [2]-11; Area Knowledge or Cooking (M/E) IQ+1 [2]-12; Intimidation, Mortician, Shadowing, or Tracking (M/A) IQ [2]-11; or Chemistry or Poisons (M/H) IQ-1 [2]-10.
* Includes +1 to skill for IQ 11.

Background Skills: Scrounging (M/E) IQ [1]-11 and Law (M/H) IQ-2 [1]-9.

Customization Notes: The Cooking skill is included mainly for the ability to cut up a fresh-killed carcass, but in a black comedy or grand guignol campaign it may have other uses . . .

Extractor — 90 points

The extractor is a specialist in acquiring things or people and bringing them back. Extractors face very different problems than operatives who specialize in purely destructive missions. Skill sets are provided for three main mission types: extraction of people, of objects, and of data.

Attributes: ST 10 [0]; DX 12 [20]; IQ 12 [20]; HT 10 [0].

Advantages: A total of 20 points from Absolute Direction [5]; Absolute Timing [5]; Alertness [5/level]; Composed [5]; Danger Sense [15]; Double-Jointed [5]; Manual Dexterity [3/level]; Night Vision [10]; Sanctity [5]; Single-Minded [5]; and Versatile [5].

Primary Skills: Stealth (P/A) DX+1 [4]-13 and one of the following specializations:

Kidnapper: Intimidation (M/A) IQ+2 [6]-14 and Shadowing (M/A) IQ+2 [6]-14. Also pick one of Beam Weapons (Electrolaser, Neural, or Sonic) or Guns (Needler or Pistol) (P/E) DX+4 [4]-16*; Blackjack (P/E) DX+2 [4]-14; Wrestling (P/A) DX+1 [4]-13; or Pharmacy (M/H) IQ [4]-12.

Thief: Holdout (M/A) IQ+2 [6]-14 and Traps (M/A) IQ+2 [6]-14. Also pick one of Demolition, Electronics Operation (Security Systems), or Lockpicking (M/A) IQ+1 [4]-13.

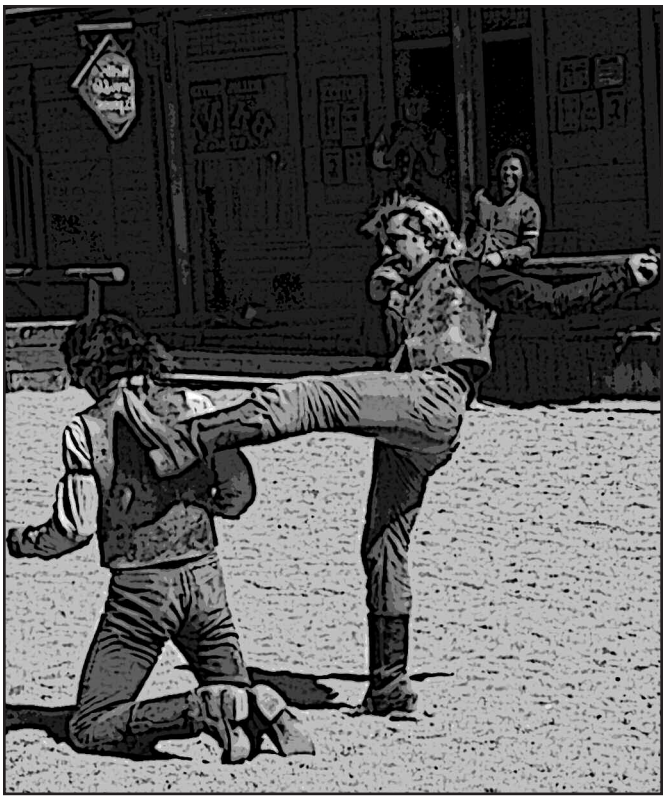
Hacker: Computer Operation (M/E) IQ+1 [2]-13; Computer Programming (M/H) IQ-1 [2]-11; and Computer Hacking (M/VH) IQ+1 [12]-13.

* Includes +2 to skill for IQ 12.

Secondary Skills: Intelligence Analysis (M/H) IQ [4]-12.

Background Skills: Pick any three of Guns (P/E) DX+3 [2]-15*; Knife (P/E) DX+1 [2]-13; Climbing or Filch (P/A) DX [2]-12; Acrobatics or Sleight of Hand (P/H) DX-1 [2]-11; Scrounging (M/E) IQ+1 [2]-13; Architecture, Electronics Operation, Mechanic, Research, or Streetwise (M/A) IQ [2]-12; or Body Language, Cryptanalysis, or Forgery (M/H) IQ-1 [2]-11.

* Includes +2 to skill for IQ 12.



Heavy — 75 points

Realistically, most assassinations involve simple, direct methods, such as shooting someone at close range, or beating him to death with a lead pipe, baseball bat, or bare hands. This kind of killing doesn't need highly developed skills, just a ruthless willingness to take violent action. This same quality is useful for lesser forms of violence and for intimidating people – heavies spend a lot of their time on such jobs, and aren't specialists in killing.

Attributes: ST 12 [20]; DX 11 [10]; IQ 10 [0]; HT 12 [20].

Advantages: One of High Pain Threshold [10] or Toughness (DR 1) [10]; +1 to ST, DX, or HT [10].

Disadvantages: A total of -15 points in Addiction (Tobacco) [-5]; Bad Temper [-10]; Bully [-10]; Callous [-6]; Code of Honor (Pirate's) [-5]; Intolerance [-5 or -10]; Overconfidence [-10]; or Selfish [-5].

Primary Skills: Brawling (P/E) DX+1 [2]-12 and Intimidation (M/A) IQ+2 [6]-12. Pick one of Beam Weapons/TL (Blaster) or Guns /TL (Any) (P/E) DX+2 [2]-13*; or Axe/Mace, Broadsword, or Shortsword (P/A) DX [2]-12.

* Includes +1 to skill for IQ 10.

Secondary Skills: Shadowing (M/A) IQ+1 [4]-11 and Streetwise (M/A) IQ+1 [4]-11.

Background Skills: A total of 2 points in Knife (P/E) DX [1]-11; Driving/TL (P/A) DX-1 [1]-10; Throwing (P/H) DX-2 [1]-9; Scrounging (M/E) IQ [1]-10; or Armoury/TL, Gambling, Holdout, or Leadership (M/A) IQ-1 [1]-9.

Customization Notes: In a supers campaign, buy more ST and Extra Hit Points to turn this template into a classic brick.

Infiltrator — 65 points

The infiltrator gets to his target not by stealth, but by deception. The infiltrator plays an innocent role, gaining a position of trust, and abusing it. Infiltration is a long-term project; in some cases, an infiltrator remains in place for years, until the order to complete his mission reaches him. Some infiltrators also act as spies.

Attributes: ST 10 [0]; DX 11 [10]; IQ 12 [20]; HT 10 [0].

Advantages: Single-Minded [5] and one of Alertness +1 [5]; Charisma +1 [5]; Composed [5]; or Sanctity [5].

Primary Skills: Acting (M/A) IQ+2 [6]-14 and Holdout (M/A) IQ+2 [6]-14. Pick one of Beam Weapons/TL (Any) or Guns/TL (Pistol) DX+3 [2]-14*; Crossbow, Garrote, or Knife (P/E) DX+1 [2]-12; Demolition or Lockpicking (M/A) IQ [2]-12; or Poisons (M/H) IQ-1 [2]-11.
* Includes +2 to skill for IQ 12.

Secondary Skills: Shadowing (M/A) IQ [2]-12. Pick two of Savoir-Faire, Savoir-Faire (Military), or Savoir-Faire (Servant) (M/E) IQ+1 [2]-13; Administration, Courtesan, Merchant, or Streetwise (M/A) IQ [2]-12. Or pick Sex Appeal (M/A) HT [2]-10 and one of Disguise (M/A) IQ+1 [4]-13; Cryptography, Forgery, or Intelligence Analysis (M/H) IQ [4]-12.

Background Skills: Scrounging (M/E) IQ [1]-12.

Customization Notes: For a cinematic infiltrator, look at Cultural Adaptability (see p. CI23). Magical abilities, especially from the College of Illusion and Creation, can work very well with this template, but only in a setting where Magery is not reliably detectable. An infiltrator who is already in place has an Alternate Identity (see p. CI20 and p. 18).

Marksman — 100 points

Firearms, especially rifles, offer an ideal weapon for the assassin who wants to outlive his victim. Striking from a concealed location at a safe distance, he faces minimal risk of discovery and has a window of opportunity to escape. Earlier in history, going back to the Iron Age (TL2), crossbows offered some of the same advantages, and futuristic beam weapons may be used this way, as well.

The skills required are comparable to those of a military sniper, and assassins of this type often have military training in their background.

Attributes: ST 10 [0]; DX 14 [45]; IQ 12 [20]; HT 10 [0].

Advantages: Single-Minded [5] and a total of 15 points from Acute Vision [2/level]; Alertness [5/level]; Combat Reflexes [15]; Composed [5]; Courtesy Rank [1/level]; Fearlessness [2/level]; or Fit [5] or Very Fit [15].

Primary Skills: Camouflage (M/E) IQ+2 [4]-14 and Stealth (P/A) DX-1 [1]-13. Also pick one of Crossbow (P/E) DX+2 [4]-16; or Beam Weapons/TL (Any rifle), Black Powder Weapons (Any rifle), or Guns/TL (Any rifle) (P/E) DX+4 [4]-18*.
* Includes +2 to skill for IQ 12.

Secondary Skills: Acting (M/A) IQ-1 [1]-11, Holdout (M/A) IQ [2]-12, and Tactics (M/H) IQ-1 [2]-11.

Background Skills: Armoury/TL (M/A) IQ-1 [1]-11.

Customization Notes: In a cinematic campaign, a marksman may have the Sharpshooter advantage, making a pistol a viable weapon for this template. In a supers campaign, this template can be adapted to a blaster who uses ranged-energy attacks to kill his targets.

Poisoner — 85 points

Poisons go back to the Stone Age; tribal hunter-gatherers in Brazil used a paralytic venom from which curare was extracted. Poisoning other human beings, rather than animals, is a serious offense in nearly all societies. It's also a low-risk way to eliminate an enemy; no fighting is required. Just slip something into his dinner or his wineglass, and wait for him to die – or wait to hear of his death somewhere far away. This template is designed for poisoning by stealth – for poisoned knives and the like, look at the stalker template, below.

Attributes: ST 10 [0]; DX 11 [10]; IQ 13 [30]; HT 11 [10].

Advantages: Resistant to Poison [5] and 10 points from Acute Taste and Smell [2/level]; Alertness [5/level]; Composed [5]; Sanctity [5]; +1 HT [10]; or upgrade Resistant to Poison to Immunity to Poison [10].

Primary Skills: Poisons (M/H) IQ+1 [6]-14 and Holdout (M/A) IQ [2]-13. Pick one of Blowpipe (Fukiya) (P/E) DX+3 [8]-14; Sleight of Hand (P/H) DX+1 [8]-12; or Stealth (P/A) DX+2 [8]-13.

Secondary Skills: One of Distilling (M/A) IQ [2]-13; Animal Handling, Chemistry/TL, Naturalist, Pharmacy/TL, or Physician/TL (M/H) IQ-1 [2]-12; or Genetics (Genetic Engineering) (M/VH) IQ-2 [2]-11. Also pick one of Beverage-Making, Cooking, or First Aid (M/E) IQ [1]-13; or Traps (M/A) IQ-1 [1]-12; and one of Savoir-Faire or Savoir-Faire (Servant) (M/E) IQ [1]-13.

Stalker — 100 points

Another fairly realistic type of assassin, the stalker specializes in inconspicuous methods of killing people at close quarters. He may be strong, but usually doesn't look it; an unthreatening appearance is an advantage for this kind of killing.

Stalkers favor easily concealed weapons that can be drawn at the last minute; they may also have unarmed combat skills, but usually as a backup technique, as these are less likely to silence the target quickly.

Attributes: ST 11 [10]; DX 13 [30]; IQ 11 [10]; HT 11 [10].

Advantages: One of Combat Reflexes [15] or Peripheral Vision [15].

Primary Skills: Fast-Draw (P/E) DX+1 [2]-14; Holdout (M/A) IQ+1 [4]-12. Stealth (P/A) DX+1 [4]-14; *or* one of Acting or Fast-Talk (M/A) IQ+1 [4]-12; or Sex Appeal (M/A) HT+1 [4]-12. Also pick one of Beam Weapons/TL (Laser) or Guns/TL (Pistol) (P/E) DX+3 [4]-16*; Blowpipe (Fukiya), Crossbow, Garrote, or Knife (P/E) DX+2 [4]-15; or Fencing (P/A) DX+1 [4]-14.
* Includes +1 to skill for IQ 11.

Secondary Skills: Stealth (P/A) DX [2]-13; or one of Acting or Fast-Talk (M/A) IQ [2]-11; or Sex Appeal (M/A) HT [2]-11. Also pick any three of Beam Weapons/TL (Laser), Black Powder Weapons (Pistol), or Guns/TL (Pistol) (P/E) DX+1 [1]-14*; Blackjack, Blowpipe (Fukiya), Crossbow, Garrote, Knife, Knife Throwing, or Speed-Load (P/E) DX [1]-13; Cloak, Fencing, or Main-Gauche (P/A) DX-1 [1]-12; Judo, Shuriken, or Throwing (P/H) DX-2 [1]-11; or Poisons (M/H) IQ-2 [1]-9.
* Includes +1 to skill for IQ 11.

Background Skills: Body Language (M/A) IQ [4]-11 and Running (P/H) HT-1 [2]-10.

Customization Notes: A more advanced version of this template can be used to represent a cinematic ninja; add Trained by a Master [40] and esoteric skills such as Hand of Death, Invisibility Art, Power Blow, Pressure Points, Pressure Secrets, or Throwing Art, and their prerequisites. In particular, cinematic ninja are usually masters of unarmed blows represented by the Karate skill; add Karate to the options for primary and secondary combat skills. The Sharpshooter advantage has similar benefits for a gunman.

Trickster — 75 points

The trickster specializes in misdirection, pointing investigators in the wrong direction or making it look as if there's nothing to investigate. He may arrange accidents or errors, disguise his actions as an ordinary street crime, or set someone up to do the job and take the blame.

Attributes: ST 10 [0]; DX 10 [0]; IQ 13 [30]; HT 10 [0].

Advantages: Manual Dexterity +1 [3] and Versatile [5].

Primary Skills: Acting (M/A) IQ+1 [4]-14; Holdout (M/A) IQ+1 [4]-14; Intelligence Analysis (M/H) IQ [4]-13; and one of the following packages of skills:

Frame-Up Artist: Administration (M/A) IQ [2]-13; Fast-Talk (M/A) IQ [2]-13; Forgery/TL (M/H) IQ+1 [4]-14*; Psychology (M/H) IQ+1 [6]-14; and Sleight of Hand (P/H) DX+2 [8]-12*.

Hacker: Computer Hacking/TL (M/VH) IQ+1 [12]-14; Computer Operation/TL (M/E) IQ+1 [2]-14; Computer Programming/TL (M/H) IQ+1 [6]-14; and Cryptanalysis (M/H) IQ-1 [2]-12.

Saboteur: Mechanic/TL (M/A) IQ+3 [6]-16* and Traps/TL (M/A) IQ+3 [8]-16. Also pick two of Filch (P/A) DX+2 [4]-12*; Sleight of Hand (P/H) DX+1 [4]-11*; Carpentry (M/E) IQ+2 [4]-15; Electronics Operation (M/A) IQ+1 [4]-14; Lockpicking (M/A) IQ+2 [4]-15*; or Animal Handling or Chemistry/TL (M/H) IQ [4]-13,

Wet Work Specialist: Fast-Talk (M/A) IQ [2]-13 and Shadowing (M/A) IQ [2]-13. Also pick one of Brawling (P/E) DX+4 [16]-14, Wrestling (P/A) DX+3 [16]-13, or Judo (P/H) DX+2 [16]-12. Also pick one of Guns/TL (Handgun) (P/E) DX+3 [2]-13**; Knife (P/E) DX+1 [2]-11; or Axe/Mace, Broadsword, or Shortsword (P/A) DX [2]-10.
* Includes +1 from Manual Dexterity.
** Includes +2 to skill from IQ 13.

Secondary Skills: Research (M/A) IQ-1 [1]-12. Pick one of Criminology/TL (M/A) IQ [2]-13; or Pathology/TL or Forensics/TL (M/H) IQ-1 [2]-12.

Customization Notes: For a high-point-value trap expert, add the Gadgeteer advantage (see pp. CI25 and CI121-124) and consider allowing several Gizmos, as well. In a setting where psionic abilities exist, a trickster can be built around such psi skills as Pyrokinesis and Telekinesis.

Motivational Lenses

The following lenses define the backgrounds, social ties, and motives of various types of operatives. Actual skill levels are not listed, as they depend on attributes, which are not determined by the lens but by the primary template. The value of Secret should be adjusted as appropriate to the campaign setting (see p. 20).

In a campaign where all characters are required to work for the same agency or otherwise have the same background, any disadvantages that reflect that background should not count against the campaign disadvantage limit – added disadvantages provide fuller characterization. In a campaign where covert operatives work together with adventurers from other backgrounds (see p. 111), such disadvantages do count against the campaign limit. They should be enough to make the character distinctive, since other adventurers do not have them.

Aristocrat — 25 points

In some feudal societies, aristocratic houses wage private wars against each other by covert methods. Renaissance Italy and feudal Japan (particularly under the Ashikaga Shogunate) offer historical examples; fantasy and science fiction present many others, among which Frank Herbert's Dune series and Roger Zelazny's Amber series are notable. In such a society, young aristocrats are taught covert skills for the sake of their own survival. Some become enthusiastic about the skills.

An aristocrat's family can shield him from many consequences of exposure, making his Secret less of a disadvantage. His Duty, if he has one, is not limited to covert tasks but includes all the obligations of his position, from military service to begetting heirs and managing the family estates.

Advantages: *Either* Independent Income [5], and Status 3 [10]*, Wealthy [20]; *or* Comfortable [10], Heir [5], Independent Income [5], and Status 3 [15]. Pick an additional 10 points from Alcohol Tolerance [5]; Ally Group (Bodyguards or companions) [Varies]; Charisma [5/level]; Claim to Hospitality [Varies]; Fashion Sense [5]; Legal Immunity [Varies]; Patron [Varies]; Versatile [5]; or additional Status [5/level].

* One level of Status is free from Wealth.

Disadvantages: Code of Honor (Gentleman's) [-10] and Secret [-5]. Pick an additional -20 points from Bully [-10]; Callous [-6]; Cannot Harm Innocents [-10]; Duty [Varies]; Edgy [-5] or Paranoia [-10]; Enemies [Varies]; Intolerance [Varies]; Jealousy [-10]; Lecherousness [-15]; Overconfidence [-10]; Sadism [-15]; Selfish [-5] or Self-Centered [-10]; Trademark [Varies]; or increased levels of Secret [Varies].

Skills: Area Knowledge (Family estates) (M/E) IQ+2 [4]; Savoir-Faire (M/E) IQ [0]*; Tactics (M/H) IQ+1 [6]; and an additional 5 points in socially advantageous skills chosen with the GM's approval.

* Free from Status 3.

Conspirator — 15 points

Conspirators work for a cause and are intensely devoted to it. A typical conspirator belongs to a small group, often troubled by heated debates. Being heavily involved in plotting themselves, conspirators may assume that everyone else is manipulative and has hidden motives, as well.

Advantages: A total of 30 points including Charisma +1 [5]; +1 IQ [10 or 15]*; and additional advantages from the following: Charisma [5/level], Claim to Hospitality [Varies], Comfortable [10], Composed [5], Danger Sense [15], or Voice [10].

* The point cost of the increased IQ depends on the IQ for the primary template.

Disadvantages: Fanaticism [-15] and Secret [-20].

Skills: Conspiracy Theory (M/VH) IQ-1 [4]; Cryptography (M/H) IQ [4]; Detect Lies (M/H) IQ-1 [2]; Intelligence Analysis (M/H) IQ-1 [2]; and one of Bard (M/A) IQ+2 [4]* or Writing (M/A) IQ+1 [4]. Also pick one of Politics (M/A) IQ+1 [4]; or Law, Philosophy, or Theology (M/H) IQ [4].

* Includes +1 from Charisma.

Fugitive — –15 points

Most of the other motivational lenses include Secret. The fugitive's Secret has already been exposed. Now his goal is to survive and escape to someplace where no one knows who he is. Some of his old skills are useful in achieving this, while others are deadly temptations. He may already be an exile in some foreign land, unable to go home.

Advantages: A total of 15 points from Alertness [5/level]; Alternate Identity [15]; Combat Reflexes [15]; Contacts [Varies]; Courtesy Rank [1/level]; Danger Sense [15]; Favor [Varies]; Versatile [5]; or Zeroed [10].

Disadvantages: Enemy (9 or less) [-20] and -20 points from Age [-3/year over 50]; Code of Honor [Varies]; Disciplines of Faith [Varies]; Edgy [-5] or Paranoia [-10]; Excommunicated [Varies]; Flashbacks [Varies]; Nightmares [-5]; Poverty [Varies]; or Social Stigma [Varies].

Skills: Savoir-Faire (M/E) IQ+1 [2] or Streetwise (M/A) IQ [2]; Scrounging (M/E) IQ+1 [2]; Stealth (P/A) DX [2]. Also pick one of the following: Acting (M/A) IQ [2] and Disguise (M/A) IQ [2]; or Fast-Talk or Survival (Urban) (M/A) IQ+1 [4]; Forgery (M/H) IQ [4]; or Computer Hacking or Conspiracy Theory (M/VH) IQ-1 [4].

Customization Notes: A fugitive's Enemy may appear more or less often, with GM approval. An Enemy who appears on 6 or less isn't much more than part of the fugitive's background; an entire campaign can be played out without such an Enemy actually showing up. If the Fugitive doesn't take precautions against being too visible, the GM is entitled to penalize him for poor roleplaying or simply rule that the Enemy has shown up without a dice roll. An Enemy who appears on a 12 or less, or a 15 or less, is likely a constant presence in the campaign; many scenarios will focus on keeping the fugitive out of the Enemy's hands. If this will be disruptive to a campaign, don't allow this frequency of appearance.

Gang Member — 0 points

Gang members reject the laws and standards of their societies, and usually those societies return the favor. But the gang itself is a small society, with its own customs and its own demands for loyalty. Gang members kill people because the gang has enemies and wants them dead. Being willing and able to kill earns a higher standing in many gangs, and some gangs may even require killing as the price of admission.

The typical gang member is a heavy, but a marksman or stalker may also belong to a gang. A bomber is possible, though not likely.

Advantages: Ally Group (2-5, 75 points each, 12 or less) *or* Patron (Gang or gang boss, 12 or less) [20]. Pick an additional 15 points from Alcohol Tolerance [5]; Alertness [5/level]; Combat Reflexes [15]; Composed [5]; Danger Sense [15]; Fit [5] or Very Fit [15]; High Pain Threshold [10]; Rapid Healing [5]; or Toughness (DR 1) [10].

Disadvantages: One of Chummy [-5]; Code of Honor (Pirate's) [-5]; or Sense of Duty (Gang) [-5]. Pick an additional -35 points from Enemy (Legal authorities) [Varies]; Secret [Varies]; Social Stigma (Second-class citizen) [-5] or (Minority group) [-10]; or low Status [-5/level].

Skills: Area Knowledge (Gang territory) (M/E) IQ [1]; Streetwise (M/A) IQ+1 [4].

Hobbyist/Monkeywrencher — –5 points

In the late 20th century, monkeywrenchers were ecological activists who tried to preserve wilderness areas by sabotaging construction, lumbering, mining, and similar ventures. Most of them viewed their activities as expressions of superior ethics and avoided methods that clashed with this self-image; they were more likely to engage in sabotage or theft than in violence against human targets. The same approach can be applied to resistance movements of other types, such as the Luddites of the early Industrial Revolution. Bear in mind that unskilled sabotage can be deadlier than the saboteur expects!

Advantages: A total of 10 points from Claim to Hospitality [Varies]; Contacts [Varies]; Higher Purpose [5]; Sanctity [5]; or Versatile [5].

Disadvantages: Pacifism (Cannot kill) [-15] and Secret [-5].

Skills: Acting (M/A) IQ+1 [4]. Also pick one of Camouflage (M/E) IQ [1]-10; Bard, Fast-Talk, Holdout, or Mechanic (M/A) IQ-1 [1]; or Stealth (P/A) DX-1 [1].

Killer Queen — 10 points

Realistically, physical beauty and personal style are handicaps in covert operations, because those who have them are more memorable. But many films and comics portray glamorous spies and assassins; a cinematic campaign may do so, as well.

Advantages: Attractive [5] and Fashion Sense [5]. Also pick 20 points in Alcohol Tolerance [5]; Ally [Varies] or Ally Group [Varies]; Charisma [5/level]; Patron [Varies]; Sanctity [5]; Status [5/level]; Voice [10]; Wealth [Varies]; or upgrade appearance to Beautiful [15] or Very Beautiful [25].

Disadvantages: Secret [-20]. Also pick -10 points in Bloodlust [-10]; Code of Honor [Varies]; Compulsive Behavior (Flirting or vamping) [-5]; Duty [Varies]; Enemy (Police or FBI) [Varies]; Evil Twin [Varies]*; Overconfidence [-10]; Secret [Varies]; Selfish [-5] or Self-Centered [-10]; Social Stigma (Woman) [Varies]; or Xenophilia [-5].

* A killer queen's Evil Twin may well actually be a "good twin," such as a police officer or secret agent, or even an innocent who needs protection.

Skills: Savoir-Faire (M/E) IQ+1 [2]; Sex Appeal (M/A) HT+1 [4]. Also pick two of Carousing (P/A) HT [2]; Dancing (P/A) DX [2]; Acrobatics or Erotic Art (P/H) DX-1 [2]; Make-Up (M/E) IQ+1 [2]; Acting, Courtesan, Gambling, or Holdout (M/A) IQ [2]; Body Language (M/H) IQ-1 [2]; Appreciate Beauty (M/VH) IQ-2 [2]; or 2 points in one or more Combat Art skills.

Customization Note: This character type is almost always female, except in anime campaigns, where *bishonen* ("beautiful boys") may take similar roles. If such a character's appearance is Beautiful or Very Beautiful, consider applying the Bishonen Look option (see p. ME33), regardless of gender. To do this, average the reaction bonuses for men and women and apply the average to both; both men and women may resent the physical beauty of a Very Beautiful character (a -2 reaction penalty) whom they have reason to dislike.

Professional — 10 points

This is the man who's "in it for the money." He practices a difficult and dangerous career, and he expects to be well paid. Some professionals are loyal to a single employer; others are freelancers, willing to work for anyone who can meet their fee. The ideal professional takes pride in his skills and in delivering what he promises, and avoids emotional involvement either with a cause or with a target – all traits that make for a longer and more rewarding career.

Advantages: Comfortable [10]; Combat Reflexes [15] or Danger Sense [15]. Also pick 15 points from Alternate Identity [15]; Claim to Hospitality [Varies]; Composed [5]; Contacts [Varies]; Fit [5] or Very Fit [15]; Reputation (In a small group, for professional reliability) [Varies]; Single-Minded [5]; +1 to DX or IQ [10 or 15]; or increase Wealth to Wealthy [10].

Disadvantages: Code of Honor (Professional's) [-5]; Secret [-30]; and one of Callous [-6], Loner [-5], or Workaholic [-5].

Skills: Accounting (M/H) IQ-1 [2]; Detect Lies (M/H) IQ [4]; Law (M/H) IQ-1 [2]. Also pick two of Savoir-Faire (M/E) IQ [1]; Leadership, Merchant, Streetwise, or Teaching (M/A) IQ-1 [1]; or Diplomacy (M/H) IQ-2 [1].

Rogue Cop –15 points

The rogue cop is a police officer who takes it on himself to judge and condemn suspects. In a society where the accused have legal rights, this makes him a criminal, but his Legal Enforcement Powers help him get away with it, and in some police forces other officers may sympathize with him. His actions are not part of his duties; they're a personal choice. His Duty as a police officer is separate from his Secret. So long as he isn't completely "out of control," police disciplinary procedures may limit the consequences of exposure of his Secret.

Advantages: Administrative Rank 1 [5]; Composed [5]; and Legal Enforcement Powers [5]. Also pick 15 additional points from the following: increased Administrative Rank [5/level]; increased Legal Enforcement Powers [5]; Alertness [5/level]; Combat Reflexes [15]; Fit [5] or Very Fit [15]; or Single-Minded [5].

Disadvantages: Cannot Harm Innocents [-10]; Duty (15 or less) [-15]; Fanaticism [-15]; and Secret [-20].

Skills: Administration (M/A) IQ-1 [1]; Area Knowledge (Home area or beat) (M/E) IQ+1 [2]; Body Language (M/H) IQ-2 [1]; Criminology (M/A) IQ [2]; Law (M/H) IQ-2 [1]; Law Enforcement (M/A) IQ+2 [6]; Streetwise (M/A) IQ [2].

Customization Notes: Variations on this lens are possible: the rogue cop who belongs to a group of similarly minded officers, or who has his superiors' tacit support; the secret police officer who works for a "black ops" agency with no official existence; or a member of a fully official force in a dictatorship. Each has a slightly different profile of advantages and disadvantages.

Secret Agent 20 points

Intelligence agencies may employ freelancers for specific extra-legal missions. This template represents something more permanent: an agent with a permanent relationship to his group, whose duties include actively inflicting harm rather than simply gathering intelligence. Despite their governments' willingness to disavow their actions, these agents gain various advantages from their positions, often including their superiors' willingness to cover up what they've done.

Advantages: Patron (Very powerful organization; 9 or less) [25] and Security Clearance 3 [6]. Also pick 15 points from Administrative Rank [5/level]; Alternate Identity (Legal) [5]; Comfortable [10]; Courtesy Rank [1/level]; Diplomatic Immunity [Varies]; Higher Purpose [5]; Legal Enforcement Powers [15]; and Zeroed [10].

Disadvantages: Extremely Hazardous Duty [-20], Secret [-10].

Skills: Administration (M/A) IQ-1 [1]; Intelligence Analysis (M/H) IQ-1 [2]; and Writing (M/A) IQ-1 [1].

Sociopath –5 points

Covert operatives in general are a bit detached from other human beings – any other attitude is a liability in their work. Sociopaths are the operatives who make other operatives nervous. If they work for money, they enjoy the job a little too much; if they work for a cause, the cause's willingness to hurt its opponents was one of its attractions for them. They can always find work, but they make their employers nervous, and no one trusts them very far.

Sociopaths are relatively unlikely to be heavies; simple, direct methods just aren't as good a hook for obsessiveness.

Advantages: Fearlessness +1 [2] and Single-Minded [5].

Disadvantages: Secret [-20]. Pick -10 additional points from Bloodlust [-10]; Callous [-6]; Compulsive Behavior [Varies]; Delusions [Varies]; Edgy [-5] or Paranoia [-10]; Intolerance [Varies]; Loner [-5]; No Sense of Humor [-10]; Obsession [Varies]; and Overconfidence [-10].

Skills: Intimidation (M/A) IQ+2 [6] and a total of 12 points invested in one or two skills from the main template, usually chosen from primary skills.

Soldier –5 points

Military missions can take the form of covert operations – and military personnel, particularly special forces, may be trained for such missions (see ***GURPS Special Ops***). Mercenary forces often are recruited for civil wars or other irregular combats where such assignments are especially likely; on the other hand, they can't afford training as intensive as regular special forces undergo. Having a military mission puts the operative in a better legal position, at least with his own side. Even so, he may be sent on some assignments his superiors won't admit to ordering.

Advantages: Composed [5]; Fit [5]; and Military Rank 1 [5].

Disadvantages: Extremely Hazardous Duty [-20], Secret [-10].

Skills: Administration (M/A) IQ-1 [1]; Leadership (M/A) IQ [2]; Savoir-Faire (Military) (M/E) IQ [1]; Tactics (M/H) IQ-1 [2]; and one of Aviation, Sailor, or Soldier (M/A) IQ+1 [4].

Zealot –20 points

In almost any historical period, there are religions with a fringe of fanatical devotees willing to die or kill for their faith. The past few centuries have seen equal fanaticism in the service of purely secular political causes. The zealot only kills people in the service of his beliefs; he's not interested in material rewards. But if he accepts a mission, he pursues it with self-sacrificing devotion. This devotion tends to produce isolated, close-knit groups ready to obey the commands of their leaders unquestioningly.

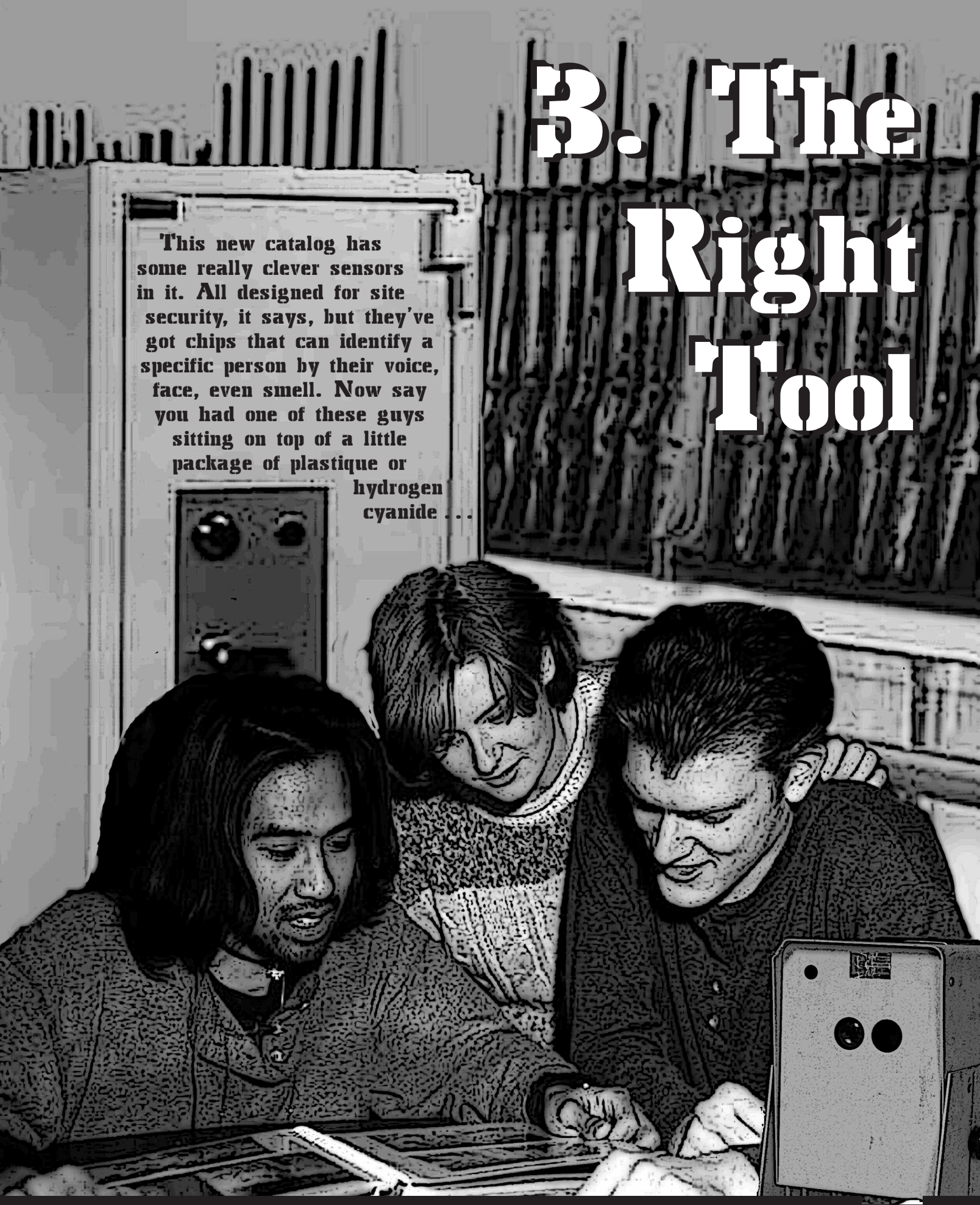
Zealots can use any method of killing; infiltrator (p. 28) is an especially dramatic role, as it calls for a careful balance between playing the role and being true to one's faith.

Advantages: Patron (12 or less) [20]. Pick two of Claim to Hospitality [5]; Higher Purpose [5]; and Single-Minded [5].

Disadvantages: Extremely Hazardous Duty [-20] and Secret [-20]. Also pick a total of -15 points from Disciplines of Faith [Varies]; Extreme Fanaticism [-15]; Fanaticism [-15]; No Sense of Humor [-10]; Overconfident [-10]; or Vow [Varies].

Skills: Bard, Performance/Ritual, or Teaching (M/A) IQ-1 [1]; Bardic Lore (M/H) IQ-1 [2]; Philosophy or Theology (M/H) IQ-1 [2].

3. The Right Tool



How to Get It

If an operative doesn't already have the tools required for the job – supplied by Allies, Patrons, his contractor, or from operations in the past – then he needs to acquire them. Most equipment can be bought over the counter from normal commercial sources. It is usually a good idea to pay in cash to avoid leaving a paper trail. Goods with a Legality Class higher than the area's Control Rating+2 (LC and CR respectively, see p. B249) can generally be bought this way. Items with a LC equal to CR+1 or below either require registration or are illegal, and can therefore only be acquired elsewhere.

There are generally five options: gray-market purchases, black-market purchases, smuggling, stealing, and building.

Gray Market

A gray market is an arena for exchange of goods and services through distribution channels that the manufacturer did not intend. The goods or services in question are not illegal, but the transaction is likely to be frowned on by regulators, governments, or companies. Gray-market goods are often advertised openly, if you know where to look.

Gray-market prices vary widely depending on the taxation, licensing, and regulation of the device in question. When items are heavily taxed, using a channel that avoids taxes or licensing fees can save up to 75% of the applicable taxes or licensing. Conversely, buyers may be willing to pay 10% to 40% extra to avoid the registration or background checks associated with an item's legal purchase.

Black Market

A black market is an arena for exchange of goods or services that are illegal for a person to procure. Buying on the black market is a crime; the goods may be stolen, or simply illegal for transfer or ownership. Current-inventory military hardware of unknown provenance frequently turns out to be stolen. This is usually verified by the item's serial numbers or other unique identifying parameters, such as the rifling and firing marks on bullets and/or cartridge cases (p. 105).

Prices are often very steep, with at least a 10% to 60% increase. Items that are illegal for everyone – illegal drugs, for example – don't have a "standard" price. Instead, prices fluctuate wildly based on the effectiveness of law enforcement. Stolen goods often sell for less than half their "normal" price, but draw unwanted attention from law-enforcement agencies if discovered.

Smuggling

Equipment that can be obtained elsewhere may be smuggled into the target area. The Holdout skill is useful here, depending on the object's size (p. 23). Smuggling into some areas is so difficult that only extremely profitable or innocuous goods are commonly smuggled in – for example, many aircraft hijackers don't even try to get guns onboard any longer, going for alternative weapons, such as explosives or special blades, instead.

Locating Gray- and Black-Market Items

A Contact with the proper connections can be used to locate gray- or black-market goods and services. The Contact's Streetwise roll is modified as follows for black-market goods:

LC	*Rating*	*Modifier*	*Time*
CR+2	Legal	+1	1 hour
CR+1	Registered	0	1 day
CR	Licensed	-1	2 days
CR-1	Security	-3	1 week
CR-2	Paramilitary	-6	2 weeks
CR-3	Military	-10	1 month

LC: The Legality Class of the item compared to the Control Rating of the local area. "Legal" indicates that the goods are stolen, but not otherwise illegal. *Class:* The level of restriction. *Modifier:* The modifier for Streetwise, Research, or contact Reliability. *Time:* The base time required.

Gray-market goods are more easily located (+2 to Streetwise). Goods for which there is little demand generally prove difficult to locate (-1 to -5 to Streetwise).

Modifiers:

Metropolis (New York): +3.
Major City (Seattle): +2.
Large City (Indianapolis): +1.
Small City (Spokane): +0.
Town (Coeur d'Alene): -2.
Rural Area: -4.

Without a Contact, an operative can take to the streets and use his own Streetwise skills, or alternatively, Area Knowledge-2 or Research-4. Each critical failure lets the authorities or another interested party know what the operative is trying to acquire. Depending on who finds out, this results in legal prosecution or a drive-by shooting.

Building

Building equipment may be more practical than smuggling it. Restricted hardware may be assembled from commonly available or unregulated parts. Information or parts for the equipment can be available commercially or on the gray market. For example, sound suppressors have been federally taxed, and thus very expensive, in the United States since 1936. Instead of selling complete assemblies, enterprising companies used to offer kits that allowed construction of a functioning suppressor with very little work. (This practice was made illegal in 1986.)

The GM must decide what craft skill checks must be made, depending on the task at hand – e.g., see p. MF17 for how to build sound suppressors at home. Restricted electronics are frequently created by modifying unregulated units. Similarly, there are kits to build firearms, especially older military weapons such as submachine guns or machine guns. These kits include everything except a complete receiver and are considerably cheaper than a legal new or second-hand weapon. An instruction manual allows anyone with a mill, or a receiver from another source, to assemble the weapon; roll vs. Armoury (Small Arms)+2.

Stealing

Stealing hardware is normally the least desirable option, as it draws attention to the operative's activities. Stolen gear can frequently be tracked back to its source if recovered. But this may not be an issue if the item is destroyed in the mission or can be discarded afterward.

The Bare Essentials

A modern – late TL7, early TL8 – operative can meet most challenges if in possession of the essential items listed below.

Attaché Cases

An expensive, leather-covered hard-shell briefcase (18"×12"×5") is useful for stylishly carrying some 0.55 cf of documents and equipment, and helps when blending into a crowd of busy office people. It locks. $200, 7 lbs.

Some are armored (PD 4, DR 25), which allows them to be used as small shields. $295, 9 lbs. Making one waterproof, and able to float with up to 30 lbs. of contents, costs $20 more.

The case can hold a remote blasting machine (p. 83), computer (p. 38), countersurveillance tool kit (p. 98), disguise kit (p. 48), disguised submachine gun (p. 68), satellite radio (p. 39), radio jammer (p. 96), etc. A small secret compartment (+$50) allows the smuggling of small amounts of drugs, poisons, documents, or valuables (Holdout +4). A metal screen alerts any metal detectors, but hides a metal object such as a gun in a secret compartment below (+$150). This can get it through a metal-detector search if security doesn't take the case apart (Holdout +1).

An attaché case can also be fitted with a portable alarm (p. 86) and electroshocker, making the would-be tamperer roll HT-3 to avoid being stunned (see also pp. HT100-101). This adds $400 and 3 lbs. All functions can be controlled remotely from up to 200 yards away. Cinematic users frequently have cases booby-trapped to kill, for example, using an explosive charge (pp. 80-84).

Cell Phones

A small mobile phone (late TL7) is virtually indispensable to the modern operative. It allows e-mail, digital pictures, and texts to be sent, has an internal 0.001-gigabyte memory, can record five minutes of audio, can take digital pictures, can act as a timer and alarm clock . . . *and* you can make phone calls all over the world! From early TL8, it can also include an integral PDA (p. 38). The rechargeable battery gives up to 10 hours of talk time and at least 10 days of standby. $50 to $500 depending on features, 3 oz. In addition to the phone, the buyer also typically buys a monthly calling plan ($10 to $50) or pays in advance for a set block of minutes.

Global Positioning System (GPS) Receivers

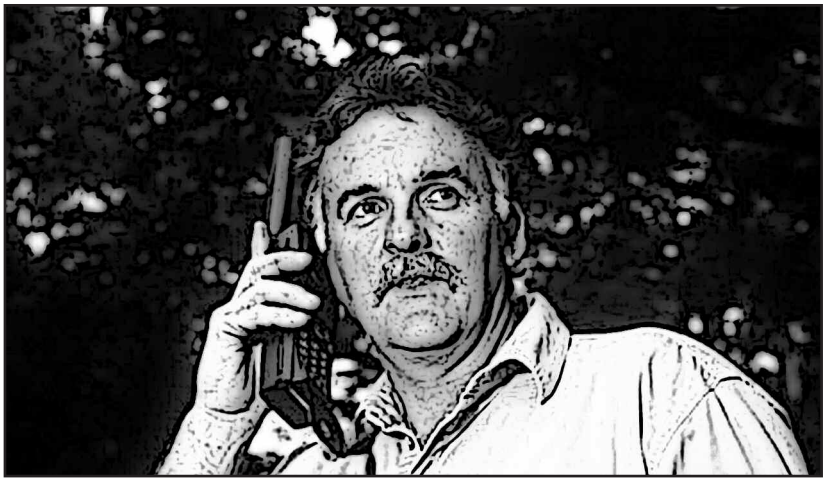
This late-TL7 device receives signals from a satellite network such as American NAVSTAR (NAVigation Satellite Timing And Ranging), giving the user his precise location anywhere in the world. This effectively grants Absolute Direction (see p. B19). It runs for 20 hours on two AA batteries. $100, 0.6 lb. A unit that plots its coordinates on a map overlay, complete with a global map database, is $200, 1 lb. Or, the receiver can be connected to a laptop or PDA (both p. 38) with a suitable card and software installed ($100).

Military systems are $200, 2.75 lbs., but are *rugged* and receive encrypted, detailed information suitable for directing observed artillery fire and air strikes.

By 2001, GPS receivers have become so compact that they can be incorporated into a cell phone (above) or a wristwatch (below); a 3-volt lithium battery powers the Casio Digital GPS Watch for 600 on-demand position reports. $450, negligible weight.

Multitool/Pocket Knife

A multitool is the TL7 equivalent of the Swiss Army knife (late TL5, see pp. B213, HT95). It is a small, folding pocket tool with about a dozen functions, including knife, several screwdrivers, bottle opener, pliers, and scissors. Some designed for the military even have blasting cap crimpers required for Demolition. If a mechanic has it as his only tool, he rolls at -3 instead of -5 to skill. Treat as a small knife in combat. $75, 0.5 lb.



Shades

Sunglasses are an essential item for bodyguards, counterintelligence agents, and Men in Black. They hide the eyes of the wearer (others are at -1 to Detect Lies) and offer protection against ultraviolet and flash (HT roll against flash). $10, negligible weight. Designer shades cost much more.

Many modern designs, such as the Wiley-X Saber-line, add some ballistic protection vs. fragments and ricochets. These protect *only* the eyes with PD 1, DR 4. $35, negligible weight.

The most-advanced tactical eyewear, such as the SPECS used by the U.S. military since 1999, combines all the features above with an antilaser coating to protect the wearer against low-powered lasers. $120, negligible weight.

Shades may conceal a small video camera (pp. 47-48) and microphone (p. 41); the storage media are concealed elsewhere. Also see *Vid Glasses*, p. 38. $500, 0.25 lb.

Wristwatches

An expensive, accurate wristwatch, such as a Breitling, has many uses for an operative. It allows for a timely arrival when meeting with a contact, facilitates keeping track of time fuses, etc. Waterproof watches are essential for scuba diving or even an afternoon at the pool. Many modern watches also incorporate additional features such as a small calculator, tiny camera (pp. 40-41), compass (+1 Orienteering), depth gauge, thermometer, altimeter, one-shot defensive spray (see p. C69), GPS receiver (p. 35), or PDA (p. 38).

Cinematic agents often have watches with more unusual options, such as a small laser cutting torch (p. 55), garrote (pp. 61-62), Geiger counter (p. 42), grappling rocket launcher with filament wire and reel, powerful magnet, or a small reservoir with a few doses of useful chemicals (pp. 73-79).

A costly watch also can be sold or traded in an emergency.

Surveillance and Communication

Secure Digital Networks

The best-known secure digital network is SIPRNET (Secret Internet Protocol Routing NETwork). This connects the U.S. military and government on their own private Internet, using the civilian protocols and software. SIPRNET routes traffic over the normal Internet, known as the "black side," using DES encryption. Information is encrypted at one end, sent over the network to another nonsecure Internet address, and then decrypted. Every system past the DES, known as the "red side," is unencrypted and is routed normally on local networks.

There has been no known penetration of SIPRNET, and systems connected to the network are required to follow a number of security guidelines – such as being located only in secure facilities, or locked up when not in use. Although SIPRNET routes over the Internet, interception is not seen as a viable way to compromise it. Security vulnerabilities are usually on the user side – notably officers and high-ranking government officials who use "dial-in" access and store secret information on the same computers they then use to access the Internet.

Beyond SIPRNET is TIPRNET (Top Secret Internet Protocol Routing NETwork), using the same DES encryption to tunnel with SIPRNET as its black side.

The government and military keep very little sensitive information on the nonsecure Internet (NIPRNET), and security measures after 9/11 led to the complete removal of *all* information from many locations for fear that terrorists would use unclassified, but still potentially sensitive, information for their planning. In cinematic campaigns, the military and government use poorly defended computers hooked directly to the Internet, and cracking a few passwords allows direct access to nuclear weapons, mad AIs, or classified assassination plans.

Computers

Computers have figured prominently in covert ops and espionage since their invention. Until the 1980s, however, their most-significant roles were breaking codes and processing huge volumes of surveillance data, which called for massive, expensive systems. Powerful computers are still used for these tasks today, but low-priced consumer technology has become just as important.

First, desktop systems have nearly replaced paper-filing systems: a computer can be found on every desk in private businesses, the media, and the civil service. Military, police, and intelligence services are no exception to this. Second, almost every advanced electronic device manufactured today, including those in this chapter, contains a small computer. Finally, digital media are poised to replace not just paper, but film, tape, and other storage technologies of interest to spies.

All this makes data penetration (see *Hacking*, p. 37) one of the hottest areas in modern covert ops.

Early Computers (Late TL6)

The very first electronic computers were room-sized machines only useful for calculations such as code-breaking. Their high cost makes them available only to governments.

Data Centers (Late TL6)

Most organizations physically centralize their server computers in one or more locations called "data centers." Such centralization makes it easier to protect the computers and their data from theft or sabotage, but can be less resilient to failures than widely distributing the server resources.

Data centers range in size from retrofitted closets to dedicated multifloor structures. For gaming purposes, a general rule is that a modern data center occupies 2% of the building space of an organization and is likely specially cooled and ventilated in all but the smallest and cheapest of installations.

Hacking

Theft of sensitive data via "hacking" has been a staple of the cinematic spy genre since computers became nearly ubiquitous in government service. Whether the computers were massive banks of spinning reel tapes with flashing lights or science-fiction devices made of crystal slabs, the difficulty of obtaining access has always been glossed over. In recent spy fiction the hacking is often carried out by gadgets – "black box" decryption systems or "software worms" that do the actual dirty work and let the operative do his job without boring the audience. Even when it is central to the story, hacking is depicted as quick and a matter of skill – the hacker madly typing at a keyboard followed by giant glowing "Access Denied" messages as the seconds run out.

In real life, computer hacking is either a slow, meticulous process of research and trial and error, or a matter of simply downloading a list of vulnerabilities off the Internet and running software toolkits to exploit known problems . . . and hoping that it works. In recent years, the sophistication of automated hacking tools has grown to match the increasing complexity and interconnectivity of legal software.

Hacking is a complex process that evolves as quickly as the underlying technologies on which it preys. Regardless, realistic hacking is often too tedious to simulate in a game. Usually, the GM should treat a hack as a plot device and decide how easy or hard it will be based on the narrative. Below are "quick and dirty" hacking rules, with optimistic concessions to the difficulty and time required. If more detailed rules are required, see pp. CII11-14.

Computer Access: The hacker must be able to communicate with the target computer system. This can be done sitting at a terminal, or by connecting to it over a network. This connection does not usually require a skill roll – either you can get a connection to the target or not. Bypassing firewalls and other security methods requires a Computer Hacking roll in a cinematic campaign, and in many cinematic campaigns *all* computers can be accessed over the Internet – in real life, there are secure networks that use separate channels of communication. Note that at this stage, the hacker can connect to the target system but does not have any access.

Passwords: Gaining access to data requires "authentication," most commonly done with passwords. Users often choose easy-to-remember passwords – birthdays, a child's name, etc. Hackers may deduce these by talking to the user; skills such as Fast-Talk, Acting, Interrogation, and Psychology can be used. The GM can also allow a password to be guessed or bypassed with a Computer Hacking roll.

System Access: Once access is gained, Computer Operation rolls will handle all legitimate commands. Higher access or unauthorized data requires Computer Hacking. Systems employ firewalls, access lists, logs, and other controls that make this difficult. In a realistic game, skill penalties should range from -2 to -8, and may even require a roll for each of several security measures. The penalties can be offset by exploiting known vulnerabilities, ranging from +1 to +4 depending on the severity; creating a new program to exploit new vulnerabilities requires a Computer Programming skill roll, and provides a +1 bonus for every 2 points by which the roll was made. If administrators or automated watchdogs are actively monitoring the system, the hack becomes a Regular Contest of Skills against the monitors' Computer Operation skill (see p. B87). In cinematic games, advanced access is gained without penalties to Computer Hacking skill, and most systems would rate a bonus!

Locating Data: Once the right access is gained, the hacker must make a Computer Operation roll to find the data he seeks. Penalties should be applied if the system lacks decent indexing, or if precautions have been taken to conceal sensitive data. (Cinematic users put this data in a desktop folder labeled "Top Secret Projects," giving a bonus here.) This search can take a few minutes or several hours; a Research roll can halve the time. Once located, the data may be downloaded over the network (see pp. RO56-60 for sample file sizes and data transfer rates) or put on disk and carried out.

Other Actions: Not all hackers steal data. Some alter or add data in official records, install viruses or other programs, transfer funds between bank accounts, or seize computer-operated systems. Most of these require Computer Hacking rolls, usually at a penalty or bonus as described above. Some tasks may also require Computer Programming, Electronics Operation, or Research rolls.

Lockout!: Many networks give users a set number of incorrect log-ons before their accounts are temporarily disabled. This prevents hackers from using "brute force" to guess passwords. Repeated account lockouts signal security personnel that something is afoot. Cinematic systems almost never do this; as many attempts can be made as desired – although the GM may decide that automated toolkits lack the "innate cunning" of a human and are automatically blocked when they try hammering the network.

Software: Hackers often make use of special software toolkits that can completely automate attacks against vulnerable networks. In cinematic fiction, these programs are often central to the plot, especially "super hacking" programs that allow the user to access networks otherwise completely uncrackable – or even crash alien computers! Depending on the campaign, a standard "security-analysis toolkit," such as SATAN or BackOrifice, can give +1 to +3 to skill. "Megacracking" programs, such as the virus that crashed the alien computers in *Independence Day,* are worth at least +5 and are immune to most countermeasures. Developing this software take lots of skill and time in real life, often shared between teams of programmers or hackers. Cinematic super hackers with very high Computer Programming and Computer Hacking skills may be able to whip up a special "one-shot" program on an 8-bit Coleco ADAM in record time to hack the Government SuperMegaAI if the GM feels it helps the story along – it certainly fits the genre!

Personal Computers (TL7)

The computer market evolves too quickly to be pinned down, but here are some guidelines. At late TL7/early TL8, a typical desktop system, with printer and modem for Internet access, is $500 to $1,500; a typical laptop is $1,000 to $2,000 and 2-4 lbs. Either is Complexity 2. In all cases, the GM should allow Merchant rolls to push prices toward the lower end. A system six months "out of date" is only marginally less capable than the latest system, but *significantly* cheaper.

Personal Data Assistants (TL7)

PDAs and "palmtops" are small portable computers designed to act as organizers, note-takers, and communication devices. High-end models can hook up to, or may actually incorporate, a cell phone or GPS receiver (both p. 35). Many also play audio files, check e-mail, access the Internet, and send FAX transmissions. Their capabilities are still rather limited at late TL7 (Complexity 1); most store only some 0.01-0.02 gigabytes. A rechargeable battery allows 10 hours of use and 10 days of standby. $400, 0.3 lb.

Vid Glasses (TL8)

Vid glasses look like a pair of sunglasses (p. 36), but actually house bifocal digital-monitor terminals that allow the display of information, including data files and video footage. They are either fed from a PDA or other portable computer system or linked to a computer somewhere else using a cellular modem.

They can function like a Head-Up Display (see p. UT65), displaying relevant data in a see-through mode. Video footage can either fill the entire lenses, effectively blinding the wearer, or be reduced to a small window in the corner of the wearer's vision (-2 on all Vision rolls).

Unlike a HUD, vid glasses can record everything the wearer sees, by storing the images digitally on a linked computer. Using database retrieval and real-time optical-recognition software, the computer can thus "see" and almost instantly identify objects or persons the wearer is looking for – this can be useful for assassins and bodyguards alike. $1,000, 0.25 lb.

Communications

Low-Tech Signals (TL2)

Short Range: In a tactical situation, the most common signals are silent hand signals. These usually convey simple concepts – "move ahead," "stop," "enemy ahead," etc. – and do not require any special skill beyond familiarization and a line of sight. Extremely complex hand-signal systems require the Sign Language skill (see p. B55) and periodic Vision rolls to guarantee the content was received.

Operatives may also signal to each other with prearranged audio signals – imitating local bird or insect sounds is especially popular, using the Mimicry skill, although it can tip off alert guards. ("A rare African swallow in this area?") During WWII, Allied troops signaled one another with "crickets," small toys that produced a unique sound when squeezed.

Long Range: Homing pigeons have been used for important mail for centuries. At low tech levels, they can convey secret messages or even doses of poison between operatives hundreds of miles apart. The message should be no more than 100 words. A homing pigeon costs $35 and travels up to 50 miles per day. A prudent operative sends duplicate messages as insurance against the pigeon going astray.

Instead of a homing pigeon, a cinematic or futuristic campaign can use other suitably trained or gene-modified animals, including flying insects.

Other methods of long-range signaling include smoke signs, visible for several miles, and sun reflections on a mirror or other suitable device. Such signals have to be short and are usually in a code, such as the well-known Morse code.

Papers and Inks (TL5)

Paper for secret messages can be treated to be flammable, edible, or especially susceptible to water. $1 for 10 sheets.

Invisible ink is an old trick that remains useful today. Lemon juice, onion juice, and numerous other kitchen recipes produce perfectly good secret ink, which becomes visible when heated. Effective invisible ink pens can be found in novelty shops for about $1. Espionage laboratories have invented more expensive and exotic invisible inks. Spies during WWI often carried ink in bottles labeled "cologne" or carried chemically impregnated handkerchiefs that produced the ink when wetted.

To use invisible ink in a pen requires some skill: too much pressure makes visible indentations, while too little pressure means that the message stays permanently invisible. When someone uses improvised equipment or writes long messages in invisible ink, the GM should make a secret DX roll. Failure means the recipient cannot read the message; critical failure means that anyone who makes a Vision roll *can* read the letter, a fact that the writer automatically fails to notice.

In the age of typewriters, agents used sheets of what they called "carbon." This is used like ordinary carbon paper, but the copy it produces is in invisible ink. Modern spies fill cartridges for standard computer printers with secret ink. Both techniques are fairly reliable.

A bottle of invisible ink is $10; a printer cartridge is $150. Negligible weight.

Thermographic Film (TL5)

This film produces pictures even in complete darkness, as long as heat sources are present. It costs about $1 per picture.

Radios (TL6)

Radio is the basic technique for communicating with covert operatives in hostile territory. There are too many variations to address all of them here. A few "generic" examples, all of which can be equipped with the encryption systems and scramblers, below.

Hand Radio: A late-TL7 walkie-talkie with no fancy features. Range is 2 miles. $100, 1 lb. A more-compact version also acts as a cell phone (p. 35); $1,000, 0.5 lb. The military and some government agencies are introducing similar-sized radios that feature frequency hopping, making the tracking and jamming of messages more difficult. Runs 12 hours on a lithium battery. $4,000, 1 lb.

Vehicular or Backpack Radio: A high-security, late-TL7 military radio, capable of broadcasting voice or computer data. Transmissions can only be intercepted with specialized equipment. Range is 20 miles, increasing to a maximum of 40 miles if an Electronics Operation (Communications) roll is made at -1 per 2 miles of extra range. $6,500, 15 lbs. The backpack version requires a 4 lb. battery, good for 12 hours.

Satellite Communicator: A late-TL7 unit that can transmit voice or computer data via satellite, giving it effectively unlimited range as long as a friendly satellite is within line of sight. Typically the size of a briefcase, with a folding antenna dish. $3,500, 8 lbs.

A handheld satellite communicator is the size of a cell phone. It allows phone calls over a satellite network. Its battery gives it up to 75 hours of standby, or up to 7.5 hours of talking time. $1,650, 1.2 lbs. A separate solar panel recharges the battery in five hours. $700, 3 lbs.

Tactical Headset: A two-way TL7 radio with a range of about 1 mile. Bodyguards, detectives, and spies favor a wireless, flesh-colored earpiece and throat mike, with a handheld push-to-talk button running down the sleeve on a wire. This gives Holdout +4. $700, 1 lb. Soldiers and SWAT teams prefer a slim headset with a hands-free, voice-activated sensitive boom microphone set to transmit whispers, but not screams or the sounds of battle. $500, 1.4 lbs. State-of-the-art radios are encrypted and weigh 0.5 lb. or less, but cost $5,000 and up.

Wireless Earphone: This system is the cutting edge in late-TL7 covert communications. Dispensing with the telltale wire to the ear, the wireless earphone includes a radio transceiver/transducer (concealed on the body, +2 Holdout) and a tiny earpiece (+5 Holdout, and can be explained as a medical hearing aid). The transceiver picks up audio signals, which are converted by the transducer to a magnetic field. The earpiece, when within the field, inductively converts it back into audio. Bone conduction doesn't require a separate microphone. The tiny mercury battery lasts for 72 hours. $750, 0.5 lb.

Encryption Systems and Scramblers (TL7)

These devices render telephone or radio signals indecipherable without a similar unit on the receiving end. The two units must synchronize at the start of the call. This results in an initial delay of 3d seconds, during which no communication is possible. If what you have to say can't wait, don't turn on your scrambler!

Analog Scrambler: A snap-on device that turns the speaker's voice to gibberish. Enemy agents with similar equipment may attempt to decode the message. Treat this as a Quick Contest of Electronics Operation (Communications) between sender and eavesdropper. $250, 0.6 lb.

Digital Encryption System (DES): A computerized unit that uses millions of shifting code-key combinations to encrypt the transmission. New code keys can be downloaded from a computer as needed. An eavesdropper who wishes to decipher the message in real time needs a copy of the codes being used; otherwise, his only option is to feed the message to a codebreaking computer, which can take hours to crack the code. DES is available for telephones and military-style radios, such as the current U.S.-military SINCGARS pattern (see p. SO106). The unit connects between the handset and base unit in seconds. $725, 2 lbs.

High-Security DES: As above but better, this is the kind of system used by world-power governments. The unit is sealed, tamperproof, and controlled by card access. Without the appropriate code keys, physical inserts that are carefully guarded and rarely reused, a system like this is uncrackable without multiple supercomputers – even then, it can take weeks.

Cost and weight vary. The NSA's Secure Telephone Unit III (STU-III), intended for use by thousands of government offices and private-sector contractors, is inexpensive by design. A suitably equipped phone or modem is $2,000, 8 lbs.; weight is 2 lbs. for a mobile phone, 6 lbs. for a tactical radio. Better technology exists and likely costs a great deal more.

Etching (TL7)

X-ray microlithography is a process designed for microchip engineering; it etches objects on the 0.1-micrometer scale – each feature is a few hundred atoms on a side. A full city map, marked with street names and buildings, fits into a space smaller than the period at the end of this sentence. Almost any object can be etched with vast quantities of information, but an electron microscope is needed to read it. The etching and reading equipment costs hundreds of thousands of dollars and is *not* portable. A well-funded intelligence service with industrial connections can use this technology to transport nearly any amount of information on an innocent-looking object with close to zero chance of discovery.

Nonverbal Telephone Communicator (TL7)

This device allows a person to send typed messages by telephone. A similar machine uses an electronic pad to transmit written messages. Nonverbal communication has the advantage of being unintelligible to audio bugs, but enemy agents with access to similar devices can listen in as usual. $500, 5 lbs.

Pocket Laser Communicator (TL7)

This device uses a near-infrared laser beam to transmit signals. It is usually used to send voice messages. In narrow-beam mode, a line of sight is required, but the communicator cannot be jammed or intercepted except by enemies directly in the path of the beam. Effective range is 1.2 miles. In wide-beam mode, the signal is broadcast (no line of sight required indoors) and thus can be intercepted, range is 0.6 miles, and the unit doubles as an IR flashlight. The communicator consists of a headset and a transmitter the size of a miniature flashlight, both of which plug into a cassette-tape-sized receiver worn on the body. Runs for 4 hours on a 9V battery. $1,000, 0.75 lb.

Underwater Communicator (TL7)

The most-modern dive coms are high-powered sonar transceivers that allow voice and data communication underwater. Using surface base stations, the communicators can interface with radio or satellite networks. The transducer emitter is typically mounted on the diver's head for maximum coverage, or the scuba pack for ease of handling. They install on a rebreather (p. 56) or scuba gear. An adapter is mounted on the mouthpiece, which includes the microphone and earphone connector, and a dual-transducer assembly is mounted on the oxygen bottle. The system can send and receive signals in any direction. Current systems have a range of over 5,500 yards with a battery life of 10 hours. The maximum operating depth is 900'. In water they have a negative buoyancy of 5 lbs. $3,000, 15 lbs.

Voice Masks (TL7)

These devices alter the speaker's voice, making it difficult or impossible to identify.

Basic Voice Changer: This turns the speaker's voice into an anonymous, mechanical monotone. It snaps onto any phone (including cellular phones) or radio, and has jacks for recording equipment. It does *not* defeat attempts to "voiceprint" the speaker. $130, 0.5 lb. or $320, 0.2 lb.

Advanced Voice Changer: This obscures the speaker's voice but leaves him sounding human. It can make a male voice sound female, an adult sound like a child, etc. It is specifically designed to alter the speaker's voiceprint. $450, 1.1 lb.

Surveillance

Spyglass (TL4)

A telescope with 8× magnification grants +3/+5 to Vision rolls (i.e., +3 to scan for an object, +5 to examine an already spotted object closely). Essential for surveillance. $100, 5 lbs.

Binoculars (TL5)

In widespread use since the late 19th century, hunting or military binoculars typically have a magnification of 7×, although others are available. They give +3/+5 to Vision rolls, like a spyglass. $100, 4 lbs. for a TL6 model.

TL7 military-grade 7× binoculars – such as the German Steiner model, used as the M22 by the U.S. military – also give +3/+5 to Vision rolls. But since they magnify light, most add a further +1 to Vision rolls to negate darkness penalties. Rubber-armored and sealed against dirt, they also get +2 on rolls to avoid damage from rough use. They feature either lenses coated to prevent glint that could reveal the user's location, *or* gold-coated lenses to protect the eyes against laser light, as the M22 pattern does. Those fitted with anti-laser coating can be equipped with detachable hoods to reduce glint. Most have a rangefinding reticle. $800, 2.3 lbs. The more-recent M24 has the same features, but is compact enough to fit in a uniform pocket (Holdout -1). It doesn't provide a bonus in darkness. $400, 0.8 lb.

High-end military binoculars function as above, but feature a digital compass (+1 Orienteering) and IR-laser rangefinder, which is accurate to within a yard. Light-gathering optics cancel up to -2 in darkness penalties. Two AA batteries power them for 2 hours. $4,000, 3.5 lbs. In the near future, the built-in computer will use scene-change detection software (p. 44), giving +2 on Vision rolls to spot movement.

Though cheap and light with 8× magnification, most civilian binoculars give only +2/+3 to Vision rolls due to the limited field of vision, and no bonus in darkness. $40, 0.4 lb.

The best commercial binoculars are 20×, giving +4/+8 to Vision rolls, and are mechanically stabilized, reducing movement penalties by 3; these are useful on boats or helicopters. Two AA batteries power them for 3 hours. $5,000, 4 lbs.

Cameras (TL5)

Cameras come in a wide number of styles and can be equipped with many accessories. The models below are representative. All take still photos; see *Camcorder* (pp. 44-45) and *Video Cameras* (pp. 47-48) for moving-picture cameras.

35mm SLR (TL6): Still the world's most popular camera, even though its technology hasn't really changed for decades. A model suitable for surveillance, with date imprinting, winder, zoom lens, and flash, is $750, 1 lb. More expensive systems give a bonus to Photography skill: +1 for $2,000, +2 for $5,000, +3 for $10,000, +4 for $20,000 or more. These are heavy (2-3 lbs.) and bewilderingly complex: treat all bonuses as penalties unless Photography skill is 12+. A cheap camera can be had for under $100. These are fine for vacation photos, but give -2 skill for surveillance purposes.

Minicamera (Late TL6): Spies generally use cameras to copy written matter. The standard spy camera is about 2" long and 1" wide. It holds a 15-, 24-, or 36-exposure roll of film. $500, 0.1 lb. with battery and film.

Underwater Housing (early TL7): An airtight, high-impact shell for any of the cameras above, allowing full access to all controls. This permits underwater photography at scuba-diving depths. $1,800, 1 lb.

Wristwatch Camera (early TL7): Incredibly small camera mounted in a working watch (p. 36). Takes photos on a miniature film cartridge, which requires specialized developing equipment (included). $1,450, negligible weight.

Rollover Camera (TL7): Takes pictures as it passes over documents. $1,500, negligible weight.

Digital Camera (late TL7): Stores color images on removable memory cards instead of film; the exact number depends on the image quality and the card's size. These are easier to handle, with no risk of accidental exposure or X-ray damage, and can transfer images directly to a computer without any quality loss from scanning. $200, 0.5 lb. Digital cameras are very compact (Holdout +2) but tend to have limited telescopic capabilities, as most use digital zoom. This can result in a -1 to Photography rolls for surveillance purposes. High-quality models – no penalty, or even a bonus – cost five times as much.

Periscope (TL5)

This periscope extends to 3' in length, for use in surreptitious surveillance. Like an endoscope (p. 45), it can be fitted with an optional video-camera attachment. $100, 1 lb.

Audio Recorder (TL6)

All of these have jacks that allow them to record input from long-range microphones (below), audio receivers (p. 42), and wiretaps (p. 43). They also have internal microphones, permitting them to be used as surveillance devices in their own right.

Surveillance Tape Recorder (TL6): A compact, full-featured cassette recorder designed for surveillance. Records eight hours of audio per standard cassette. Its internal microphone is voice-activated, allowing intermittent operation for 30 days on a set of batteries. It can also run on wall current. A built-in connector lets it serve as a quick-and-dirty wiretap. $250, 1 lb.

Mini-Surveillance Tape Recorder (early TL7): All the features of the full-sized model in a smaller package. Concealability comes at the cost of recording time and battery life. The 3"×1"×1" model (Holdout +2) records 3 hours per microcassette; its batteries last five hours. $265, negligible weight. The 5"×2"×1" model (Holdout +1) records three hours and gets 17 hours from its batteries. $110, 0.2 lb.

Digital Recorder (late TL7): Records to memory cards, which are immune to magnetic erasure and can transfer audio directly to a computer. An efficient model can record for 160 minutes per card. Comes with speech-to-text software for creating instant transcripts. $300, 0.4 lb.

Microphones (TL6)

Mini-Microphones (Late TL6)

A surveillance expert has dozens of tiny microphones in his bag of tricks. They can be used with any standard recorder (above) or transmitter (p. 47). Using them by themselves (e.g., with headphones) requires a small amplifier; $50, 0.25 lb.

Pinhead Mike (mid TL7): A tiny mike on a flexible cable that can be snaked through openings as small as 0.125". Invisible to the casual observer (Vision-6 roll to spot), it can capture conversations at 21' indoors or 9' outdoors. A DX roll is needed to guide the cable; failure means the mike gets stuck or makes a noise; critical failure means it breaks or pokes out *visibly.* A mike on a 24' cable is $20, negligible weight. Extra cable is pennies a foot, but the DX roll is at -1 per extra 15'.

Laser Pinhead Mike (late TL7): A plastic diaphragm on the end of an optical fiber. Sounds vibrate the diaphragm, the vibrations are picked up by reflecting a laser off the diaphragm via the fiber, and the light pulses are converted back to sound. Laser mikes, below, use the same principle. This mike does not trigger bug detectors or metal detectors; only a physical search reveals it. It otherwise functions like a regular pinhead mike. $400, 0.4 lb. (The added weight is for the laser unit.)

Contact Mike (late TL7): A 1" disk that is taped to a wall, floor, window, etc., to pick up vibrations. Sounds on the far side can be heard by making a successful Electronics Operation (Sensors) roll at a penalty equal to the barrier's (DR + hit points)/5, rounded down. The mike can be attached to the outside of a building to listen in, but not vice versa. Ineffective if the room on the other side is huge, such as an aircraft hangar. $40, negligible weight.

Long-Range Microphones (Early TL7)

These amplified microphones can intercept speech at a distance. Normally used with headphones (included), they can also be plugged into a recorder (above) or transmitter (p. 47). Two models are listed below. Both give +7 to Hearing rolls, allowing whispered words to be picked up at 50 yards, normal conversation at 100 yards.

Shotgun Microphone: A 16"-long directional mike, aimed like a gun, which picks up sound in a narrow cone similar in shape to a shotgun blast. Cancels up to -2 in penalties for background noise. $250, 2 lbs.

Parabolic Microphone: A directional mike with an 18" parabolic dish. Cancels up to -4 in penalties for background noise. $800, 2.7 lbs.

Battery life is 60 hours for both microphones.

Laser Microphone (Late TL7)

A laser mike turns any window into a bug by reflecting an invisible laser beam off the glass and picking up vibrations caused by speech within the room. Very heavy curtains or triple-glazing may defeat this method, and white-noise generators (p. 99) certainly do. Most bug detectors (p. 98) cannot sense a laser mike. Noise – loud music, running faucets, etc. – drowns out conversation on early models, but can be filtered out on modern patterns. Cheap units have a range of 300 yards, and are $500, 2 lbs. Better models with a range of 1,000 yards are $5,000, 2 lbs. In either case, range is limited to 50 yards without a sturdy tripod (p. 48).

Radiation Detectors (TL6)

Dosimeter: Worn by workers in nuclear facilities, these devices measure cumulative exposure to radiation. A person carrying a concealed dosimeter into an area can examine it periodically to learn whether radiation is present – this can reveal a hidden nuclear facility. A disposable film badge, good for one reading, is $5, negligible weight. It must be developed in a lab. A reusable electronic dosimeter is $125, 0.1 lb., and provides instantaneous readings.

Geiger Counter: Used to measure the type (alpha, beta, or gamma) and level of radioactivity. Modern instruments do this quickly and precisely with directional sensors. Geiger-counter readings can give a skilled user a clue as to the source of the radiation; for instance, atomic weapons contain uranium and plutonium, which are primarily alpha emitters. An industrial Geiger counter is $800, 4 lbs. A digital model is $400, 0.5 lb., but is intended only for weak sources, such as a shielded A-bomb, not strong ones, such as an operational nuclear reactor.

Receiver (TL6)

Receivers pick up signals from bugs, transmitters, etc., to which they are tuned. A typical model can receive four channels at a time, feeding each signal to a separate jack. Audio receivers have jacks for recording equipment and headphones, and are $50, 0.5 lb. Video receivers have jacks for monitors, VCRs, etc., and are $80, 0.9 lb.; a built-in 4" LCD monitor raises the price to $200 for black-and-white, $370 for color. All have adapters that let them run on car-battery power.

Scanner (TL6)

This radio receiver searches normal communications frequencies for signals. An Electronics Operation (Communications) roll lets the user intercept any nonsecure radio transmissions in the area, such as those from cellular phones, cordless phones, and walkie-talkies. This becomes a Quick Contest of Electronics Operation if the radio operator is actively seeking to avoid interception. LC 2 or worse; some jurisdictions outlaw them. A basic unit is $300, 0.25 lb. More powerful scanners give a bonus to skill: +1 for $600, 0.5 lb., +2 for $2,500, 8 lbs.

Unmanned Vehicles (TL6)

Remote-controlled or semiautonomous unmanned vehicles are in widespread military, espionage, police, and security use. All can be built using the rules in ***GURPS Robots, Vehicles, Vehicles Lite,*** or ***WWII***, subject to the following guidelines:

Modern robots have small or standard computer brains, Complexity 1 or 2. In addition to the sensors mentioned above, they have cameras, often with Night Vision and Telescopic Zoom, and microphones, frequently with Parabolic Hearing. Exotic sensors such as Active Sonar are possible, especially on submersibles. All have No Sense of Smell/Taste. A basic communicator with a radio and cable jack is standard, as is a bullhorn, to let the operator address suspects. Land-based robots are tracked or wheeled; submersibles have screw propellers or hydrojets; and airborne types usually use propellers and wings, but some have jet engines or helicopter drivetrains. Power is provided by energy banks (batteries). Real-life robots lack heavy armor; typical DR is 3 to 15.

Accessories found on real-life robots include mine detectors, cameras, shotguns (for destroying bombs), nonlethal weapons (electric stunners, Gatling-style air guns that fire tranquilizer darts, tear-gas launchers, etc.), and manipulator arms for picking up and carrying suspicious packages (ST 10-20, DX 4 or 5). Robots with machine guns do exist, but poor target discrimination makes this risky . . . which may not stop tyrannical regimes from using them. Many robots have mundane gadgetry, such as fire extinguishers, spotlights, and sirens.

Remotely operating any unmanned vehicle except for a micro-UAV requires a remote console, in contact with the vehicle via radio or cable. The operator needs the relevant Driving or Piloting skill, according to the vehicle's mode of propulsion, and can fire any weapons, use built-in sensors, etc., all at -4, or -2 if an advanced TL8 VR console is available.

Unmanned Ground Vehicles

EOD Robots are used for bomb disposal and for monitoring terrorists in situations where it would be suicidal to send in a human. Most are remote-controlled vehicles rather than semiautonomous or autonomous robots. They are often equipped with chemical sniffers (p. 95) for analyzing explosives. Most resemble miniature tanks or jeeps with turreted instrument clusters. Some can travel at up to 20 mph (Move 10), but others are very slow (Move 1). Many carry a semiautomatic shotgun, such as the Browning Auto-5 (see pp. HT112, W96), for the disruption of suspicious objects. Typical units cost $50,000 to $100,000 and weigh 300 lbs. to 700 lbs. See p. RO111 for a standard tracked example.

Security Robots look a lot like EOD robots. They are used to patrol sensitive areas in a programmed or random pattern. Most have security sensors (p. 86), especially IR, microwave, and ultrasonic motion detectors. Many are armed. Robots armed with lethal weapons usually yield control to a guard when they find an intruder. Military robots, and those with nonlethal weapons, fire immediately. Weapon skill is typically 8 to 9, and never exceeds 12. A laser rangefinder is often added (+2 Accuracy). Similar vehicles are under development for combat reconnaissance.

Unmanned Aerial Vehicles (UAV)

Typically resembling small propeller- or jet-driven aircraft, UAVs are widely used by intelligence agencies and the military for forward reconnaissance. They are stuffed with optical and radar sensors and recording equipment (p. 41). A few, such as the General Atomics RQ-1B Predator (see p. SO127) in service with the CIA, can also carry guided antitank missiles such as the AGM-114C HELLFIRE (see pp. SO122, VEL59). Most can reach good speeds (100+ mph) and ranges (400 miles and more).

Micro-Unmanned Aerial Vehicles

These tiny UAVs usually resemble remote-controlled toy-model aircraft with electric engines, though some resemble helicopters or doughnut-shaped UFOs. They were developed for the military to provide intelligence at the battalion level and below, some even being issued to individual squads. They can also be used as relays for radio communications. Micro-UAVs can be carried in a small backpack, are very quiet (Acoustic Signature +4), and require no take-off runway – they can be launched by hand. A 1 lb. sensor package can be fitted – e.g., a thermal imaging camera (p. 46) or compact chemical sniffer (p. 95). A micro-UAV's batteries power it for 2 hours, and it can operate up to 6 miles away from the controller. The ground station is a notebook or a wearable computer (p. 38) and

includes a moving map. Use Electronics Operation (Sensors) to control a micro-UAV. Each model requires a separate familiarity (see p. B43). Max speed is 40-50 mph. $3,000, 4.5 lbs., plus $10,000, 10 lbs. for the ground-control unit.

Unmanned Underwater Vehicles

These are used to patrol underwater, and resemble fat torpedoes with arms. Primarily mobile sonar and camera platforms, they can be directed to collide with a diver or even attack his breathing apparatus with a manipulator arm (ST 20).

Wiretap (TL6)

Operatives usually intercept telephone calls by installing an audio bug, below, in the phone itself. A *wiretap* differs in that it sits on the line between one phone and another.

Telephone Recording Jack: A splitter inserted between a phone and wall jack, allowing attached headphones, recorders, transmitters, etc., to pick up telephone conversations. It sits in plain sight, so it is normally used by those tapping their *own* phones. It can be hidden by installing it in a wall, with a cable running to a nearby room. This requires an Electronics Operation (Communications) roll. $20, negligible weight.

Parallel Telephone Line Transmitter: A transmitter spliced into the phone line outside a building, allowing surveillance of a phone within the building without setting off RF bug detectors (p. 98). Broadcasts to a receiver up to 2,000 yards away, and operates indefinitely on telephone line current. $100, negligible weight. An Electronics Operation (Communications) roll at -3 lets a spy set up this kind of wiretap using $10 to $20 worth of spare parts.

Fax and Modem Taps: Wiretaps can also be used to monitor fax and computer communications over phone lines. A device that can monitor computer or fax transmissions has the same statistics as the equivalent voice tap. One that can monitor any two of computer, fax, and voice communications costs double; one that can intercept all three costs triple. Weight is unchanged.

Company Business: Counterintelligence services sometimes use officers in telephone-company uniforms to tap local calls originating from a surveillance target. This requires an Electronics Operation (Communications) roll and the tools normally carried by a telephone repairman. Spies with access to telephone-company switchboards can listen to long-distance calls without any special equipment.

Air Sonar (TL7)

A head-mounted sonar array with a belt-pack signal processor, developed as a travel aid for the blind but also useful to those who prowl around in the dark. It delivers complex audible tones via headphones, warning the user of objects in front of him. Range is 4 yards, and a trained user can discern the range and speed of multiple objects. A sighted user fighting foes within 4 yards never suffers more than -4 in darkness penalties if he can make a Hearing roll every turn to get feedback from his sensor. The Hearing roll is at -4 for anyone who has not had 100 hours to familiarize himself with the device. $3,300, 0.75 lb.

Bugs (TL7)

A "bug" is any hidden surveillance device intended to surreptitiously record data. There are countless varieties, but most are miniature sensors attached to transmitters that broadcast to remote receivers. In an environment with a lot of radio interference, the bug may be hardwired to the receiver – this also prevents detection by cheaper bug detectors, which can only sense active transmitters (p. 98). The receiver is generally connected to recording equipment.

Audio Bug (early TL7): Modern technology can produce a bug the size of a shirt button. This contains a microphone that can pick up conversations within 3 yards and a transmitter that can broadcast this information to a receiver up to half a mile away. A bug this small is spotted on a Vision-4 roll if sitting out in the open; if concealed, it cannot be detected without a bug detector. Adding a thin wire antenna increases range to a mile, but gives +2 to rolls to detect the bug visually or with electronics. Bugs have VOX (voice-activation) circuits to keep them from operating during periods of silence. This conserves battery power, allowing them to function for up to six weeks.

Instead of using a transmitter, which emits a detectable signal, a bug can be designed to pick up conversations in a room and, provided a phone is present, transmit them via a phone line to any chosen phone number. It functions even when the phone is on the hook. A bug like this draws power from a phone line and can operate indefinitely.

Either bug type is $100, negligible weight. An Electronics Operation (Communications) roll allows a spy to build a bug like this from $10 to $20 worth of commonly available parts.

If an intelligence agency can contrive to participate in the architectural design of a building, it can turn the walls themselves into bugs. Properly designed acoustical beams can transmit sound from any portion of a structure to recording devices anywhere else in the building. This adds 10% to the building's cost, making it *very* expensive.

Keyboard Bug (late TL7): The keyboard of a computer, data-entry terminal, electric typewriter, etc., can be modified to intercept anything typed on it. Like audio bugs, keyboard bugs either broadcast their data or transmit them by phone – possibly using the Internet, in the case of a computer. Installation requires tools, a few minutes' access to the keyboard, and an Electronics Operations (Communications) or (Computers) roll. The main use for this is to get access to passwords (p. 37). $100, negligible weight.

More recently, software has become available that serves the same purpose. It records every movement on the keyboard, of the mouse, etc. It can even be installed from the Internet, using a Computer Hacking roll. $100.

Video Bug (late TL7): The term "bug" once was reserved for microphones, but microchip-sized pinhole cameras (p. 47) have added video bugs to the surveillance expert's bag of tricks. A 0.3"×0.5"×0.6" unit containing a color camera, transmitter, and power supply can broadcast crisp video up to 3 miles to a receiver. $850, negligible weight.

It is generally accepted that intelligence agencies have access to smaller, more expensive devices. Cheaper versions sold by cut-rate "spy shops" are 1"×1.25"×1.25" and have a range of only 100 yards. These are $500 for black-and-white or $625 for color, negligible weight.

Camcorders (TL7)

A late-TL7 Mini-DV video camera is compact (Holdout +1) and includes a number of handy features, such as optical and digital zoom (10× optical zoom, +3 Vision rolls), digital image stabilization (reduces movement penalties by 1), and a seven-hour rechargeable battery. Many can be used in low-light conditions, and some even feature a simple infrared-imaging mode (see under *Night Vision Devices*, pp. 45-46). They have a handy LCD screen for previewing images and also can function as a still digital camera (p. 41), storing images

Image Manipulation

A nonlinear-editing (NLE) system is a late-TL7 computer equipped to handle the digital postproduction of audio and video recordings – a high-tech replacement for the splicing apparatus and bulky arrays of tape recorders and VCRs formerly used for the same purpose. Raw data is loaded from a tape or digital-data card and manipulated using the computer. The altered data is then written back to the original source or to a new recording medium. Using an NLE requires the Video Production skill. Photography and Computer Operation are practically required secondary skills.

Realistically, an NLE can only do so much and is limited by the quality of the original source – it can't create something from nothing. With modern 3D software it is possible to create events that never happened or reconstruct past events . . . but this takes a lot of time or a large number of specialists. This is the realm of Hollywood and special-effects departments rather than realistic covert ops.

In movies, a spy can use NLE to pick out unseen details, reconstruct environments in 3D, fake video that looks completely authentic, and otherwise act as if he were actually at the scene where the images were taken. In this situation, a successful Video Production roll can allow new Vision rolls to spot clues, reconstruct events unseen by the camera, and improve image quality from blurry to photographic – all within seconds.

Realistically, a Video Production task should take at least 12 hours per attempt. On a successful Video Production skill roll, the operator of an NLE system can clarify low-quality data, halving penalties for poor recording quality that apply to later Intelligence Analysis rolls. Also, by cutting the most-relevant data from multiple sources and pasting them into a single recording, the operator can present just the most "interesting" parts of a lengthy surveillance, possibly from multiple viewpoints, and even spot incongruities in the video. This gives the end user +1 on Intelligence Analysis rolls. A critical failure means the editor accidentally cut something very important. Finally, selective cutting, pasting, and splicing, along with special effects, can be used to *falsify* data (see *Forgery*, pp. 49-50).

Assign a penalty of -2 if working with poor (security camera) quality video and audio, -1 if average (television) quality, and up to +3 for high-quality film or high-resolution digital. If the original video was copied with quality loss – tape to tape, digital to tape, but not digital to digital – then add a -1 for each time this was done. These penalties can be ignored in a cinematic game.

A consumer NLE system can run as low as $500, but with -2 to Video Production and Photography rolls. A mid-range model hooks up to a good personal computer, costs $2,000, and is -1. A high-quality system is $10,000 and has no penalty; it requires a high-end personal computer. A professional system is a specialized computer in its own right, but is very fast at what it does (halve time required), costs $30,000+, and gives a +1; every doubling of cost gives a further +1. Cinematic systems can run on low-end personal computers and give at least a +2 bonus. Special software packages that assist in special tasks – image manipulation, 3D models, sound editing – cost $1,000 per Complexity 1 program; double cost and increase Complexity by 1 for every additional +1 bonus, to a maximum of +3.

on an included memory card. All have connections that allow transferring the video to a computer in digital format. A Mini-DV tape can store 80-120 minutes of video. $1,000, 1 lb.

A high-quality Mini-DV camera features all of the above, and more: 16× optical zoom (+4 to Vision rolls), better image stabilization (reduces movement penalties by 2 if the shoulder brace is used), and detachable microphone. It can use standard 35mm-camera lenses, including wide-angle and telephoto as well as night-vision attachments (pp. 45-46). It gives +1 to Photography rolls. The battery lasts two hours. $3,000, 6 lbs.

Cellular Monitoring System (TL7)

A computerized transceiver that monitors and decodes cellular-telephone traffic from up to 256 target numbers, up to four calls at a time, and logs everything to a hard disk. It can also prevent the target phone from receiving incoming calls, or simply jam it outright. On some kinds of networks, it can trace calls as well. The unit is about the size of a large briefcase. It is also one of the most-restricted surveillance devices available, and can be *extremely* expensive. At least $20,000, 7 lbs.

DTMF Recorder/Decoder (TL7)

A DTMF (dual-tone, multifrequency) recorder/decoder can record the dialing patterns of a phone. When combined with a telephone bug, it lets the user know any number the surveillance target dials. DTMF codes are sometimes used to trigger remote gadgets, such as recording devices and bombs. Looks like a standard calculator with an LCD screen. $125, 0.25 lb.

Electronic Stethoscope (TL7)

A sensitive contact mike (p. 41) attached to a digital amplifier, with headphones. It can detect human activity even behind massive walls or underground. Assume that it can hear sounds through 3 yards of loose stone or 1 yard of solid material. It also gives +3 to Explosive Ordnance Disposal rolls to detect or defuse mechanical bombs. Note that Lockpicking rolls to crack a safe with mechanical tumblers are at -5 *without* such a device (a regular stethoscope reduces this to -2). $280, 0.4 lb.

Endoscopes (TL7)

Developed for medical use, this device (also called a "fiberscope" or "borescope") consists of optical fibers mounted coaxially within a thin (0.1-0.3") steel-mesh tube with tiny lenses at either end. Controls at the user's end allow the far end of the tube to be flexed and bent precisely. Using the attached eyepiece, the user can see whatever the scope is pointed at.

A short-ranged search endoscope, fitted with a short focal-length lens (typically 7×) and a powerful light source, lets one examine small objects indirectly. It can be used to search hollow objects, even body cavities, for concealed items, giving +3 on search attempts.

A long-ranged surveillance endoscope, fitted with a long-focal-length lens, can be used to view large objects at a distance. This lets the user peer under doors, through holes in walls or floors, around corners or window frames, etc., while staying out of sight. The tiny lens gives -3 to Vision rolls. A Vision-5 roll is required to spot the protruding tube.

A 0.3"-wide, 24"-long model of either type is $1,500, 2 lbs. Multiply price by 1.5 for a 0.2"-wide model, by 3 for a 0.1" model. Longer versions (up to 3 yards) are proportionally heavier and more expensive. Many accessories are available. For instance, a video camera can be fitted to the eyepiece and plugged into a monitor, transmitter (p. 47), or VCR (p. 48). The camera assembly and a 4" LCD monitor are $1,400, 1 lb.

Antenn-Eye: A thick, cheap surveillance endoscope disguised as a car-radio antenna. It has full pan, tilt, and zoom, and gives only -1 to Vision rolls due to the larger lens, but the moving end can be spotted on an unmodified Vision roll. The monitor mounts on the dash. The camera mounts in and the antenna on the fender, where a normal antenna would be. Takes up 0.08 cf as a vehicle accessory. $2,500, 4 lbs. Double cost for a low-light model (see *Night Vision Devices*, below).

Fume Sponge (TL7)

An absorbent tissue introduced into a target area to collect dust, smoke, chemical droplets, etc., for later analysis. Outdoor versions can alert spies to industrial activity: factories, air traffic, secret atomic-weapons labs, etc. Indoor models can register the presence of particular people in a room via their chemical "fingerprints" of toiletries, hair particles, and body odor.

To analyze the materials on a fume sponge, roll vs. Chemistry or Forensics. Success reveals the presence of all significant contamination. This roll is at -2 or worse for elusive materials – e.g., the effluent of one reasonably clean factory in an industrial area. Success reveals the presence or absence of people, as well as facts such as whether the people had long or short hair, whether they were clean or dirty, whether they smoked, and what sort of clothing they wore. The order in which they entered the room and the length of time they stayed is also revealed on a success by 3 or more.

You can easily disguise a fume sponge. Indoor varieties often resemble stamp-lickers. During the Cold War, Soviet spies placed these devices on the soles of their shoes to analyze metal filings on factory floors. For obvious reasons, fume sponges must be kept in sealed containers before and after use. $50, 0.5 lb.

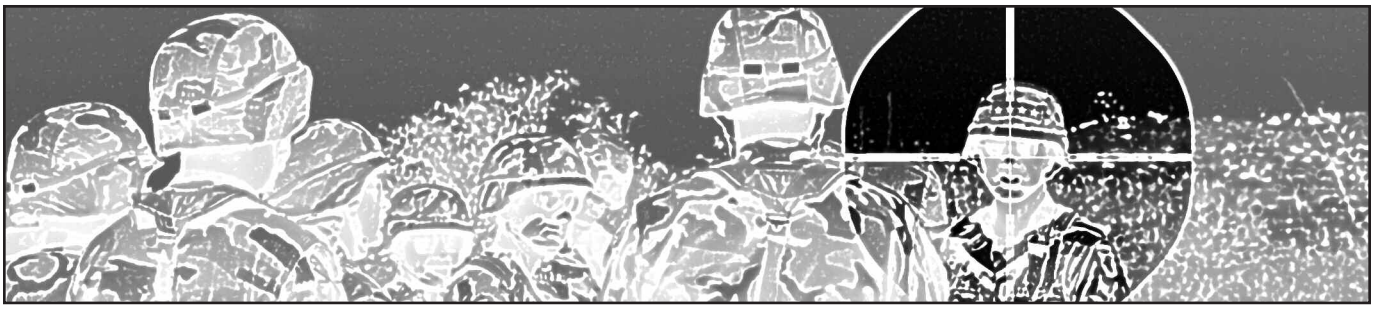
Mail Security Spray (TL7)

This aerosol spray turns envelopes and similar packaging transparent on contact, revealing the contents. It evaporates without a visible trace. Lab tests reveal the invisible residue; this requires a Forensics roll. It is intended for security purposes, but also useful for mail surveillance. Each 14-ounce aerosol can holds enough spray for dozens of uses. $30, 1 lb.

Night-Vision Devices (TL7)

These eliminate darkness penalties to Vision and combat rolls. They are generally available in a number of shapes:

Goggles allow hands-free operation. The main drawback is that they limit the user's arc of vision: treat the wearer's left and right hexes as back hexes (see p. B102). They are very obvious when worn.



Viewers look like normal optical binoculars (p. 40) or digital cameras (p. 41), but combine the advantages of magnification and night vision. -2 Holdout.

Pocketscopes are small and easily fit into a pocket, and are essentially more concealable versions of viewers. +1 Holdout.

Camera attachments are night-vision devices that attach in front of a 35mm (p. 40) or video camera (pp. 47-48) lens.

Glasses incorporate light-intensification or thermal imaging into sunglasses (p. 36); these are cinematic at early TL8.

Weapon Sights are mounted on long arms such as rifles. They frequently include magnification (see p. MF14 for detailed descriptions).

Infrared (early TL7): Uses an infrared (IR) illuminator and sensor, granting Infravision (see p. CI58). While cheap, they have two drawbacks: the illuminator reveals the user's location to anyone with IR gear or Infravision, and the optics can be blinded by sudden flares of heat. Battery life is 50 hours. $700, 1.6 lbs. for goggles, $400, 5 lbs. for a weapon sight with integral 4× magnification and illuminator and 5 lbs. for the battery pack. (Late-TL6 experimental models are quite large and only found mounted on rifles or tripods. $300, 5 lbs. for the sight and illuminator, 15 lbs. for the backpack battery set.) Better units use passive IR and improved optics to avoid both drawbacks, but cost as much as light-intensifier goggles, below.

Light Intensification (TL7): Also called image intensifiers or "starlight scopes," these electronically amplify ambient light to generate a monochrome (usually green) night-vision picture, granting Night Vision (see p. B22). First-generation mid-TL7 devices add +5 to reduced darkness penalties; modern third-generation late-TL7 devices add +9 to reduce darkness penalties; neither is of use in total darkness. Image intensifiers can detect IR light. Photoreactive light dampening protects the wearer from the blinding effects of muzzle flashes, etc. The device functions continuously for 40 hours on its two AA-type batteries. $2,400, 1.5 lbs. for goggles. $3,500, 0.8 lb. for pocketscope, which can also be mounted on a helmet or rifle, or for camera attachment.

Thermograph (late TL7): A passive electronic IR-imaging sight that enhances IR emissions into a monochrome television image, granting Infravision with an extra +1 to Tracking and without the -1 combat penalty. It identifies a human-sized target at 1,800 yards. A thermograph is also effective in fog and rain,. An Electronics Operation (Sensors) roll allows "sight" through light or medium foliage, but not walls. (Cinematic thermographs may do so.) 4× magnification gives +2 Vision. A video channel allows hook-up with a VCR (p. 48), transmitter (p. 47), or computer (p. 38). Most are artificially cooled and need 2 minutes after being switched on to begin working. A 75-kWs lithium battery powers it for 5 hours. $13,000, 3 lbs. for viewer; $20,000, 4.5 lbs. for weapon sight.

Passive Radio Bug (TL7)

This is a lower-tech analog of the laser microphone (see p. 41). Any object vibrates slightly when sound waves strike it. If it's made of radio-reflective material – in general, any electrical conductor – and radio waves are striking it, the Doppler effect causes frequency shifts in the reflected waves. A properly designed metal object can reflect a tight beam to a radio receiver. In a conventional bug, a microphone turns sound waves into electric current that modulates a radio transmitter; in a passive bug, the sound waves modulate the radio waves directly, with no internal electric currents. Convenient-sized reflectors only work efficiently at microwave frequencies.

Getting a useful signal out of a passive radio bug requires an off-site transmitter and receiver. Often, the operators have no control of where the bug is placed and have to search for the location that gives a good echo. This requires a roll against Electronics Operation (Communications). Once the transmitter and receiver are in place, picking up the signal requires another roll against Electronics Operation (Communications); if the other side is maintaining radio surveillance, resolve this as a Contest of Skill with Electronics Operation (Communications). Keeping the transmitter out of sight requires a roll against Camouflage, or Holdout for more advanced electronics. The bug operators may choose to trade off worse reception for better concealment; Electronics Operation (Communications) rolls are at -1 per 10' away from the optimal line through the bug (-6 per full hex face, or -3 per half hex face). At more than 90' off, detection is impossible. $200. The required tight-beam short-range transmitter is an additional $500 and weights 2.5 lbs. Additional receivers are $100, 0.5 lb. each.

Photo Printer (TL7)

A printer that produces glossy prints of images loaded from a digital camera or computer or stills captured from video or television. Uses standard photo paper. $500, 5 lbs.

TEMPEST Gear (TL7)

Computer equipment, especially monitors, emits radio waves when in use. A spy can intercept these signals and recover the data displayed on the screen. The NSA specifications for equipment resistant to this kind of eavesdropping are collectively called the "Transient Electromagnetic Pulse Emission Standard," or TEMPEST. This name is also used

for the monitoring process, but that is properly called "van Eck monitoring," after Wim van Eck, the scientist who revealed this phenomenon to the public in 1985. (The principles have been known since the 1960s.)

Van Eck monitoring equipment is passive and undetectable and can be operated from within a building or vehicle. It is reliable at ranges in excess of 300 yards and can read the unshielded displays of computers, ATMs, medical equipment, and TVs. As of 2000, the majority of hospitals, phone companies, police departments, etc., were not using TEMPEST-certified equipment.

To display the contents of a screen requires an Electronics Operation (Computers) roll, at -1 per 100 yards past 300 yards. Maximum range is 1,000 yards (-7 to skill), but electronic noise and tall buildings limit range to 100 yards in urban areas. Roll at -3 to find a specific display among many.

The latest monitoring equipment looks like a laptop computer attached to a small electronics box and an antenna. It weighs 6 lbs. A unit with the capabilities above costs $50,000, mainly because it must be custom built. Analysts suggest that off-the-shelf units costing about $1,500 will appear before 2005; intelligence agencies likely have units like this today.

Tracking Devices (TL7)

There are many ways to follow someone electronically:

Transmitter: The basic "tracking bug" is a miniature transmitter that is tracked using a directional receiver. Range is 5-25 miles, depending on buildings and radio noise. The compact 0.5-lb. receiver uses electronics that simulate a rotating antenna, giving the range and bearing to the target on an Electronics Operation (Communications) roll. A transmitter small enough to conceal in footwear, jewelry, etc., along with a receiver, is $2,250. A rugged system suitable for tracking cars is $2,700. Battery life is 10 days. An Electronics Operation roll lets an automobile bug be wired into the car's electrical system, allowing it to broadcast indefinitely.

GPS: Transmitters that broadcast their GPS coordinates (see p. 35) to a receiver are also available. No special skill is required to use such a device. If the enemy finds your transmitter, he can feed you false GPS coordinates, making this model prone to spoofing. Use the costs and weights for regular transmitters. A persistent rumor claims that *any* GPS receiver can be used to track the user. This is probably false in real life, but almost certainly true in an illuminated campaign!

Cellular Phone: Anyone carrying a switched-on cellular phone is constantly announcing his location to multiple receivers, even when he isn't making a call. This is how the network knows where he is when it routes incoming calls to him. Spies with access to the cellular network can triangulate the location of a cellular phone on an Electronics Operation (Communications) roll. This does not directly determine the location of the *cell phone*, but that of the nearest *receiver.* This makes a considerable difference! Generally, in a town, this can narrow the location down to a 500-yard diameter, while in the countryside a 5-mile diameter is more likely.

Spy Satellite: Intelligence services with access to surveillance satellites can install a beacon that can be tracked by satellite. Normally, the satellites' controllers track the target and pass along coordinates to field operatives.

Transmitter (TL7)

A miniature audio transmitter can be attached to any microphone, wiretap, or other listening device; a miniature video transmitter can be used with any kind of video camera, as well as with endoscopes, periscopes, etc., with camera adapters. A receiver (p. 42) is required to pick up the signal. Transmitters are basic components; an appropriate Electronics Operation roll is required to attach one to another device. Cost depends on range: video transmitters are $200 for 100 yards, $250 for 1/2 mile, $300 for 1 mile, $400 for 3 miles. Audio transmitters cost 40% as much. Including batteries, all are significantly smaller than a 1" cube and have negligible weight.

The transmitters above are radio-frequency (RF) devices. Infrared audio (but not video) transmitters are available, too. These do not set off regular RF bug detectors, but are restricted to line of sight. Use the costs for audio transmitters, but divide range by 10 (e.g., $100 buys a unit with 88-yard range).

Ultrasonic Mapper (TL7)

A handheld ultrasonic device that instantly takes the dimensions of an enclosed space. Contractors use it when planning improvements to buildings. Spies may use it to read the vital statistics of sensitive installations or to map the corridors of maze-like installations. See p. B178 for some of the problems this device can overcome. Accurate to within 1%; maximum range is 50'. $35, 0.1 lb.

Vehicle Monitoring System (TL7)

This vehicle-mounted device records a continuous stream of time-stamped GPS data (p. 35). Once retrieved, the data allows the user to map out the vehicle's travels precisely enough to know what routes were taken, when and where the driver stopped, and for how long. Commercial semi trucks often mount these devices today. The unit is concealable and runs off the vehicle battery. $500, 0.2 lb.

Video Cameras (TL7)

Charge-coupled device (CCD) technology has made it physically possible and economically feasible to put a camera anywhere a microphone used to go.

CCD Camera: A chip camera with a pinhole lens, mounted on a 1"-square circuit board. It is a very basic component – with an appropriate Electronics Operation roll, it can be used to build any number of surveillance devices. It must be connected to a transmitter or recorder to be useful. $90 for black and white, $225 for color; negligible weight.

Concealed Portable Minicam: An example of a miniature video camera in action, this camera is concealed in a common item – necktie, pager, wristwatch – and plugged into a transmitter or recorder hidden in a pocket, belt pouch, etc. The basic cost is $200 for black and white, $330 for color, plus the cost of the object it is concealed in. Smaller models fit in a pen or sunglasses and cost $700. All have negligible weight.

Tripods

Tripods stabilize camcorders, cameras, laser mikes, shotgun mikes, etc., and allow hands-free operation. The GM may rule that Electronics Operation and Photography rolls to operate such equipment are at -2 *without* a tripod. A minitripod or car-window clamp is $50, 1 lb. A vibration-resistant tripod for a laser mike is $500, 9 lbs.

Concealed Video Camera: A stationary camera/transmitter unit, disguised as an indoor fixture (clock, electrical outlet, exit sign, smoke detector, speaker, etc.). It transmits up to 200 yards to a receiver. One variant, the "police light camera," is a working emergency light with a camera inside. It has no transmitter – it sends its signal to monitoring gear inside the vehicle. It can be panned to look around the entire vehicle (even *up*). $200 for black-and-white, $330 for color (any model). It does not significantly alter the weight of the concealing fixture.

Wireless Dog-Cam: A rugged wireless camera and mike, designed to be harnessed to the head of a trained guard dog. The camera peers down the dog's nose. Small enough to be hard to spot at night or when worn by a dog inside a vehicle. Transmits 200 yards to a receiver. $700, negligible weight.

Video Recorders (TL7)

Video recorders are used to record input from video cameras (above), receivers (p. 42), thermal imagers (p. 46), and camera-equipped endoscopes (p. 45) and periscopes (p. 41).

Surveillance VCR: Designed with video surveillance in mind, this recorder can store 40 days (960 hours) of time-lapse video without audio and can operate intermittently for three months on batteries. A similar unit can record 24 hours of real-time video with audio. Both models have triggers that can start and stop recording in response to alarms, etc. Bulky and unconcealable. $700, 14 lbs.

Mini-VCR: A flat, concealable unit that records five hours per minicassette. Often connected to cameras concealed in neckties, sunglasses, etc. $950, 1.5 lbs.

Infiltration and Exfiltration

False Identities

Clothing (TL0)

The easiest way to get near a man is to get him to trust you. Dressing as a gardener, a waiter, a slave girl, or any non-threatening passer-by enables the operative to observe and approach his prey. When the operative can choose a costume with a big hat, voluminous sleeves, or a tool box in which to hide his weapons and gear, so much the better.

Part of an operative's down time can be spent collecting future disguises. For an excellent example of this, read Frederick Forsyth's *The Day of the Jackal*. As Forsyth's protagonist travels throughout Europe preparing to assassinate Charles de Gaulle, he assembles suitcases containing clothing, props, and paperwork for his series of identities.

Above all, disguises should look authentic – clever security personnel are on the lookout for obvious disguises. An indigent laborer does not have brand-new clothing, and a well-to-do businessman never wears an ill-fitting suit. For peasant-class clothing, a hit man should either accost peasants or shop where they shop – the Salvation Army, the discount superstore, or the smelly part of the bazaar. Middle-class clothing can come from anywhere, as long as it is suitable to the situation. High-society clothing should be either carefully selected used pieces or custom-tailored creations. In the latter case, the hit man should remove all makers' labels. A good disguise should also take care of the details – a peasant is unlikely to have manicured fingernails, a hobo won't sport perfect teeth, and a Hindu won't be caught munching a hamburger.

Unless it is part of a specially developed combat uniform, in no case should the operative wear his own clothing. Cloth fibers at a crime scene can be matched to the garment they came from, and clothing may be contaminated with the victim's hair, blood, or other bodily fluids – in low-tech societies, this may not be an issue, although a good tracker with a trained dog may prove this wrong. The clothing worn for the setup should be disposed of cleanly, such as in a charity donation or an anonymous trash container. Any clothing worn for the actual murder should be carefully disposed of; it may be safely bagged with greasy foods and thrown in a restaurant dumpster, or shredded and buried in a remote location. Unless access to a high-temperature oven is available, burning is *not* recommended, as most fabrics produce a great deal of smoke. Chemical cleaning is also an option; simple soaking in bleach destroys most DNA residue. The best option for operational clothing is low-fiber-bearing material such as nylon or paper, as generic as possible. Spray-painters' coveralls are favored, along with filter masks and safety goggles. Latex gloves are now a must, as plastic or conventional gloves take fingerprints inside. Applying plaster or superglue to the fingertips often prevents this (-5 to Forensics), but limits manual dexterity (-1 to skills based on fine manipulation).

Also see *Camouflage* (p. 52) for specialized clothing.

Disguise Kit (TL1)

Operatives frequently work in disguise. A disguise can be as simple as a stolen uniform, or as elaborate as full-body makeup (see p. B65). A few items easily concealed on the body, such as a wig and a fake heel (to alter walking gait), allow a Disguise roll at no penalty. $50, negligible weight.

A disguise kit is required for a good disguise. It consists of an attaché case (p. 35) or similar-sized container holding all the implements required, including artificial hairpieces, teeth prostheses, colored contact lenses, makeup, and a reasonably large mirror. Such a kit provides +1 to Disguise skill rolls and allows a decent makeover in 30 minutes to an hour. $200, 10 lbs.

For more elaborate disguises involving custom-made noses, pointed ears, or complete face masks, considerably more time and lab-level makeup materials are required. Such a kit provides +2 to Disguise rolls. Fake body parts have to be laboriously custom-fitted, usually by taking a mold from the person to be disguised. This takes at least 12 hours, including drying of the materials, for small parts such as a new nose, or 24 hours for a full face mask. Actually putting on the disguise usually also takes a long time, around two to six hours, and requires an assistant with Disguise skill. $2,000, 250 lbs.

Trying to disguise somebody as a specific person is very difficult; face masks that look exactly like someone else are entirely cinematic. Making them would require a lot of materials and complete visual references; the latter is becoming easier as 3D computer scans improve. A willing subject or a corpse is even better. Such masks give +3 to Disguise roll, if available. $20,000, 500 lbs.

All disguises are delicate and easily damaged when the wearer gets involved in combat or other hard physical activity. Also, many disguises may *look* convincing . . . but the senses of smell and touch are less easily fooled. A dog or somebody kissing the wearer instantly notices that something isn't right.

Magical Disguise

Many legends describe magicians as magically assuming someone else's appearance, or giving it to another person. For example, Merlin enabled Uther Pendragon to visit Igraine and father Arthur by giving him the appearance of Igraine's husband. In the *Völsunga Saga*, the heroine Signy persuades a sorceress to exchange appearances with her so that she can become pregnant by her brother Sigmund. Changes of shape or appearance can enable an assassin or saboteur to get through an enemy's security – or pin the blame for his own crimes on someone else.

The most effective spell for this purpose is Illusion Disguise (see p. M52) superimposed on Simple Illusion, Complex Illusion, or Perfect Illusion (see p. M51). An enchanted item of clothing or jewelry can be used to confer the likeness of a single specified person on the wearer. The spells Alter Visage and Alter Body (see p. M28) have similar effects, but rather than just creating an illusion, they change the subject's physical shape.

False Identification and Documents (TL4)

There are two steps to establishing false documentation. First, you must duplicate the physical token, usually a card or badge, used to establish identity. Second, you must ensure that official records show that the false ID is valid. No matter how realistic a fake ID looks, it is worthless if a cursory computer check shows that the owner does not exist.

Forgery and Anti-Forgery Techniques

Many technologies exist to prevent the falsification of identity tokens. The card or badge can be embossed, watermarked, colored with unusual dyes, or printed in special inks. It can incorporate holograms, metallic foils, microscopic fibers, or special paper or plastic. A thin film can be applied to prevent (or make obvious) alteration or erasure. The identity information itself can be encrypted and contained in a bar code, magnetic strip, microchip, or radio transponder.

Falsifying photo IDs that lack these features is easy for anyone with a computer and a color printer. This requires a photograph (or a digital camera and a photo printer), computer, heat sealer/laminator, and high-quality printer suitable for such work, which costs some $2,000 all told. It takes three hours and a Forgery roll. In cases where the photo is also to be altered, paper photos require a Photography roll or digital images require a Computer Operation roll and proper software.

Falsifying ID that incorporates more complicated countermeasures is more difficult, but criminals can and do circumvent these technologies using commercially available equipment. Machines for producing bar codes, embossment, holograms, magnetic strips, and watermarks are either freely available or easily obtained on the "gray market." These allow the user to produce a fake on a Forgery roll. The specialized equipment costs about $20,000 to $25,000 and fills a room.

Special dyes, fibers, films, foils, inks, papers, and plastics fare somewhat better. Commercially produced materials must be bought or stolen. The former leaves a paper trail; the latter arouses suspicion. Custom-manufactured materials must be painstakingly synthesized in a lab. To accomplish this, the forger needs to obtain detailed specifications, or acquire a sample and analyze it (requires a Forensics roll). If such an operation is discovered, the target organization almost certainly changes its specifications. Special materials give from -1 to -5 to Forgery rolls. Synthesis requires access to a lab worth at least $50,000. Usually, an operative does not make these special materials himself, but acquires them through Contacts.

Microchips and transponders are the best countermeasures now available. Microchips are wafer-thin memory chips that store encrypted "digital certificates." Transponders transmit a coded signal when interrogated by radio or ground radar. Neither can be forged without first breaking the encryption (see *Cryptanalysis*, p. CI156). These measures give from -5 to -10 to Forgery rolls. Equipment for etching cutting-edge devices is found only in multimillion-dollar facilities.

Until the mid-1990s, it was rare to combine multiple countermeasures except in sensitive areas. It took too long to scan each item, so security was sacrificed for convenience. Today's access-control equipment has reduced scan times to the point that complex identity tokens are becoming common. Multiple countermeasures give -1 to Forgery attempts per countermeasure after the first, in addition to the modifiers above.

All of these technologies can be circumvented by any national intelligence service, given enough time and money. However, criminals are the usual source of false ID. One day and a Streetwise roll in an urban area finds someone who can do the job. The ID is ready in 1d days; costs vary (see p. 50).

These Forgery modifiers apply equally to Streetwise rolls to locate a suitably equipped forger, as black-market economics ensures that forgers with access to unusual materials or multiple types of equipment are rare.

The major obstacle to forging identity tokens is the difficulty of acquiring a sample from which to work. To make a fake ID, you must study a genuine one. High-security installations certainly notice the theft of an ID and take measures to strengthen their identification procedures.

Falsifying Records

The best defense against false ID is to check it against information stored beyond the reach of forgers. Most forms of ID are routinely checked against computer databases – nowadays, even traffic cops often have computers in their patrol cars to make such checks. With modern computers and scanners, this takes seconds. In the case of transponders and bar codes, IDs can be scanned at a distance as the wearer walks past a sensor – this usually only checks the validity of the ID itself, not the person bearing it!

Fake ID that refers to a purely fictional person is caught by a routine scan, no matter how technically accurate the identity token. Stolen ID, or altered ID that refers to someone who is on record, is more likely to work, at least if the theft has not yet been noted and the ID compromised (with a security team watching). Many identity tokens are designed to work with access-control systems (p. 49) to foil this, meaning that the infiltrator must know keypad codes or passwords stored in the identity database, and may also have to spoof devices that read fingerprints, voiceprints, etc.

The surest way to make an ID hold up under scrutiny is to alter the identity database. This requires bribery, computer wizardry (see p. 37), or infiltration of administrative offices. If you can accomplish this, you often are better off getting the appropriate functionaries to issue a genuine ID. The GM can design entire adventures around an attempt to corrupt the bureaucrats who issue passes allowing access to some important target.

Note that in high-security areas where a limited number of people have legitimate access, guards are liable to spot a stranger even if his ID passes all tests with flying colors. A guard who sees dozens of people each day rolls vs. IQ, modified by Alertness, to spot someone he does not recognize. Acting and Disguise rolls allow an infiltrator to impersonate someone who belongs there and avoid this risk.

Examples

As with all illegal goods, the price of false documents fluctuates wildly: a smuggler of illegal immigrants may charge $5 for a tattered Social Security card, while the CIA spends thousands of dollars perfecting a cover identity. The prices here are rough guidelines; the GM is free to set any price he likes. Items marked with an asterisk (*) are "high risk;" if the Forgery roll fails, using the fake has immediate or dire consequences.

Birth Certificate: Usually required to obtain most other forms of ID: driver's license, passport, etc. It is also accepted as proof of citizenship when seeking employment. The document needed to obtain a driver's license or a job typically contains no security measures, but most people do not have copies of their real birth certificates. When this is required, as for a passport, a certified copy is transferred between agencies. (The issuing U.S. agency is the local Bureau of Vital Statistics.) Where this is done by public mail and not interagency mail, you can conceivably create and mail a falsified copy.

The classic method for acquiring a false birth certificate involves adopting the identity of a child who died shortly after birth. This is becoming much less feasible as archives adopt computers to automatically cross-reference birth and death records; they *do* check to see whether somebody is claiming to be a dead person. $50.

Common Access Card:* In 2000, the United States started to consolidate all government and military IDs with the Common Access Card (CAC, or "cack"). The CAC is a multipurpose smartcard roughly the size and shape of a credit card that contains an integrated microprocessor with 32K of memory. The card has two bar codes, a magnetic stripe (mainly for access to controlled buildings, p. 89), and a digital color photo. The information stored on the card is kept relatively minimal – name, rank, issuing agency, digital certificates, expiration dates, blood type, etc. – for security and privacy reasons. Passwords and detailed medical history are stored only in conspiracy campaigns. $400.

Death Certificate:* Needed to legally dispose of a body. It is also of use to someone who hopes to stage his own death. Any funeral home can file for a death certificate – and will, given the presence of a body. In the case of elderly or ailing corpses, morticians tend not to investigate the causes of death too closely. With other sorts of bodies, agents need Fast-Talk skill or appropriate Contacts to avoid unwanted scrutiny. Any mistake in obtaining a doctored death certificate raises suspicion of murder. $500.

Driver's License: Usually a laminated plastic card containing a photograph, physical description, and sometimes residency information. The chief difficulty in using a forged driver's license is the fact that modern police cruisers are equipped with computers that can run full identity checks. This catches a false license immediately unless the officer can be talked out of running the check; this is difficult, as it is a routine check. A phony license is still useful as a secondary ID to back up other forged documents. $25.

Government ID:* Most military and government IDs are laminated plastic cards with a photo of the individual, agency emblem, identifying number (e.g., Social Security number),

signature, issuing and expiration dates, and limited personal information. For example, the current U.S. military ID is a color-coded (green for active duty) laminated plastic card with service emblem, photo, Social Security number, and signature on front, and birth date, physical description, expiration date, and two bar codes on the back. (See *Common Access Card*, p. 50.) The lengths to which guards go to verify it depends on the sensitivity of the area one wishes to enter. The ID of a private returning to barracks during busy hours likely only receives a glance; during night hours, everybody is checked. Having a forged or real parking permit sticker on the windshield helps – preferably blue for an officer. IDs issued by individual commands for access to secure areas, such as submarine docks or nuclear missile silos, are much more elaborate and subject to intense verification. $250.

Marriage License: These are mainly of use when establishing cover identities for people posing as a married couple. $25.

Passport:* A passport shows the holder's country of origin and authorizes him to travel abroad. It includes a photograph and a record of previous travel. Since passports are the basic tool for traveling between nations, a healthy industry exists for forging them. The usual method is to alter passports bought or stolen from tourists. The actual buying or stealing is generally done through criminal cutouts, but a recent high-profile case saw intelligence operatives stealing blank documents directly from government offices. $200.

Pilot's License:* A pilot's license consists of several documents that specify the kinds of aircraft the bearer may fly and whom he may carry. In times of war or terrorism, pilots must also have documents granting them access to hangars and airfields. These papers have varying security, ranging from none, to color photographs, to more complex devices. $500.

Professional License:* Someone caught practicing medicine or law with a false license may suffer civil lawsuits as well as criminal prosecution. $300.

Security Pass:* Unsurprisingly, ID granting access to government secrets carries the highest level of security. There are usually only a few "billets" per "compartment" – i.e., only a fixed number of trusted people can have passes for a given installation. Some factories and agencies are notoriously lax, but spies can only discover this by perilous trial and error. Common criminals have few incentives to risk penetrating secret government organizations, so you cannot normally buy a security pass through underworld channels. Agents typically obtain these as the fruits of successful operations.

University Degree: Numerous "diploma mill" colleges and "diploma replacement services" issue false degree certificates. They usually charge thousands of dollars, on the pretense that they are providing education through home study. Such a degree costs $1,000. A professional forger can make a diploma for $100.

Vehicle Registration: This document involves no security measures. As for a driver's license, a police officer can run a computer check from his cruiser. $25.

Visa:* A certificate, sticker, or stamp that authorizes the bearer to enter a particular country. Everything said about forged passports applies to visas. Visas from certain countries are rare and expensive. $500.

Weapons Permit:* This may or may not include a photograph. As with driver's licenses, police can easily verify a weapons permit against official records. $250.

These Aren't the Operatives You're Looking For

If human guards oversee the access-control process, an alternative to falsifying records is to flash realistic ID and bamboozle the guards into letting you through with only a cursory identity check. This requires a Quick Contest of Fast-Talk, Intimidation, Sex Appeal, etc., vs. the guard's Will, and works best against untrained guards. Roll at -2 against ordinary police or soldiers, -5 or worse vs. counter-intelligence officers or military-security experts. Note that those who guard stealth bombers, ICBMs, etc., are chosen for their bloody-mindedness (Will 12+). If an attempt fails, the officer knows that something illicit is under way.

Cosmetic Surgery (TL6)

A surgeon can make a face unrecognizable. The operation requires six hours and a Surgery-3 roll. Apply an extra -2 if the surgeon is unfamiliar (see p. B43) with cosmetic surgery. An ordinary failure leaves the subject recognizable; a critical failure gives him Hideous appearance. Regardless of the outcome, the subject needs three weeks to recuperate afterward. $5,000.

In a cinematic, illuminated, or TL8+ campaign, a surgeon can *duplicate* a specific set of features! Use the rules above, but cost is $25,000.

Computer Files (TL7)

Unnoticed by most, everybody leaves a highly visible trail by simply living in modern society – bank accounts, home and mobile telephone cards, public transport passes, e-mail accounts, Internet access, check-ins at hotels, intercontinental flights, and purchases of vehicles and guns all leave tracks somewhere. While nobody collects these in one place, sophisticated computer programs can trace these tracks in the infosphere fairly easily, as can conventional detectives with enough resources and perseverance.

While such electronic files may be easily changed if where they are stored is known, it is very difficult to erase all tracks once they have been made. A better way is for an operative to avoid making them in the first place. Building up an alias complete with all the necessary documents requires a lot of time and money. Not only do the forged documents need to be acquired, they also need a history to avoid arousing suspicion – bank accounts need money transactions from time to time, phones need to be used, etc.

Camouflage (TL0)

Dark Clothing (TL0): One of the simplest ways to camouflage yourself at night is to wear dark clothing. While ninjas and commandos are usually seen in the movies in pitch-black clothing, dark gray, very dark green, or similar colors are actually better – on most nights, totally black clothing appears as suspiciously dark shadows.

Reversible Clothing (TL1): Reversible clothing allows the wearer to change his appearance quickly without carrying a second set of garments. It is commonly used by the military (e.g., with different camouflage patterns on either sides of a uniform) and can be very useful for operatives. For example, the front side of a two-part suit may be camouflage-patterned for infiltration, but it may appear to be a tuxedo complete with tie on the reverse. Changing takes 15-DX seconds (minimum of 3 seconds). Cost depends on the type and quality of the clothing styles on the two sides. Note that in a realistic campaign, the reverse side can't be of a totally different cut – say, changing from a one-piece camouflage infiltration suit into evening dress – although folding panels or extra cloth quickly arranged using pins or Velcro may go a long way.

Hunting Shirt (TL3): Prior to the introduction of the ghillie suit (below), hunters sometimes wore outsize, thigh-length overshirts of durable material sewn with straps, cords, or loops for suitable foliage. These shirts are often equipped with fringed sleeves, which break up the silhouette of the hunter. By late TL3, blotchy dye jobs added to the basic camouflage effect. These appear in fiction as the shirts of Lincoln green worn by Robin Hood's men. A plain shirt gives +1 to Camouflage skill; a patterned one gives +2. Like ghillie suits, they permit improvement through customization, requiring a Camouflage skill roll and 20 hours. For each point rolled under skill, the bonus is increased by +1, to a maximum of +5. It requires specific preparation with respect to terrain, climate, and season, depending on the type of environment the suit is to be used in – use the various specializations for the Survival skill as a guide. Suits used *outside* the environment for which they have been customized receive a negative modifier based on the formula above. Oak branches and bright red autumn leaves stand out in a Desert or Arctic environment regardless of the wearer's skill! $100, 5 lbs.

Camouflage Clothing (TL6): Camouflage-pattern clothing, such as that worn by the military or duck hunters, gives -2 to Vision rolls in appropriate environment. Especially effective patterns give a -3; examples of these include the small dot patterns adopted by Canada, Denmark, Germany, and the USMC in recent years. A suit is $50, 3.8 lbs. (temperate), 3 lbs. (tropical/desert).

Many of the new uniforms adopted by modern militaries are also effective in masking the wearer's infrared (IR) signature. The cloth is chemically treated to reduce IR emissions, giving -1 on all rolls to spot him with IR viewing gear or thermographs, or to hit him with weapons targeted this way. Frequent laundering diminishes the effects. A suit is $75, 3.8 lbs. (temperate), 3 lbs. (tropical/desert). Can be used as basis for a ghillie suit (+$25 to the cost of that).

Ghillie Suit (early TL6): Based on camouflage worn by gamekeepers in Scotland, this ragged suit breaks up the outline of a prone man by blending in with surrounding cover, most commonly plant life. A ghillie suit can be as simple as a field uniform with some canvas pieces sewn to it, or as complex as a Nomex suit with overlapping burlap strips attached and padded elbows and knees for crawling. While most suits are made for rural use, there are specialized urban suits made with suitable local "color," such as beer cans, cardboard boxes, and plastic bags. The base suit is worth +3 to Camouflage skill; it is *always* customized by a professional sniper, requiring a Camouflage skill roll and 20 hours. For each point rolled under skill, the bonus is increased by +1, to an overall maximum of +8, including the +3 inherent in the suit. Like a hunting shirt, it requires specific preparation with respect to the type of environment. Ghillie suits are heavy and hot. $550, 16 lbs. (Note that while they first appear at TL6, they could be made at TL1, as long as cloth and dye were available.)

Infrared Camouflage Suit (TL7): A full suit, including hood and gloves, giving -3 on all rolls to spot the wearer with IR viewing gear or thermographs, or to hit him with weapons targeted this way. It is camouflage-patterned (above) and typically worn over normal uniform or clothes. It is very light and can be folded into a tight package. $150, 0.75 lb.

In a cinematic campaign, the GM may let ordinary clothing be given a similar treatment. This should cost at least $1,000 per outfit.

Chameleon Suit (early TL8): Several countries are trying to develop active camouflage clothing that changes color like a chameleon, blending the wearer into the surroundings. Efforts concentrate on nanoscience solutions, where electronically controlled flexible nanolayers in the cloth alter reflectivity, changing the wavelengths of the suit to reflect those around the wearer and thereby matching the surrounding colors. While the basic technology works, functioning mass-production clothing is yet unavailable. In a cinematic campaign, a prototype suit provided by the agency's R&D department vastly improves the wearer's ability to remain hidden. Such a suit gives a moving target -1 to be hit or visually spotted. If the wearer remained stationary the penalty increases by -1 per second to a maximum of anywhere from -3 (for a suit that mimics shadow play) to -6 (for a full-solution suit). Small lithium batteries power it for 24 hours. $10,000, 5 lbs.

Invisibility

Legends often credit assassins, such as the ninja, with the power of invisibility. Unseen killers appear in some of the oldest legends. The central character of H.G. Wells' *The Invisible Man,* the classic science-fiction treatment of the theme, used his power to go on a crime spree.

Various ***GURPS*** supplements define numerous ways for a normally visible being to become invisible: magical spells, ritual magic, psionic illusions, martial-arts disciplines, superpowers, advanced technology, and even simple camouflage. Some nonhuman beings may be invisible naturally, such as spirits. Different methods have different implications and different levels of usefulness for a covert operative.

Having no material body, as is the case for most spirits, or having left one's body, as in astral projection, usually results in invisibility. The immaterial being or form may need special powers to perceive the material world and almost certainly needs them to interact with it. Such combinations of abilities have high point costs, since they allow an attack that is almost impossible to defend against; the attacker not only can't be seen but can pass through most physical barriers unhindered.

Having a transparent material body allows an operative to interact with the material world while remaining unseen – but being simply transparent isn't quite sufficient. The body needs to have the same refractive index as air to be fully invisible – otherwise, it can be seen as a region of visual distortion, perhaps with a rainbow-like halo. In a realistic setting, the operative may have to go naked and carry no equipment. Another realistic result of transparency is blindness, since an unpigmented retina can't stop light and thus can't see it; a transparent man needs infrared vision, electric field senses, sonar, or some other alternative sense to take the place of vision.

A nontransparent material body may still be hard to spot, if its coloration matches that of its surroundings. If the skin can change color, chameleon fashion, it can grant a measure of invisibility in any surroundings; otherwise, it only works in the specific environment that it matches. It may even clash with other environments, producing enhanced visibility. Camouflage clothing provides a simple way of doing the same thing (p. 52).

The ability to control the movement of light waves through refractive fields can be used to route light around a person or object. If the control is not extremely precise, the results are the same as transparency, as described above – there is a fringe or halo of distortion, rather than perfect concealment, and the person is blind. He may be able to choose to let some light through, producing a dimmed area that can be targeted; in such a case, his own Vision rolls, his opponents' Vision rolls to see him, and their attack rolls to hit him all have the same penalty, from -1 to -9.

A sophisticated light-warp effect may have a window at the eyes, allowing normal vision. A foe can target the eyes with a -9 penalty (see p. B203). Seeing the eyes, or targeting the whole person, has only a -5 penalty, because human and animal nervous systems are extremely sensitive to the vertical symmetry of a pair of eyes – the "someone's looking at me" feeling reveals a predator. A window over only one eye gives a -10 penalty to see or target the eye or the whole person, but also gives the disadvantage of One Eye (see p. B29).

Projecting an image over the self, by methods ranging from magical illusion spells to holography, avoids this problem. In effect, it's a light-based analog of chameleon powers.

Finally, rather than becoming physically invisible, an operative may mentally or magically stop other people from perceiving him. This won't blind him, and almost certainly hides his possessions as well as his naked body. However, it's likely not to work on electronic or mechanical systems; a computer monitoring a closed-circuit camera may insist there's an intruder, even if the guards say otherwise. A very stringent version of this form of invisibility leaves the operative visible to human observers watching via closed-circuit television, or even looking in mirrors. (It's also possible to be invisible only to machines, or in mirrors, or to cameras.) Magical illusion-based camouflage effects have similar limitations.

Attacks against an invisible foe are made at -10 to skill, the same modifier as for total darkness or being blinded suddenly. If the assassin can attack while remaining invisible, his target still benefits from passive defense, but cannot use active defenses. A critical success on Danger Sense makes the use of active defenses possible.

Climbing Gear (TL0)

Rope (TL0): Rope was invented in the Stone Age and has been in use ever since. A 1"-thick handmade rope can support 1,800 lbs. safely; a 10-yard length of such rope is $45, 9 lbs. For thinner or thicker rope, multiply strength, cost, and weight by the square of the diameter in inches. Note that the thickest rope the average man can grasp is 2.5" in diameter.

At TL6, high-quality cord offers twice the strength at five times the cost with the same weight and thickness.

A strong TL7 rope has up to four times the strength, double the cost, and a fourth of the weight. At TL8, biphasic rope supports five times the weight while itself weighing a fifth as much, and costs $55 per 10-yard length.

Gecko Gloves (TL8): This set of gloves *and* soft shoes allows the wearer to climb sheer walls and even cling from the ceiling, as long as at least three limbs always stay in contact with the surface. It has millions of tiny artificial hairs (*setae*) that attach to any surface, like a gecko. The hairs extend or release depending on the movements of the hands and feet inside. A total weight of 800 lbs. is supported. This technology becomes available at early TL8, but is too expensive for mass production until mid-TL8. $2,000, 2 lbs.

Grappling Hook (TL1): A spark-free grapnel with a low-visibility matte-black finish. $50, 2.5 lbs. A crossbow can be used to fire a grapnel from TL2. Starting at TL7, a grenade launcher such as the Colt M79 (see pp. BO112, HT121) can fire a grappling hook up to 50 yards. At TL8, an autograpnel can use a motor winch on a grenade launcher to lift up to 400 lbs. at up to 5 yards per second; one C cell powers up to 100 ascents or descents. $400, 6 lbs. At TL9, a spinneret works similarly with monowire; it can support up to 500 lbs., and a D cell powers 100 ascents or descents. $300, 7 lbs.

Scaling Equipment (TL2): Tools for climbing vertical surfaces – climbing spikes, "ninja claws," suction cups, etc. – are exotic, but do exist and are effective under the right circumstances. Spikes or claws work on craggy surfaces, or on those they can penetrate (like wood). Suction cups are useful on relatively smooth surfaces. Either cancels up to -2 in penalties for climbing a vertical surface of the appropriate type (see p. B89). A set of four cups or spikes, one for each hand and foot, is $150, 2 lbs.

Harness (TL5): A light harness with fittings for a variety of climbing gear. When used with a rope, this gives +1 to all Climbing rolls and keeps the user from falling. It also allows him to hang in midair and pivot sideways or upside down, and leaves his hands free to pick locks, plant explosives, etc. In matte black, with quick-release button. $300, 2 lbs.

Ascender (TL6): Any of a broad class of mechanical gadgets that use cams, ratchets, etc., to let the user rapidly ascend a free-hanging rope. This gives a +2 to cancel the -2 to Climbing skill for climbing up a rope (see p. B89). $60, 0.75 lb.

Descender (TL6): A small, metal device, sometimes called a "rappel rack," used when rapidly descending a rope, or *rappelling.* Roll vs. Climbing+3 to rappel down the side of a building, or Climbing+1 to descend a rope dangling from a helicopter. Without a descender or harness, rappelling rolls are made at -2, or at -5 if you lack gloves as well! $40, 1 lb.

Line Thrower (TL6): Intended as "sea rescue equipment," these devices fire a rope much farther than it can be thrown. Treat as a normal ranged attack made using Guns (Rifle) or (Grenade Launcher) skill, with an extra -1 for the bulky package and poor sights. There are two types: A *Compressed-Air Line Thrower* is a heavy air gun that can lob a grapnel and rope up to 75 yards. $500, 15 lbs. Replacement gas cartridges are 0.1 lb. A *Rocket Line Thrower* is a disposable rocket that can carry a line up to 300 yards. It has no grapnel, but one can be added with an Armoury (Small Arms) roll. Otherwise, someone on the receiving end must tie the rope in place. $200, 9 lbs.

Snorkel (TL0)

A hollow breathing tube fashioned out of plant material allows the operator to stay underwater for a long time, concealed from the eyes of guards or pursuers (-2 Vision to spot him). No cost, weight negligible.

At TL6+, a 1"-thick breathing tube is combined with a fog-free snorkel mask, for better vision underwater. In rough seas, periodic Swimming rolls may be required to keep the snorkel from being swamped, but valves prevent water from being inhaled. $1, 1 lb., or $10, 0.5 lb. at TL7+.

Breaking And Entering Tools (TL2)

Go-Bar (TL2): A 30" pry bar (Holdout-4) optimized for forcing doors and snapping padlocks. It allows barred doors to be opened by winning a Quick Contest of ST vs. the door's hit points. A normal wooden door has 5 to 10 hit points; armored doors have 20+ hit points and require a ram (see below). Made of spark-free metal, with a matte-black finish. Treat as a heavy club in combat. $180, 10 lbs. A 20" version is more concealable (Holdout-2) but less effective (-2 to ST). Treat as a light club in combat. $115, 4 lbs.

Lockpicks (TL3): The lockpicks needed to open modern locks are *expensive:* $200, negligible weight. The $30 "bargain-basement" version on p. B213 is -2 to skill. In general, the locks on low-rent apartments and cheap padlocks are easy to pick, +1 to +6 to skill, dependent on age and state of repair. Expensive locks, such as those on high-quality homes, may be good enough to apply -1 to -4 to skill, while locks used in the most-secure installations are -8 to skill or more.

Bolt Cutters (TL5): Heavy-duty metal snips for cutting barbed wire and chain-link fences. Chains and padlocks require a ST roll. These are barely concealable (Holdout -4). $25, 7.5 lbs.

Glass Cutter (TL6): In a cinematic campaign, a *circle cutter* can be used as a burglar's tool. Its suction cup is attached to a window or glass case and the blade pivots around it, scoring a circle in the glass. The user then lifts out a perfect glass circle with the suction cup and can reach through to open locks, steal secret plans, etc. This procedure requires a DX roll. Failure means a noisy break; critical failure also means 1d-2 cutting damage to the hand. $140, negligible weight.

Real cutters don't work like this unless you are very lucky. For one thing, scored glass must be tapped on the *far* side to break it out! This stunt should require a DX-6 roll in a realistic game. Applying a handle made from duct tape can reduce this to DX-3.

Lockpick Gun (TL6): A trigger-powered hand tool that lets unskilled intruders open ordinary locks, a lockpick gun gives an effective Lockpicking skill of 8 to open ordinary tumbler locks. The GM can rule that it is simply unable to open higher-security locks. Using such a device leaves very specific forensic evidence. $60, 0.5 lb. A high-quality version gives Lockpicking-10 and is $120, 0.5 lb.

Hand Ram (TL7): These handheld rams *greatly* magnify and focus the user's ST, letting him force locked doors . . . noisily. They are useless as weapons, unless the target is strapped to an unyielding surface, and are slow and tiring to use: each ramming attempt takes 2 seconds and costs 1 fatigue. A mini-ram is $240, 17 lbs., and inflicts swing+(1d+2) damage; it is barely concealable (Holdout -5). Larger models are $360, 35 lbs., delivering swing+(3d+1), and $435, 50 lbs., inflicting swing+(5d-1). These are unconcealable, and are used with a heavy sling.

Hydraulic Door Opener (TL7): A compact (Holdout -2), hand-pumped jack for forcing locked or barred doors, no matter which way they open. Opens most ordinary doors (even car doors) *silently* in about three seconds; it inflicts 10d damage, but is useless in combat. $1,500, 9 lbs.

Walking Through Walls

Legend credits many covert operatives, from Middle Eastern assassins to Japanese ninja, with the ability to walk through walls. Realistically, the feats that generated such legends reflected a combination of skills, sophisticated low-tech gear, and reliance on inside agents for help. But in a fantastic setting assassins may really have supernatural powers, enabling them to get into a secured site.

Climbing the Walls: An operative may be able to walk along walls like a spider, even incredibly smooth walls. Guards don't always keep close enough watch against such intrusions. Inside a structure, crawling near the ceiling may avoid detection; most people look around on their own level for threats, not upward. This is usually envisioned as a mutation or other superpower (see *Clinging*, pp. CI51-52), but nanotechnology may provide gloves and shoes with comparable properties (see *Gecko Gloves*, p. 53). In a fantasy setting, the Wallwalker spell (see p. M70) is comparable.

Going Above the Walls: In an era before the invention of flight, an operative who can move through the air and descend on a site from above may go unseen, especially at night – see *Flight*, p. CI56, *Walk on Air*, p. CI71, or the psi skill *Levitation*, p. B173. In a fantasy setting, the Levitation and Flight spells are comparable (see pp. M70-71). In martial-arts campaigns, incredible leaps serve nearly as well (see p. CI140, *Flying Leap*).

Going Through the Walls: An operative who can change to some type of immaterial form is not impeded by solid barriers (see *Insubstantiality*, p. CI59). This works best if the intruder is also invisible (p. 53), but guards may not spend much attention on sections of wall that have no entryway.

Creating Doorways: Instead of dematerializing, an operative may cause part of the wall to dematerialize, creating a door where there formerly was none. However, others may use this portal as well as the operative. This kind of effect is most likely defined as magic. An interesting variant is the use of mirrors as doorways, as in Robert Heinlein's "The Unpleasant Profession of Jonathan Hoag."

Following Conduits: In a building with internal ducts, such as ventilation shafts, chimneys, or water or sewer pipes, an intruder with certain kinds of superhuman abilities – see *Flexibility*, p. CI56, or *Stretching*, p. CI66 – may be able to enter where a normal person could not. At higher TLs this becomes less likely – if robots or nanomachines are available, ducts are screened against intrusions. However, power lines, telephone lines, and computer networks may offer new intrusion routes for new kinds of superhuman operatives – self-aware computer programs, for example.

Teleportation: In a psionic or magical campaign, operatives may be capable of going from point A to point B without passing through the space in between. See p. B175 for the psi power and p. M71 for the spell.

Tracelessness: Many of the benefits of teleportation or dematerialization can be gained by simply having an unusual ability not to leave tracks (see *Light Walk* on p. CI142). If an assassin can walk lightly enough not to set off alarms or leave tracks – or even walk a few inches in the air! – his victim is found dead surrounded by his caltrops or rice paper floors, and the assassin might just as well have teleported!

Most of the benefits of these methods depend on their being unknown. If wizards can fly through the air, and everyone knows it, then a lord who is worried about assassins puts guards with crossbows on the roof.

Pocket Jet Torch (TL7): This handy device (Holdout +2) uses a disposable gas lighter as fuel source. It pressurizes the flame into a 1" 1,400°F jet that ignites even wet wood, hardens metals, fuses plastics, cuts ropes, solders electronics, or thaws a frozen lock in a second. Does 1 point of damage, and the gas lasts for 10 seconds. $30, negligible weight.

Tactical Cutting Torch (TL7): A portable torch designed for military or combative uses, such as cutting steel doors, window bars, etc. The kit includes torch, cutting rods, gas cylinder, igniter, safety gear, and all fittings, and fits into a belt pack (Holdout -2). It does 1d+3 damage per second, treating DR as hit points, not armor, as long as the torch is constantly applied. The gas cylinder holds enough fuel for 140 seconds. $2,300, 9 lbs.

Cutting Laser (TL8): A small hand laser for cutting and spot welding. It does 4d per second of cutting damage to doors, safes, etc. Its C cell powers it for 60 seconds. $250, 5 lbs.

Electronic Lockpick (TL8): An electronic lockpick gives +3 to Lockpicking or Electronics Operation (Security Systems) skill for attempts to bypass any electronic lock. It works for six months on an A cell. $1,500, 3 lbs.

Smart Lockpick (TL8): A smartcard lockpick, it contains a miniaturized electronic lockpick that makes one attempt to open the lock at Electronics Operations-(TL), and then is ejected. If the user has specific information about the code needed, or the lock code is simple, then the card can be programmed with the extra details, giving it a bonus of between +1 and +5 to skill. $2,000, weight negligible.

AT TL10, these items are replaced by miniaturized computers with a semi-artificial intelligence (SAI).

Inflatable Shoes (TL3)

Ninja were rumored to cross rivers in many ways. The simplest was inflatable shoes: the stomach or bladder of a pig or goat was sealed, then inflated with a reed and the hole sealed with silk cord and wax. This was attached to the shoes. $60, 2 lbs.

It is more likely that the ninja were seen using prepared fords, and the chasing samurai were unable to believe what they saw, so they claimed the infiltrator used inflatable shoes.

Prepared fords include stones set just below the water, bamboo staves laid between supports just below the water, and ropes strung slack so they sit below water level.

Airfoils and Parachutes (TL6)

Realistic operatives use military parachuting techniques and equipment to infiltrate enemy territory; see p. SO61 and pp. SO95-96. A person falls for at least 80 yards before the chute can open, and descends at 2.5 to 5 yards per second, drifting sideways with the wind. Military equipment can easily weigh over 50 lbs. Modern operatives likely prefer something less bulky, such as these devices:

Mini-Parachute (late TL7): A small but otherwise ordinary parachute, useful for quick escapes when crawling around a skyscraper. The most-compact fully functional parachutes are 5 yards across. The small size gives -1 to Parachuting skill. $1,000, 6 lbs. It can be concealed in a small backpack.

Ram-Air Parachute (late TL7): While conventional round parachutes are still widely used in military operations, fully steerable ram-air parachutes have replaced them in many applications, especially when a high-precision landing is required – e.g., to land on a roof top, on a ship, etc. Make a Parachuting roll to hit a certain spot. They also allow gliding movement to cover large distances (five yards forward for every yard dropped). $8,000, 25 lbs.

Guided Parafoil Aerial Delivery System (GPADS) (late TL7): In service with the U.S. military, but also available commercially, this is basically a parafoil attached to a cargo load of 700 to 42,000 lbs. Guided by GPS (p. 35), it can be used to drop payloads that autonomously steer themselves to their drop zone (accurate to 100 yards). GPADS is thus extremely useful for the resupply of operatives in the field. Cost and weight depends on the cargo weight.

EXINT Pod (late TL7): This is a streamlined pod carried under the wings of combat aircraft or helicopters. It is about 4 yards long and allows extraction/insertion of a single occupant, who is provided with a radio, GPS-navigation display, and limited life support (including oxygen and NBC filtering). It can be jettisoned in flight from heights of 20,000 feet; a parachute and airbag system ensure safe landing, while the navigation system allows a precise landing. A cargo compartment stores arms and supplies (500 lbs. including the passenger). $100,000, 200 lbs.

Diving Equipment (Early TL7)

Operatives likely use military diving techniques and equipment for infiltration by sea; see p. SO97 and pp. SO110-111 for details. Two items are of special interest:

Dry Suit (TL7): A waterproof suit with sealed cuffs for the face, hands, and feet, which keeps the wearer dry while diving. A hood, boots, and gloves complete the suit. Trapped air provides some insulation; for extremely cold water additional insulating clothing can be worn. Dry suits provide +10 to HT rolls to resist the effects of cold water, assuming proper undergarments are worn. They are naturally baggy, allowing the cinematic spy to wear a stylish tuxedo underneath. PD 1, DR 1. $1,000, 5 lbs.

Rebreather (TL7): Current closed-circuit diving gear allows a 200- to 240-minute dive (depending on depth and breathing rate) using relatively small and compact air tanks. With a typical pure-oxygen gas mix the depth is limited to no more than 30’ – which is plenty for most operational purposes. Rebreathers do not vent gas like conventional open-circuit scuba gear (to avoid the telltale stream of bubbles and sound) except when ascending from deep dives. This reduces the effectiveness of swimmer-detection systems (p. 97) and makes visual detection from the surface impossible. $6,300, 27 lbs.

Treat diving with a rebreather as a familiarity (see p. B43) of Scuba skill. Divers not specifically trained on it must make a Scuba roll to even use the device, and must make a second Scuba roll at -3 midway through the dive or be forced to the surface. Untrained divers also suffer a -3 penalty on any other Scuba roll made while using a rebreather.

Underwater Emergency Breather (TL7)

A cinematic device the size of a thick marker pen, the emergency breather holds enough compressed air for 180 seconds below the water (or in an otherwise unbreathable environment). $50, 0.2 lb.

Cellular Telephone Immobilizer (TL7)

This device jams cellular phones within its area of effect by blocking signals from the cellular network. It has no effect on regular radios. This is useful on operations that can be compromised by a phone call! A unit that suppresses a 200-yard radius is $4,500, 4 lbs., and *legal* in many places, if used

on the owner's property. A more-powerful model has a 4,000-yard radius, is $15,000, 40 lbs., and is illegal because of its high radio-interference output.

Countersound Generator (TL7)

A computerized speaker and microphone system can cancel noise in an area, as if emitting silence. It works by producing sound waves with peaks where ambient sound waves have valleys and vice versa, canceling out ambient sounds. Factories use this technology to muffle the sound of machinery, but it has obvious applications to espionage.

Sonic Bug Stomper: A gadget that operates on this principle can be used to foil bugs. Unlike such expedients as playing loud music and flushing toilets, it does not alert eavesdroppers to the fact that their bugs have been detected – they hear only silence. A pocket-sized unit may suppress bugs in a 10×10' room. $1,000, 1 lb.

Sonic Screen: A more powerful, but theoretical, device silences guards, muffles footsteps, suppresses ultrasonic sensors, etc. Explosions and gunfire are not completely silenced, but are less audible. Such a sonic screen projects a cone of silence 10 yards long by 3 yards wide at the base (but only 1 yard wide at the emitter). Anyone in the area is effectively deaf and mute; all Stealth rolls are at +3. Noises louder than a human shout are audible but muffled (-3 to Hearing rolls).

This technology is possible, but since there are no reports of its use, concrete cost and weight figures are unavailable. Unless the GM rules otherwise, assume that a sonic screen costs $30,000, and that a realistic device consists of a backpack with a handheld emitter (20 lbs.), while a cinematic unit clips to a belt (3 lbs.).

Radar/Laser Detector (TL7)

This is a handheld device that detects radar- and laser-based security systems before they detect the user. It requires a successful Electronics Operation (Sensors) roll. $350, 1 lb. The military version is backpack-sized and costs and weighs 20 times as much, but on a successful roll, it precisely locates the sensor and determines its type.

EMP Gun (TL10)

This device – which in spite of its name, does not necessarily look like a gun – generates a powerful but short-ranged electromagnetic pulse that is harmless to living beings, but disables electronic systems including computers, electronic keypads, robots, etc. It also permanently erases software and data stored on magnetic media. It has no effect on hardened or optical systems. A successful hit using Beam Weapons (Blaster) skills neutralizes the target's electronics on a roll of 16 or less on 3d. Subtract 1 from the chance of knocking out electronics per 20 points of combined DR and hit points that the electronics possess. For every point the roll succeeds by, the electronics are disabled for 2 seconds. Success by 10 or more, or critical success, permanently fries the electronics. SS 10, Acc 3, 1/2D 50, Max 150, Wt 4, RoF 1, Shots 10/C, Holdout -2, $3,400.

Smart Materials

Current technology already includes memory materials that can change to a new shape with the right treatment – for example, a knife that turns into a hairbrush in a microwave oven. The object returns to its original shape with the right stimulus, such as a few sharp taps on a hard surface. Agents can use this to sneak knives or other melee weapons past a security checkpoint; in a cinematic campaign, it may even work for guns. Memory materials may have a distinct chemical signature that can be detected with appropriate sensors, at -4 to Electronics Operation (Sensors) skill.

A more-advanced application of this principle is material that is not confined to predefined shapes, but can sense its environment and adjust its form accordingly. For example, a reconfigurable lockpick could adjust its shape to fit any key-based mechanical lock, giving +4 to Lockpicking skill against such locks.

In a futuristic setting, nanotech offers a more radical option. A small sample of nanomechanisms, extruded onto a suitable raw material, can reshape it into a useful device. Useful "cannibal nano" designs require common raw materials such as aluminum, iron, silicon – in glass, for example – or organic substances. Nanomechanisms programmed to make a small atomic bomb are only useful if fissionable material is available! Cannibal nano weighs much less than the object it is programmed to construct, but costs much more. The details are purely speculative; GMs wanting a rule of thumb may use the following guidelines: TL9, 5% of object weight, 12× cost; TL10, 2% of object weight, 6× cost; TL11 or higher, 1% of object weight, 3× cost. Time required is 10 minutes per pound in a realistic campaign, 1 minute per pound in a cinematic one.

A different sort of intelligent material could have the ability to change its properties in response to external stimuli. For example, it may be able to shift from flexible to rigid. One application is "smart rope," able to bend freely under normal conditions, but becoming rigid when given the proper command (when rigid, it has DR 10 and 2 hit points). Another application is reflex armor, ordinarily a flexible outer garment, but becoming a rigid plate on a strong impact.

Specifications for some devices based on smart materials are as follows:

Reconfigurable Lockpick (TL9): $1,000, 0.25 lb.

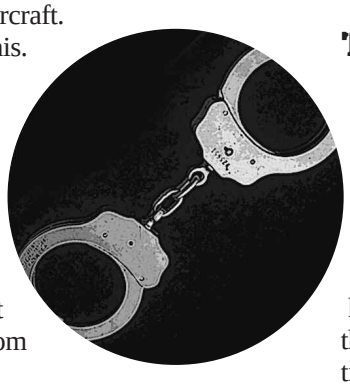
Reflex Armor (TL9): PD 2, DR 15; PD 5, DR 30 if incoming attack detected (14 or less for bullets, automatic for muscle-powered attacks). Requires a power source – a B cell lasts three months; comparable batteries last 10 days. A full suit is $4,000 and weighs 10 lbs.

Smart Rope (TL9): Maximum load 1,000 lbs. It costs $10 per yard and weighs 0.2 lb. per yard.

Escape and Evasion

Most of the items listed under *Intrusion* are also useful for getting out – for example, climbing gear may be used to rappel down the side of a building after an operation, to allow a much more speedy retreat than using the stairs . . . and a parachute or hang glider is even faster. Cinematic campaigns have especially elaborate escape methods!

Also note that military-trained operators may have No-Landing Extraction skill (see pp. B243, CI151), which allows aerial extraction via one of several rather elaborate "skyhook" methods that do not require the aircraft to land. They do, however, require very specialized equipment, including specially fitted aircraft. See p. SO98 for more details on this.



Restraints (TL0)

Restraints to escape from or to use on foes include anything from leather or rope bonds over a rag stuck into the mouth as a gag to steel handcuffs and plastic binders. (For a detailed look at handcuffs and how to escape from them, see pp. C67-68.)

To escape from simple *rope* (TL0) bonds depends mainly on how thoroughly you are tied up – that is, which knots and methods of binding are used. The modifier to Escape skill may range from +2 (loosely bound) to -10 (professional bondage with numerous bonds, perhaps including a neck loop). A typical rope has DR 2, HP 6 for the purposes of being cut.

Wet leather strips (TL0) used as ropes contract while drying, making escape more difficult; a further penalty of -1 applies to the above. Rawhide strips have DR 2, HP 6.

Handcuffs (TL2, with locks at TL5) are -5 to Escape skill, and can only be cut by a hacksaw or heavy bolt-cutters (DR 5, HP 14). $40, 0.5 lb. The more durable *hinged handcuffs* are DR 5, HP 20 and -6 to Escape. Cost and weight are unchanged.

Wire (TL4) or *barbed wire* (TL5), twisted using pliers, gives a -2 to Escape. It has DR 3, HP 10.

Flex cuffs (TL7) are loops of plastic strips that can be quickly closed tight and cannot be opened without a knife or cutting implement. They have DR 1, HP 12, and are +1 to Escape. $1, negligible weight.

Duct tape (TL7) is extremely strong and also self-adhesive. DR 1, HP 6. A 165' roll is $2, 0.2 lb.

Nageteppo (TL3)

Japanese *nageteppo* are blown eggshells filled with black powder and other ingredients. A nageteppo is carried in a padded bag, usually hidden in a sleeve (+3 to Holdout). If the carrier falls, roll vs. DX; on failure, the nageteppo has a 1/6 chance of breaking. If thrown at a target, it breaks automatically, but the target can catch it unbroken with a roll against DX-5. Breaking the shell sets off the charge, which affects the hex where the nageteppo lands and the six adjacent hexes; no one in those hexes gets an active defense. Day nageteppo create a cloud of smoke that persists for 10 seconds unless dispersed by strong wind; anyone in the cloud is at -3 to Vision rolls, and the user is hidden from anyone on the other side of the cloud. Night nageteppo create a bright flash that dazzles anyone within 10 yard (-3 to Vision rolls). Nageteppo can also contain lacquer as a respiratory poison (see p. 75).

Nageteppo cannot be purchased; they must be made. Ingredients cost $1 per nageteppo, and are freely available. It takes 1d hours to make the powder from purchased ingredients or 2d hours and successful Naturalist (or Area Knowledge, if applicable) and Chemistry rolls if the ingredients must be sought out in the countryside.

Tetsubishi (TL3)

Tetsubishi are part of a ninja's traditional equipment, used to discourage pursuit. The design is the same as that of the caltrops used in Europe: four sharp metal spikes are directed to the four vertices of a tetrahedron so that one spike always points up. Anyone walking or running on a path strewn with tetsubishi must make a Vision roll for each second of movement to avoid stepping on one; failure means he steps on one tetsubishi for each point by which he missed the roll (minimum 1). The roll is at a penalty equal to the victim's Move; if he is not specifically watching for them on the path, the roll is at an additional -4. If he does step on one, roll thrust-3 damage based on his ST; if this exceeds the DR of his footwear, the spike enters his foot. He must make a Will roll to avoid crying out (at +3 for High Pain Threshold or -3 for Low Pain Threshold) and acquires the disadvantage Lame (Crippled Leg) until he removes the tetsubishi. Removal requires a DX roll; failure means he has fallen and can remove the tetsubishi on the next turn. Tetsubishi are sometimes coated with poison. Four tetsubishi cost $1 and weigh 0.4 lb.

Stalking Suit (TL4)

A close-fitting suit with many pockets and loops for concealed wear of gear and weapons. PD 1, DR 1. $60, 10 lbs.

Bushmaster (TL5)

A bushmaster is an 8" tube with a timing device (alternatively a trip-wire) which fires a pistol bullet. It is used as a diversion. The GM should require an IQ roll from unsuspecting individuals; on a failure, their attention is successfully diverted. The duration of the diversion is up to the GM. A single bushmaster fires only one shot, and is unlikely to confuse anyone for more than a second in an actual firefight, but multiple units can be linked in succession to give the illusion of sustained fire, and a foe who returns fire with a powerful weapon may believe that he has killed the sniper. Such devices were already available at TL5 in trap-like arrangements, using black powder. $1, negligible weight.

Escape Boots (TL6)

These boots have razors hidden in the soles. When captured and hog-tied, you can use the blades to sever ropes. This adds +2 to Escape skill in applicable situations. $100, 3 lbs.

Hollow Tooth (TL6)

This piece of dental work can hold poison, microfilm, electronic devices, etc. Spies are issued such things, as no reputable dentist would create one. A disreputable dentist might do so, but for an exorbitant fee (GM's decision).

Fake Wound (TL7)

As used in the movies, these devices consist of small plastic sacks filled with fake blood. Hidden inside clothing, they are fitted with a tiny explosive charge (known as a squib) to rupture the outer clothing and splatter the blood outside. They are remote-controlled by the wearer or a hidden assistant. A Demolition+2 or Pyrotechnics skill roll is required to properly use the squib. They are LC5. Two "wounds" can be used to simulate a bullet going *through* the body. Fake wounds are useful to lure enemies into believing the wearer was hit; the wearer receives a +2 bonus on Acting to look convincing. Proper placement requires a Disguise roll. The remote is $50, each "wound" costs $15, negligible weight.

Hand Stunner (TL7)

A hand stunner is a handheld device that discharges a very low-powered, extremely high-voltage electric current to scramble the target's nerve functions. The user must roll under DX or an unarmed combat skill (such as Brawling or Karate) to touch the target. Upon hitting, the victim makes a HT-3 roll (unmodified HT if drunk or otherwise intoxicated) to avoid being stunned. If he fails, he remains stunned for as long as the stun gun remains in contact with his body, and (20-HT) seconds longer after removal. The charge works through ordinary clothing, but not armor or heavy winter clothing. $50, 0.3 lb.

Zombie Drug

Some researchers claim that the "zombie" legends of Haiti reflect pharmacology rather than magic. Recipes for zombie drugs include natural sources of such potent drugs as tetrodotoxin (from the puffer fish) and bufotenin (from various toads). Treat this as having the standard effects for tetrodotoxin (see p. 76). The victim is paralyzed and may be buried while in this state. Tetrodotoxin does not cause unconsciousness, so a person who survives taking it has a vivid experience of something resembling death. Effects such as this can achieve pharmacological restraint at fairly low TLs.

In a supernatural horror campaign, exposure to the zombie drug or other potions may have both pharmacological and magical effects. For example, the toxin kills the victim and the spell reanimates his corpse. Or, more subtly, the magical spell simply enables a powder to take effect by external contact rather than the victim's having to be persuaded to swallow it.

Transportation

The operative needs to get to his objective, and usually back again. In addition to mere transportation, vehicles can carry weapons or protect against them, or the vehicle itself can act as a weapon (see *Collisions*, below, and *The Flying Bomb*, p. 84).

This section discusses general categories of useful vehicles. Often, no detailed specifications are required. For those cases when they are, there are sample vehicles in a number of ***GURPS*** books, notably ***GURPS Vehicles*** and ***Vehicles Lite***, but also ***GURPS Mecha*** and the ***WWII*** line. All four books also allow the design of complete vehicles, including cinematic spy cars, microlight jet fighters, battlesuits, etc.

Collisions

One way to inflict damage with a vehicle is to ram it into a person, another vehicle, or a building. Blinding the operator (see *Lasers*, p. 68) or sabotaging the control systems can lead to such a collision, or the operator can deliberately steer the vehicle at a target. In some cases this is a suicide attack. Dice of crushing damage from a collision are equal to (vehicle body's hit points × impact speed in mph) / 200 (see p. VE158). The vehicle suffers the same damage.

Ground Vehicles

Ground vehicles range from motorcycles to tanks. Operatives are likely to have need of any of these at various times, including getaway vehicles, armored limos (pp. 90-91), and surveillance vans. Many fall into two or more of the categories described below. For example, a police cruiser (see p. C75) can be used as an assault vehicle (with a ram bar) or a getaway car.

Assault Vehicle (TL6)

An assault vehicle is a car used for direct, physical assault. Most are used to ram or block other cars, and are therefore strongly built, with a powerful engine and perhaps a ram plate or internal strengthening to allow such maneuvers. Typical choices include stolen or old-model luxury limousines from any of the quality makers, which tend to have high mass and strong engines. Alternatively, powerful pickup trucks or off-road vehicles can be used. The vehicles are usually abandoned after the operation or the initial hit, not the least since ramming tends to ruin even the best car.

A subdivision of these vehicles is *Armed Assault Vehicles*. These are often lightly armored and have a pintle mount, small turret, or remote-controlled weapon station (sometimes even concealed) mounting heavy weaponry like machine guns or even low-recoil autocannons.

An entire industry builds such vehicles, ranging from the obvious, such as the M1114 variant of the AM General "Hummer," to the discreet, such as the SUV conversions done by Ibis Tek, complete with pop-up turrets!

Many improvised armed assault vehicles consist of a pintle-mounted weapon on a softskin vehicle, such as a pickup truck. These range from Ford Model Ts fitted with a pintle-mounted Lewis gun during WWI through Willy's jeeps (see pp. VE139, W106) with a .30-caliber machine in WWII, to the modern-day "technicals," Toyota pickups with an automatic weapon up to a 14.5×114mm KPV antiaircraft gun. The guns are usually fitted to improvised mounts bolted into the bed of the vehicle.

Some armored vehicles are fitted with gun ports in the body or windows, which allow the deployment of small arms. The full snap shot penalty always applies firing through these, and further penalties depending on the movement of the firer's vehicle and his target may apply (see pp. B201, VE177). Note that some designs forgo the gun ports and have special armored glass installed instead, which can be shot *through* from the inside, but not from the outside. This must be replaced after "use," of course.

Those carrying armed bodyguards for counterstrike are at least four-door vehicles to allow a maximum of men to pour out of the car in the minimum of time. Five-door station wagons, with a "tail gunner" at the rear hatch, are also popular.

Getaway Car (TL6)

These are used for a speedy retreat. They are generally built on luxury limousines that not only have the necessary power, speed, and handling, but are also capable of absorbing a good deal of damage from incoming bullets or ramming obstacles or pursuers. Too much weight and armor reduces performance, so protection is generally less than on an armored limousine or assault vehicle.

Sports cars are seldom used, as their passenger and cargo capacity is very small. In general, a team needs a dedicated driver waiting in the getaway car.

Surveillance Van (TL6)

The typical surveillance van is a large, boxy utility vehicle or mobile home. It is stuffed with surveillance equipment, including audio recorders (p. 41), receivers (p. 42), laser microphones (p. 41), encrypted radios (p. 39), surveillance VCRs (p. 48), TEMPEST scanners (pp. 46-47), etc. Additional batteries or a small auxiliary power unit are required to keep all of the equipment running. A surveillance van is often required because many sensors have only limited range – the van must be parked in the neighborhood. In order to attract as little attention as possible, it is painted to resemble a commercial delivery vehicle or the repair van of a plumber or similar craftsman. Operatives sitting in the van can quickly get into physical contact with the target, or can tail him if he leaves the premises. Vans like this are often too conspicuous when tailing people, and too slow should the operation evolve into a chase, as their maximum speed is around 70 mph. A new van is at least $20,000, and has a cargo space of 170 cf and up. An equipped van easily costs five times as much.

Water Vehicles

While water vehicles are employed less often than ground vehicles, they have their uses; especially at lower tech levels, installations harboring important targets are often protected by water – surrounded by a moat or on an isolated island.

Floats and Rafts (TL0)

These basic transports are generally too slow, too wet, and too vulnerable for long-range travel or open attack, but can be used to negotiate water obstacles such as a moat or river. Their main advantage is their simplicity; they are easily fashioned out of common materials by even unskilled operators at virtually every tech level.

Each flotation device has a buoyancy rating that can be used to cancel encumbrance in the water, reducing penalties to Swimming skill. Buoyancy beyond that needed to cancel encumbrance gives a skill bonus of +8 × (excess buoyancy/swimmer's weight) to a maximum of +8. For a swimmer who is trying to submerge, treat this bonus as a penalty.

Some floats (measured per cubic foot) include:

Wood Block: buoyancy 32.5 lbs., weight 30 lbs., $8.

Clay Pot: buoyancy 55 lbs., weight 7.5 lbs., $2.

Inflated Skin: buoyancy 60 lbs., weight 2.5 lbs., $12.50.

Styrofoam (TL7): buoyancy 60.5 lbs., weight 2 lbs., $3.

Inflatable Boat (TL6)

Inflatable boats are frequently used for covert insertions along shorelines. A civilian model that can carry four fully equipped men, a motor, and fuel is $1,500, 120 lbs.

A genuine inflatable military raiding boat can carry eight fully equipped men plus an operator and has a silenced 26-kW hydrojet motor using 5 gallons of gas per hour, for wSpeed 9 (Move 4) and about 70 miles of range. "Silenced" is a relative term; it is still quite audible close up (Acoustic Signature +10).

The French Zodiac F470 (see p. SO126), used by U.S. forces as the Combat Rubber Reconnaissance Craft (CRRC), is typical: $16,100, 380 lbs. (including motor).

Swimmer Delivery Vehicle (TL6)

A class of miniature submersibles used in naval special operations. Only a career military operative is liable to see one of these expensive, specialized vehicles in a realistic campaign, but cinematic spies use them regularly. Most SDVs are free flooding ("wet") and limited to a depth of 180'; the passengers need to bring diving suits and their own air supply. A few late-TL7 models are pressurized ("dry") and can operate down to 500'. A SDV can carry from two to 18 fully equipped divers, depending on the model (see p. SO127 for two specific designs). Speed and endurance are inevitably secret, but figure on no less than 5 mph for at least 5 hours.

Small, free-flooding SDVs are operated with the Powerboat skill; large, pressurized ones call for Shiphandling. Either skill is at -2 for those unfamiliar with such vehicles. It takes 100 hours of special training to gain familiarity.

SDVs cost $100,000 or more, often *much* more.

Diver Propulsion Vehicle (TL7)

A DPD is a small torpedo-like propulsion unit capable of towing a diver underwater, and useful for shoreline insertions. A typical late-TL7 unit can tow a 200- to 250-lb. load, including diver, at about 3 mph (Move 2). Its 730-kWs battery lasts for 55 minutes at top speed, for a typical range of some 3 miles. It features a compass, depth gauge, and watch (+2 Navigation). In the water, the DPD is almost neutrally buoyant (weighs 3 lbs.). $4,850, 110 lbs. (including battery).

Air Vehicles

While flying has certainly been the dream method of insertion for any assassin trying to get into a closely guarded compound for ages, most aerial vehicles are not very useful for covert operations – they tend to be noisy and extremely obvious. Additionally, in many places air space is well monitored by radar and similar means at TL7+, although those monitoring may be ill prepared for an actual intruder. Finally, the appearance of aircraft has resulted in ultra-secure installations being moved below the ground.

Unpowered Glider (TL5)

Starting from an elevated position, unpowered personal hang gliders take advantage of the wind, and can cover reasonable distances while slowly descending. Early gliders descend very quickly; by the 1970s, commercial gliders had a glide ratio of 3:1 (i.e., travel 3 yards for every yard of descent). Current state-of-the-art gliders achieve ratios of 18:1. Modern types actually allow the pilot to *climb*, taking advantage of thermal updrafts in mountainous areas, just like many birds.

Unpowered gliders have the advantage of being virtually noiseless, but require a prominent starting point, making them useless in a flat landscape. In addition, landing on a specific spot is not always easy; this requires a Piloting (Glider) skill roll, and modifiers depend on wind conditions. A typical TL7 glider can carry a load of 300 lbs. (including pilot) and reach speeds of 70 mph under favorable conditions. $3,000, 70 lbs.

Helicopter (TL6)

First mass produced in the 1940s, helicopters can be made relatively small and hover over a target, allowing operatives to dismount (via rope or simply jumping) or come aboard (via winch) without needing to land. Alternatively, they can touch down for only the briefest moment, discharge their passengers, and be off again. They tend to be loud and generate a lot of air turbulence near the ground; they are also very vulnerable to ground fire *and* aerial interception. Still, helicopters are the preferred means of transportation for special-ops forces. See pp. SO123-125, VE141, and VEL61-62 for typical designs.

Microlights and Powered Paragliders (TL7)

Both *microlights*, with hang-glider wings, and *power paragliders*, with parachute "wings," are tiny, single-seat, fixed-wing aircraft. Pilot, engine, and controls are suspended below the wing in an open three-wheeled gondola. All of these vehicles require the Piloting (Ultralight) skill.

These aircraft are of interest to covert operatives because they are stealthy: small (size modifier +2, versus +4 or more for most planes), made of materials with low radar reflectivity (-3 to spot with radar), and capable of silent gliding with the engine off (an electric starter lets it be restarted at will). Even if spotted, the operative can be mistaken for a hobbyist. A typical model has top speed 30 mph and is $10,000, 140 lbs.

A full-solution TL10 ultralight with jet engine and stealth features is the Nightwing (see p. UT115).

Wet Work

One of the easiest ways to kill or at least harm somebody – whether as an assassin, or a bodyguard protecting somebody *against* an assassin – remains the insertion of foreign matter (such as cold steel or hot lead) into the body.

Hand Weapons

A number of typical "low-tech" weapons are described below. ***GURPS Japan, Low-Tech,*** and ***Martial Arts*** detail additional historical hand weapons, and more futuristic ones are in ***GURPS Ultra-Tech*** and ***Ultra-Tech 2***.

Garrote (TL0)

A garrote is any cordlike tool used for strangulation. There are one- and two-handed versions. Common types include a length of piano wire, bowstring, or human hair string, a loop of braided wire with wooden handles, a plastic cord with a slide-pull, a thin rope, and a silk scarf with a coin in one end. The usual method is to approach the victim from behind, drop a loop over the head, and pull until a few minutes after the victim ceases struggling. It is a favorite assassination weapon since it is easily hidden (Holdout +4), ensures a silent kill if used properly, and is difficult to defend against. The attacker uses Garrote skill (see p. CI134). Rope garrotes are available at TL0; they inflict crushing damage to the throat, multiplied by 1.5, and also cause suffocation (see p. B122). Wire garrotes are available as improvised weapons at TL1 and as a mature technology at TL2; they inflict cutting damage to the throat and also cause suffocation. They are illegal everywhere, but easily homemade. $5, negligible weight.

Wire Saw (TL6)

The military developed the wire saw, which looks like a garrote with a serrated wire. While sold as a saw for emergency usage, and thus freely available, it can be used as a garrote. Used for sawing, it does 0.25 points of damage per turn, treating any DR under 7 as hit points, not armor. DR 5+ material will quickly ruin it. $10, negligible weight.

Monowire Garrote (TL9)

Monowire garrotes inflict cutting damage to the throat, at +1d, and DR protects against them with 1/10 its normal value. If a single damage roll to the neck causes 1/2 HT or more, the result is crippling damage; on a failed HT roll, this may either sever the trachea, resulting in suffocation, or sever the spinal cord, resulting in paralysis below the neck. At the GM's discretion, such an injury may actually cut the head off. Of course, this tends to *drench* the attacker in blood. $5, negligible weight.

Blackjack (TL1)

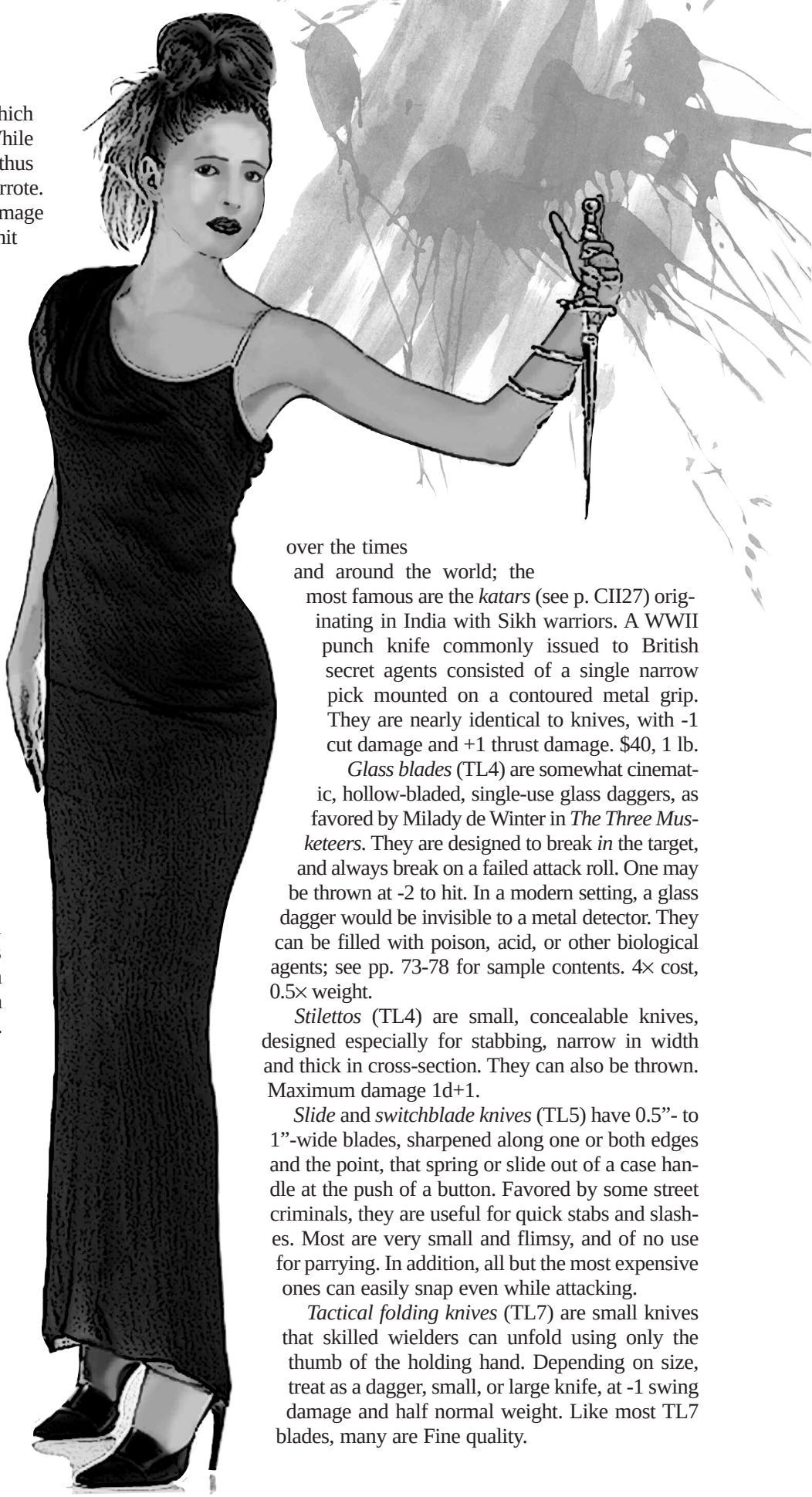
A blackjack (see pp. B49, 206), also known as a sap, is a small flexible club made of rubber, or a canvas or leather sack filled with lead or sand – a sock filled with coins or pebbles will work, as well. Blackjacks are mainly useful to overcome somebody without permanent harm – for example, to knock out a guard or stun a kidnapping target. This requires aiming for the head. In an extremely realistic campaign, the victim often will suffer a concussion . . . $20, 1 lb.

Knife (TL1)

There are dozens of styles available to operatives, and many low-tech fighters carry several.

Daggers (TL1) have short blades, 4" to 8" in length, with handles slightly shorter than the blade. They are designed for thrusting attacks, and the blade is often narrow enough to pierce mail; many can also be thrown. Thick-bladed daggers can be used to spike doors open or closed.

Punch or *push knives* (TL1) are T-shaped, with the hilt at 90° to the blade. When the fist is closed over the hilt, the blade projects from between the fingers, making it an extension of the arm. Many forms of this weapon have appeared over the times and around the world; the most famous are the *katars* (see p. CII27) originating in India with Sikh warriors. A WWII punch knife commonly issued to British secret agents consisted of a single narrow pick mounted on a contoured metal grip. They are nearly identical to knives, with -1 cut damage and +1 thrust damage. $40, 1 lb.



Glass blades (TL4) are somewhat cinematic, hollow-bladed, single-use glass daggers, as favored by Milady de Winter in *The Three Musketeers*. They are designed to break *in* the target, and always break on a failed attack roll. One may be thrown at -2 to hit. In a modern setting, a glass dagger would be invisible to a metal detector. They can be filled with poison, acid, or other biological agents; see pp. 73-78 for sample contents. 4× cost, 0.5× weight.

Stilettos (TL4) are small, concealable knives, designed especially for stabbing, narrow in width and thick in cross-section. They can also be thrown. Maximum damage 1d+1.

Slide and *switchblade knives* (TL5) have 0.5"- to 1"-wide blades, sharpened along one or both edges and the point, that spring or slide out of a case handle at the push of a button. Favored by some street criminals, they are useful for quick stabs and slashes. Most are very small and flimsy, and of no use for parrying. In addition, all but the most expensive ones can easily snap even while attacking.

Tactical folding knives (TL7) are small knives that skilled wielders can unfold using only the thumb of the holding hand. Depending on size, treat as a dagger, small, or large knife, at -1 swing damage and half normal weight. Like most TL7 blades, many are Fine quality.

Advanced Materials

At higher TLs, more advanced knife variations become available. This starts with simple improved materials: *Good* weapons are available at TL5 for half the price listed in the ***Basic Set***. At TL7 *good* weapons drop to cheap prices (0.4× normal cost), fine weapons are available for *good* prices, and *very fine* weapons for *fine* prices. At TL8 a new class of materials appears, *super-fine*, adding +3 to damage and costing 20 times the normal cost. In addition, more advanced technologies are applied to blade weapons:

Ceramic Blade (TL7): Knife blades can be made of ceramics that can't be detected with magnetic metal detectors (p. 94) – but they still show up clearly on X-ray machines. Treat as *very fine* quality for purposes of damage; they are very sharp. They retain their edge until the material chips, but ceramic chips easily; treat as *cheap* quality for purposes of breakage. 3× cost, 0.5× weight.

Fiberglass Blade (TL7): A blade made of epoxy-bound fiberglass is difficult to detect, like the *Ceramic Blade* above, and very cheap. However, it loses its edge very quickly (-2 cutting damage) and is so light that it gives -3 to Parry – it is for killing only. 0.3× cost, 0.3× weight.

Other high-tech materials, such as some plastics, can also be used (see p. CII24), but cannot be better than *good* quality.

Sandwich Blades (TL7): These consist of two sheets of durable steel sandwiched around a dense but fragile core. At TL7 this is steel surrounding tungsten carbide; this gives the blade +2 damage to swing and thrust, and armor protects at one-half normal. Because of the limitations of the manufacturing process, these blades are considered Cheap quality for breakage. 100× cost and doubled weight.

At TL9, the core sheet can be made from synthetic diamond, which gives the blade +3 damage to swing and thrust; armor protects at one-third of its normal value. The blade has 20 hit points, and loses 1 hit point on any combat usage against anything with a rigid DR of 4 or more. This type of blade appears in knife size only. 100× cost (halve at TL10) and normal weight.

Memory Blades (TL8): See *Smart Materials*, p. 57.

Sword (TL1)

Shortswords are small enough to be reasonably concealable (-4 to Holdout). The oldest shortswords date to the Bronze Age (TL1) and were purely stabbing weapons. Later weapons, such as the Japanese *wakizashi* (TL3), add a cutting edge. Both it and the longer katana are nobleman's weapons; a ninja playing the role of a samurai may carry them and be skilled in their use. (In some periods, non-samurai can carry the wakizashi, see p. J36, and *Ninja-to*, below.)

Disguised Blade (TL5)

Sword Cane (TL5): These date from the early 19th century. Smallsword dueling had fallen out of fashion due to its lethality, but many gentlemen still felt the need to defend themselves or their honor. Sword canes were a useful option; fashionable gentlemen of the period carried a cane that could be as much as 4' long, allowing for a long and straight blade of up to 3' in length. An operative playing the role of a gentleman may find such a weapon convenient.

The majority of sword canes were smaller blades, with smallsword and dirk canes being the most common. Smallsword canes were narrow blades 2' to 3' in length, which should be treated as one quality step lower than they are due to their decreased size. Also, due to the lack of guard and the smallsword styles of the period, a gentleman fences at full skill, but parries at -1. A sword cane costs three times the normal cost for the weapon of its type and quality.

Dirk canes contained a large or long knife, usually single-edged, and again, usually one quality category lower than paid for. Cost and weight remain the same as for a sword cane. By the late 19th century, the dirk cane was far more common and the sword-umbrella's curled handle allowed a gentleman to fence with a smallsword cane in safety, no longer requiring the parry penalty.

By the 20th century, a sword cane is hard to come by outside antique fairs and usually illegal to carry, as it is, by definition, a covert weapon.

Example: A "good" quality smallsword typically costs $400. A sword cane with a smallsword therefore costs $1,200, but the blade is actually of cheap quality.

"Pen" Knife (TL6): These are small, sharp blades concealed within a pen or other innocuous object. They are mainly used for close-quarters stabbing, such as piercing a victim's throat when he's already in a choke hold. Treat as daggers in combat. (These have nothing to do with historical penknives, which are small pocket knives once used to sharpen a quill.) Costs three times the normal dagger cost.

The Ninja-to

In modern martial-arts fiction, the ninja's sword, or *ninja-to*, is a 3' version of a Swiss army bayonet (p. HT100) – part deadly weapon, part multipurpose tool (p. 35). No historic sample of such a sword has ever been recovered. Although ninja certainly employed swords, it is more likely they used conventional weapons, either wakizashi or "merchant's swords," which were wakizashi-length blades with katana-sized handles.

The modern interpretation of what a ninja-to *should* have been can easily be grafted into a fantasy or cinematic ***Martial Arts*** campaign. Treat the ninja-to as a shortsword, generally of *Good* or even *Cheap* quality, allowing the ninja to make it himself with limited resources. The scabbard can serve as a snorkel (p. 54) or blowgun (p. 65), and its cord can be employed as a garrote (pp. 61-62) or to pull the weapon up after stepping on the sheathed sword to get over a wall. Additional throwing weapons, such as shuriken (p. 65), can be fitted to the handguard, removable with the flick of a wrist, or small throwing darts hidden in compartments in the scabbard. The removable scabbard tip can hold small items such as poison, powder, or explosives.

Improvised Weapons

Sometimes it's not possible to carry any sort of weapon into the field. Instead, an operative may need to turn whatever's at hand to lethal use. Some operatives may even prefer such improvised weapons (see *Trademark*, p. 20).

In general, improvised weapons can be treated as somewhat clumsy variants on standard melee weapons; most of these weapons are at -1 to the relevant weapon skill due to awkward balance and/or poor grip. A toolbox, kitchen, garage, or basement is a deadly armoury to an imaginative killer:

Box or Carpet Cutter (Knife-1): A short handle with about an inch of blade at one end. These TL7 tools were relatively inconspicuous and cheaply and commonly available, at least prior to the aircraft hijackings on Sept. 11, 2001. Today they are classified as knives. They can only slash; treat as a very small knife. Damage is swing-4 cutting (maximum 2 points) and 1/20 cost. Since their blades are *designed* to break – on a 1-5 on a 1d roll, guaranteed against DR 2+ – the wielder may try to break it on purpose *inside* his victim: if the tip is left in place, HT rolls to avoid bleeding are at an extra -2. Box cutters cannot parry. Holdout +4. $2, 0.25 lb.

Broken Bottle (Knife-1): A glass bottle with the bottom smashed against a hard surface to provide a cutting edge. Requires 1 second and a DX or Brawling roll to prepare; a failure inflicts swing cutting damage on the user's hand. Damage is thrust cutting; maximum damage is 1d+2. Can parry, but only once. Holdout -1. Usually free with a Scrounging roll, 0.5 lb.

Chainsaw (Two-Handed Axe/Mace-2): Must be started before it can be used, which takes at least 2 seconds; makes a significant noise when started, and an even louder one when the saw is engaged. Used two-handed, min ST 12, one turn to ready after an attack or parry. Damage is swing+1d cutting; crippling damage to a limb amputates it. If parried by or used to parry a metal weapon, roll 1d. On 1-2, the person holding the metal weapon is disarmed. On 3-4, the chainsaw stalls. On 5-6, the chain snaps, destroying the saw and whipping the wielder for 3d cutting damage to a random hit location. (This same effect can turn spiking trees from ecosabotage into manslaughter.)

Electrical Cord (Garrote-1): Treat as a garrote. Holdout +4. Usually free with a Scrounging roll, negligible weight.

Hammer (Axe/Mace): Treat as a small, light mace with a smooth head. Damage is swing crushing. Carpenters' hammers often have a "claw" for drawing nails; reversing the hammer to strike with the claw gives -1 to skill but +1 to crushing damage. Throwable at -1 to skill. Holdout -1. $10, 2 lbs.

Hatpin (Knife-1 or Fencing): A hatpin is nearly useless in open combat, but can be effective in a surprise attack. Treat as a very small dagger with no grip. Damage is thrust-2 impaling; maximum damage is 1d-1 (with a minimum of 1). Hatpins cannot parry. Holdout +5. $1, negligible weight.

Hypodermic Needle (Knife-1): Treat as a very small dagger. Damage is thrust-3 impaling; maximum damage is 1d-2 (minimum 1). Normally used to inject a drug or poison. Hypodermic needles cannot parry. Holdout +4. $2 disposable, $10 reusable, negligible weight.

Lead Pipe (Axe/Mace -1): Similar to a light club, but heavier and harder; min ST is 13. Damage is swing+3 crushing. Holdout -4. Usually free with a Scrounging roll, 5 lbs. Lead pipes are more common in older buildings than newer ones; copper pipes tend to bend with the abuse of combat, and the modern plastic PVC pipes are not particularly effective weapons.

Nail Gun (DX-2): Technically a missile weapon, but accurate only at Close range (same hex). Damage 1d+1 impaling. Number of shots varies. Cannot parry. Holdout -2. $25, 3 lbs.

Piano Wire: One end is wrapped around a dowel held in the closed fist; the other protrudes out between the middle and ring fingers. Equivalent to a *Hatpin* (see above), but normally used in a specialized attack against the pericardium (see *Pericardial Attack*, p. 25).

Pipe Wrench (Axe/Mace-1): Treat as a large, awkward mace with a smooth head. Damage is swing+2 crushing. Holdout -3. $25, 5 lbs.

Power Drill (Knife-1): Treat this tool as a very awkward knife. Damage is thrust+2 impaling; may get stuck (see p. B96) but can be freed in 1 second without a ST roll by putting the motor in reverse. Without power, usually will still serve as a light club. Cannot parry in either usage. Holdout -2. $25, 3 lbs.

Rope (Garrote): Treat as a garrote. Also see p. 61.

Scissors (Knife-1): Treat as a small knife. Damage is thrust-1 impaling; maximum damage is 1d+1. Actually using them as scissors gives an extra -1 to skill, but damage is swing-1 cutting (maximum 1d+1). If opened, can be used to parry. Holdout +3. $10, 0.5 lb.

Screwdriver (Knife-1): Treat as a dagger; damage is thrust-2 impaling and maximum damage is 1d. Screwdrivers cannot parry. Holdout +3. $5, 0.5 lb.

Straight Razor (Knife): A common household tool at TL5, but went largely out of use during TL6, replaced by the safety razor. Treat as a small knife with very fine blade. Damage is swing-2 cutting; maximum damage is 1d+2. It can't be used for stabbing or parrying, and because of its fragility, it breaks easily. Holdout +4. $30, 0.5 lb.

Ranged Weapons

Blowpipe (TL0)

Used in many cultures across the world, the blowpipe is an effective personal weapon. The standard blowpipe is a hunter's weapon, usable at up to 4×ST yards; the *fukiya*, used by ninja, is an easily concealable hollow tube 2' to 3' long that can fire either bamboo slivers or powders. Darts fired from either sort are usually poisoned, commonly with curare, fugu, poison ivy, glory lily root, or a blood-and-dung mixture (see pp. 73-76).

Bow (TL0)

Bows are fairly silent weapons, and thus useful for short-range assassinations. The half bow or *hankyu* (TL3), used by ninja, was designed to be hidden in the sleeve of a kimono, with a cloth quiver of 12 arrows in the other sleeve.

See p. HT100 for more powerful TL7 compound bows.

Throwing Knife (TL1)

These are evenly balanced, so they turn at a predictable rate, making throwing at different ranges as easy as possible. Modern purpose-made throwing knives tend to be single pieces of steel between 7" and 18" long, weighing between 0.15 and 1.5 lbs. Treat as daggers, small knives, large knives, or long knives (also see pp. 62-63). All weigh three-quarters as much as a normal knife and do -1 to swing damage.

Crossbow (TL3)

A single, well-placed crossbow bolt can easily kill a man. This is convenient, as an operative likely does not have time to fire a second bolt before being discovered. Crossbows are powerful weapons, but are awkward to use and carry and take 4 turns to ready. As an assassin's weapon, a crossbow is most useful when fired from concealment and abandoned. During WWII, Allied undercover agents used crossbows as assassination tools; today, they are still in use with various special-ops units for silent kills.

The Chinese even developed a repeating crossbow, the *chu-ko-nu*. With several bolts inserted into a rack, it can fire as fast as the user could cock it; for optimal speed, it is normally limited to a ST no greater than the user's.

See p. HT100 for TL7 compound crossbows as well as underwater spearguns.

Shuriken (TL3)

The shuriken, or throwing star, traditionally used by ninja, is a tiny flat piece of metal with multiple points radiating out in all directions. It's easily concealed (+5 to Holdout) and light enough to be carried in large numbers. Sets of nine are common. It does relatively little damage; for best effect it should be targeted at a soft point such as the eyes (-9 to hit), throat (-5 to hit), or groin (-3 to hit). See p. CII53 for effects. It can be coated with poison.

Handheld shuriken give +2 damage to Karate or Brawling attacks in melee.

Black Powder Weapons

All these guns use Black Powder Weapons skill. See ***GURPS High-Tech*** and ***Age of Napoleon*** for more designs.

European agents had access to black-powder firearms by the 15th century; the first successful black-powder assassination killed William of Orange in 1584. In Europe, pistols came into common use with the wheellock about 1600. A ninja might carry a matchlock; the Japanese did not adopt the wheellock or flintlock (see below). An easily concealed pocket pistol is well suited to covert use. Black-powder rifles allowed attacks at longer ranges, but were rarely used for this work.

Pistoru, .60 Black Powder Matchlock, Japan, about 1560 (Holdout -3): Matchlock pistols like this were used in Japan with few modifications from the 16th century to the 1850s.

Pocket Pistol, .50 Black Powder Wheellock, Europe, about 1575 (Holdout 0): A fairly small weapon, much more concealable than most contemporary firearms.

Jägerstutzen, .85 Black Powder Wheellock, Europe, about 1600 (Holdout -6): Hunting rifles like this were very popular in central Europe for some time, less bulky than contemporary rifles but reliable and accurate. Scouts and snipers were often armed with such weapons.

The Lupara

Lupara is Italian for "gun for wolves" and describes the type of large-bore, double-barreled, sawed-off shotgun popular in Italy with hunters, shepherds, and mafia hitmen (who often were shepherds). Vendetta killings and other assassinations by mafiosi usually involved firing both barrels point-blank into the back of the victim's head, ensuring a kill. Use stats of the Ithaca Hammerless Double (see pp. B209, HT112) or Remington Model 32 (see p. CL93), with Holdout -3, or the generic Lupara in ***GURPS WWII: Grim Legions*** (see p. W:GL26).

"Kentucky" Rifle, .45 Black Powder Flintlock, America, about 1750 (Holdout -9): This is a generic design that was widely used for both hunting and combat in 18th century North America. While not a sniper rifle, it is long-ranged, hard-hitting, and quickly reloaded – features that were exploited against the British during the American Revolution.

Deringer, .44 Black Powder Caplock, USA, 1850 (Holdout +2): A single-shot caplock weapon of the easily hidden type made famous by gunsmith Henry Deringer. John Wilkes Booth used one to kill President Abraham Lincoln.

Firearms

Following are some metallic-cartridge firearms (TL5+) likely to be found in the hands of assassins, bodyguards, spies, and counterintelligence agents. See pp. B208-209, ***GURPS Cops, High-Tech, Modern Firepower, Special Ops,*** and the ***WWII*** line for many more guns. ***GURPS Ultra-Tech*** and ***Ultra-Tech 2*** contain futuristic weaponry.

Pistols and Revolvers

Easy to carry concealed under normal clothing, small, light handguns are ideal for self-defense *and* close-range assassination. In cinematic games, operatives carry pistols like these to prove that finesse trumps brute force . . . in real life, it is more important that they don't show under a business suit. The archetype (but far from first) of this kind is the Walther PPK (see pp. B208, HT108, and W96), which is still widely used, as are many foreign-made copies and clones. More powerful, but still easily concealed handguns include the Glock 26 pistol (see p. MF20) or S&W Model 19 Magnum revolver with a 2.5" barrel (see p. HT110).

Larger service pistols are typical of the sidearms issued to bodyguards, counterintelligence officers, and security forces. For example, FBI agents currently (2003) field the Glock 22 (see pp. C63, HT109), U.S. INSCOM officers have the SIG-Sauer M11 (P228, see pp. C63, SO114), Chinese security forces use the NORINCO 59 Shi (a copy of the PM Makarov, see pp. C63, SO113), German MAD military counterintelligence officers the H&K P7 (see p. HT109), Israeli *Shin Bet* agents the Glock 17 (see pp. B208, HT109), Russian FSB agents the TsNIITochMash SR-1 (see p. MF19), and the Pope's Swiss Guards the SIG-Sauer P225 (use the P229 in 9×19mm, below, with Wt 2, Awt 0.4, Shots 8+1).

Smith & Wesson #1, 5.6×11mmR (.22 Short), USA, 1857 (Holdout +1): The S&W #1 was the very first easily concealed metallic-cartridge revolver, chambered for a small round only useful at close range. The entire cylinder has to be removed for reloading, and each case punched out one by one (2 seconds to prepare for unloading, 1 second per round to unload, 2 seconds per round to reload, and 2 seconds to reassemble). From 1865, it was also available as the #1½ in .32 Short (Dam 1d-, Shots 5).

Webley Bulldog #2, 11.2×16mmR (.442 RIC), Great Britain, 1878 (Holdout 0): This is a stubby double-action revolver with short 2.5" barrel and cut-down grip, to make it concealable. During the late 19th century, such weapons were very popular for self-protection and widely copied in Europe and the United States. Similar weapons were made in .44 Bulldog (Dam 1d+), .450 Adams, and .455 Webley (the latter are both Dam 1d+2+).

FN-Browning Mle 1910, 9×17mm (.380 ACP), Belgium, 1910 (Holdout 0): One of the earliest successful self-loading pistols, common in Europe in the first half of the 20th century and thus easily obtained. Gavrilo Prinzip used such a weapon in the 1914 assassination of the Austro-Hungarian Archduke Franz Ferdinand (p. 15).

High-Standard HDMS, 5.6×16mmR (.22 LR), USA, 1944 (Holdout -2): Developed during WWII for use by special-ops soldiers and secret agents (see p. W:HS19), this is a sound-suppressed version of a commercial target pistol (-3 to hear to the +16 of the round for a net +13, p. 69). It was used by U.S. special-ops soldiers during the Vietnam War and is still in service with certain units in small numbers. Similar weapons have been used by mafia hitmen and other professionals for a long time. Virtually identical pistols are still made by various manufacturers.

The Troika Pistol

In the 1950s, the Soviet KGB surprised Western agencies with this unique weapon. It was a small hideaway gun chambered for the unique 7.65×17mm Troika cartridge. In place of a magazine, it had a replaceable barrel cluster that inserted into the weapon from above. The cluster consisted of three preloaded over-and-under barrels with integral sound suppressors (Acoustic Signature +14, p. 69). After all three barrels had been fired, the cluster had to be replaced. Three different types of projectiles were available, a normal bullet, a hollow-point (HP) bullet (see pp. B209, C64, HT7, and MF4), and a poisoned projectile (p. 73) containing one dose of cyanide (the poison does 4d of damage; see p. 74). The pistol fired electrically (see p. MF37); a commercial 9V battery went into the grip. The weapon was hand-made in small numbers in the workshops of the KGB.

In the 1970s, a plastic, throwaway version appeared. It could not be reloaded and was unsuppressed (Acoustic Signature +18). However, since it was electrically fired, it could be built with very few metal parts – the largest being the battery, which could be concealed in another, more mundane item (-2 to detect with a metal detector). This plastic Troika was used by Arab plane hijackers.

Izhmekh PSM, 5.45×18mm, Russia, 1973 (Holdout +1): A very small pistol, streamlined for concealed carry (+1 Fast-Draw). It is widely used by Russian, Bulgarian, and some other Eastern European security forces. The round has good armor penetration (divide DR by 2) but poor stopping power (divide damage by 2 after penetration).

Charter Arms Pathfinder, 5.6×16mmR (.22 LR), USA, 1976 (Holdout 0): A cheap revolver popular with people that want *some* gun for protection – or attack! – but can't afford something better. Similar weapons were once common as back-up guns with police officers. There are dozens of virtually identical makes and models – the stats can also be used for the Röhm RG-14 Hinckley fired at President Reagan (p. 70), or the Iver Johnson Cadet used by Sirhan Sirhan on Senator Kennedy.

TsNIITochMash PSS Vul, 7.62×42mm, Russia, 1983 (Holdout +1): A concealable pistol that fires special silent ammunition (p. 70). The Acoustic Signature of the weapon is very low at +12, and no suppressor is required (p. 69). The PSS was adopted by Russian spies and special-ops units.

Resin Gun, 9×29mmR (.38 Special), n/a, 1993 (Holdout +2): As seen in the film *In the Line of Fire*, this double-barreled derringer consists of homemade injection-molded resin parts and a powerful spring. Metal detectors can find only the spring and cartridges, which can be hidden in everyday objects such as a ballpoint pen or keychain. Holdout is for the assembled weapon; taken apart, Holdout is +5. Assembly and loading takes 30 seconds. Designing and making such a weapon requires at least two Armoury (Small Arms)-4 rolls, plus an unmodified Hobby (Kit-builder) roll. Such a "plastic" gun is illegal, of course.

SIG-Sauer P229, 9×22mm (.357 SIG), Germany/Switzerland, 1998 (Holdout 0): A reliable pistol currently in service with a number of agencies, notably the U.S. Secret Service (pp. 120-121) and Sky Marshals. It is also available in .40 S&W (Dam 2d+1+, 1/2D 150, Max 1,850) and 9×19mm (Dam 2d+1, 1/2D 150, Max 1,850, Shots 13+1); the latter is the standard weapon of German federal agents assigned to the *BKA Sicherungsgruppe* (security group), which protects the chancellor and other dignitaries.

Sniper Rifles

The weapons of choice for long-range, outdoor assassinations are sniper rifles – at least in cinematic campaigns. In realistic games, these weapons are more usually found in the hands of the military or police SWAT teams, as well as countersniper teams of protective services.

Mannlicher-Carcano Moschetto Modello 38, 6.5×52.5mm Mannlicher, Italy, 1938 (Holdout -6): Infamous for its role in the assassination of JFK (p. 120), this was the standard bolt-action carbine used by the Italian army during WWII (see p. W:GL27). The Mod 38 is not particularly suited to the sniper business, but was easily obtained post-WWII and very cheap. Lee Harvey Oswald paid $21.45 including postage and the fitting of an inexpensive Japanese 4× scope.

Remington Model 700, 7×64mm Remington Magnum, USA, 1962 (Holdout -6): The Remington Model 700 is a very popular bolt-action hunting rifle. Many versions are in service with police and military snipers (such as the U.S. Army's M24; see pp. C64, SO116). Most use it in 7.62×51mm NATO (Dam 7d, 1/2D 1,200, Max 4,200). The U.S. Secret Service (pp. 120-121) acquired it in the more powerful and longer-ranged 7×64mm Remington Magnum chambering. It comes with a 3.5× to 10× variable scope.

Crutch Rifle, 5.56×35mm (.22 Hornet), n/a, 1963 (Holdout -5): A hand-built rifle that can be hidden in a crutch if disassembled, as seen in the film *The Day Of The Jackal.* The Holdout applies to the crutch or the assembled weapon; to see how the crutch comes apart or guess its purpose requires a Vision-4 roll. It has a 4× scope and sound suppressor, giving -6 to hearing (AS +21, for a net +15, p. 69). Since it is single-shot, this becomes +14. It usually fires hollow-point rounds.

Walther WA2000, 7.62×66mmB (.300 Winchester Magnum), Germany, 1982 (Holdout -6): Reportedly one of the most accurate sniper rifles ever designed. It is a bullpup weapon literally built around a heavy, free-floating barrel. It has a fully adjustable wooden stock with thumbhole grip, a folding bipod (+1 Acc for aimed shots when prone), and a 2.5× to 10× variable-power scope. Production ceased in 1989, and only 65 had been custom-made to individual orders – plus 91 in 7.62×51mm NATO and 7.5×55mm Swiss (Dam 7d, 1/2D 1,200, Max 4,200). Current collector's price is $12,500 and up. Given its aura – James Bond used one in *The Living Daylights* – the WA2000 makes a good choice for a cinematic assassin.

RAI Model 500, 12.7×99mm (.50 Browning), USA, 1983 (Holdout -8): To reach out to *really* long ranges, or to get that extra punch to pierce heavy body armor or lightly armored vehicles, many rifles are chambered for heavy machine gun rounds. The Barrett Model 82 series (see p. HT115) is the most common, the McMillan Model 88-series (see p. SO116) one of the most accurate, and the Mechem NTW20 (see p. MF27) one of the most powerful of these weapons, but the RAI Model 500 holds the distinction of being the first purpose-designed sniper rifle in this class. It is a single-shot, bolt-action weapon with folding bipod (+1 Acc for aimed shots when prone) and an 8× to 24× variable-power scope. It can be quickly assembled or disassembled (Guns skill roll and 6 seconds), and its major parts are Holdout -5. It is commonly used with match (+1 Acc, see p. MF6) or armor-piercing ammo (Dam 8d(2); see pp. B209, HT7, MF6, or VE188). It was marketed as the Iver Johnson AMAC 500 from 1988 to 1993.

Accuracy International AW Covert, 7.62×51mm NATO, United Kingdom, 1990 (Holdout -5): A modern bolt-action sniper rifle that is part of a large family of weapons (see p. MF24), this comes with a 3.5× to 10× variable-power scope, folding bipod (+1 Acc for aimed shots when prone), and integral full-length baffle sound suppressor (-4 to hear, Acoustic Signature +18, for a net +14, p. 69). The stats assume subsonic ammunition (p. 70); with full-power ammo, use Dam 7d, Acc 12+3, 1/2D 1,000, Max 4,200, and Acoustic Signature +21, for a net +17 to hear. With the stock folded and the suppressor unscrewed, it can be carried inconspicuously in a small hardshell suitcase. This weighs 28 lbs. including rifle, two magazines, a box of 20 rounds, and a cleaning kit.

Automatic Firearms

Automatic firearms are popular weapons; they don't require much skill and allow an attack on several people at the same time. In the 1930s "gangster era," the Thompson submachine gun and Browning Automatic Rifle (see pp. HT118, W96) were popular choices. Since the 1960s, the AK-47 and its variants (see pp. B209, HT114, and SO115) are probably the most common automatic weapons, because of their availability, low cost, and high reliability. As they are rather bulky and obvious, both professional assassins and bodyguards often opt for something more discreet, such as a machine pistol.

Sometimes, however, overwhelming firepower is needed. Short of antitank rocket launchers (such as the RPG-7, widely popular even with some street criminals; see pp. HT122, MF33, and SO121), there are monster guns capable of penetrating any armored limo . . .

Auto-Ordnance M1921 "Tommy Gun," 11.43×23mm (.45 ACP), USA, 1921 (Holdout -5): The famous submachine gun designed by John Thompson has excellent sights and is quite accurate in single-shot mode (Acc 8). Feed devices include 20-round box magazines ($3 each) and 50-round drums ($21 each; Wt 15.6, AWt 4.9, Holdout -6). A 100-round drum is available, but unpopular due to increased weight and bulk (Malf 16, Wt 19.2, AWt 8.5, Holdout -7). The M1921 has two pistol grips and the shoulder stock is detachable, making the weapon more concealable (-2 Acc and Holdout -4 without stock). There is even a shoulder holster available for it ($16.50, 1 lb.), which takes the gun (with the stock detached) and four magazines – a wide trenchcoat is needed to conceal this rig. It is also offered as a suppressed weapon with a full-length sound suppressor (-4 to Hearing for a net Acoustic Signature of +16) made by the Maxim Silent Firearms Co.

The Thompson was popular with U.S. law-enforcement agencies from the 1920s to the 1960s, but soon acquired a reputation as a gangster weapon, stemming from several incidents, the most widely known being the 1929 St. Valentine's Day Massacre in Chicago. The three guns used had been purchased by Al Capone in a local sporting shop.

H&K MP5K, 9×19mm Para., Germany, 1976 (Holdout -3): The *Maschinenpistole 5 Kurz* is a chopped-down variant of the MP5 submachine gun (see pp. B209, C64, HT116, and SO117) without stock. It is normally used with a 30-round magazine, but a shorter 15-round magazine (AWt 0.7) is available. The gun is so small that it can be conveniently carried in a special shoulder holster (p. 69). The MP5K was designed for and widely adopted by bodyguards and special-ops forces.

The MP5KA1 has the sights removed for a quicker draw from below a jacket or coat (+1 Fast-Draw). With a short 15-round magazine, it has these stats: Acc 3, Wt 5, Holdout -2.

H&K offers a special hardshell briefcase (p. 35) that holds the weapon in a quick-detach mount. A trigger and a safety are incorporated in the carrying handle, so that the gun can be remote-fired through a hidden port from within, the spent cases being collected inside. When fired from the case, the full snap-shot penalty is always applied. $1,600, (*excluding* gun and ammo), 14.85 lbs. (*including* the loaded gun and a spare 30-round magazine). It can be removed from the case in 1 second.

Sanvik XXII, 5.6×16mmR (.22 LR), Philippines, 1985 (Holdout -2): Despite markings claiming it was made by "Sanvik of Sweden," this machine pistol, based on the Ingram MAC-10 (see p. HT116), was designed and mass-produced in the Philippines by unknown, underground gunsmiths. It is a genuine black-market item made for criminals only. While local terrorists cherish its rate of fire, professionals like its ease of sound suppression due to the light round and the threaded muzzle prepared for a suppressor (-4 Hearing, Acoustic Signature +16, for a net +12; $200, +1 lb., p. 69). Single shots have Rcl -1, full-auto Rcl -3, or -2 if using both hands.

Glock 18C, 9×19mm Para., Austria, 1995 (Holdout -1): This is a machine-pistol variant of the Glock 17 (see pp. B208, HT109), with an integral muzzle compensator to keep recoil down. Single-shot fire has Rcl -1, full-auto fire Rcl -4, or -3 if using both hands; short bursts are advisable. The Glock 18C can use the standard 17-round magazine, or optionally a 19-round (AWt 0.65) or a 31-round (AWt 1.1) version. The larger one increases Holdout to -2. Its real tactical use is limited, but its cinematic appeal is obvious. A tiny targeting laser can be installed ($500, no weight, p. 69). It can even be prepared to take a quick-detach baffle sound suppressor (-4 Hearing, Acoustic Signature +20, for a net +16; $400, +1 lb., p. 69).

Lucznik CSU-33, 14.5×114mm, Poland, 1996: A heavy machine gun with an electrically powered action, which requires a battery or vehicle power source to function. It is mounted on a 20-lb., carbon-fiber tripod or vehicle mount and fires APSDU ammunition (p. 71). This is a fictional weapon like the one seen in *The Jackal*.

Laser (Late TL7)

Laser weapons as portrayed in science fiction, including the laser pistols and rifles on pp. B208-209, are still speculative. The energy output needed to burn a hole in a human body, let alone an armored vehicle, is difficult to achieve with current laser technology. Getting it into a man-portable package that's durable enough to carry around a battlefield is impractical. A different approach is technologically feasible: building low-powered laser weapons to blind enemy troops. Such weapons are often regarded as inhumane – one reason they haven't gone beyond pilot projects – but this would make them all the more effective in producing terror.

A dazzle laser designed for this kind of attack can be modeled as one of the laser rifles on p. B209; however, its power is too low to inflict actual damage. Instead, on any hit to the eyes – location 5 from the front (see p. B211) – roll vs. HT, at +5 if the target is wearing antiglare goggles or antilaser-coated shades (p. 36). If he is looking through an optical magnifier such as a telescope, apply the smaller of its two Vision bonuses as a penalty on this roll. A failed roll indicates the wearer is blinded; roll as for crippling injuries to recover. Lasers can also blind optical and infrared sensors; treat such sensors as having HT 15. Power comes not from futuristic power cells, but from conventional batteries with the same weight.

An offshoot of this is the *laser flashlight* or *laser dissuader*, which can dazzle and temporarily blind a target. It is the size of a flashlight and wielded exactly like one. The cone of green laser light, least harmful to the retina, can temporarily blind anybody failing a HT-3 roll, with the same modifiers as for a dazzle laser. There is no chance of permanent blindness. It has SS 10, Acc 6, Max 110 (in daylight)/550 (at night), Wt 1, $5,500. Its four AA batteries last for 1 hour of continuous use. Cost will likely fall to $100 at mid-TL8.

Blinding or simply dazzling the operator of a vehicle, especially an aircraft, can lead to a fatal accident.

Accessories and Customizations

Disguised Firearm (TL4)

Almost any object can be adapted to hide a small pistol. Skinny items, such as pens and cigarettes, hold only one shot. Larger items can contain a normal magazine. Items that have been used to conceal small-caliber guns include belt buckles, books, cameras, cell phones, cigarettes, combat knives, flashlights, gloves, lipsticks, and pens. During the 1950s and '60s, the CIA made a cigarette-sized weapon firing a single .22 LR round, and for a time U.S. Sky Marshals were armed with a flashlight loaded with a single 12-gauge shotgun shell. Larger items, such as briefcases, often contain submachine guns. These can be fired without opening the case (see the *H&K MP5K*, p. 68). All disguised guns are inaccurate because of the lack of proper grips and sights, giving the shooter -3 to Guns skill; the smaller ones also usually have Acc 0. A disguised casing adds around 100% to the price of a gun.

Concealed Holster (TL5)

A pistol holster designed to be worn concealed under clothing, most are of molded leather or synthetics. Typical positions are grip forward under the armpit ("shoulder holster," -1 to Fast-Draw skill), in the trouser waistband grip upward under the strong arm ("FBI holster"), in the trouser waistband grip upward under the weak arm ("crossdraw holster"), on the small of the back (-2 to Fast-Draw skill), or on one of the ankles (-4 to Fast-Draw skill). Effect on Holdout skill varies with quality. A standard holster has no effect on Holdout and costs $50; a good holster is +1 to Holdout and costs $100; a custom-made holster is +2 to Holdout and costs $200. 1 lb.

Brass Catcher (TL6)

A brass catcher is a container temporarily installed over the ejection port of a semi- or full-automatic firearm, to prevent the spent cases from flying off and leaving telltale cases on the scene of a shooting. Modern brass catchers are usually made of a hard plastic shell or a soft bag, and take 60 to 100 cases of rifle ammo or 20 to 30 cases of pistol ammo. $30, 0.5 lb. for a rifle, 0.25 lb. for a pistol, -1 Holdout. As a field expedient, a MRE pouch (see p. SO107) can be taped to the gun.

Sights and Scopes (TL5)

Telescopic Sight (TL5): Established in the late 19th century and common in the 20th, a scope adds +1 Acc to aimed shots for each doubling of magnification. For a typical sniper scope between 4× and 8×: $50, 4 lbs. at TL5; $50, 2 lbs. at TL6; and $150, 2 lbs. at TL7+. See pp. HT102, MF13 for more details.

Light-Intensifying Sight (TL7): See p. 46.

Thermal Weapon Sight (Late TL7): See p. 46.

Targeting Laser (TL7): Commercial targeting lasers ("laser sights") debuted in the early '70s, but were very bulky, heavy, and expensive. By the late 1980s, they were available for firearms of any size, including handguns; by the 1990s, they were miniaturized to the size of a fingertip. A targeting laser projects a lighted dot on the target; this gives +2 to Accuracy and decreases the snap-shot penalty to -1 up to 50 yards away and -2 at 51-100 yards. Weight for a late-TL7 model is negligible; cost is $200 at TL7, $100 at TL8, $50 at TL9+. No effect on Holdout. See p. MF14 for more details.

Head-Up Display (TL8): A HUD sight is linked to a display in a helmet or set of goggles by a short cable. The display projects a targeting box showing where the gun is pointing; this gives -2 to SS (-5 at TL9 and higher). If a targeting laser is also being used, the display projects range information as well. $500 at TL8, $250 at TL9, $125 at TL10+, negligible weight.

Sound Suppressor (TL6)

A sound suppressor muffles gunshot noise, caused by the sonic boom of the explosive gases and, often, the projectile. A suppressor confines and slows one or both of these before they leave the barrel. This also hides the muzzle flash. Though often called "silencers," no suppressor completely silences a gun.

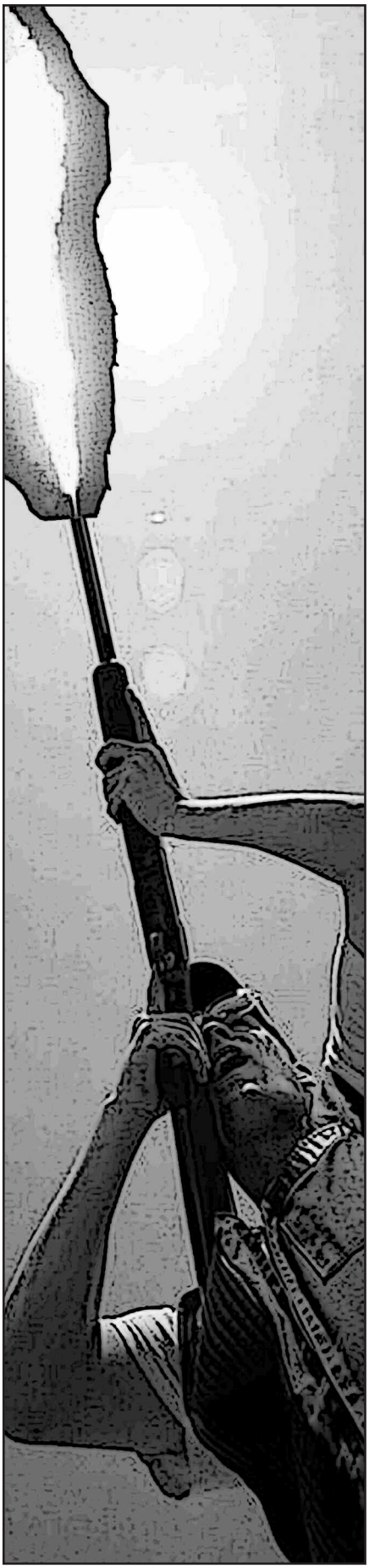
To hear a gunshot, use the following roll: IQ + Hearing Bonus/Penalty + Acoustic Signature + Range - Background Signature. Bonuses or penalties to Hearing include the Acute Hearing and Alertness advantages, and the Hard of Hearing disadvantage. The Acoustic Signature is given with the weapon, as is the modifier of the suppressor (most give -2 to -6). Background noise ranges from 0 (rural area at night) to -10 (very busy street) to -20 (jet engine), and above. Range penalties are as per p. B201. If the shot is not fired in the direction of the listener, subtract -3. Indoors, a +2 bonus is applied. For detailed rules, see pp. MF15-17.

Suppressors are most effective with sealed breeches, such as bolt-action or single-shot weapons. They are moderately effective on semi- and even full automatics, but these weapons frequently lose some high-velocity gas from the breech and have the noise of the action working. Some dedicated suppressed firearms have a slide-lock to address the latter. This gives a further -1 to Hearing rolls, but limits RoF to 1.

Most modern sound suppressors do not reduce damage, but are not as effective as older constructions. (Old-fashioned suppressors give better results, but reduce damage; multiply damage and ranges of pistol-caliber weapons by 0.66, of rifle-caliber weapons by 0.5.) Further sound reduction can be achieved by using subsonic ammunition (p. 70).

Modern suppressors for pistols are small in size and good for hundreds of shots. A typical commercial model (-4 to Hearing rolls) is about $400: $300 for the suppressor and $100 for the specially machined barrel threaded to take it. It weighs 0.5 lb. for pistols up to .40 caliber, 1 lb. for larger calibers (like .45 ACP). Compact suppressors cost twice as much, but are half as heavy. U.S. civilians must pay a $200 federal transfer tax to buy a suppressor where legal; about a third of states classify them as illegal (LC 1). Any armorer with the proper tools can make an average-quality suppressor (-3 Hearing); this requires an Armoury (Small Arms) roll and takes two hours. See p. MF17 for more detail.

Improvised suppressors are common. The classic pillow held tightly between gun and target is -1 to Hearing), and the 2-liter plastic bottle packed with Styrofoam peanuts (one shot per bottle only) is -2 Hearing, -1 Acc, and Malf -1.



Ultra-Tech Weapons

Science-fiction settings often feature new forms of ranged weaponry. In a future setting, rayguns, blasters, or lasers may be in common use – gangsters, policemen, and spacemen all carry them, and secret operatives have special advanced versions. The ultra-tech weapons in ***GURPS Basic Set*** (see pp. B208-209) fit this pattern; they're cheap, portable, and reliable enough to be issued to ground forces. In a present-day technothriller, elite agents may be provided with experimental models, or villainous masterminds may have heavy industrial models available. GMs may adjust performance accordingly.

One way to do this is to enforce realistic energy storage. Realistic TL8 batteries weigh about 10 times as much as TL8 power cells (see p. UTT13). Keeping battery weight the same while dividing shots by 10 produces much less desirable weapons. Prototypes may also be finicky, requiring rolls against Armoury, at TL8 or 9, to prepare the weapon for each shot.

For a wider choice of weapons than in ***Basic Set***, see ***GURPS Ultra-Tech*** and ***Ultra-Tech 2***. Lasers and needlers are particularly useful weapons for assassination, while stunners are good for kidnappings.

Exotic Ammunition

Exploding Ammunition (TL5): Exploding projectiles for small arms were invented in 1822. They were declared illegal for use against humans under the St. Petersburg declaration on land warfare in 1868, but only European nations signed it. In the 1930s, exploding ammunition re-appeared in rifle calibers, intended for target observation. Fired from aircraft machine guns, the rounds explode on impact, creating a flash and puff of smoke to indicate a hit to the gunner. They also have an incendiary effect – treat as a flame attack if hitting a flammable component, such as the gas tank (see p. VE184). Such ammunition was also used by Soviet snipers in WWII. Explosive content – typically black powder, lead azide, or mercury fulminate – is generally *very* small. In small arms, they are no more effective than hollow-point (HP) rounds (see pp. B209, C64, HT7, and MF4). Use Armor Divisor (0.5); roll 1d – if the result is equal or less to TL-2, the round explodes, *doubling* any damage that penetrates DR. Ignore blow-through (see p. B109). Military exploding rounds are usually illegal for civilians (LC 1), but some are LC 4 in the USA – the 1981 assassination attempt on President Reagan (p. 66) was made with a commercial brand of exploding .22 LR rounds. 2× cost.

Poison Ammunition (TL5): Poison ammo fires a bullet with a cavity designed to introduce a poison into the victim. It was used at least as early as the 1860s in the U.S. Civil War, but internationally banned in 1899 by the Hague Convention, which the United States did not sign. A number of designs were in service during WWII, employed by agents of organizations such as the OSS, British SOE, German Abwehr, and Soviet NKVD. Treat as a hollow-point (HP) bullet (see above): It has Armor Divisor (0.5), and objects lacking DR get DR 1. Damage that penetrates is multiplied by 1.5. Low-velocity HP rounds such as those fired from handguns or submachine guns may fail to expand; roll 1d, the round expands on a roll of TL-3 or less. (Modern HP is more likely to expand than older designs.) *In addition*, the effects of a dose of poison apply. Suitable poisons include aconite (see p. CII137 and p. CII146 under *Wolfsbane*), botulin toxin (p. 74), cyanide (p. 74), and ricin (p. 75). Poison ammo has to be hand-loaded, which requires the Armoury (Small Arms) skill. LC -1, 4× cost.

Subsonic Ammunition (TL6): Subsonic ammunition has a muzzle velocity below the speed of sound (1,086 fps at sea level), which lowers sound signature and increases effectiveness of sound suppressors (p. 69). Some handgun chamberings, such as 5.45×18mm, .32 ACP, .380 ACP, 9×18mm Makarov, .45 ACP, and a few unusual rifle chamberings are already subsonic and don't need this option. Others, like the .22 LR, 9×19mm Parabellum, and most rifle rounds, are supersonic and

benefit from subsonic ammunition. Subsonic loads have less power, range, and accuracy. Subsonic handgun ammunition is -1 to hear, -1 Acc, and range is multiplied by 0.8. Subsonic rifle loads are -3 to hear, -2 Acc, Dam is multiplied by 0.6, and range is multiplied by 0.4. LC 4, normal cost.

Flame-Discharging Ammunition (TL7): These gimmicky shotgun shells, marketed as "Dragon's Breath," fire a cone of white-hot phosphorus, forming an instant flamethrower. This inflicts 1d fire damage in a cone stretching 6 yards from the gun muzzle and 2 yards wide at the far end. The shooter rolls once for each target in the area, hitting or missing independently of the other targets. Currently only available for shotguns, but it can be made for single-shot grenade launchers as well. It should not be used in semiautomatic weapons, or fired faster than 1 shot per second in other weapons, as the shell continues to discharge flames for about 3 seconds. Such ammo has been experimented with since the 1960s, but never reached common service, as its effectiveness is very limited and the rounds eventually ruin the weapon. It is commercially available in the United States. LC 2, 10× cost.

Silent Ammunition (TL7): "Silent" rounds employ special cartridges that trap propellant gases (and much of the noise) inside the case, the projectile being propelled by a piston. This lowers the sound of firing considerably and eliminates muzzle flash and smoke, reducing danger of detection. Silent ammunition has an acoustic signature (AS) of only +12 (p. 69), but damage and range are *halved.* Silent ammo can *only* be used in special weapons designed for it. It has been introduced for a number of handguns since the early 1970s, including the 7.62×42mm round fired by the PSS Vul (p. 66). LC 1, 4× cost.

APSDU (TL7): An armor-piercing round firing a saboted sub-caliber projectile with depleted uranium (DU) core for increased penetration, this also is pyrophoric (which means it counts as a flame attack, per p. VE184) if penetrating metal armor. Multiply basic damage by 1.5. APSDU gets an armor divisor of (2) and damage multiplier 0.5. Both the United States and Russia have experimented with APSDU in small arms since the 1980s, but nothing has been introduced into service to this point. LC 0, 6× cost.

Weapon Tables

See pp. 123-127 of ***GURPS High-Tech,*** *Third Edition,* for format notes.

Blackjacks

Weapon	*Type*	*Damage*	*Reach*	*Cost*	*Wt.*	*Min ST*	*Hold*	*TL*
Blackjack	cr	thr	C	$20	1	7	0	0
	cr	thr+2	1,2					

Garrotes

Weapon	*Type*	*Damage*	*Reach*	*Cost*	*Wt.*	*Min ST*	*Hold*	*TL*
Garrote, monowire	cut	+1d (10)	*	$300	–	–	+5	9
Garrote, rope	cr	thr	C	1	–	–	+3	2
Garrote, wire	cut	thr	C	5	–	–	+4	3
	cut	sw-3	C,1					

Swords

Weapon	*Type*	*Damage*	*Reach*	*Cost*	*Wt.*	*Min ST*	*Hold*	*TL*
Ninja-to	cut	sw/sw+1	1	$200	2	7	-5	3
	imp	thr	1					
Sword cane	imp	thr+1	1	$200	1.5	–	0	5

Knives

Weapon	*Type*	*Damage*	*Reach*	*Cost*	*Wt.*	*Min ST*	*Hold*	*TL*
Stiletto	imp	thr-1	C	$20	0.3	–	+3	4
Vibroknife	cut/imp	+1d (5)	*	+$200	–	–	–	8

Crossbows

Weapon	*Type*	*Damage*	*SS*	*Acc*	*1/2D*	*Max*	*Cost*	*Wt.*	*Hold*	*TL*
Chu-ko-nu	imp	thr+2	10	4	ST×15	ST×20	$500	10	-5	2

Bows

Weapon	*Type*	*Damage*	*SS*	*Acc*	*1/2D*	*Max*	*Cost*	*Wt.*	*Hold*	*TL*
Fukiya	Spcl.	Spcl.	10	1	–	ST×4	$30	1	+2	3
Hankyu	imp	thr	12	1	ST×10	ST×15	$600	2.5	-2	3

Shuriken

Weapon	*Type*	*Damage*	*SS*	*Acc*	*1/2D*	*Max*	*Cost*	*Wt.*	*Hold*	*TL*
Shuriken	imp	thr-1	8	1	ST-5	ST	$3	01	+5	3

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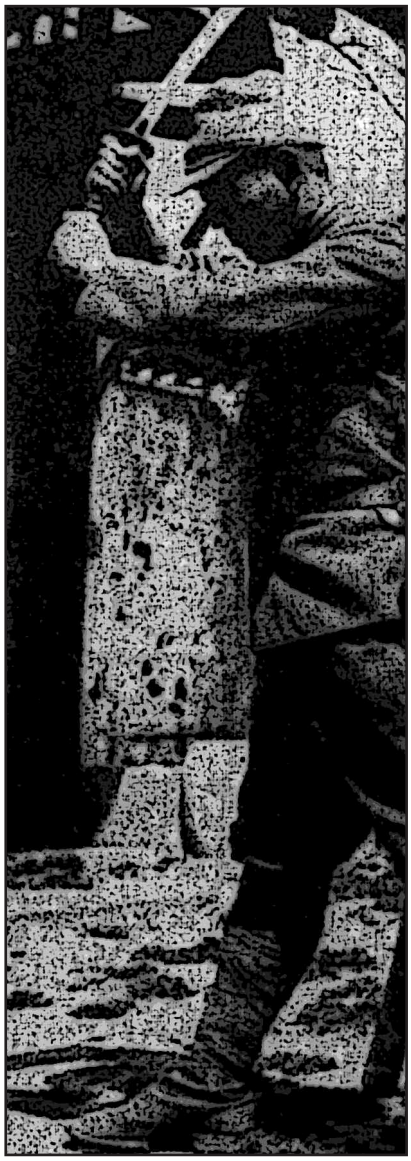


Weapon Tables (Continued)

Black Powder Pistols

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
Pistoru, .60 Matchlock	14	1d+	12	1	40	400	3		1/60	1	10	-2	$30/–	4
Pocket Pistol, 50 Wheellock	14	1d+	11	1	40	300	1		1/60	1	10	-3	$200/–	4
Derringer, .44 Caplock	16	2d-1+	10	1	10	300	0.5		1/20	1	11	-2	$10/–	5

Black Powder Rifles

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
Jägerstutzen, .85 Wheellock	14	4d++	12	7	150	1,000	12		1/90	1	12	-3	$800/–	4
"Kentucky" Rifle, .45 Flintlock	14	5d+	15	7	400	2,000	7		1/40	1	10	-2	$40/–	5

Revolvers

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
S&W No. 1, .22 Short	Crit.	1d-2-	10	1	40	900	1	0.04	1	7	6	-1	$10/–	5
Webley Bulldog No. 2, .442 RIC	Crit.	1d+2+	10	1	140	1,600	2.1	0.25	3~	5	11	-2	$12/–	5
Charter Arms Pathfinder, .22 LR	Crit.	1d+1-	10	2	125	1,500	1.5	0.05	3~	6	7	-1	$75/$125	6

Semiautomatic Pistols

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
FN-Browning Mle 1910, 9×17mm	Crit.	2d	10	2	140	1,800	1.6	0.3	3~	8+1	8	-1	$15/–	6
High Standard HDMS, .22 LR	Crit.	1d-	10	3	50	600	2.5	0.4	3~	10+1	7	-1	$75/$750	6
KGB Troika, 7.62×17mm	Crit.	1d-	10	0	20	500	1.3	0.4	3~	3	8	-1	$300/–	7
Izhmekh PSM, 5.45×18mm	Crit.	1d (2)	10	2	75	1,100	1.1	0.2	3~	8+1	7	-1	$75/$150	7
TsNIITochMash PSS Vul, 7.62×42mm	Crit.	1d+1-	10	1	20	120	1.9	0.6	3~	6+1	8	-1	$250/$300	7
Resin Gun, .38 Special	Crit.	2d	10	0	120	1,500	0.6	0.07	2~	2	9	-2	n/a	7
SIG-Sauer P229, .357 SIG	Ver.	3d-2	10	2	160	2,000	1.7	0.5	3~	12+1	10	-1	$900	7

Machine Pistols

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
H&K MP5K, 9×19mm	Crit.	2d+2	10	4	150	1,850	5.5	1.2	15*	30+1	10	-2†	$800/$1,200	7
Sanvik XXII, .22 LR	Crit.	1d+1-	10	3	125	1,500	2	0.5	16*	30	7	-1†	$600/$750	7
Glock 18C, 9×19mm	Crit.	2d+2	10	3	150	1,850	1.9	0.6	21*	17+1	9	-1†	$820/$980	7

Submachine Guns

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
Auto-Ordnance M1921, .45 ACP	Crit.	2d+1+	10	6	180	1,700	12	1.2	13*	20+1	11	-2	$225/$1,200	6

Rifles

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
Mannlicher-Carcano M38, 6.5×52.5mm	Crit.	6d	12	7	500	3,000	7.5	0.3	1/2	6+1	11	-2	$40/–	6
Remington Model 700, 7×64mm	Ver.	7d+2	15	12+3	1,400	5,500	13	0.25	1/2	4+1	12	-2	$500/$1,000	7
Crutch Rifle, .22 Hornet	Crit.	3d	13	8+2	400	2,500	3.5	0.025	1/4	1	9	-1	$3,000/–	7
Walther WA2000, 7.62×66mmB	Ver.	8d+1	14	13+3	1,300	5,000	17.4	0.9	3~	6+1	12B	-2	$5,000/–	7
RAI 500, .50 Browning	Ver.	11d+1	17	13+4	1,500	7,100	30.2	0.25	1/4	1	13B	-4	$5,000/$9,000	7
Accuracy Int. AW Covert, 7.62×51mm	Ver.	4d	15	10+3	400	1,700	15.2	1	1/2	10+1	11B	-2	$4,200/$5,000	7

Machine Guns

Weapon	Malf	Damage	SS	Acc	1/2D	Max	Wt.	AWt.	RoF	Shots	ST	Rcl	Cost	TL
Lucznik CSU-33, 14.5×114mm	Ver.	6d×4 (2)	20	15	2,000	8,500	121+20	35	23*	50	53T	-1	$20,000	7

Ammunition Weights and Costs

Handguns and SMGs

Round	WPS	CPS
5.45×18mm	0.011	$0.2
5.6×11mmR (.22 Short)	0.007	$0.02
7.62×17mm Troika	0.018	$1
7.62×42mm	0.053	$1
7.65×17mm	0.018	$0.2

Handguns and SMGs

Round	WPS	CPS
9×17mm (.380 ACP)	0.021	$0.2
9×19mm Parabellum	0.026	$0.3
9×22mm (.357 SIG)	0.029	$0.4
9×29mmR (.38 Special)	0.033	$0.3
11.2×16mmR (.442 RIC)	0.05	$0.4

Rifles and Machine Guns

Round	WPS	CPS
5.56×35mm (.22 Hornet)	0.025	$0.3
5.6×16mmR (.22 LR)	0.0077	$0.03
7×64mmB Rem. Magnum	0.064	$1.5
7.62×51mm NATO	0.055	$1
12.7×99mm (.50 Brown.)	0.25	$1.5

Poisons

Some poisons are used in their natural forms, whether animal, vegetable, or mineral. Others are extracted by a variety of techniques. The development of synthetic chemistry at TL5 made an enormous variety of new poisons available. The list provided here is only a small sample.

This book offers expanded and more detailed rules for the use of poisons; these do not replace the existing rules (see pp. B132-133 and CII137-149), but supplement them.

The basic concept of the existing rules is that of a dose of poison. One dose inflicts a specified number of dice of damage; in many cases, but not all, a HT roll either reduces the number of dice or avoids the damage entirely. A victim who suffers enough cumulative damage, from poison and other causes, must roll vs. HT to avoid death (see p. B126). Some poisons only inflict damage once; others continue to inflict further damage until they are purged from the system (represented by a HT roll), or for a fixed period of time. Some poisons have other harmful effects in addition to damage to hit points.

But what if the poisoner wants to administer multiple doses? Sometimes this just isn't possible. An animal's bite or sting can only inject a certain amount of venom; a blade treated with poison only holds a certain amount. But a poisoner can put three doses of cyanide into his target's coffee as easily as one. What happens then?

The primary effect is simple: multiple doses multiply damage. Roll the dice for a single dose and multiply by the number of doses. If the victim gets a HT roll to resist, make a single roll for all the doses; if a success means reduced damage, multiply the reduced damage for one dose by the number of doses. For example, a double dose of cyanide inflicts 4d×2. (Gases follow different rules for higher concentrations; see p. S101.)

Multiple doses have a greater chance of detection, either by the victim or in a clinical or post-mortem examination.

Smell and Taste

A person exposed to a respiratory poison may smell it; a person dosed with a digestive poison may taste it. Make a Sense roll to do so, based on the higher of IQ or Poisons and modified by Alertness, Acute Taste and Smell, and any specialized advantages that apply. Modify for the intensity of the poison's smell or taste: +2 if strong, +0 if moderate, -2 if faint, and no roll for a completely odorless or tasteless poison. For multiple doses, apply a further modifier: +3 per added dose if strong, +2 if average, or +1 if faint. For example, a triple dose of cyanide, which smells faintly of almonds, has a modifier of -2 for the basic odor and +2 for the triple dose, totaling 0.

A Cooking skill roll can disguise a poison's taste; see p. 21.

Laboratory Tests

Starting at TL5, chemical tests become available for traces of poison in a corpse. Roll against Forensics, Pathology-1, Diagnosis-3, or Chemistry-5. Modifiers: -5 without a proper laboratory; -5 for a rare or obscure poison; +1 per additional dose of poison after the first.

Tests for various poisons became available at specific historical dates. Realistically, a poison cannot be identified before a suitable test has been devised; in a cinematic campaign, such a poison may be defined as "rare or obscure," with success indicating that the investigator has developed a new test.

Ease of Concealment

Another concern for poisoners is how much poison is needed to kill a victim. A lethal dose of methanol (wood alcohol) is about half a cup; it can be found on a body search, it's hard to manipulate inconspicuously, and a person who swallows it or is injected with it is likely to notice. A lethal dose of botulin is measured in micrograms; it avoids all these problems.

To reflect these differences, poisons have modifiers for Holdout (to hide them on the poisoner's person) and Sleight of Hand (to use them unobserved while others are watching).

Methods of Administration

Variety in poison-delivery methods can make an assassin's career. If every mysterious death in the area involves cyanide-laden waffles, someone's going to figure it out, but investigators may be confounded by seemingly unconnected deaths.

Specialized poisoning equipment includes gloves with hidden needles, plastic-covered cord for dripping liquids, rings with secret compartments for stealthy poisoning of wine, hollow needle-tipped rings for poisoning handshakes and embraces, hollow darts and a blowgun for firing poison lancets, gelatin capsules for making deadly medicine, and weak-tipped bone knives soaked in poison (see also *Glass Blades* on p. 62). Both as a cover and for the use of the additional equipment, apothecary, chemistry, cooking, gardening, and physicians' tools are recommended.

In some cases, poisons can be used in their whole or natural state. A victim can be impaled with an oleander branch, fed amanita mushrooms, or given hellebore cigarettes.

DMSO

Dimethyl sulfoxide (TL7), a solvent derived from wood pulp, is remarkable mainly because it can carry many other substances through the skin. In game terms, a DMSO dose allows any normally injected or ingested drug to function by contact. It is inexpensive: a gallon, enough for hundreds of doses, costs $40.

The Formulary

The following poisons are available in various historical periods. This list includes mostly fairly common poisons, which are cheap, easily found, and not easily traced; one can order blue ringed octopus venom from reputable biomedical supply firms, but when the pathologist finds traces during the autopsy there would be inconvenient inquiries. Toxicity ratings are given for all poisons; for digestive and respiratory poisons, modifiers to Smell/Taste rolls to detect them are also given.

For medical treatments, see pp. 76-77.

Antimony (TL3) has effects quite similar to those of arsenic. It is usually administered as tartar emetic, a medicinal substance sold in the Victorian era and used, among other things, as a sedative. It has a slight bitter taste: -2 to Taste rolls, +1 per added dose. Holdout rolls are at +2; Sleight of Hand rolls are unmodified. $1.

Arsenic trioxide (TL1), the usual toxic form of arsenic, is a white powder that acts as an ingested poison, or a respiratory agent if breathed. The main symptom is severe abdominal pain if ingested, or a cough, runny nose, and laryngitis if inhaled. After 1 hour, it causes 1d damage. After each additional hour, roll vs. HT; a failed roll results in 1d additional damage and requires further rolls against HT, continuing until a roll succeeds. Arsenic is retained in the system; for each 1d of damage that is rolled, reduce DX and HT by 1 *permanently*. Arsenic trioxide has no taste. Holdout rolls are at +4; Sleight of Hand rolls are at +2. $1.

Atropine (TL5) is the main toxin in belladonna (*Atropa belladonna*) and jimsonweed *(Datura stramonium*), and is a digestive or blood poison. The natural plants are also digestive poisons (TL0). Symptoms include dry mouth, blurry vision, racing pulse, delirium, seizures, and coma. Causes 1d damage in 1 minute if injected or 15 minutes if ingested, and the victim is at -4 DX and -2 IQ. Roll vs. HT-2 every 15 minutes at a cumulative -1 to HT until 5 hours have passed or the victim dies; each failed HT roll causes an additional 1d damage. After effects cease, roll vs. HT to avoid permanent loss of 1 HT; this roll is at +2 if a physician is in attendance. Like most alkaloids, atropine has a distinct bitter taste: no modifier to Taste rolls, +2 per additional dose. Holdout rolls are at +2; Sleight of Hand rolls are unmodified. $20 per dose.

Physostigmine (TL7) is a last resort in cases of massive atropine poisoning. Roll vs. HT; on a critical failure it causes cardiac arrest, but on any other roll it stops further damage.

Barbiturates are a class of synthetic compounds derived from barbituric acid; the basic compound is TL5, but the useful derivatives are TL6. Effects occur within 30 seconds if injected, or within 30 minutes if ingested. Overdoses depress heart action and respiration, and also induce coma. Roll vs. HT every 5 minutes; each failed roll means -1 to HT, and death results if HT falls to -HT. In nontoxic doses, barbiturates are addictive and withdrawal can be fatal (-10 to withdrawal rolls). No modifier to Taste rolls; +2 per additional dose. Holdout rolls are at +4; Sleight of Hand rolls at +2. $50 per dose.

Botulin toxins are produced by *Clostridium botulinum*, a bacterium that can develop in food under anaerobic conditions – oxygen is toxic to it. The need to culture the organism under anaerobic conditions makes production of the toxin difficult, but it is now manufactured as an alternative to cosmetic surgery. The toxins are digestive, producing symptoms in 2d hours. Roll vs. HT-2; if the roll succeeds the toxin does 4d damage, but if it fails the victim dies in 1d/2 days (round up). Cannot be detected by taste. Holdout rolls are at +6; Sleight of Hand rolls are unmodified. $200 and up.

Carbon monoxide is an inhaled poison that acts by bonding to hemoglobin, blocking oxygen transport in the blood. Initial symptoms are headache, drowsiness, and mild confusion; roll vs. IQ-2 to realize something is wrong. Roll vs. base HT every 10 minutes; each failed HT roll costs 1 IQ, DX, and HT. Reducing IQ to 0 causes loss of consciousness; reducing HT to 0 causes suffocation (see p. B122). Cannot be detected by smell. Not normally purchased; can be produced by incomplete combustion of charcoal (TL1) or in the exhaust fumes of an internal-combustion engine (TL6).

Chlorine (TL5) is toxic at concentrations as low as 0.005%. Roll vs. HT-2 on exposure and every minute thereafter. Each failed roll inflicts 1 hit and -1 Vision, as eyes burn and water. After 2 hits, convulsive coughing begins, with -3 to DX until clean air is reached. If damage equals half of HT or more, roll vs. HT-4 to avoid permanent blindness, and roll vs. HT-4 to avoid 1d of permanent HT loss from lung damage.

Cobra venom is extracted by "milking" a snake's venom sacs, which is a TL0 trick (roll vs. Animal Handling). If you are using the rules on pp. CII147-149, treat this as a Type B venom. Cobra venom is normally a blood agent, but can be poisonous if swallowed, as well. Anyone injected is at -2 DX for three days, and must roll against HT-6 immediately, and then again for the next three days. Failure causes 2d damage within 1 minute for the initial roll, or on rising for the later rolls; critical failure means instant death. In addition, the victim is at an additional -2 DX after any failed roll. No modifier to Taste rolls; +1 per additional dose. Holdout rolls are at +2; Sleight of Hand rolls are unmodified.

Curare is the active element in a poisonous Amazonian vine, *Strychnos toxifer,* used by tribal cultures to make poisoned blowgun darts (TL0); the pure substance was extracted in the 19th century (TL5). The injected drug weakens and paralyzes the muscles, eventually including the heart and respiratory muscles. Roll vs. HT-6 to resist the effect. Success leaves the victim at -5 DX and -5 ST for 15-HT minutes (minimum 1 minute). Failure results in total paralysis, and requires a roll vs. HT to continue breathing. If this second roll fails, apply the suffocation rules (see p. B91). A suffocating person can be kept alive with a First Aid-2 roll every half hour, and recovers on a HT roll, also every half hour; critical failure on either of these rolls indicates death in 1d minutes. Note that curare does not cause unconsciousness – this was discovered the hard way during experiments with its use as a surgical anesthetic! Holdout rolls are at +6; Sleight of Hand rolls are at +4. A combination of atropine, above, and neostigmine is an antidote for curare, but takes 30 minutes to work. $5 per dose.

Cyanide (TL4) includes hydrogen cyanide, a respiratory poison that dissolves in water to form hydrocyanic acid, also called prussic acid (see box, p. 78), and potassium and sodium cyanide. These latter are digestive and blood poisons, while hydrocyanic acid is a digestive, blood, and contact poison. Causes 4d damage per dose immediately by inhalation or injection or after 15 minutes in contact or digestive forms; death is by cardiac arrest. Can be identified by a slight bitter almond flavor: -2 to Taste or Smell rolls, +1 per additional dose. Holdout rolls are at +6; Sleight of Hand rolls are at +4. $1 to $2 per dose.

Irradiated thallium, a high-tech digestive poison (TL7), is produced by exposing the poisonous metal thallium to intense radiation. After 1d hours, chemical toxicity inflicts 1d damage. Every 24 hours following, roll vs. HT (a successful Physician roll by an attending doctor gives +1 to this roll) to avoid radiological damage. On a failed roll, subtract 1 from ST, DX, and HT; reduction of any attribute to 0 means death. On a success, no damage is inflicted; on a critical success, the poison ceases to function and the victim begins to regain ST, DX, and HT at the normal rate for HT. The toxic dose is too small to be tasted. Holdout rolls are at +6; Sleight of Hand rolls are unmodified. $1,000 per dose.

Lacquer, the sap of the lacquer tree (TL1), can be used as a contact poison, applied to a surface that an enemy is likely to touch, such as a weapon hilt; it causes blistering and gives -1 DX for 1d days. It can also be used as a respiratory poison, either mixed with incense and burned in a closed room, or used as an ingredient in a nageteppo grenade (p. 58). Roll vs. HT+4 or take 1d damage; if the roll succeeds, DX is at -1d for 1d minutes due to itching and sneezing. Burning lacquer is easily smelled: +2 to Smell rolls, +3 per additional dose. Holdout rolls are unmodified; Sleight of Hand rolls are at -2.

Nerve gases (TL7) were developed from insecticides during WWII, but were still somewhat experimental until later. Victims can absorb nerve gas through breathing or contact; the only adequate protection is both a protective mask and a NBC suit (p. 88). Modern agents kill in minuscule quantities. Nerve gases can persist for as little as a few hours, but modern agents are often thickened, increasing persistence to days or weeks. Effects of poisoning include headache, vomiting, diarrhea, cramps, bone-breaking muscle spasms, and progressive respiratory paralysis leading to death by suffocation (see p. B91). Exposed victims take 2d damage per minute, reduce to 1d per minute for a critical success on a HT roll. Those who take over HT/2 damage continue to take damage even after they escape the gas. Atropine (p. 74) halts the effects of nerve gas, but is itself a poison and completely incapacitates the victim for 2d hours. Nerve gases in general cannot be detected by scent.

Ricin, a blood, digestive, or inhaled poison (TL5), is extracted from the seeds of castor beans (*Ricinus communis*). The natural seeds are also digestive poisons (TL0). Symptoms appear 8 hours after administration. Roll vs. HT-2 at this time; a failed roll indicates death in 7d+30 hours, a success limits damage to 3d. Survivors must roll vs. HT or permanently lose 1 HT to organ damage. A successful Physician roll by an attending doctor gives +1 to these HT rolls. No modifier to Taste rolls; +2 per additional dose. Holdout rolls are at +6; Sleight of Hand rolls are at +4. $1.

Staphylococcal enterotoxin B (TL6) is a toxin produced by the *Staphylococcus aureus* bacterium, the cause of common food poisoning. It is not particularly lethal, but it is incapacitating and lends itself to aerosolization. This makes it useful to "soften up" security around a tough target – few installations locate security consoles in the rest rooms! Those who breathe aerosol SEB must roll vs. HT-4. On a failure, symptoms appear in 2d hours. These include coughing, fever, chills, and headache. Victims who ingest the toxin orally suffer from nausea, vomiting, and diarrhea, instead. Those who eat or drink in an environment contaminated with aerosol SEB receive doses via *both* routes; make a separate HT-4 roll to avoid each set of symptoms. Symptoms persist for 1d days, during which the victim is -4 to all IQ and skill rolls. He must make a HT roll to exert himself physically (fight, run, etc.). Failure means he suffers a bout of weakness, dizziness, vomiting, etc., as appropriate to his symptoms. This leaves him stunned for 15 seconds, after which he may roll vs. HT once per turn to recover. Any critical failure to resist its effects means the victim collapses. He must make a HT roll once per hour. Failure means 1 point of damage. This continues until the victim rolls a critical success, a caregiver makes a Physician roll, 1d days pass, or the victim dies. There is no antidote for SEB, and immunization is ineffective. However, even the simplest precautions, such as surgical mask and gloves, offer complete protection. Cannot be detected by taste. Holdout rolls are at +4; Sleight of Hand rolls are at +2.

SEB is not currently being produced for commercial sale; it can be produced in a laboratory equipped for bacterial culture. Suitable apparatus takes up 1,000 cubic feet and costs $200,000. Each batch costs an additional $20, for raw materials. Roll vs. Biochemistry or Pathology. Alternately, it may be possible to get SEB on the black market; this is likely expensive (GM's call).

Strychnine is primarily a digestive poison, but the dust can be a respiratory poison (TL5). It occurs naturally in the dog button plant (*Strychnos nux-vomica*) (TL0). The effect is convulsive contractions of all the muscles at once, producing violent convulsions after 15 minutes, which cause 1 fatigue every 5 minutes; after ST reaches 0, the convulsions reduce HT at the same rate. The victim is also at -10 DX. In addition, roll vs. HT every 5 minutes once ST reaches 0; a failure indicates paralysis of the respiratory muscles and suffocation (see p. B91). After 2d hours the symptoms abate. The convulsions produce a distinctive facial expression, the *risus sardonicus;* rolls to identify cause of death are at +4. A strong bitter taste gives +2 to Taste rolls; +3 per additional dose. Holdout rolls are at +6; Sleight of Hand rolls are at +4. $5 per dose.

Tetrodotoxin is the active principle in the livers of fugu, a puffer fish native to Japan, in the skins and viscera of toadfish and porcupine fish, and in blue-ringed octopus venom, among a variety of other species. It acts as a digestive poison or can be used as a blood poison on arrows (TL0); the purified extracted form (TL6) can be injected or added to food. Symptoms begin with tingling and numbness in the lips, tongue, fingers, and toes, starting within 15 minutes after ingestion or within 1 minute after injection. These symptoms last for 2d minutes. Roll vs. HT-6 each hour for the next 1d hours. Success leads to weakness, with -5 DX and -5 ST. Failure results in paralysis, loss of consciousness, and 5d damage from heart and brain toxicity. Paralysis requires a roll vs. HT to continue breathing; if this roll fails suffocation results (see p. B91). Critical failure on the roll vs. HT-6 causes death within 1d minutes. It cannot be detected by taste; in Japan, where the fish is considered a delicacy, incorrectly prepared fish killed 3,000 people between 1955 and 1975. Holdout rolls are at +6; Sleight of Hand rolls are at +4. $50 per dose. In a Japanese setting, tetrodotoxin poisoning is familiar (+2 to identify cause of death) but may be mistakenly classified as accidental.

Arrows poisoned with raw toxin cause only 1d damage, and victims roll vs. HT-2 rather than HT-6 to avoid paralysis.

Binary Poisons

Binary poisons are a favorite of murder-mystery and adventure-story writers. A victim is dosed with two different substances, each harmless by itself, but which combine to create a lethal substance or effect. Nerve gases are often binary poisons, with two harmless gases combining to form droplets of lethal substances on the victims' skins. In preindustrial societies, such effects are more often fictional than real; without systematic pharmacological research, few such effects could be identified if they did occur. On the other hand, they have an obvious appeal as a plot device; an assassin can slip one component to his victim, then freely share the other component with him, thereby "proving" his innocence.

Realistically, the substances that make up binary poisons often are toxic separately, but are given in doses too small to do harm; when they are taken together, one substance enhances the toxicity of the other, or *potentiates* it. In the real world, such effects are called drug interactions, and pharmacists earn high salaries for guarding against them. For example, adding a nonlethal amount of a barbiturate to a meal can make a few after-dinner drinks as lethal as hemlock. Use the same rules as for death from barbiturates (p. 74), except that alcohol toxicity can be relieved by inducing vomiting (roll vs. First Aid; success allows a HT roll to recover) or pumping the stomach (roll vs. Physician). Successful treatment still inflicts 1d-3 damage from shock. Less-than-lethal doses may be harder to detect (-1 to skills used in lab tests; for smell or taste, -1 if faint, -2 if moderate, -3 if strong).

Venomous Animals

Why bother extracting the poison before using it? In an area with venomous animals, an assassin may find it convenient to drop a centipede, scorpion, spider, or snake into the target's bed, or hide it in his shoes, and wait for it to strike. (See the sidebars to pp. CI147-149 for several types of venom.) Roll vs. Traps to choose a place where the victim won't spot it in time, and vs. Animal Handling-2 to get the animal into place; a critical failure indicates that the handler is himself poisoned.

Medical Countermeasures

Medical treatment of poisoning is as old as civilization. With the rise of scientific toxicology in the 19th century, more systematic and effective methods became available. Roll vs. Diagnosis or Poisons to identify the poison that has been used; roll vs. Physician skill to administer treatment. No realistic treatment protects against all poisons (see *Universal Antidote*, p. 89), but the following measures work for broad classes:

Milk or *vegetable oil* to limit absorption of a digestive agent (TL1). +1 to HT rolls to avoid or reduce damage. Effective against antimony and arsenic. No Physician skill roll required.

Immersion in water for a prolonged period (TL2) can lower a poison's concentration in the blood; this is effective, for example, against arsenic and antimony. +1 to HT rolls after 6 hours; +2 after 12 hours.

Activated charcoal to limit absorption of a digestive agent (TL5). +1 to HT rolls for antimony, arsenic, or tetrodotoxin. +3 to HT rolls for atropine, barbiturates, or strychnine. *Geophagy* (eating clay) is a lower-tech equivalent (TL0); the large quantities of clay required may irritate the stomach (1d damage on a failed HT roll). No Physician skill roll required.

Gastric lavage to remove a digestive agent from the stomach (TL5). +2 to HT rolls if performed within an hour of ingestion. Effective against antimony, arsenic, atropine, barbiturates, and strychnine.

Intravenous fluids to stabilize a victim (TL5). +3 to HT rolls. Effective vs. antimony, arsenic, atropine, and barbiturates.

Oxygenation and supportive care for victims of carbon monoxide poisoning (TL5). Allows recovery of lost IQ, DX, and HT; if breathing has stopped, it must be restored manually or mechanically to prevent suffocation. Recovery rate is 1 per 12 hours for clean air, 1 per hour for oxygen, 1 per 30 minutes for hyperbaric oxygen. Consciousness returns when IQ reaches 1. For victims of cyanide poisoning, pure oxygen given immediately allows a roll against HT to reduce damage to 1d per dose. Roll at -1 per second of delay for inhaled hydrogen cyanide, or per minute of delay for ingested cyanide. This must be combined with injected antidotes (TL6). No Physician skill roll is required for clean air.

Sedatives and supportive care to control convulsions (TL6). Prevents further damage. Effective against atropine and strychnine. Supportive care alone has similar effects for barbiturates; sedatives are definitely undesirable in this case!

Chelation (amino-acid treatment) to remove poison from the bloodstream (TL7). Prevents further damage from antimony or arsenic. A 10-day chelation treatment prevents the development of chronic antimony or arsenic poisoning.

Mind Control

Mind control is a recurring theme in suspense fiction; controlling human behavior, erasing memories, and implanting false memories would be incredibly useful in keeping covert operations covert. Realistically, drugs and hypnotism have limitations; cinematic versions are often nearly irresistible. In an illuminated setting, an entire secret conspiracy may rely on hypnotically controlled agents with no conscious knowledge of their missions.

For a fairly realistic treatment, see the skill of Hypnotism on p. B56. Hypnotism can be used to suppress memories; treat this as a contest of Hypnotism skill vs. the subject's Will. Another hypnotist can try to restore memories, with Hypnotism skill modified by the margin of success in the original contest of skill. Unaided attempts to regain memory require a roll vs. Will modified by twice the margin of success. Telepathic powers can aid Hypnotism, if they exist: +2 to Hypnotism skill after successful use of Sleep or Telesend. Note that Mindwipe or Telecontrol makes Hypnotism unnecessary. Various drugs (see below) may make a subject more susceptible in the same way.

A more cinematic version of hypnotism may have greater effects. For profound effects on a single subject, allow purchase of the Mindwipe and Telereceive skills (p. B171) with Hypnotism at 15+ as a prerequisite. These take the stated times, but use speech rather than direct mental contact; the hypnotist need not have Telepathy power.

Drugs

Intelligence agencies have tested a variety of drugs as mind control agents, including LSD-25. None of them turn people into programmable robots. A brain in an altered state of consciousness is likely to be inconveniently unpredictable. Despite this, some drugs can be used to question or restrain a captive.

The barbiturates are one of the most useful classes of drugs for this purpose; sodium pentothal (thiopental sodium), first synthesized in 1939, is the one that appears most often in suspense fiction, being conveniently fast-acting. Depending on dosage, it can produce drowsiness, unconsciousness, or death (p. 74). Roll vs. Pharmacy, Physician, or Poisons to achieve the desired effect. If the subject is intended to remain conscious, he loses consciousness on a failed roll; on a critical failure, his heart stops. If the victim remains conscious, subtract the level of success from his Will roll to resist Hypnotism or Interrogation. However, *add* the level of effect to his Will for fright checks.

Fictional mind-control drugs can have more potent effects. A standard dose produces the same effects as Hypnotism, but requires no skill roll; the victim may attempt to resist by a Will roll at -5. Producing complex or delayed effects still requires the Hypnotism, Interrogation, or Psychology skill.

In general, the effects of these treatments are not cumulative – a person should only take the most advantageous treatment. However, intravenous fluids can be combined with gastric lavage or administration of activated charcoal, clay, milk, or vegetable oil.

Physical Agents

In addition to poisons, which cause harm by blocking or disrupting metabolic pathways, it's possible to feed someone substances that physically destroy the body in various ways.

Ground Glass

Glassmaking goes back to ancient Egypt and was a mature technology by 100 B.C. (see pp. LT38, LT61, LT87). Somewhere in its development, someone learned that feeding an enemy ground glass could cause serious pain and injury, even kill him. The sharp edges inflict numerous cuts on the digestive tract, leading to internal bleeding and, if that doesn't kill the victim, to a risk of infection.

The immediate effect of ground glass in the digestive system is 1d of impaling damage to the vital organs (hit location 17; see p. B203). Armor does not help. After this, apply the optional bleeding rule (see p. B130), even if it's not used for ordinary injuries. If this doesn't kill the victim, roll against HT-1 to avoid infection in the abdomen (see p. B134).

Corrosives

One of the accomplishments of medieval alchemists was learning to produce strong acids in concentrated forms. They became well known in the 19th century with the emergence of the chemical industry. At TL7, a vial of strong acid costs $10.

Facial Scars

Facial injuries may cause permanent scars, resulting in the loss of one or more levels of appearance. Attacks that inflict such injuries are an effective means of generating terror in prospective victims.

Any attack that inflicts HT/3 or more to the face is considered a crippling attack to the face (see p. B127). Roll for recovery as usual (see p. B129); a failure indicates a lasting or permanent reduction in Appearance by one level (Attractive becomes average, average becomes Unattractive, etc.). An attack that inflicts HT or more reduces Appearance by three levels, and anyone seeing the injury before it is treated must make a Fright Check (see pp. B93-94). Damage from corrosives, or thermal or electrical burns, is doubled for determining whether crippling injury has been inflicted.

What to Ask the Chemist For

Chemical terminology has changed several times over the millennium since the birth of alchemy. In a historical campaign, using the period names may enhance the historical flavor. Several sets of terms were in use at various times:

Medieval European alchemists (TL3) naturally used Latin names. *Aqua pura* was water; *aqua vitae* was (ethyl) alcohol; *aqua fortis* was nitric acid; *aqua regia* was a mixture of one part nitric acid with three parts hydrochloric acid, so called because it could dissolve gold, the "royal" metal.

Early chemists of the phlogiston era (TL4), before the discovery of oxygen, used unsystematic names in their national languages. In English, for example, *spirits of wine* were (ethyl) alcohol, *spirits of hartshorn* were ammonia water, *spirits of niter* were nitric acid, and *spirits of salt* were hydrochloric acid, while *oil of vitriol* was sulfuric acid.

Traditional chemists after the French Revolution (TL5) used modern general categories such as "acid," but names for specific compounds were less systematic; for example, *muriatic acid* was hydrochloric acid, and *prussic acid* was hydrocyanic acid (hydrogen cyanide).

After 1900, chemical names were gradually systematized; the standard names are generally used after 1950 (TL7 and above).

Strong acids act chemically, but not by interfering with the chemical pathways of the body – rather, they cause burns, destroying tissue on a large scale. Splashing acid on a victim causes 1d-3 points of damage; armor protects normally. Immersing a victim in acid causes 1d-1 damage per turn; armor protects, but its DR is reduced by 1 point per turn. Throwing acid in a person's face may cause blindness; on a failed HT roll, the acid burns the eyes, and if more than 2 points of damage are inflicted, the victim is blinded. Use the rules for crippling injuries (see p. B129) to determine whether the blindness is permanent. Acid may also cause facial scars (see box, p. 77).

Acid can be introduced into food. Generic corrosives cause pain on contact with the mouth; Sense rolls to detect them are at +4. Poisons skill includes knowledge of acids that can be disguised like other poisons. Swallowing such material causes 3d damage, at 1 point per 15 minutes. If vomiting is induced, add 1d damage to the esophagus. A successful Poisons or Physician roll can neutralize the acid; each attempt at treatment takes 2d minutes.

Killer Nano

A society that has achieved nanotechnology may use it as a weapon. Cleaner nano breaks any organic material down to simple molecules such as carbon dioxide and water; it affects living bodies as easily as dead ones, inflicting 1 point of damage per minute until the body is dissolved.

A subtler form of destructive nano could be designed to erase a victim's memories without destroying the brain. The result would be irreversible total amnesia.

Plagues

The idea of deliberately spreading diseases as a way to achieve mass destruction became plausible after Louis Pasteur developed the germ theory of disease during TL5; H.G. Wells used it in a short story, "The Stolen Bacillus." The first major experiments took place during World War II. The Japanese Pingfan Institute, with the cover name "Water Purification Unit 731," experimented with diseases dispersed by fragmentation bombs, ceramic canisters filled with bacteria, and sprays of infected fleas from planes. At TL7, bacterial and viral warfare developed into a mature technology, though fortunately no major power has yet used them in a war. In the early 21st century, deliberately spread diseases offer terrorists a lethal new weapon. The major barrier to their use remains the need for any given group to immunize their own forces, and perhaps their own civilian population, against infection. This is less of a problem for anyone fanatical enough not to mind the disease spreading to his own country.

The standard contagion rules (see p. B133) work for deliberately spread plagues. Practitioners of biological warfare are likely to choose particularly infectious agents, so on the average all HT rolls to resist contagion should be at a -1 penalty. Particularly nasty biological agents might have a much higher penalty.

Not all intentionally spread diseases target human populations. The Pingfan Institute experimented with fungal diseases of wheat, which would have done substantial harm to the United States and the Soviet Union, but very little to Japan. Wiping out food crops is less immediately terrifying than killing people, but famine can cause equal numbers of deaths.

Tailored Viruses

With the development of genetic engineering, it becomes possible to design a virus that only affects people with a specific genetic trait. At TL8, viruses can be targeted at obvious traits such as blond hair or blood type A. At TL9, complex combinations of genetic traits can be targeted, keying the virus to a single racial group, for example. At TL10, a virus can be targeted specifically at an individual, although it would also affect his clone or natural twin. Targeting usually requires a tissue sample from the target, though this is optional for single-trait targeting. Individually targeted viruses are a suitable weapon for assassins; group-targeted viruses are better suited to terrorists.

To create a tailored virus, roll against Genetics (Genetic Engineering). On a success, the virus's intended targets resist contagion at -1 to HT; other people resist it at +5 to HT.

Tailored viruses often have enhanced lethality. It's relatively safe to make them deadlier, since they aren't expected to kill the wrong people, and it's comparatively easy to enhance lethality while the genetic tailoring is in progress.

Demolition and Sabotage

Arson and Incendiaries

Operatives may set buildings, vehicles, or even a forest on fire to try to kill somebody outright – this is not a sure method, however, and the intended targets often manage to escape the flames if not trapped in the fire in some way. Fire is also highly visible and soon attracts attention, something usually avoided by assassins, but useful to terrorists. Fire as a killing tool is mainly used at low TLs.

Fire has the advantage that it destroys everything that is flammable and much that is not, melting and warping most metals, for example. This can be exploited by an operative to erase evidence of his actions – fingerprints, forced door locks, or even a corpse. By burning the body, the cause of death may be obscured. By faking an accidental fire, a murder may go unnoticed in the first place. While modern forensics make this increasingly difficult, fire is still useful to destroy evidence – including clothing, weapons, and getaway cars. If the temperature is high enough, a corpse may be totally destroyed, without any remains. This requires hot-burning materials such as thermite or kerosene, however – a wood fire is not enough.

Low-Tech Incendiaries (TL1)

The basic tool of the low-tech arsonist is the firebrand, or fagot. This is a rather specialized kind of torch, recognizable from its funnel shape, consisting of plaited straw, rushes, or brushwood soaked in oil, animal fat, or tar. These are designed to burn with a bright, hot flame and make it easier to set fires (2 points burning damage) than with candles or torches. A more peaceful use is as festive illumination. $2, 2 lbs.

Wood can be soaked in a solution of saltpeter to make it burn brighter and hotter.

Greek Fire (TL3)

Greek fire consists of naphtha – a light petroleum product distilled from crude oil, roughly similar to gasoline – mixed with fat or tar and saltpeter to make it sticky and burn hotter. Essentially, it is an ancient form of napalm. It can be filled in flasks or jugs and used like a Molotov cocktail (below).

Greek fire can also be loaded into hand siphons, which are used like primitive flamethrowers. The brass siphons have a handle at the rear that forces the naphtha mixture out of the muzzle, where it is ignited by a burning rag. A struck target takes 1d burn damage for 10d seconds if not covered in sealed armor; DR protects only at 1/5 its value. SS 17, Acc 0, Max ST-6, Wt 12, RoF 3~, Shots 4, ST 10, Cost $200.

Black Powder (TL4)

Loose black powder (p. 65) was a common incendiary from at least 1500 A.D. onward (the Chinese used it in warfare much earlier).

Molotov Cocktail (TL6)

A Molotov cocktail – first employed during the Spanish Civil War, but named after the Soviet defense minister during the Finno-Soviet Winter War (see pp. W98, W:FH34) – consists of a bottle filled with gasoline and a burning fuse, often just an old rag. The bottle bursts upon hitting a hard surface, spilling the gasoline, which is immediately ignited by the fuse. While there are many refinements to this basic recipe (e.g., including rubber to make the gasoline sticky), they all work the same.

Murder and Magic

One of the oldest uses imagined for magical spells was to kill enemies. Some anthropologists have written of tribal cultures that believed all deaths were due to magic; if someone died of a fever, or was killed by a predator, it happened because of an enemy's curse. And in a setting where magic works, some people inevitably use it as a murder weapon.

In ***GURPS,*** the rules for ritual magic include two paths that can harm an enemy: the Path of Health (see pp. SPI95-96) and the Path of Luck (see pp. SPI97-100). The Path of Protection (see pp. SPI101-104) offers rituals that can protect against some such attacks. The rules for mana-based magic include the College of Body Control (see pp. M25-28) and the College of Necromancy (see pp. M72-75) to inflict direct harm and the College of Protection and Warning (see pp. M76-78) to shield against it. Other rituals or spells provide less direct forms of injury and protection (see the magical assassin template on pp. WI24-27).

In a setting where people often die by spells and curses, fear and doubt are likely to be prevalent. Religious blessings intended to grant protection against magical harm, divinatory methods for finding the source of curses, and harsh punishments for magical killing are likely. Fraudulent cures and false accusations may be common, even if fairly reliable methods of investigation and protection are available, and even more so if they are not. Characters native to such a setting commonly have such disadvantages as Paranoia and Phobia.

A struck target takes 3d burn damage when hit, and then 1d burn damage per second for 10d seconds if not covered in sealed armor; DR protects only at 1/5 its value. Molotov cocktails are notoriously unreliable; roll 3d. On a 12+, it was not made properly, resulting in the fuse separating from the bottle, the bottle failing to break or break right, or the mixture failing to ignite. The main problem is the ignition method – burning rags are unreliable at best. Some users employ lengths of time fuse, which ensure ignition. Another method is to mix concentrated sulfuric acid with the fuel, and wrap the bottle in a paper towel drenched with a dried potassium chlorate/sugar mixture, which definitely goes up in flames when the bottle is broken. Cost is negligible; a bottle weighs 1 to 2 lbs.

Making Things Burn

For a detailed treatment of setting things on fire, use the following rules.

Materials are classified into six categories of readiness to burn. When a material is exposed to a heat source, it starts burning immediately if a sufficient amount of flame/heat damage is inflicted, as follows:

Category	*Examples*	*Damage required*
Class A (super-flammable)	Black powder, ether	Negligible (candle flame)
Class B (highly flammable)	Alcohol, paper, tinder	1 point
Class C (flammable)	Dry wood, kindling, oil	3 points
Class D (resistant)	Seasoned wood, rope, leather	10 points
Class E (highly resistant)	Green wood, flesh	30 points
Class F (non-flammable)	Brick, metal, rock	–

Some incendiary agents include a torch or a flaming arrow (1 point burning damage added if DR is penetrated); a large, hot fire (1d-1); a furnace (3d); or molten metal (3d).

If a heat source can cause enough damage (on its best roll) to set a material on fire, but does not do so immediately, roll once per second as long as the heat source and the material are in contact. Prolonged contact may set more-resistant materials on fire, if they are not of Class F. For each 10 seconds of contact, roll 3d; fire results on a 16 or less for materials one category up, and on a 6 or less for materials two categories up.

Once a material starts burning, it may ignite adjacent materials; make separate rolls for it as if it were the most nearly comparable heat source. Fire damage equal to the hit points of a section of material makes it structurally unsound. Take its DR into account in tracking the accumulation of this damage.

Thermite (TL6)

Thermite (invented in 1895) is easy to make from common materials; roll vs. Chemistry+4. When heated by using a high-temperature device, such as a magnesium strip or certain sparkler-type fireworks, the components react vigorously and develop great heat (more than 4,000° F) that burns through iron and steel. The process is used for welding, but the military soon developed wartime uses as well. Often, it is delivered in the form of a hand grenade with a 2-second fuse, such as the AN-M14 (see p. SO118). Placed inside an abandoned tank, in the barrel of a captured artillery piece, or on a set of secret radio or encryption equipment, it soon damages it beyond repair. Thermite also ignites flammables within a 2-yard radius. A grenade does 2d of burn damage per second, for 40 seconds. This includes armor: for every 10 points of damage the grenade does, *permanently* reduce DR in that location by 1. $45, 2 lbs.

A cinematic operative may have a small thermite charge to burn out a lock or destroy the contents of his attaché case. Does 1d of damage and burns for 20 seconds. $50, 0.5 lb.

Explosives

Black Powder (TL3)

The origin of black powder is obscure, but the Chinese were the first to write about it, in 1044 A.D. It is made of varying mixtures of potassium nitrate, charcoal, and sulfur. Operatives soon found numerous uses – for black powder weapons (p. 65), grenades (see pp. HT44-45), combat engineering, incendiaries, and, of course, bombs. These were called "infernal machines" and consisted of large chests filled with black powder, fitted with a time delay fuse (pp. 83-84) or clockwork detonator operating on the flintlock or wheellock principle. The effectiveness of this low-powered explosive varies widely and depends on the quality and type of powder (see pp. HT24-27). Typically, damage is 3d+2 per lb. before 1600, 5d per lb. before 1850, and 6d afterward. $2 per lb.

Nitroglycerine (TL5)

Nitroglycerin is a colorless liquid explosive invented in 1846. It is extremely sensitive to shock and thus hazardous to transport. Roll 3d whenever it is dropped or shocked; on 13+ it detonates. However, it is very powerful and not very difficult to manufacture if enough care is taken – it is simply a mixture of nitric and sulfuric acid with glycerine. Nitroglycerine does 6d×3 per lb. It commonly comes in 4-oz. vials. $2 per lb.

Dynamite (TL5)

Invented in 1867 to circumvent the problems of nitroglycerine, dynamite is actually nothing more than nitroglycerine bound by a neutralizing agent such as sawdust or kieselguhr (a diatomaceous earth). It requires a blasting cap or detonator to set off. The concussion damage of dynamite depends on its nitroglycerine content, which varies from 20% to 80%, and ranges from 2d+1 per lb. (20%) to 9d+2 per lb. (80%). It commonly comes in 0.5-lb. sticks (Holdout 0); a stick of military dynamite (80%) does 5d-2. Military dynamite is $15 per lb.; less powerful dynamite can be as little as $1 per stick in backwater places, where it is used for fishing and mining.

Plastic Explosive (TL6)

Plastic explosives were developed around 1900 and consist of a high explosive such as RDX (cyclonite) or PETN (pentaerythritol tetranitrate), mixed with a binding agent to make it pliable. They are extremely stable and only explode if detonated with a detonator or another explosion. Texture is similar to plastic putty, allowing it to be cut and formed to shape. They are easy to work with and highly effective; plastic explosives account for the majority of special-ops demolition jobs and well-planned terrorist bombing attacks.

Examples of modern plastic explosives include the American C4, Czech Semtex, and French Plastrite. All have very similar features: they are odorless and emit a low level of fumes (nitrogen molecules), which makes them very difficult (-8) to detect with chemical sniffers (p. 95) or trained sniffer dogs (p. 102), unlike most other explosives. It is also impossible to detect them with X-ray machines. Most plastic explosives have a very long shelf life (20 years or more) and can thus be stored in caches until required. Plastic explosive does 4d×4 per lb. Military C4 usually comes in olive 1.25-lb. blocks (designated M112 by the U.S. Army), which do 7d×3. A chewing-gum stick made of plastic explosive does 1d-4.

Commercial plastic explosive intended for industrial work, such as demolitions and mining, costs $30 per lb. A license is usually required to buy, use, and store explosives. In the United States, this requires nothing more than registration with the Bureau of Alcohol, Tobacco, and Firearms and a $150 fee. Prices can vary widely depending on circumstances. Bought in bulk by a licensed contractor, the price can be as little as $3 per pound; on the black market, Semtex has sold for as much as $600 per pound.

Recent manufacture often includes taggants in these explosives. These are small beads of stable plastic, which survive the explosion and allow the identification of the manufacturer and even the individual production batch. This makes it fairly easy to trace the explosives. Acquiring some unmarked explosives – whether old manufacture, untagged current manufacture, or even homemade material – will become a necessity for the TL8 bomber.

ANFO (TL7)

Ammonium nitrate/fuel oil (ANFO) explosives, available since 1955, consist of an oxidizing agent such as ammonium nitrate (as found in fertilizer), calcium nitrate, or ammonium perchlorate (as found in bleaching agents) and a liquid fuel, typically fuel oil, possibly mixed with diesel or vegetable oil. While ammonium nitrate can be used as a stand-alone explosive with a large high-explosive booster, it is better to use it in an ANFO mixture, since this rectifies the compound's tendency to pick up water and, consequently, refuse to blow up. ANFO-type explosives are used commercially in mining and account for 97% of the industrial explosives used in the United States, as well as many major terrorist acts, including the car bomb in Oklahoma. They have a number of disadvantages: they are quite low in power; are easily detected by their smell, fumes, and size; and require a blasting cap and booster charge of high explosive to set them off. However, they are stable and relatively easy to create (see *Things That Make You Go Boom*, p. 83). An ANFO explosive charge does 6d per lb. The ingredients are $2 per lb.

Foam Explosive (Late TL7)

Foam explosive comes as a liquid in an aerosol dispensing can and has the appearance and consistency of shaving cream. It was originally developed for destroying land mines. It is designed to cling to an object and deliver a powerful shock to its weakest part. It has low explosive power for its volume, making it ideal for opening doors or car trunks in situations where stronger measures draw unwelcome attention or endanger the user. The foam does 1d concussion damage per 0.1 lb., *doubled* for objects in contact with it. A Demolition roll is required to apply it properly. An aerosol can is $10, 1 lb., and holds 0.9 lb. of explosive.

The Big Bang

The ultimate explosive is the nuclear bomb. Since their appearance as a military weapon in 1945 (see pp. W28, 34, W:DF74), atomic devices have not been used in combat or terrorist attacks. However, they remain the most highly feared weapon, and various dissident factions ranging from dictatorships to fringe terrorist groups have tried to obtain one.

The basic requirement for a nuclear device is fissile material like plutonium or uranium. Unfortunately for any potential users, this is also the most difficult component to acquire. While the breakup of the Soviet Union in 1991 has resulted in some fissile materials getting onto the "black market," the amounts have been tiny, and the known buyers are invariably undercover agents on sting operations. The most accessible and worrisome material is Russian naval fuel for nuclear-powered vessels, which contains highly enriched uranium (even more enriched than normal weapons-grade uranium), and seems to have been poorly secured at some locations. However, plutonium, as used in civilian nuclear power plants, is the most common fissile material, and available to more nations than enriched uranium. It seems the most likely for a terrorist device.

Using reactor-grade plutonium oxide, at least 60 lbs. of the material is required, together with an iron or graphite neutron reflector and about 1,000 lbs. of conventional high explosive. Such a bomb would weigh more than a ton, and have a yield of about one kiloton (Dam 6d×4.4 million just for the blast; see pp. HT30, VE187 for details on the secondary effects) and a 1,100-yard radius of total destruction. Designing it requires 500 hours and a Nuclear Physics-4, Engineer (Nuclear Power Plant)-2, Engineer (Nuclear Weapons), or Demolition-6 skill roll; building it requires 1,000 hours of skilled labor, a Professional Skill: Machinist roll, and 1,000 hours of ordinary labor (roll against IQ). A successful Demolition roll is required for the detonator, and a final Nuclear Physics roll sees if the device works at all. Critical failures on any of these rolls may result in a catastrophe of the GM's choice.

A plutonium bomb requires less material, allowing construction of a "suitcase" bomb of 50-100 lbs. This design includes a difficult-to-acquire beryllium reflector and several pounds of high explosive. Such a device yields about 0.1 kiloton (Dam 6d×440,000). Apply an additional -2 penalty on all of the rolls noted above!

Radioactive materials also can be used in a conventional-explosive but "dirty" bomb (p. 83).

Frame Charge (TL7)

This is an explosive charge designed to cut an entry hole through an exterior building wall, using 7.5 lbs. of plastic explosive formed into a linear shaped charge. The charge is attached to a 1-by-$^1/_2$-yard frame and creates a hole of the same dimensions. It can be folded into a suitcase-sized package, and comes fully fused and with a small detonator. The operative unfolds the frame, places it against the wall, and retreats to a safe distance of about 10 yards. The charge penetrates a foot of masonry (triple brick wall) or 8" of concrete, a chain-link fence, or a similar obstacle; damage is 5d×2 (5). $500, 12 lbs.

Ultra-Tech Explosive (TL8)

At higher TLs, explosives with much more power appear, but remain basically like plastic explosives, requiring a detonator to be set off. One example of such an explosive is oxynitrocubane, a theoretically possible molecule that has not yet been synthesized. Chemical calculations put it at 6d×8 per lb. If it is available, assume a cost of $80 per lb.

Dispersal Bombs (TL5)

Dispersal bombs are designed to scatter some substance over a wide area. The effect depends on the substance, but typically does not increase with increasing bomb size; only the area affected is increased.

Assuming the likely situation that no access to chemical warheads for artillery shells or missiles (see pp. VE104-105) is available, most dispersal bombs consist of a conventional bomb – be that a 2-lb. lump of plastic explosive, or a truck loaded with 2,000 lbs. of ANFO – "spiced" with the substance. A small bomb mainly acts to disperse the substance over a wide area; a large bomb also contributes its considerable "secondary" explosive effects. Calculate the effective radius by taking the cube root of the weight of the explosive in pounds of TNT (or equivalent: 12d equal 1 lb. of TNT) and multiply by 90 yards. That is the radius when a comparatively high concentration is needed to affect a human being; if microscopic amounts are enough, multiply the radius by 10. This assumes a ground burst; if the bomb can somehow be exploded in the air – in an aircraft, balloon, etc. – double the radius. This radius is only used to determine how far the substance is spread; it has no relation to the radius in which blast or fragmentation occurs.

Example: 10 lbs. of TNT scatters a substance over a radius of (cube root of 10) × 90 = 194 yards while 1,000 lbs. of ANFO explosive (equivalent to 500 lbs. of TNT) contaminates a radius of (cube root of 500) × 90 = 714 yards.

The number of "doses" of the substance required is equal to (radius × (radius-1))/3, with a minimum of 1 dose.

Example: A small bomb with an effective radius of 194 yards needs 12,481 doses; a larger one with a radius of 714 yards requires 169,694 doses.

Some dispersal-bomb types are as follows:

Plague Bomb (TL5)

Disperses highly infectious disease organisms; radius of dispersal is multiplied by 10. Roll vs. HT-1 to avoid contagion; roll vs. HT-1 for daily recovery. Other effects optional, but commonly include physical weakness – double all Fatigue loss. $1 per dose.

Things That Make You Go Boom: Home-Cooked Explosives

Plastic explosive can be made at home with a Chemistry or Demolition skill roll, 12 hours, and $50 in raw materials per pound. Failing the skill roll has one or more of these results: unstable (-4 to Demolition roll when detonated), less powerful (does only half damage), smelly (unmodified Smell roll), or it simply does not blow up. Critical failure during production results in an explosion, detonating the batch with full damage.

Explosives can also be homemade from cheaper and more easily available materials. These are generally of the ammonium nitrate/fuel oil (ANFO) type, which can be concocted with household materials such as fertilizer, bleaching agents, and diesel fuel. However, the oxidizing agents (fertilizers) are on a list of chemicals "watched" by the U.S. Bureau of Alcohol, Tobacco, and Firearms since the late 20th century, primarily because of a number of bombings involving their use! Make an Agronomy or Streetwise roll to obtain them. The ingredients are $2 per lb. A Chemistry+4 or Demolition+4 roll is required for the mixture. Actually blowing up the stuff requires a Demolition+2 roll.

Black powder is easily made even with primitive resources. This requires basic ingredients easy to acquire in most locales and times, a few basic tools (mainly storage containers and a mortar for grinding), and an unmodified Fireworks or a Demolition+4 roll.

Each added -1 to HT for either avoiding contagion or daily recovery doubles cost per dose. Or, choose a suitable specific illness (see pp. CII167-174 or BIO87-90) for $1 per dose.

Dirty Bomb (TL7)

Also known as "artificial-fallout bombs," these disperse highly active radioisotopes; they are pure terror weapons favored by people who would like to use real nukes, but can't get them. The increase in effectiveness is disputed; some argue that the high explosive in such a bomb is still more dangerous than the radioactive material. Others predict highly contaminated danger areas with vast increases in cancer and similar sicknesses related to increased radioactivity. Finally, if such a bomb was used, public fears of radioactivity could lead to panic that might cost even more lives.

Dirty bombs require a conventional explosive and fuse, plus the radioactive material. Since the aim is not a nuclear chain reaction, a dirty bomb is far easier to build than a nuclear bomb. The radioactive material can be anything from medical supplies such as radium or certain cesium isotopes (used in cancer treatments and X-ray machines) to mechanical gauges using cesium or food irradiation devices using cobalt. Only very small amounts (a few ounces) are needed to inflict terror by setting off Geiger counters (p. 42) over a wide area, but such amounts are unlikely to cause much actual harm.

Radius of dispersal is multiplied by 10. Inflicts 14d rads/hour in the first day after dispersal; multiply the dose by 0.75 for each subsequent day. (e.g., 80 rads/hour the first day, 60 rads the second, 45 rads the third, 34 rads the fourth, 25 rads the fifth, and so on.) The effects of radiation are covered in detail on pp. CII146-148. Costs $10 per dose.

Explosives Equipment

Blasting Cap (TL5)

Blasting caps, invented in 1863, are used to detonate explosive charges. Electric blasting caps attach via integral 30' wires to a blasting machine. Non-electric blasting caps are ignited via a $7\frac{1}{2}$' fuse, which burns for less than 4 minutes. Each cap does 1d-3 on its own. Six caps are $10, 0.25 lb.

Blasting Machine (TL5)

Blasting machines are required to produce the electric current that detonates electric blasting caps. The early types, usually called plungers, were heavy box-like devices with a T-shaped handle – pushing the handle down detonated up to 20 electric blasting caps at once. $30, 10 lbs.

Modern military blasting machines are the size of a cell phone and generate enough electric current, usually by twisting the handles a couple of times, to detonate up to 50 electric blasting caps at once. $50, 0.75 lb.

A remote blasting machine is a radio transmitter for remote detonation of electric blasting caps up to 2 miles away. It comes in an attaché case (p. 35) that holds the transmitter and 10 receivers; each receiver can set off up to 15 electric blasting caps. $500, 10 lbs.

Detonation Cord (TL6)

A "rope" with a core of PETN explosive (p. 81) sealed in tape, wrapped with yarn, and sheathed in plastic. When ignited, it burns at over 4,000 yards per second, much faster than sound and effectively instantaneous to human senses.

Disguised Explosives

Real-world espionage technicians can make explosives resemble gravel, coal, or any other solid substance. In an illuminated campaign, the Secret Masters have access to explosives that look like almost any substance! Roll vs. Demolition-2 to recognize disguised explosives for what they are.

Explosives can be concealed within a telephone receiver and detonated by phone. Once the device is in place, the assassin calls the victim, establishes his identity, and triggers the bomb. Two ounces of plastic explosive inflict 2d damage, doubled for being in contact with the skull – treat as a brain hit (p. B203). This is usually an improvised device, requiring rolls against Demolition and Electronics Operation (Communications). The necessary electronics and 2 ounces of explosive cost about $20.

The Flying Bomb

The terrorist attacks on Sept. 11, 2001, dramatically showed that civilian aircraft can be used as weapons. They were not the first such attacks (or accidents involving aircraft and buildings), although never before had such a coordinated effort been employed. It is not necessary to hijack a passenger plane, though the terror impact is obviously much greater. Terrorists could make equal use of cargo aircraft, although it might be more difficult to board them, as usually only their pilots and ground crew enter them.

The sheer impact of an aircraft is shattering – a Boeing 767-300ER, such as those used in the 9/11 attacks, with 10,000 body hit points and a flight speed 600 mph, does about 6d×5,000 to any building or object it runs into. To find the maximum diameter of the hole made by a vehicle colliding with a building, increase the Size Modifier of the vehicle by one, find this in the "Size" column of the Size and Speed/Range Table (p. B201), and read across to the "Linear Measurement" column. The Boeing 767-300ER has Size +7; looking up Size +8 gives 45 yards for the width of the hole it makes. (This replaces the rule on p. VE166.)

Small commercial craft, as used by private pilots or courier services, would have much less effect. A four-seat propeller aircraft such as the Commander Model 114 (Size +3) used by many recreational pilots, with 125 body hit points and flight speed 190 mph, does about 6d×20 and makes a 10-yard hole.

Worse than the impact of the craft is the explosion of its fuel. A Boeing 767-300ER carries up to 24,050 gallons of kerosene in self-sealing tanks; a Boeing 747-400ER, used by many airlines on long-distance flights, can carry 57,000 gallons of fuel. Most aircraft are seldom fully fueled, though. Nominally, 1,000 gallons of jet fuel do 6d×15,600 points of concussion damage, plus considerable fragmentation from the exploding aircraft frame. However, in order to attain the maximum explosive force, the fuel must be thoroughly mixed with air – unlikely to happen in a collision, especially in a large aircraft where the fuel is located in several tanks. Usually, only about 1/10 of the fuel actually explodes; unexploded fuel ignites and burns furiously at such high temperatures that metals melt and concrete cracks. A half-empty tank is actually more likely to result in an effective explosion, as the air in the tank allows the formation of fumes – in such a case, about 1/6 of the fuel explodes. Self-sealing tanks installed in many modern aircraft further divide this by 4.

Example: A fully fueled Boeing 767-300ER results in an explosion doing 6d×9,380; if it carried only 12,000 gallons of fuel, it does 6d×7,800. A small private aircraft carries about 75 gallons of fuel and does 6d×117 fully fueled or 6d×98 if only half-fueled.

"Det cord" is used for making fuses, clearing mines, cutting girders or trees, and laying booby traps. It also appeals to the humorous assassin, disguised as clothes line, climbing rope, boat rigging, or cable-knit sweaters. A length of primed det cord around the victim's neck gives a +3 to almost any Interrogation roll!

Det cord does 6d×2 concussion damage per lb. It comes in many thicknesses. A pound of 0.31" (8mm) det cord is roughly 12 yards long; a pound of 0.17" (4.3mm) det cord is about 62 yards long. Divide damage evenly by length; e.g., 0.31" det cord does 1d damage in each hex it passes through. If det cord is wrapped around an object to cut it, that object takes double damage, while those nearby take normal damage. Det cord costs $100 a lb., regardless of thickness.

Tactical Diversionary Devices (TL6)

Counterterrorist units and spies often use pyrotechnics to confuse the opposition for long enough to make a rapid entry or exit. Demolition skill is *not* necessary to use these devices.

Hedy Firecracker (late TL6): A bomb simulator invented during WWII and named for actress Hedy Lamarr because "lusty young officers said she created a panic wherever she went." It is used to terrorize crowds as cover for other activities. Unsuspecting people must make a Fright Check when it explodes. If five or more people fail Fright Checks, panic ensues and the user can hide or flee in the chaos by making a Stealth roll. Stealth is at -2 vs. pursuers who are familiar with such diversions. $3, negligible weight.

Flash-Bang (TL7): This hand grenade produces a bright flash and a loud explosion. Anyone within 10 yards must make a HT-5 roll to avoid being physically stunned. This becomes an unmodified HT roll if he is wearing ear and eye protection – protection sufficient to give this bonus also gives -3 to Vision and Hearing rolls. The victim must roll at HT-5 – or HT, with ear and eye protection – each turn to recover. On a critical failure, he remains stunned for 5 turns before he can roll again. See pp. SO118-119 for more detail. $50, 0.6 lb.

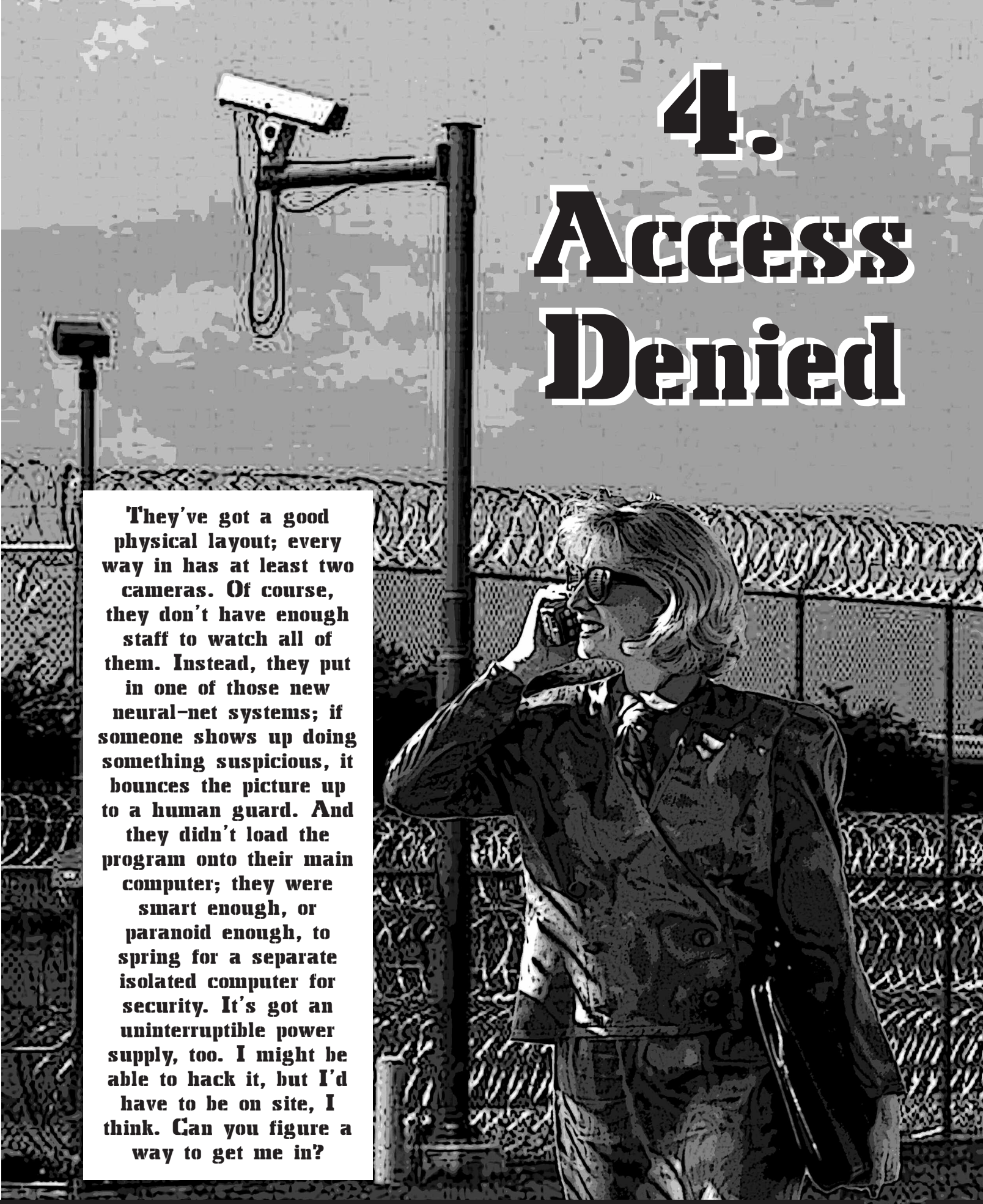
Gunshot Simulator (TL7): Firecrackers that sound like gunfire are often used on movie sets. Versions are available that sound like anything from a .22 LR pistol to a powerful sniper rifle. They are used to distract the foe in much the same way as a bushmaster (p. 58). Ordinary firecrackers are cheaper, but do not fool anyone with the Guns skill. $1, negligible weight.

Smoke Bomb (TL7): A gum-ball-sized (Holdout +5) pyrotechnic device used to provide cover when a full-sized smoke grenade is excessive. When activated, it instantly fills a two-yard radius with dense smoke. This gives -3 to Vision rolls for 10 seconds. $1, negligible weight.

Mini Hand Grenade (TL7)

A very small fragmentation hand grenade the size of a golf ball, easily concealable (Holdout +3). An example is the Dutch NWM V40 (1968) used by U.S. Navy SEALs and U.S. Army Special Forces in Vietnam. It has a filler of 1.1 oz. of RDX explosive, for 1d concussion and 2d fragmentation damage. The fuse detonates it after 4 seconds. $10, 0.25 lb. (1.4 lbs. for a bandolier of five).

4. Access Denied



They've got a good physical layout; every way in has at least two cameras. Of course, they don't have enough staff to watch all of them. Instead, they put in one of those new neural-net systems; if someone shows up doing something suspicious, it bounces the picture up to a human guard. And they didn't load the program onto their main computer; they were smart enough, or paranoid enough, to spring for a separate isolated computer for security. It's got an uninterruptible power supply, too. I might be able to hack it, but I'd have to be on site, I think. Can you figure a way to get me in?

Every action causes a reaction. In covert operations, the action is the attack; the reaction is the defense. The same technology that provides tools for assassination and sabotage provides methods of thwarting them.

Personal Protection

Personal Sensors

Portable Alarm (TL7)

A loud siren – comparable to a jet engine, Acoustic Signature +20 (p. 69) – with a pull-cord trigger that can be rigged to doors, attaché cases (p. 35), etc. Handy for traveling spies. $15, 0.25 lb.

Chemsniffer (TL8)

A handheld device that is used to find contraband – including weapons, explosives, and poisons – by analyzing chemical traces in the air, with a range of 5 yards. Electronics Operation (Security Systems) or Explosive Ordnance Disposal skill is required for proper use. $700, 2 lbs.

A stationary "walk-through" model, such as is found at airports and other sensitive sites, uses thermal-neutron analysis and gives +4 to skill. $10,000, 4,000 lbs.

Identify Friend or Foe (IFF) (TL8)

This is a miniaturized personal system to identify persons who have been detected but whose identity is in question. It consists of a small electronic transponder that, when queried by an "interrogator," transmits its identity as an encoded radio pulse. Current systems involve a weapon-mounted interrogator and a small personal transponder; the results are limited to "friend" or "foe." Future systems may be more elaborate, also giving identification number, name, etc., and displaying them on the weapon's sight or a head-up display.

A personal IFF system is useful to minimize friendly-fire losses in difficult environments where clear identification of personnel is not always possible at safe range, such as in urban environments, jungle, or darkness. It is currently under development for the U.S. Army's Land Warrior system (see pp. MF38-39) and also for a number of other forces. IFF should never be the only method of identification – like any electronic system, it is fallible, a flat battery being the simplest cause for misidentification. The system can be set with new codes or programmed to send the code for only a set time (in hours) in case there's a risk that the enemy may get weapons from dead or captured operatives. $250, 1 lb. for the interrogator, $50, 0.5 lb. for the transponder.

Laser Sensor (TL8)

Laser sensors are optical sensors that report whenever they are "hit" by a laser – a laser rangefinder, laser target designator, targeting laser (p. 69), etc. They have been in use on military vehicles since the 1980s (see p. VEL16), especially since the widespread introduction of laser-homing antitank missiles. They are also available to detect the laser devices used by the police in speed traps. In addition, the military has used them widely as training aids in war games, both on vehicles and worn by individual soldiers.

Perfected personal laser sensors appear at early TL8. A number of sensors are integrated into the clothing and load-bearing gear and alert the wearer with a warning tone or a silent indicator in his HUD. This allows him to take evasive action, adding +1 to his Dodge. $500 for a complete set, 1 lb.

A mature TL8 system with integral GPS and Complexity 1 computer also indicates the exact direction and elevation from which the laser beam originates, letting the wearer quickly fire back at the threat. $1,500 for a complete set, 2 lbs.

Personal Acoustic Countersniper System (PACSS) (TL8)

This is a wearable system for personal use, based on the larger zone acoustic sniper system (p. 93). It consists of an array of small microphones mounted on a combat helmet and an electronics package, including a GPS system, compass, Complexity 1 computer, and head-up display (HUD). It may also be linked to a radio system. The microphones track the path of a bullet by the shockwave it generates, and, if present, the firing signature of the weapon at the muzzle. Based on this information and the situational data from the GPS and compass, the computer calculates the trajectory, the caliber, and the location of the sniper. It then stores the information for later use, such as forensic analysis. The data is projected onto the HUD worn by the wearer after a 1-second delay. The current systems are accurate enough to locate the origin of a shot to a window-sized area at more than 100 yards. Roll vs. 9 + Acoustic Signature (p. 69) - Range (see p. B201). If the wearer is not hit by the first shot, he can take immediate evasive action or return fire. If several people wear mikes, their computers can triangulate the location of the sniper even more precisely; secure radios transmit the data between the individual units. A PACSS is especially useful for SWAT officers and soldiers operating in difficult terrain, including cities and woodlands. It is a bit too obvious for plainclothes bodyguards, as the sensors are best fitted to helmets. Like the ZACSS (p. 93), the system can't locate subsonic bullets (see p. 70), including many low-powered pistol rounds. $2,000 for a complete set, 2 lbs.

Armor

Both targets and attackers in covert operations often wear light and concealable armor, often made to look like or be worn under clothing (see *Tailored Armor*, p. 88).

Brigandine (TL2)

A brigandine consists of small lamellar plates or strips of metal riveted to the inside of a canvas or leather foundation garment. This can then be covered with a more-expensive

fabric such as silk or velvet, but less-fashionable brigandines are left uncovered. The heads of the rivets often decorate the surface in attractive patterns.

The bare metal plates on the inside rest against an "arming doublet" worn underneath – treat as padded cloth (DR 1). Ordinary clothing can be worn instead, but is more susceptible to damage from the action of the plates, and offers no additional protection.

To conceal brigandine armor, the outer layer is used to cover the rivets in the foundation garment (see p. LT98 for Holdout suggestions). A distant observer is unable to tell whether a wearer is armored or not, but anyone closer (within about 5 yards), and anyone who has a chance to see the garment move, sees immediately that it is not made of cloth. However, at certain times and places, highly starched or stuffed clothing is worn on formal occasions. Well-made brigandine can easily pass for this even at close range – as long as nobody actually handles the fabric.

A full suit costs $750, plus $10 to $500 depending on the materials and quality of the outer garment, and weighs 40 lbs. PD 3, DR 5. Historically, brigandine armor usually only covered the wearer's torso: areas 9-11, 17-18.

Concealed Mail (TL2)

Chainmail concealed *inside* layers of cloth has the advantage of closely mimicking the "drape" or folding pattern of cloth, making it easier to conceal (see p. LT98 for some Holdout suggestions). Metallic chinking is prevented by winding thin thread around the links and securing some of them to the garment's inner lining. This is very labor-intensive and thus expensive.

A suit of lightweight mail concealed in this way, such as worn by ninja on occasion, costs $5,300 and weighs 32 lbs., with PD 2, DR 3. Usually, only the torso and optionally the arms are protected, yielding an armored shirt.

Flexible Armor (TL6)

Flexible armor is generally woven from natural or man-made fibers. Such garments are usually lightweight and relatively comfortable, and offer superior protection against firearms and fragments, but are easily pierced by impaling weapons, such as arrows or ice picks. Against impaling attacks, they have only PD 1, DR 2. If all damage in a crushing attack is absorbed by the armor, damage die rolls result in 1 point of crushing damage ("blunt trauma") per "6" rolled (see pp. HT8, MF35).

Early Flexible Armor (late TL6), available from the 1940s, encompasses ballistic nylon. A full suit costs $300 and weighs 30 lbs., with PD 2, DR 6.

Standard Flexible Armor (TL7) includes basic aramid fibers, such as Kevlar, which were introduced in the 1960s. A full suit costs $900 and weighs 14 lbs., with PD 2, DR 10.

Superior Flexible Armor (late TL7), available from the 1990s, is slightly more effective and encompasses both the most-recent aramid patterns and polyethylene fibers. A full suit costs $1,500 and weighs 12 lbs., with PD 2, DR 12.

Advanced Flexible Armor (early TL8) includes near-future designs that use biotechnological materials such as spidersilk or woven pheasant-feather spines, both currently under development. A full suit costs $2,500 and weighs 12 lbs., with PD 2, DR 14.

Future Flexible Armor (TL8) includes such materials as monocrys, a single-crystal metallic fiber. A full suit costs $1,500 and weighs 12 lbs., with PD 2, DR 16.

Special Armor (TL4)

Anti-strangling collars are steel collars designed to be worn concealed under shirt collars, but are only concealable if high, stiff collars are worn. They are designed to foil strangling attempts, but also turn cuts or thrusts. They provide +6 to HT against strangling and choking attacks, which normal armor does not protect against at all! Developed during a short-lived strangler hysteria in London, they quickly disappeared from the real-world market but could well be more common in a cinematic setting. PD 2, DR 3 to neck, for attacks other than choking and strangling. $15, 1 lb.

Lamellar shirtfronts made of steel lamellae were marketed to soldiers; criminal gangs have been known to use them. Not being padded, they are of limited utility against blunt trauma (PD 1, DR 3 vs. crushing). PD 2, DR 4, for areas 9-10 and 17-18 from the front. $95, 8 lbs.

Kardiophylax pectorals consist of a steel plate 6" to 10" in diameter, strapped over the middle of the chest. Marketed to soldiers, they never achieved much popularity. PD 3, DR 6, for areas 17-18 from the front. $55, 5 lbs.

Skullcaps, concealed in hats, were originally intended for light cavalrymen to protect themselves from downward saber blows, but became more popular with urbanites worried about club-wielding attackers. PD 2, DR 4 for area 3. $35, 3 lbs.

Tailored Armor

Instead of "military" body armor, such as a suit of plate or a flak vest, operatives and others concerned about personal safety want more easily concealable (or stylish) protection. Tailored armor is widely available for politicians, bodyguards, law enforcement, and other legitimate or wealthy users, in styles ranging from mail concealed in a jacket, through armor-lined suit vests to go with a tuxedo, to full-length ballistic trenchcoats. It can be handmade by the users, including ninja clans or sophisticated professional hitmen. All tailored armor is Holdout-2 to conceal that it *is*, in fact, armor.

For a piece of armor tailored to a person, begin by selecting the material from the list above – the costs and weights given there are always for a full suit. Next, choose the locations covered. A full suit is assumed to cover the torso, arms, and legs. Many garments only offer partial protection, covering one-third, one-half, or two-thirds of a location. They may only protect a location from the front or back.

Each location has its own cost/weight multiplier. Add up the multipliers for all locations covered, and then multiply weight and cost of a full suit by that sum.

Cost/Weight Multiplier	*Location(s)*
0.0625	both hands or both feet
0.125	head
0.25	both arms
0.375	torso (including vitals) or both legs

Divide the multiplier by 1.5, 2, or 3 for two-thirds, half, or one-third coverage, respectively. Divide by 2 if it only protects front or back. If a partially protected location is hit, roll 1d: PD and DR protects it on a 1-2 (one-third coverage), 1-3 (half coverage), or 1-4 (two-thirds coverage). Armor on the upper half or third of the torso always protects the vitals and heart; armor on the lower half or third of the torso protects the groin.

After the coverage has been selected, choose the clothing type.

Heavy clothes include trenchcoats, winter clothing, etc. Multiply cost, weight, and DR by 1.5.

Normal clothes include everyday attire, such as shirt, jacket, and pants. Cost, weight, and DR unchanged.

Light clothes include summer wear, T-shirts, and most undergarments. Halve cost, weight, and DR.

Diaphanous clothes barely qualify as clothing, and include bikinis and other swimwear, as well as skimpy lingerie. Reserve them for cinematic campaigns. Divide cost by 3, weight and DR by 4, and reduce PD by 1 (minimum PD 0).

Finally, decide whether the clothing is of *average* cut (no extra cost), *stylish* (4× cost), or *fashion original* (10× cost). These multipliers are cumulative with all others.

Example: A T-shirt made of Superior Flexible Armor covers two-thirds of the torso (0.375/1.5 = 0.25) and one-third of the arms (0.25/3 = 0.0833). This is 0.25 + 0.0833 = 0.3333. Since a full suit is $1,500 and 12 lbs., we get $500 and 4 lbs. A T-shirt counts as Light clothing, which halves cost, weight, and DR: $250, 2 lbs., and DR 6. It is of average cut, which doesn't change cost. It protects the arms only on a roll of 1-2, and the torso on a 1-4.

Instantaneous Personal Protection System (IPPS) (TL8)

This system, available since the early 2000s, is designed to deploy flexible armor screens as soon as the built-in millimeter-wave radar system detects any incoming bullets. There are permanent, semi-mobile, and fully mobile versions. The system is especially useful for the protection of stages, press conferences, building entry areas, etc. It consists of one or more 1.65-yard wide and 2.2-yard high screens made of advanced flexible armor (DR 50), which raise automatically as soon as a miniature radar system mounted in front of the screen detects an incoming projectile.

The screens deploy so quickly that a minimum distance of only 11 yards is required against slow handgun bullets (.38 Special), 16 yards against fast handgun bullets (9×19mm Parabellum), 110 yards against slow rifle bullets (7.62×39mm), and 165 yards against high-powered rifle bullets (7.62×51mm NATO). The system can be jammed, however. One screen, complete with radar set and control computer, costs $10,000 and weighs 660 lbs. It requires a separate power source.

Medical Treatment

Autoinjector (TL6)

An autoinjector dispenses a measured dose of a drug, usually an antidote (such as atropine, p. 74). It requires no training to use. $2, negligible weight.

NBC Suit (TL6)

This outer garment protects against poisons, pathogens, and radioactive dust, but not direct exposure to hard radiation, for up to 24 hours. Of course, in most circumstances it's impossible to wear an NBC suit inconspicuously. (Conversely, in the right environment, an NBC suit can provide an instant and effective disguise!)

Modern suits are neither as hot nor as bulky as their predecessors. The American JSLIST (Joint Service Lightweight Integrated Suit Technology), introduced in the late 1990s, is a late-TL7 representative: a two-piece suit with boots and gloves, designed to prevent heat fatigue and to allow full manual dexterity for technical tasks. $250, 9.3 lbs.

Protective Mask (TL6)

A "gas mask" which protects against inhaled chemical and biological threats; it must be worn with an NBC suit (above) to protect against nerve agents. It takes (20-DX) seconds to put on a mask; add 4 seconds for an unfamiliar design. The mask provides PD 1, DR 2 to the face.

TL6 and early-TL7 masks were unpleasant to wear: triple all fatigue accumulated while wearing the mask and apply -4 to Vision rolls. Others roll at -4 to understand the wearer's speech. These do not protect against many modern chemical weapons. $50, 5 lbs.

Late-TL7 masks, such as the American M40A1, are designed for easy breathing (reduce fatigue multiplier to 1.5), expanded field of vision (reduce Vision penalty to -1), and intelligible speech (reduce communication penalty to -1). They can have tinted lenses to protect against flash-bang grenades (p. 84). $160, 4.5 lbs.

Emergency Support Unit (TL8)

The ESU is a semi-portable life-support unit that maintains a patient's life functions. This can save somebody who has failed a HT roll and "died," as long as he is not below -5×HT and has not been dead for more than 5 minutes. Attaching somebody to an ESU takes (20-TL) minutes and requires a Physician roll, at -1 for every multiple of negative HT the patient is at below 0 HT, at -1 per 30 seconds dead, and at -2 per failed attempt. Success means the patient is in a coma rather than dead, but cannot survive if taken off the system; critical failure means the patient dies. Revival from the coma requires the patient to be healed back above negative HT.

The ESU can also be used for blood transfusions, as it stores enough generic blood to substitute for two whole transfusions. An E cell powers it for 500 hours. $30,000, 120 lbs.

Universal Antidote

The universal antidote was sought after from early alchemical experiments to the birth of modern toxicology. In realistic settings, it's impossible. In a weird-science campaign, or a fantasy campaign in which alchemy is practiced, its secret may be unlocked.

In these cases, universal antidote is a potion or powder. It confers enhanced resistance to poison; all HT rolls to resist the effects of poison are made at +8. It does not counter the effects of alchemical elixirs. It may be taken either before or after the poison. If it is taken before the poison, reduce the HT bonus by 1 per hour; after eight hours, it is no longer effective, whether or not it has protected the user from any toxic agent. If it is taken after the poison, apply the full HT bonus to all future effects of the poison, but the antidote does not undo harmful effects that already have occurred.

$500 in materials; 1 week. Cost: $700/$850 in settings with common and rare alchemy, respectively.

Safe Places

Defensive Architecture

One of the oldest ways of keeping people or objects safe is putting walls around them. Accordingly, covert operatives need to know how to get past architectural defenses. The details of such defenses are infinitely variable, but for gaming purposes, a general typology of site security levels is generally sufficient:

Level 0: Unsecured. The doors and windows may not lock; if they do, they are usually left unlocked, even if no one is watching them.

Level 1: Minimally secured. The entrances can be locked. When they are open, someone is stationed to screen and direct incoming traffic. There are no regular security personnel.

Level 2: Moderately secured. The entrances are routinely kept locked; getting in requires being admitted by a staff member. There are unarmed security personnel, especially outside regular hours, assigned to patrol the building rather than watch all of it all the time. Maintenance ducts are concealed and screened.

Level 3: Secured. Security personnel are armed and have sufficient numbers and/or technology to keep the entire site under surveillance. The design includes internal barriers and/or checkpoints; visitors are closely tracked. Maintenance ducts are locked; ventilator shafts have barriers to access.

Level 4: Highly secured. Security personnel are authorized to use deadly force against intruders. Permission to enter is highly formalized and subject to checking. Entryways are designed to conceal the interior and facilitate attack on intruders; patrols and/or surveillance provide multiple coverage for all entries and potential entries. Maintenance ducts are actively monitored and/or booby-trapped.

In cinematic settings, building security often has convenient weak points; for example, ventilation ducts may be wide enough to crawl or even walk through, easily accessible, and not monitored by guards, cameras, or AIs. In such a campaign, a successful Architecture or Traps roll identifies a route that is one security level less than the overall security of the site; a critical success finds one that is two levels less. On the other hand, a critical failure means the route looks good, but is as secure as the rest of the building.

Anti-Vehicle Barriers (TL6)

Many kinds of barriers exist to prevent automobiles from approaching or leaving an area. The latest portable low-threat systems use hollow metal quills embedded in a lightweight plastic strip. These pull free of the strip and embed themselves in tires, deflating an inflatable tire in 5 seconds, slowly enough to prevent a crash. This gives a -4 to Driving rolls and reduces top speed by 50%. $90 and 1.2 lbs. per yard of barrier width.

The Armored Limo

Armored limousines are almost as old as the car itself. Since the 1920s, luxury cars custom-fitted with armor have protected presidents, dictators, and the rich and famous. An entire industry of specialty shops offers custom-made vehicles based on popular luxury automobiles. Some of the more famous builders include America's O'Gara-Hess & Eisenhardt (makers of all armored limos for U.S. presidents), Britain's MacNeillie, and Italy's Repetti & Montiglio.

Building an armored car isn't simply a matter of adding armor plates – the increase in weight requires better engines and reinforced suspensions and brakes. Besides, most customers prefer their limos to look exactly like ordinary cars. The properties of thick armor glass – e.g., if the side windows can be lowered – also must be considered. In response to this, some luxury-car makers have introduced armored cars straight from the factory, which guarantees full integration. The late-TL7 armored limo detailed here is such a car, and is based on examples such as the Mercedes-Benz S500L Guard (1999) and the BMW 740iL Protection (2000).

The phrase "armored car" can be misleading; only the passenger area, fuel tank, and battery are usually armored – multiple rifle hits in the engine or blowing off a wheel definitely stops one. Modern armored vehicles are fitted with so-called "run-flat" tires, which work differently than puncture-resistant tires (see p. VE95), although they are assumed to cost the same for this design: after the tire (DR 2, HP 45) is deflated, the car can continue to run on an inner core for up to 50 miles at only -1 to Driving.

Armored limos carrying VIPs often travel in convoy. For example, a presidential convoy, as used by the U.S. Secret Service (pp. 120-121), includes the following: a reconnaissance vehicle or screen of motorcycles, which drives at least 30 seconds ahead to check for roadblocks or other problems, and may block off junctions; a likely armored counterattack vehicle, agile and able to reverse at full speed, with heavily armed operatives trained to fire from a moving vehicle (see also p. 22); an armored shield vehicle, typically a van or SUV, to position itself between the attackers and the limo; two armored limos, one of them a decoy; and a number of support vehicles, typically patrol cruisers (see p. C75), motorcycles (see pp. VE140, VEL60), and an ambulance. In even mildly dangerous environments, such a convoy always travels at high speeds and is able to break into two groups in case of attack. All vehicles are supposed to be in constant radio contact.

Finally, the protectee may shun the high-profile limos and ride in any of the other vehicles – or may not even be in the convoy!

Up to three accessory modules can be added to this design; if more are installed, some cargo space has to be sacrificed, as each module takes 1.5 cf and 75 lbs. A fifth passenger can be squeezed into the rear, at the expense of less-comfortable seating for the other two rear passengers. The car burns 9 gallons of fuel per hour of routine usage.

TL7 Armored Luxury Car or Limousine

Subassemblies: Body +3, four Wheels +1.

Powertrain: 225-kW standard turbo-charged gasoline engine with 225-kW wheeled transmission and 4,000-kWs lead-acid battery.

Fuel: 25 gallons gas in self-sealing fuel tank (Fire 10).

Occupancy: 1 RCS, 3 RS. ***Cargo:*** 20 cf in trunk.

Armor	**F**	**RL**	**B**	**T**	**U**
All:	3/5	3/5	3/5	3/5	3/5
Passengers:	+50	+50	+50	+50	+50
Fuel and Battery:	+10	+10	+10	+10	+10

Weaponry

Depends on modules installed (see below).

Equipment

Body: Dedicated small computer (Complexity 1); 1 gig navigational maps; GPS; 3-mile cellular phone; four airbags; environmental system for four; NBC system for four; high-security alarm; all luxury seats.

Statistics

Size: 17'×6'×5' *Payload:* 1,350 lbs. *Lwt.:* 4.15 tons
Volume: 275 cf *Maint.:* 50 hours *Price:* $154,785

HT: 12. HPs: Body 450, each Wheel 45.

gSpeed: 135 *gAccel:* 5 *gDecel*: 15 *gMR:* 1 *gSR:* 5
High Ground Pressure. 1/6 Off-Road Speed.

Design Notes

Body is medium, expensive, sealed, with fair streamlining. Area is 300 sf. Armor is standard, metal. Passenger compartment is 200 sf with expensive, composite armor. Fuel and battery compartment is 16 sf with standard, metal armor. Improved suspension. Improved brakes. Run-flat tires.

Modules

Blinding Lights: The headlights and/or tail lights feature additional high-powered halogen bulbs, which can be used to blind onlookers. The subject is blind as long as he faces the light (plus 1d seconds at night if he fails a HT roll). $100 per facing, no weight.

Machine Gun: A concealed 7.62×51mm machine gun such as the FN MAG; Cr 7d, SS 17, Acc 10, 1/2D 1,000, Max 4,200, RoF 12, Shots 1,000; also see p. HT121. It is installed in a fully stabilized mount, with 1,000 rounds of ammo. $6,940, 75 lbs., 1.5 cf. A full reload costs $110. This option is a staple of the movies; recently, some manufacturers, such as Ibis, have started to actually offer built-in weaponry to qualified customers.

Oil Spray: Produces a 5×2-yard oil slick behind the vehicle. Driving into the slick requires a Driving roll at -3 to avoid losing control – if the slick is deployed during

Continued on next page . . .

The Armored Limo (Continued)

high-speed cornering, the target's Driving modifier may be increased to as much as -6. It contains enough oil for 25 slicks and costs $5 to refill. $500, 75 lbs., 1.5 cf. Most realistic oil sprays actually work like a paint spray, below, coating the pursuer's windshield.

Paint Spray: Produces a 5×2-yard cloud of paint behind the vehicle that persists for 1 second before falling to the ground. Anyone firing through the cloud suffers the normal penalties for blind fire unless using a nonvisual sensor (e.g., radar). A vehicle entering the cloud is coated with paint. This blocks windows, giving -2 to Vision and Driving rolls. A paint sprayer has 25 shots and costs $25 to refill. $650, 75 lbs., 1.5 cf.

Radio: Encrypted radio with 30-mile range costs $1,400.

Remote Control: A small remote control to lock the doors, start/kill the engine, or fire one of the weapons. $50, 4 oz. A full remote control that allows complete operation of all functions of the vehicle (at -4 to all skill rolls) has a range of 3 miles. $1,100, no weight for the vehicle modifications; $200, 3 lbs. for the console.

Rocket Launcher: A concealed launcher for two 84mm light anti-tank rockets such as the Bofors AT4; Exp. 6d×6 (10), SS 20, Acc 6, Min 11, 1/2D 330, Max 2,300, RoF 2, Shots 2; also see p. SO117. Contains two HEAT rockets in an anti-blast magazine; these can be fired individually or simultaneously. The mount is fully stabilized. $2,100, 75 lbs., 1.5 cf. Reloads are $750 per rocket. Realistically possible, but not offered commercially.

Self-Destruct: An explosive charge that can be detonated remotely via communicator, triggered by the alarm system or a computer countdown, or set off manually. Damage is 6d×150. $1,500, 75 lbs., 1.5 cf. Not offered commercially.

Smokescreen: Produces a 5×2-yard cloud of smoke. Anyone firing through the smoke suffers the normal penalties for blind fire unless using a nonvisual sensor. The screen remains in the air for 300 seconds, divided by the wind speed in miles per hour (maximum 300 seconds). A smokescreen has 10 shots and costs $25 to refill. A smokescreen can also spray tear gas, nerve gas, etc. $350, 75 lbs., 1.5 cf.

Spare Tank: Limousines guzzle gas. A spare tank is less glamorous than a weapon, but it can make all the difference in the world when you have to get away in a hurry. Each light, self-sealing tank holds an additional 10 gallons (one hour) of fuel. $200, 75 lbs. (full), 1.5 cf.

Spike Dropper: Drops caltrops – tetrahedral spikes (see p. CII39) – behind the vehicle. These fall to the ground over a 2×2-yard area. A vehicle driving through the area may be damaged: roll 1d for each tire or track. On 1-4, it takes 2d damage. A spike dropper has enough spikes for 10 uses; refills cost $200. $350, 75 lbs., 1.5 cf.

Permanent, high-threat barriers protect sensitive areas. These can be activated when needed, leaving the road clear when not in use. Examples include steel plates that rise to a 30° angle, and steel wedges, pillars ("bollards"), or concrete pyramids that rise from the road. A driver encountering such a barrier must make a Driving roll at -1 per full 20 mph × gMR of speed (assume gMR is 0.75 for cars, 1.5 for motorcycles). On a success, he manages to stop in time. Any failure indicates an immediate crash.

Anti-Blast Window Film (TL7)

This invisible coating keeps window glass from shattering, contains blasts, and stops shrapnel. Each treatment gives DR 1 against concussion damage and DR 2 against fragmentation damage from explosions on the other side of the glass. Multiple treatments (up to five) can be laminated, adding their DR. The window itself shatters, but won't create shrapnel; it must be replaced after one blast. This coating is tough, giving -1 per treatment to any attempt to cut the window with a glass cutter, acid, etc.

Electromagnetic Car Stopper (TL7)

This device uses an electromagnetic pulse to disable a car's electronic ignition and engine-control systems. Vehicles must drive over the car stopper to be affected. As a result, it is usually a permanent installation, hidden under the pavement on an access route into a sensitive area.

Roll 3d when a car drives over an activated car stopper. On 16 or less, the engine stops and cannot be restarted. Older cars (pre-1980s) are immune, because their powertrains do not rely upon any electronic systems to keep running.

Portable, *ranged* versions may exist in cinematic campaigns. These would be Malf 15, SS 10, Acc 2, 1/2D 10, Max 100, Wt. 10-30, RoF 1, Shots 5, ST 10, Rcl 0, and probably would resemble a police radar gun attached to a bulky battery pack with a cable.

Fire-Suppression System (TL7)

Fire-suppression systems in facilities such as data centers (see p. 36) do not use water, in order to prevent damage to electrical systems. Inert gases such as Halon are instead used to drive fire-sustaining oxygen from the data center. Gases used in building systems are not particularly dangerous to humans, but breathing apparatus should be worn by anyone staying in the affected area. $5,000, 200 lbs., 4 cf.

Uninterruptible Power Supply (TL7)

Uninterruptible power supplies (UPSs) guard against loss of electrical power and unauthorized physical access. Essentially big batteries with surge protection, they can supply power for 10 minutes or 10 hours, depending on the requirements of the users and the size and number of their UPSs. Data centers (see p. 36) have UPSs for the servers, or several redundant units for really important computers.

Air Force One

"Air Force One" is the U.S. Air Force's call sign for the aircraft carrying the president. Strictly speaking, any aircraft with the president on board is "Air Force One." However, the USAF flies two dedicated VC-25A aircraft that are used whenever the president travels over long distances. They are stationed with the 89th Airlift Wing at Andrews Air Force Base, in Maryland. The VC-25A entered service in 1990 and is a heavily modified Boeing 747-200B; it replaced the similar but less capable VC-137A, a modified Boeing 707-320C in service since 1958.

The aircraft is shielded against electromagnetic pulse (EMP), can refuel in midair for virtually unlimited range, and features backup systems, fire-suppression systems, electronic countermeasures (ECM), and more to keep its passengers safe. There are no parachutes, however – they can't be used in the slipstream generated by the aircraft. An oxygen-equipped parachutist trained in HALO jumps (see p. SO61) might be able to make it (-2 to skill).

The Mission Communication Center (MCC) is crammed with encrypted communication systems that can reach the entire world, and includes 85 telephones and a number of FAX terminals. A conference room can be used to assemble the heads of government, allowing the country to be run from above the clouds.

The VC-25A is completely self-sufficient, carrying its own ground crew as well as ground servicing equipment, such as baggage loaders and a set of airstairs. Two large galleys can serve 100, and 2,000 meals can be stored in special lockers.

The plane features an executive suite with sleeping room, lavatory, shower, and office for the president up in the nose. Another office can be converted into a surgical theater. It is designed to safely carry a total of 26 crew and 70 passengers – many more can be carried in an emergency. The crew includes relief pilots, communication specialists, a doctor, ground crew, cooks, and stewards; the passengers always include Secret Service agents (pp. 120-121), the USAF officer carrying the keys to the U.S. nuclear missiles, and usually about a dozen journalists.

The VC-25A is normally accompanied by two Lockheed C-5A Galaxy cargo aircraft (see p. SO125) carrying further service and security personnel and the president's ground convoy, including his armored limo (pp. 90-91) and an ambulance.

Air Force One

Subassemblies: Body +7; two STOL Wings +5; four Engine Pods [Wings:F] +3; 18 retractable wheels +2.

Powertrain: Four turbofan engines with 56,750-lb. thrust [Pods 1-4]; two 107-kW gas turbines; two 3,000-kWs advanced batteries.

Fuel: 17,166 gallons of aviation gas in standard self-sealing tanks; 36,447 gallons of aviation gas in standard self-sealing tanks [Wings] (all tanks are Fire 12).

Occ: 11 RCS, 85 RS. ***Cargo:*** 6,190 cf in main holds.

Armor	**F**	**RL**	**B**	**T**	**U**
All:	3/10	3/10	3/10	3/10	3/10

Equipment

Body: 2 small computers with terminals; 3 300-mile and 2 3,000-mile radios with scramblers; 2 100-mile air-search navigation radars without targeting; 2 terrain-following radars; advanced radar detector; 2 IFF; IR jammer (Rating 6); 3 inertial navigation systems; 3 military GPSs; autopilot; 2 flight recorders; 3 precision navigation instruments; 100-man/day limited life-support system; 2 galleys; minigalley; 6 roomy toilets; luxury fittings for 70 seats; 2 bunks; operating room; cabin; conference room; 2 luxury cabins, shower, and toilet combined into presidential suite; refueling probe; 2 fire-suppression systems; 96 aircraft decoy dischargers with chaff and flares. *Wings:* 192 aircraft decoy dischargers with chaff and flares; *Pods 1-4:* Compact fire-suppression system.

Statistics

Size: 232'×196'×63' *Payload:* 250 tons *Lwt.:* 416 tons
Volume: 59,848 cf *Maint.:* 2 hours *Price:* $100 million

HT: 12. HPs: Body 60,000, each Wing 12,000, each Pod 1,500, each Wheel 666.

gSpeed: 196 *gAccel:* 10 *gDecel*: 15 *gMR:* 0.125 *gSR:* 5
Extremely High Ground Pressure. No Off-Road Speed.
aSpeed: 476 *aAccel:* 5 *aDecel*: 24 *aMR:* 6 *aSR:* 5
Stall speed 196.

Design Notes

Body is extra-heavy, expensive, with fair streamlining. 53,100 cf; 10,000 sf. The wings are 3,800 cf, 4,000 sf. Armor is expensive, metal. Improved brakes.

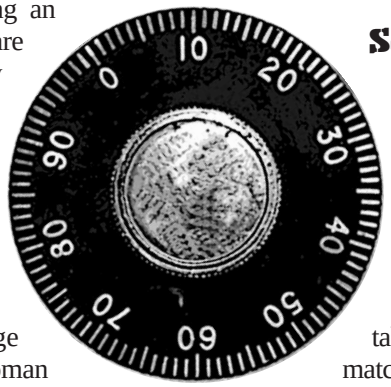
Zone Acoustic Countersniper System (ZACSS) (TL7)

This is a system that triangulates the origin of a shot, allowing swift countermeasures. The basic principle has been used by artillery-battery radars since the 1970s – these determine the origin of a shell so as to immediately answer in force with the user's own artillery pieces, thereby silencing the opposing gun. The ZACSS, available since the mid-1990s, does the same with hostile small-arms fire. It "protects" a zone with several (at least two) omni-directional sensors – the zone can be stationary, such as a speaker's podium or house, or moving, such as a single vehicle or motorcade. The sensors consist of omnidirectional microphones that react to the shockwaves generated as a bullet travels through the air. It is more accurate if there is also a muzzle blast, but that is not required – i.e., even sniper rifles with sound suppressors or flash hiders can be located, but not subsonic pistol rounds. Aside from acoustic sensors, the ZACSS may also incorporate additional sensors, including IR-heat sensors and ladar sensors. With the data from the sensors, and a location package including a GPS receiver and a compass, the computer at the heart of the system can calculate the bullet's trajectory, range, caliber, speed and, most notably, the location of the firer, all within a second. The current systems are extremely accurate – the margin of error for detection is less than 10% deviation in the angle from where the shot came. They are always able to tell the caliber, range, and the general direction within 20°. Roll vs. 10 + Acoustic Signature (p. 69) - Range (see p. B201) to see if the system can locate the firer. The better the roll, the more information becomes available – exact caliber, azimuth, elevation, etc. Maximum range is 1,500 yards.

While a ZACSS can't prevent a shot from hitting, it vastly improves the chances of those under fire to react effectively, by immediately taking out the sniper with counterfire, taking cover, or leaving the area. Some designs also include laser sensors (p. 86), which allow the detection of the sniper *before* the shot, if he uses a targeting laser (p. 69).

The sensors of a ZACSS come on portable tripods or are installed externally on a vehicle. $10,000, 30 lbs. for the entire system.

One realistic use for this is hooking it up with robotic gun turrets, allowing an automatic return of fire. These are mainly of use in a strictly military environment, however.



Locks

Key Lock (TL1)

Locks opened by keys were already known in Bronze Age Egypt, and widespread in the Roman Empire. They fell somewhat out of use in the Dark Ages, but reappeared in the Middle Ages. Most are fairly easy to pick, with a *bonus* for every TL below 5, as long as the one trying to pick the lock is of a TL *above* the lock's TL.

At TL6+, most commercial locks have a master key – this is a key that opens several locks whose individual keys do not work in the others of the set. Security guards, but also service personnel such as janitors or cleaners, often have access to such master keys, which may give access to all rooms in a building. The higher the security, the fewer people have access to a master key, and they are always accounted for. Nevertheless, a stolen master key can be copied fairly easily.

Manufacturers of locks, doors, vehicles, etc. often also have a master key for the devices they produce. The only problem is to find out to which lot the lock belongs; the master key can then be stolen or "borrowed" and copied from the producer.

Combination Lock (TL5)

Common from the 19th century, these rely on a certain combination to be set. They are common on safes and require Lockpicking to open.

Auto-Ignition Remote Control (TL7)

This gadget starts a car at ranges up to 100', allowing the user to escape harm from car bombs wired to the ignition, but not other kinds of bombs. Good models have a security code and can remotely *stop* the engine and unlock the doors and trunk as well. $100, negligible weight.

Electronic Lock (TL7)

An electronic lock can be installed in a house, vehicle, briefcase, etc. It uses either a keypad (at TL7+) or a small electronic "key" (at TL8+), or both. The "key" emits a coded series of infrared or laser pulses. With either method, giving the wrong combination may trigger an alarm.

Picking an electronic lock requires a set of electronic tools (at least a mini-toolkit) or an electronic lockpick (p. 55). Apply a penalty of -5 for each TL by which the lock exceeds the TL of the operative or his tools.

A keypad lock is $100. A "key" system gives -2 to Lockpicking rolls and is $200 (the key is the price of the lock); each doubling of the price and weight gives an additional -1 to Lockpicking, to a maximum of -5. Adding a keypad to a "key" system costs $50. Either system weighs 0.5 lb.

Scanlock (TL7)

An electronic lock can also be fitted with an identity scanner, which cannot be physically picked, but may be bypassed by other means. A successful Electronics Operation (Security Systems) roll reveals what information and tools are required. The scanlock needs to be hooked up to a computer running the Datalink and Internal Security programs, to compare the user's identity with those in the computer's database. Verification takes 3 seconds (less at higher TLs). If the user can't be matched with an authorized user in the database, the lock won't open and may trigger an alarm or other countermeasures. The cost and weight of the lock depends on the scanner – see *Identity Verification* on p. 99 for the types available.

Safes

Safes in their current guise first appeared at TL5 and vary widely in size and construction. A generic TL7 safe has a keypad lock *and* a high-security tumbler lock (-6 to -8 to Lockpicking). Extra safeguards against drilling out the lock are installed, which mechanically block the door with extra deadbolts for a set period, usually 24 hours, as soon as they detect a drilling attempt. Most resist heat long enough to protect computer-storage media for 2 hours.

Each make and model of safe requires a different familiarity of Lockpicking (p. B43), with a minimum penalty of -4 if unfamiliar – a safecracker should study construction plans or an actual sample of the safe to buy it off.

To build a TL7 safe, first decide on the internal volume in cubic feet. Calculate its surface area in square feet by multiplying (cube root of the volume, squared) by 6. Multiply surface area by 6 to get hit points. Multiply surface area by 20 to get structural weight. Multiply surface area by $250 to get structural cost. Decide on armor thickness; a typical free-standing safe in a small business office has 3 cf and DR 120+; a bank vault has 500+ cf and at least DR 250. A jeweler's safe or a high-security military safe may be as small as 1 cf but can have DR 300+. A firearms safe has 20 to 50 cf and DR 80. A small handgun safe has 0.5 to 2 cf and DR 50. Multiply surface area by 0.5 to get weight per point of DR. Multiply total weight by $2 to get cost. Add structural and armor weights and costs together to get the total weight and cost.

Example: A safe for a small security firm has 10 cf. Surface area is 27.85 sf, hit points are 27.85×6 = 167, structural weight is 27.85×20 = 557 lbs., structural cost 27.85×250 = $6,962.5. Armor thickness selected is DR 125; armor weight is 27.85×0.5×125 = 1,749.63 lbs., armor cost is 1,749.63×2 = $3,481.26. Total weight 557+1,749.63 = 2,306.63 lbs., total cost $6,962.5+$3,481.26 = $10,443.76.

More advanced locks, such as the scanlock (p. 93), can be added at the usual cost and weight.

Alarms and Traps

Tripwire (TL0)

A tripwire is simply a piece of thin, strong cord (TL0), wire (TL5), or nylon line (TL6) strung across a path; one end is attached to an alarm and/or a defensive device. Alarms include small bells, electric horns, tripflares, fireworks, and bushmasters (p. 58). Defensive measures include the wire itself, as it may cause a dangerous fall; hand grenades (p. 84); land mines; automatic weapons; mechanical traps, such as falling boulders; marking paint; and gas dispensers. To avoid falling from being tripped, roll DX+2 for a fragile thread, DX for cord, or DX-2 for a rope or wire. Installing and effectively concealing a tripwire requires a Traps skill roll. Spotting a tripwire requires a Quick Contest of Traps-1 or Vision-4 vs. the Traps skill of the person who placed it. Apply all darkness penalties, and roll at an extra -2 if the tripwire is made of nylon fishing line or similar nearly invisible material. Cost and weight are negligible.

Nightingale Floor (TL3)

Essentially a "creaking" floor built on purpose, a nightingale floor consists of moving floor boards nailed in such a way that whenever somebody walks on them, the nails scratch along small metal plates and thus emit a sound not unlike a nightingale. These were installed in some Japanese castles as alarms against assassins.

A Traps roll is required to notice it. Once found, the room may be crossed by jumping or climbing along the rafters. Fixing the boards with nails or gum may also work. A ladder laid over the entire floor may take enough weight off the individual boards to keep them from singing. Finally, Light Walk (see p. CI142) is a cinematic skill worthy of a ninja.

If built during initial construction, a nightingale floor costs $50 per 100 sf of area; if retrofitted, it costs $150 per 100 sf. The design is virtually unknown outside of medieval Japan.

Metal Detector (TL6)

A handheld metal detector gives +3 on Explosive Ordnance Disposal, Holdout, and Traps rolls to detect metallic objects: guns, knives, mines, bombs, etc. As of 2000, these sensors were improving faster than arms manufacturers can reduce the metal content of firearms and detonators. The lightest units are $450, 0.5 lb. Typical units are larger but cheaper: $50, 1 lb.

Pressure Sensor (TL6)

A pressure sensor reacts to the pressure generated by a specified weight applied to it. For example, it can be set to react to even the lightest animals setting foot on it, or conversely, may be specified to react only when a set minimum weight – such as a man, car, or tank – is applied. They are usually incorporated into various land mines, but can also just sound an alarm or switch on a surveillance camera. A modern device for home security can be hidden below a floor mat and reacts to any weight over 25 lbs. Therefore, a cat won't set it off, but a child would. $100, 0.5 lb.

Burglar Alarms (TL7)

This covers a wide range of devices. Indoor systems include pressure pads placed under rugs or floorboards, fiberoptic strands in the walls that trigger an alarm when broken, and pressure sensors attached to stairs and floors that can detect the weight of an intruder. Outdoor systems include buried wires that generate a radio field capable of detecting intruders; motion detectors that use infrared, microwave, or ultrasonic radiation to detect intruders; and geophones. See p. 86 for examples.

When triggered, these devices can respond in several different ways. Some turn on powerful spotlights or sound a piercing alarm. Others silently summon guards or police. Most also pinpoint the intruders' location on a computer monitor. Mines and unmanned weapons may be activated, but this is unlikely except in cinematic settings.

An Electronics Operation (Security Systems) or Traps roll is required to spot a security system, subject to the size modifiers on p. B201. If the system is partially concealed, this roll is treated as a Quick Contest against the concealer's Camouflage skill. If the system is fully concealed, no roll is possible without specialized detection equipment.

The skills needed to *defeat* an alarm system vary with the system. Of course, the best way to disable any system is simply to shut it down. This requires a separate Electronics Operation or Traps roll once the sensor is located. There are several lines of defense against this, however:

Self-protection. Sensors and control boxes are often located within the area protected by the security system. Unless the sensors are of a variety that can be jammed, such as radar or IR, or evaded via Stealth, such as motion detectors, the GM may rule that such sensors *cannot* be disabled without setting them off.

Tamper-resistance. The housing of such devices is usually wired to detect tampering. A separate skill roll is required to open the housing without setting off the alarm.

Armor. Shooting out sensors works well in the movies, but in real life, the housing of most good-quality security electronics is rugged enough to resist pistol fire (DR 12+). In addition, the shooting is almost certain to alert anybody around.

Battery backups. Cutting the power used to be the way to go, but modern security systems inevitably have battery backups – sometimes even one per sensor, just in case. These can typically power the system for 24 hours or more.

When intruders attempt to defeat a security system, any failed roll sets off the alarm. The GM should make these rolls in secret; even if the alarm involves a loud siren, the intruders need not know until they set it off. In the final analysis, the safest way to defeat a security system is to have someone on the inside!

Capacitance Proximity Sensors (TL7)

These are microchip-sized sensors, which detect changes in electrical properties caused by a human touching or getting close to them. Similar sensors are used in touch-sensitive consumer products. These tiny units are typically concealed in high-security areas as part of a larger security system. Touching a rigged device sets off the alarm. The only sure way to defeat these sensors is to avoid them altogether. One sensor is $40, 0.2 lb.

Chemical Sniffers (TL7)

Many sensor technologies – acoustic-wave resonance, ion spectrometry, microwave-backscatter analysis, etc. – can identify airborne particles or vapors. These are used to detect chemical weapons, drugs, and explosives. Some examples appear below. The GM rolls secretly to see if the device registers a suspect substance.

Broad-Spectrum Analyzer: This state-of-the-art handheld unit can sense the entire range of dangerous or illicit substances: chemical weapons, drugs, explosives, etc. It is *extremely sensitive* and easy to use (effective skill TL+13). Detection range is about a foot. $60,000, 6 lbs.

Explosives Detector: These scanners detect explosives and incendiaries in 1 second, at a range of 1 yard. A unit the size of a flashlight has effective skill TL+5 and is $6,000, 1 lb. A larger unit for installation in doorways or security checkpoints is more sensitive (effective skill TL+9), but costs $15,000. They can be circumvented by carrying medicinal glycerin tablets; these are detected, but can act as a cover for the *real* explosives hidden elsewhere in the luggage.

Gas Scanner: An autonomous sensor that tests the air continuously for a limited number of predesignated substances, usually chemical-warfare agents. Effective skill TL+10. $2,000, 4 lbs.

Fence Protection System (TL7)

A series of armored, tamperproof strain and vibration sensors that attach to the posts of any barbed-wire or chain-link fence, these detect attempts to cut, climb, or lift the fence. The sensors must be mounted no more than 8 yards apart. Each series of sensors protects a "security zone" consisting of up to half a mile of fence, reporting the nature and location of any breach on a remote computer. *Two* Electronics Operation (Security Systems) rolls at -4 are required to neutralize an 8-yard section of fence, making it safe to cut or climb.

Human Presence Detection Device (TL7)

Also called a "heartbeat detector," this device can detect human beings within an enclosed vehicle. It consists of a briefcase-sized computer, an electronics box, and four cup-sized vibration sensors. The sensors are placed on the outside of the vehicle, where they pick up movements as small as a millionth of an inch – comparable to the vibrations caused by a human heartbeat. The attached electronics screen out everything but signals consistent with heartbeats and deduces the number of people inside the vehicle, allowing the operator to determine whether hidden passengers are present.

An Electronics Operation (Security Systems)+4 roll is required to scan a vehicle; this takes 1 minute. Strong winds give -4 to this roll. The device also works on small, confined rooms, but not on large rooms or outdoors. $49,000, 35 lbs.

Rumors persist of ranged sensors that can locate humans *anywhere* using a SQUID, or Superconducting QUantum Interference Device. This device would be sensitive to minute magnetic fields, such as those generated by the human heart. This is unlikely with current technology, but makes an excellent prop in cinematic and illuminated games – the future may bring working examples.

IR Motion Detector (TL7)

This cigarette-pack-sized sensor can detect motion out to 25 yards in a 90° fan. The sensor signals a receiver up to 500 yards away, causing it to vibrate or sound an audible alarm. An intruder who is aware of the sensor can defeat it by moving *slowly* (Move 0.25, which requires a Stealth-4 roll).

Costs $500 for a receiver with four sensors; extra sensors are $100 each. Each unit is 0.25 lb. and runs for a year on a 9-volt battery. For $800 more, the receiver can plug into a phone jack. It dials a preprogrammed number and leaves a recorded message if a sensor is triggered.

Similar systems are available as permanent fixtures for buildings and vehicles.

Millimeter-Wave Imager (MMWI) (TL7)

This sensor uses the low-frequency IR and high-frequency radio waves ("millimeter waves") emitted by all objects – including people – to see *through* clothing, foliage, packaging, and thin walls. It can detect hidden people, concealed weapons, etc., from a distance without emitting a detectable signal. Advanced systems can look through skin to detect heartbeat and respiration at range.

Details are sketchy, as these devices are still reserved for law-enforcement and military use. Known versions are "cameras" for area monitoring and resemble video security cameras, walk-through scanners for checkpoints similar to airport X-ray machines, and handheld units for surveillance that look like police radar guns. Range is about 30 yards. All are mainly intended to search for concealed weapons or contraband. Currently, the resolution of the video images is not high enough to make out any anatomical details when scanning people. Cost is anybody's guess, but likely high.

MMWI devices cannot see through water or objects with a high moisture content. A holster can contain circulating layers of warm water, which would enable the wearer to slip through an MMWI scan – of course, most security checks also involve more-conventional metal detectors.

Noiseless Button Bomblets (TL7)

These are motion-sensitive transmitters, disguised as small logs or stones. If disturbed, even slightly, they emit a warning radio signal. Make a Vision-2 roll to notice these devices before stepping on them. Armies use these devices to monitor broad regions. They are called "bomblets" because they are dropped by air, like bombs. $1,000 for a 1,000-hex load.

Portable Radio Jammer (TL7)

A portable radio jammer emits a barrage of "noise," jamming radio communications, microphones, and devices relying on radio control, such as remote-controlled detonators or vehicles. Radio reception requires an Electronic Operation (Communications) skill roll at -5. A typical portable jammer has a range of 200 yards and runs for 1 hour on its batteries. $1,600, 8 lbs.

Radar Motion Detectors (TL7)

Ground radar can detect movement as slow as a single inch per second (in game terms, Move 0.03!). A person trying to move slowly enough to avoid detection must make a Stealth roll at -9. Radar motion detectors can also be defeated by jamming; modern radar is built to resist jamming, however. The jammer operator is at -3 in the Quick Contest and triggers the alarm if he loses. Numerous systems are available, with many exotic options: solar power, transponder badges which let wearers operate in the protected area, etc. Two examples:

Microwave Intrusion-Detection System: A pair of stationary units – one transmitter and one receiver – can be placed up to 500 yards apart, and protect everything in a 12-yard-wide swath between them. The receiver reports the location and speed of any human-sized or larger object moving in the area. Each tamperproof, armored unit has a battery backup and weighs 20 lbs. Smaller "rapid-deployment" units can protect a 250-yard-long zone per pair, and weigh 2 lbs. each.

Portable Ground Radar: Developed for the protection of political figures and military assets, this suitcase-sized unit sets up in minutes. It can be adjusted to scan a fixed location or a full 360˚, out to any range from 5 to 150 yards. It detects human-sized or larger targets moving within that zone, sounding an alarm or silently transmitting the target's location and speed by radio. Computer signal processing lets it operate effectively in rough or broken terrain, unlike older systems. Multiple units can establish a security perimeter in a manner identical to the microwave intrusion-detection system above. The tamperproof radar unit has password-protected controls and weighs 40 lbs. The battery unit (good for 35 hours) is another 20 lbs. The entire setup costs $10,000.

Seismic Intrusion-Detection System (TL7)

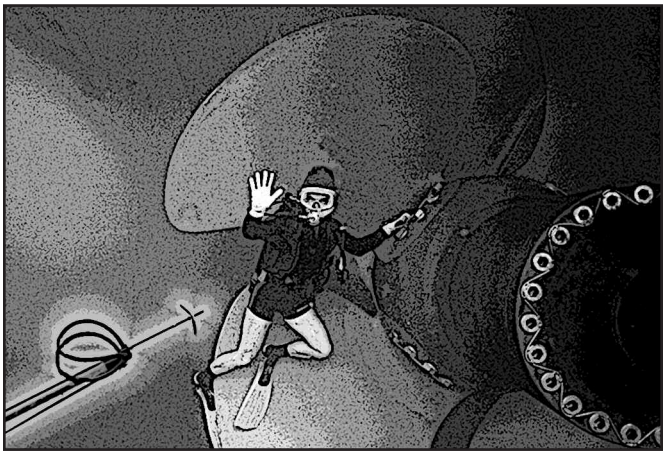
A line of geophones (vibration detectors) that can be buried in concrete, asphalt, or dirt, but not swamp, each line of sensors protects a 5-yard by 75-yard "security zone," sensing and reporting the location of objects moving on the ground. The signal processor, connected via buried cables and located remotely, can discriminate between people, vehicles, and geological phenomena. Since the system is buried, it is normally impossible to tamper with or even spot. If someone knows it is present, a Stealth-4 roll lets him crawl undetected through the protected area at Move 0.25. 50 lbs., $50,000.

Smoke Alarm (TL7)

Widely available since the 1970s, smoke alarms are small, independently powered sensors reacting to smoke, sounding an alarm or setting off an automatic sprinkler system when they do so. Today they are widespread; more than 90% of all American private homes and virtually every U.S. public building has at least one sensor. They make arson an even less effective attack – however, they have a 30% failure rate. The most common problem is missing or flat batteries; an arsonist may want to replace good batteries with dead ones before setting the fire. 1 to 2 lbs., $20.

Swimmer Detection System (TL7)

Sensitive coastal areas, oil rigs, piers, etc., can be equipped with hydrophones for detecting divers. The operator must roll vs. Electronics Operation (Sensors) to positively identify a scuba diver. This roll is at +7, minus the range penalty on p. B201. Roll at -3 if the diver has civilian closed-circuit diving gear, or at -6 if he has the military equipment described on p. 56. The hydrophones of warships are far more sensitive, and detect divers at ranges greater than any reasonable oxygen supply allows them to swim.



Thermal Detection Device (TL7)

A handheld IR sensor with a built-in computer that can distinguish the heat signatures of living beings from other heat sources. It can detect hidden intruders on a successful Electronics Operation (Sensors) roll, penetrating up to 50 yards of brush, camouflage netting, or other concealment. It can also function as an IR motion detector (p. 96). $600, 1 lb.

Ultrasonic Motion Detector (TL7)

Emits a 20° cone of ultrasonic sound and reacts when it receives reverberations from a moving object. It can detect any motion in a range of 10 yards, and also detects the distance to the moving object if hooked up to a computer. Typically hooked up to lighting, alarms, etc. $30, 0.2 lb.

AI Monitoring System (TL8)

The growing availability of surveillance technologies creates a new kind of problem: there is so much information flowing in that there aren't enough guards to monitor it all efficiently. A system under development at Nanyang Technological University in Singapore offers a solution to this problem. A neural-net-based artificial-intelligence program reviews images from a large number of cameras, analyzing the posture and movements of the human beings in each image. If an image contains people who are engaged in combative or intrusive behavior, it goes onto a monitor screen for review by a human operator. This means that few operators are needed, and they spend much less time fighting boredom and much more looking at situations that really need intervention. Preliminary tests claimed 96% accuracy for the program.

In ***GURPS*** terms, this is a Complexity 4 skill program for Body Language, providing Body Language at IQ+6; each copy costs $8,000. A single copy runs on a Complexity 4 neural-net microframe (IQ 8, skill 14), a Complexity 5 mainframe (IQ 9, skill 15) runs 10 copies, and a Complexity 6 macroframe (IQ 10, skill 16) runs 100 copies. A dedicated microframe is 100 lbs., 2 cf, $8,000; a dedicated mainframe is 250 lbs., 5 cf, $40,000; a dedicated macroframe is 2,000 lbs., 40 cf, $400,000; for total costs (hardware and software) respectively of $16,000, $120,000, and $1.2 million.

Countersurveillance

Bug Detectors (TL7)

These instruments are used to detect "bugs" – microphones, tape recorders, tracking devices, transmitters, wiretaps, etc. Each detector has its own specialty. Below are some examples. Unless otherwise specified, "transmitter" refers to a radio-frequency (RF) device that broadcasts an audio, video, or tracking signal.

Personal Bug Detector: A pager-sized device that vibrates and flashes an LED when an active transmitter is within 7 yards. It distinguishes between bugs and communications systems (cellular phones, tactical radios, etc.), but does not reveal the transmitter's location. $125, 0.3 lb. Miniature versions that can be concealed in pens, wristwatches, etc., are $250, negligible weight.

Advanced models work as above, but can detect microphones and tape recorders as well as transmitters, with a different alert for each. $700, 0.4 lb.

RF Bug Detector: Similar to the above, but more sensitive with a 10-yard range, and capable of locating any transmitter it detects. This is treated as a Quick Contest between the operator's Electronics Operation (Security Systems) skill and the Electronics Operation (Communications) skill of whoever hid the bug. Locating a bug involves sweeping the room with a 2' handheld antenna and takes about 1 minute per 100 square feet scanned. It is the size of a small cassette player. $500, 1.1 lbs.

Nonlinear Junction Detector: Works like an RF bug detector, but this detector can locate microphones and tape recorders as well as transmitters. It can sense these devices even when they are *not* in operation. Comes in a carrying case with accessories. $21,000, 9 lbs. (The 5' probe and portable electronics box are only 4 lbs.)

Line-Tap Detector: This device can be inserted between a telephone and a wall jack in seconds. It warns the user of line-activated tape recorders, line-powered transmitters, and other wiretaps, including a second phone on the line, and attempts to "jam" such devices. Unless the wiretap's operator can make an Electronics Operation (Communications) roll at -5, he intercepts nothing but static. Unattended wiretaps fail automatically. About the size of a cigarette pack. $150, 0.1 lb.

Advanced models give an extra -1 to attempts to intercept phone calls. On an Electronics Operation (Security Systems) roll, the operator of an advanced detector can learn the number and kinds of bugs on the line and can jam them selectively. $700, 0.2 lb.

Telephone Line Analyzer: This computerized unit works like an advanced line-tap detector, but gives an extra *-2* to tap the line and can monitor 16 lines at a time. This is representative of systems used by military and counterintelligence services. Comes in a small suitcase. $20,000, 10 lbs.

Countersurveillance Frequency Detector: A suite of electronics used to detect *active* bugs, with special probes for testing telephone and electrical outlets. It can be used as both an RF bug detector and advanced line-tap detector. Gives +2 to Electronics Operation (Security Systems) rolls to sweep for line taps, microphones, tape recorders, and transmitters. Folds up into an attaché case. $4,000, 7 lbs.

Spectral Correlator: A countersurveillance frequency detector integrated with a computer, IR sensors, and sensitive microphones. The computer analyzes input from all sensors, points out security risks, and logs the results, which can be printed out. Gives +2 to sweep for nearly any kind of bug: IR and RF transmitters, line taps, microphones, recorders, sound detectors, etc. The computer can conduct scans automatically with an effective Electronics Operation skill of 12. Folds up into a small suitcase. $16,500, 30 lbs.

Countersurveillance Tool Kit (TL7)

This kit contains everything needed to manually inspect an area for cameras, microphones, transmitters, etc., and to examine and remove any devices found. Includes ordinary pliers, pry bars, scissors, screwdrivers, etc., for disassembling appliances and furniture; a flashlight; a multimeter for testing electronics; wire-tracing tools; a handheld metal detector; an illuminated 0.4" borescope (a short endoscope, see p. 45); a telescoping-handle mirrors for looking inside things; and a hammer for destroying bugs.

Manual countersurveillance sweeps are at -5 without a kit like this. A miniature kit, the size of a cassette recorder, reduces the penalty to -2 and is $400, 2 lbs. A full-sized kit, which fits into a flat attaché case (p. 35), eliminates the penalty entirely and is $900, 10 lbs.

These tools are also useful for finding larger devices, such as bombs and security systems. They give a bonus to Electronics Operation, Explosive Ordnance Disposal, Holdout, and Traps rolls made for this purpose: +1 for the mini-kit, +3 for the full-sized kit.

Magnetic Media Disruptor (TL7)

This device emits a magnetic pulse that destroys all magnetic media – audio tape, diskettes, videotape, etc. – within 3 yards. It has no effect on digital data cards and CD media! Used to guard against unwanted tape recordings. The size of a cigarette case. $200, negligible weight.

Shielded Room (TL7)

Electronic countermeasures have kept up with surveillance technology. Rooms lined with metallic mesh can defeat transmitters (p. 47), TEMPEST gear (pp. 46-47), thermographs (p. 46), and millimeter-wave radar (p. 96). Windows of shielded glass offer similar protection, can have special glazing to foil laser mikes (p. 41), and use blinds or one-way glass to secure against visual surveillance. Soundproofing thwarts contact mikes (p. 41), long-distance mikes (p. 41), and ears at the door. Filtered electrical outlets and phone jacks protect against bugs and wiretaps (both p. 43).

To outfit an enclosed space with basic countermeasures costs $25 per square foot of wall, ceiling, and floor area, including windows and doors. These features are invisible to the naked eye and give -5 to rolls made to gather data electronically from within the shielded region. Strategically important areas are often given more radical protection, with costs of $50 per square foot. Such rooms are visibly shielded and give -10 to surveillance rolls.

The main drawback of shielding is the expense. Basic shielding for even a 10'-square, 8'-high room costs $13,000; radical shielding costs $26,000. An entire office building costs *millions* to shield. As a result, shielding is usually reserved for a few secure meeting areas or computer facilities.

White Noise Generator (TL7)

This is a device that creates white noise above 20 kHz, which can't be heard with normal human hearing – Ultrahearing is required (see p. CI69). Induced on windows, it defeats laser microphones (p. 41). A single unit comes with a generator and four speakers. Alternatively, it can be hooked to four speakers to transmit the white noise into the air; this defeats conventional audio bugs (p. 43), tape recorders (p. 41), etc. in a room up to 10×10 yards. $150, 4 lbs. including the transducers and small speakers.

Identity Verification

Password (TL0)

An easy way to verify someone's identity is a prearranged password. Remembering it requires an IQ roll, modified for complexity and length. The base roll is IQ+7, with a -1 penalty per word, or per letter or digit of a code that doesn't spell out a word.

The Old Testament describes a variant that doesn't need prearrangement: when Israel was at war with a country whose native language didn't include the sound "sh," its soldiers asked strangers to say "shibboleth." Those who pronounced it "sibboleth" were arrested as spies. American soldiers during World War II are reported to have asked for words with L or R consonants, which were difficult for their Japanese opponents to pronounce.

Keypad (TL6)

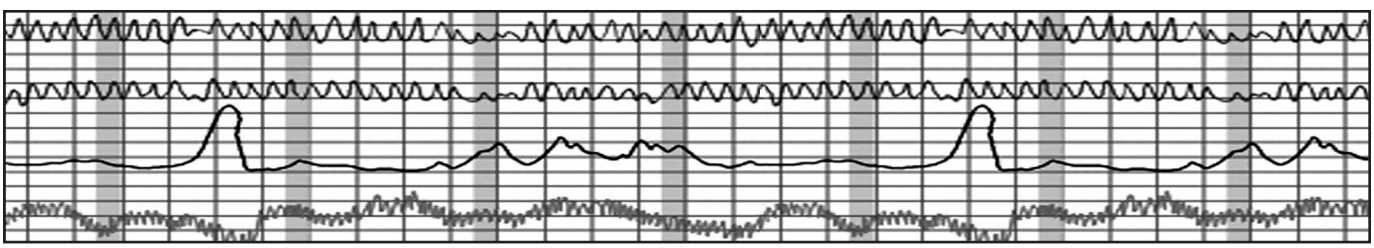
The user must enter a code or password. This can be the same for all users, but is usually matched to an identity token. Some systems permit any number of failed attempts, while others sound an alarm on the first or second failure. There is no easy way to spoof such a device, but many people are in the habit of writing down codes – or even selling them! (See *Electronic Lock*, p. 93, for prices.)

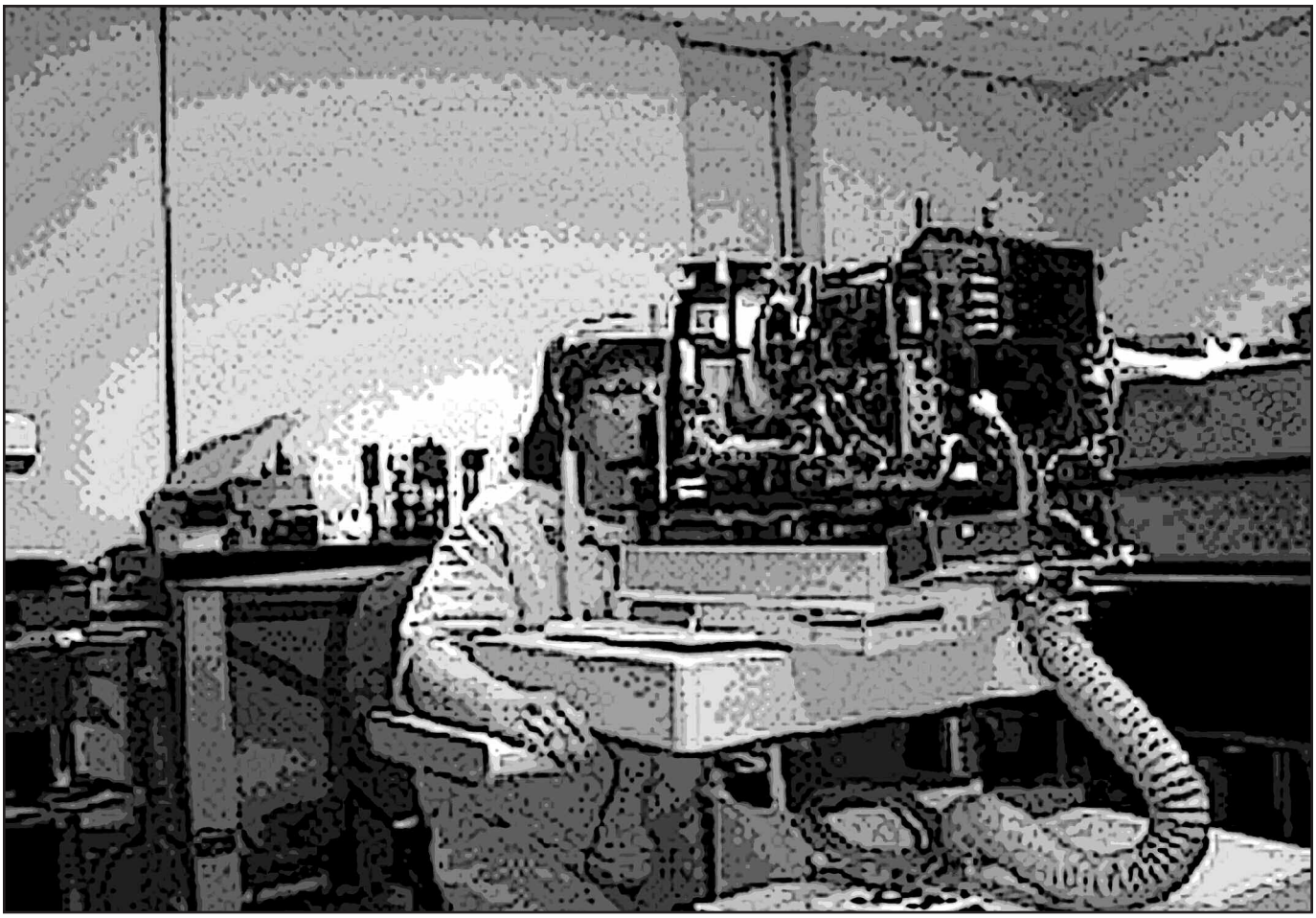
Lie Detectors (TL6)

Polygraph (early TL6): The polygraph, or lie detector, measures heart rate, respiration, blood pressure, and skin conductivity. These readings indicate the subject's degree of relaxation. An operator reads the results as a set of values on a paper graph or digital monitor. In principle, the act of deception causes tension; therefore, the polygraph can detect lies.

Psychologists have debated the accuracy of the polygraph since its invention. The premise that lying causes stress may simply not be true. In many circumstances, telling the truth causes more discomfort than telling a lie. Certain pathological liars feel no compunction about telling falsehoods in any event. Furthermore, people have devised many tricks for throwing off a lie detector's calibration, ranging from relaxation techniques to stepping on a tack hidden in one's shoe. The value of such tricks is also debated.

This controversy is visible in practice as well. Some institutions, including British military intelligence and most courts of law, place no value on polygraph results. Others, like most U.S. federal agencies, use polygraphs routinely in security checks.





If the GM decides that these devices actually work as advertised, then a polygraph gives a modifier to Detect Lies skill. Its value depends on a Quick Contest between the operator's Electronics Operation (Medical) skill and the subject's Will. The interrogators get a bonus or penalty to Detect Lies skill equal to their margin of victory or loss. The polygraph operator and questioner need not be the same person; a technician with Electronics Operation and an interrogator with Detect Lies can work as a team. The GM should make all rolls relating to a lie-detector test in secret.

People with the Compulsive Lying disadvantage always appear to be telling the truth on polygraph tests. The GM should make all the usual rolls for purposes of deception, but the interrogators automatically have -5 on all machine-aided Detect Lies rolls.

If the interrogators wish, they may make two Detect Lies rolls for each question: one with the aid of the polygraph, one without. However, they have only their own intuition with which to choose the more accurate result.

A self-contained polygraph fits into a suitcase and is $8,000, 5 lbs. A unit that must plug into a computer to work, complete with software, is only $1,500, 1.1 lbs.

Voice Stress Analyzer (late TL7): A more recent invention, the VSA is a lie detector which can supposedly detect a liar by the tremors in his voice. Nothing is attached to the subject's body, so it can be used without his knowledge. However, the effectiveness and scientific validity of VSAs is hotly contested – especially by proponents of the polygraph. For game purposes, treat a VSA as a polygraph with half the usual effects on Detect Lies skill. Models range from pocket-sized gadgets ($200, 0.5 lb.) to pricey, specialized laptop computers ($5,000, 6 lbs.). Effectiveness may or may not increase with cost, at the GM's option.

Document Scanner (TL7)

This device uses infrared or ultraviolet radiation to examine papers or packages, seeing through ink, erasures, correction fluid, and the like, and detecting subtle alterations. It is intended for document security, but has surveillance applications; the operator can produce a legible copy of a document in a sealed envelope on an Electronics Operation (Security Systems)-2 roll. It's the size of a desktop photocopier. $300, 40 lbs.

Palm Scanner (TL7)

Uses any one of a number of advanced sensors to scan the subject's fingerprint(s) or hand geometry. These systems can be fooled by surgery or high-tech gloves only in cinematic games; in real life, intruders have yet to defeat them. However, a cloned palm would work. $200, 1 lb.

Retinal Scanner (TL7)

A retinal scanner uses a low-powered laser to identify the subject's unique retinal pattern in one or both eyes. Surgery

and special contact lenses are ineffective outside of cinematic campaigns, but cloned eyes would work. $500, 2 lbs.

Signature Pad (TL7)

The user must sign his name on a pressure-sensitive plate. This device can see through most handwriting forgeries, because even the best forgers do not know the timing and pressure used by their subjects. Those with Electronics Operation (Security Systems) *and* a computer analysis of their subject's signature may attempt a Forgery roll at -3.

Voiceprint Analyzer (TL7)

Matches the subject's voice to an identity record, usually a short phrase such as a name or ID number. A human mimic cannot fool today's systems, but a good digital recording works. Since a legitimate user's voice tends to vary from occasion to occasion, particularly if he has a cold, these scanners usually have backup systems that can override the primary unit. Trespassers may take advantage of this loophole. A voice modulator can fool the scanner. $100, 0.5 lb.

Genetic Scanner (TL8)

"Biochip" technology may soon allow someone to be genetically profiled by touching a microchip, which needs not *look* like a microchip. It is theoretically possible to fool such a device with a sterile, skintight glove and a cell sample from an authorized user. Someone with Electronics Operation (Security Systems) skill and access to such a sample can make a Biochemistry or Forensics roll at -4 to attempt this. If available, assume the equipment weighs 8 lbs. and costs $2,000 for the basic setup.

Infrared Profiling (TL8)

Uses an IR sensor to match the subject's unique heat pattern with a record on file. It is usually combined with other systems, as there can be a high misidentification rate resulting from illness, clothing, and recent exertion. 4 lbs., $1,000.

Optical Recognition System (TL8)

The subject must stand in front of a camera connected to a computer, which searches for a match in a database of images of authorized personnel. Although available at early TL7, its effectiveness is hotly debated. A conservative approach is to treat it as a guard with an effective Vision roll of 14 to recognize authorized personnel. Like a guard, it can be fooled with Disguise skill and specialized equipment (pp. 48-49). A more generous approach gives it a Vision roll of 18+. These are increasingly found at airports; operatives have to avoid getting their faces on file.

Alternatively, the databases don't look for the face, but for the gait, which researchers claim is as unique. Use the same procedure as above, but instead of Disguise skill, Acting is required to fool the system. Gait-altering inserts in the shoes or a limp from a wound may also help.

The basic system is 4 lbs., $1,000. This assumes a limited database of people (up to 100) allowed access to an area. Building a more comprehensive database – say, of all the known criminals in the world – is more expensive. Add $10 to the cost for each additional person added to the database; this also slows the scanning process, as the computer has to check a larger database. Getting data on *some* people may cost significantly more than this – this only covers the basic cost of installing additional memory and getting easily obtained information.

Countermeasures

Firefighting Gear (TL0)

At low TLs, the most effective way to extinguish fires is to cover the flames with water, snow, or sand. Roll 6 or less on 3d to put out a fire. One roll is allowed every 10 seconds; a critical failure results in 2d burn damage. A bucket of dirt, water, or sand is available at no cost practically everywhere, and extinguishes a fire in 1 hex (see p. B130). Weight of a 10-quart bucket full of water is about 25 lbs., 36 lbs. if filled with sand instead. Alternative means include blankets, cloaks, etc., but these are usually damaged in the process.

In the Roman Empire, firefighting equipment included a water-spraying engine. It seems to have been fairly efficient; the operating manual discussed the risk of excessive pressure causing the nozzle to fly off! Specifications for such a device are as follows: A water tank holds 16 cf of water (1,000 lbs.). A pump and nozzle need two men to provide power and send out a 20' spray. Empty weight is 350 lbs., cost $1,750. A unit with a full tank is an oxcart load; a small squad of men can carry a unit with an empty tank but need to recruit a bucket brigade to fill it.

At TL5, handheld fire extinguishers appear (patented in 1863), typically nozzle-equipped bottles containing water, CO_2 gas, foam, or dry chemical powders under pressure. Any of the above suffocates the flames on a roll of TL+2 or less on 3d. A large one of the type found in wall racks has 20 1-second bursts, each sufficient for 1 hex. $150, 20 lbs. A smaller one such as found in vehicles contains 2 bursts. $35, 3 lbs.

Bomb-Disposal Equipment (TL7)

Bomb-disposal equipment can mean anything from a bomb suit and specialized equipment to an EOD robot (p. 42) and an armored bomb-containment trailer. See pp. C72-73 for a detailed description of bomb-squad equipment.

A modern *Bomb Suit* (early TL8) has PD 3, DR 50 for the torso and PD 3, DR 20 for the arms, legs, and head (the face plate is DR 10). Some have even better protection, including the visor, but only to the front. A bomb suit restricts movement considerably (-3 DX), and is extremely obvious. It may include an NBC suit and breathing apparatus. $10,000, 70 lbs.

An *Explosives Blanket* (TL7) is a stiff piece of flexible armor, such as Kevlar (p. 87), over a steel frame. It is used to contain an explosion if a bomb can't be removed. Everyone in the area of the blast is protected with an effective DR 25; the blanket usually contains fragments. $4,500, 40 lbs.

Guards

Fortifications and traps are all very well, but they only operate under predefined conditions, or when triggered by a human user. Having an alert mind watching for signs of trouble makes it much more difficult for a would-be intruder. Guard animals go back to TL0, with packs of half-wild dogs following human hunters around and barking if someone unfamiliar approached. Human guards came into regular use at TL1. At TL7, automatic machines are able to detect and stop intruders; in fantastic settings, magical guardians may do the same.

Human Guards

Through nearly all of history, the only way to get really intelligent guards was to use trained human beings. Important men, whether kings, high priests, or powerful criminals, surrounded themselves with armed men. The royal bodyguard was likely an elite force, better funded and equipped than regular military units – and often better trained.

An alerted guard with a radio or "panic button" can compromise an entire operation. Military guards, at least those stationed at higher security installations, are likely to shoot – on sight or after one or two warnings, depending on their orders – and the gunfire brings more soldiers in seconds. The skill of the guards greatly affects the effectiveness of the system. A million-dollar system manned by amateurs is a waste of money, while a $10 trip flare near a Ranger bivouac can make all the difference. Some typical skill levels:

Untrained Guard: A civilian who has received a few lectures on security equipment. He has IQ and Sense rolls in the 9 to 11 range, and the Electronics Operation (Security Systems) skill at 7 to 11. Most untrained guards are unarmed; at best they have a baton or defensive spray available.

Professional Guard: A full-time policeman, private security professional, or soldier, properly trained to use his equipment. He has IQ 10 to 12 and *possibly* Alertness +1 or +2, giving him a Sense roll of 10 to 14, and Electronics Operation skill 10 to 14. He is likely to be armed with a service revolver or pistol – or more rarely, a shotgun, carbine, or submachine gun – and has the Guns skill at 12 to 14. Less-than-lethal weapons are often available, and deadly force is only applied if all other means have been tried.

Elite Guard: A veteran or expensive hired guard, specially trained counterintelligence officer, or commando. He has IQ 11 to 13 and *probably* Alertness +1 or +2, giving him a Sense roll of 11 to 15, and Electronics Operation skill of 13 to 17. He is almost certainly armed, typically with a submachine gun, shotgun, or assault rifle, and has the Guns skill at 14 to 16. Like a professional guard, he shoots only if other means have been exhausted – unless he is specifically ordered to shoot first and ask questions later, which is the case at high-security installations. See Chapter 5 (p. 121) for templates for these personnel.

Unfortunately, human intelligence also means that a guard can ask "What's in it for me?" Men powerful enough to need bodyguards have to worry about whether they can trust those guards. Loyalty can be ensured in various ways: personal bonds between the guard and the man he protects, *esprit de corps*, fear of vengeance (including taking the guard's family hostage), religious vows, or simply hiring mercenaries whose high salaries depend on their reputation for carrying out their contracts. All of these have worked reliably many times; none of them are infallible. An operative who's not working in a limited time frame may find a guard who's not happy with his job.

Animals

Watchdog

At TL0 to 6, a trained dog with a handler is among the most reliable of security systems; at TL7, electronics begins to eclipse dogs in effectiveness. To sneak past a dog, an intruder must win a Quick Contest of Stealth vs. the dog's Hearing of 14. If the intruder is upwind, Stealth is irrelevant: just roll vs. the dog's Smell of 16 to 18 (depending on the breed). With training, a dog also gets to roll vs. Smell to track (per Tracking skill) or detect explosives. A fully trained dog costs at least 10% of starting wealth. At TL7+, dogs can be fitted with video cameras!

See pp. B142, BE39, BE99 for basic information on dogs.

Fantastic Guard Beasts

More exotic beasts can also provide protection. In a realistic setting at TL8 or above, animals may be genetically modified for enhanced trainability, general intelligence, keener senses, or deadlier combat abilities (see p. BIO98). A classical science-fiction setting may feature animals with psionic powers or alien animals with any number of exotic abilities. Animals with an empathic or telepathic bond to a human master are common in science fiction; catlike forms are especially popular.

In a fantasy setting, magical spells similarly modify animals, granting them abilities useful to their masters. Entire races of superior animals may exist. Or magic may form mental bonds between human beings (or elves, etc.) and animals, or simply make the animals more cooperative (see *Familiar*, pp. CI37-38).

In addition, animals with magical abilities may occur naturally, and mages may be able to command them and guard against undesired harm from those abilities. A wizard can have the entrance to his tower guarded by a clutch of basilisks or a giant three-headed dog.

Automata

The invention of computers made it possible to write programs safeguarding the security of a building or site. Such programs can monitor alarm devices, signal for help, lock doors and shut down elevators, or even operate weapons or security robots.

The first such systems become available at TL7; at TL8, systems with artificial intelligence (AI) can function in a much more sophisticated manner.

Such functions are best represented as skills. Watching for intruders uses Electronics Operation (Security Systems). At TL8, an AI can have the skill of Body Language to identify hostile or destructive actions, or even people who are planning such actions (see pp. 97-98). Identifying people who are authorized to enter a site uses the skill of Forensics. Various weapon skills can disable or kill an intruder.

Such skills are limited by a computer's Complexity rating. A standard computer has IQ equal to Complexity+3, a neural net computer has IQ equal to Complexity+4, and a fully sentient computer has IQ equal to Complexity+5. If the computer is capable of controlling weapons systems or robotic bodies, it also has DX equal to its (Complexity/2)+8. Its skill programs are equivalent to 1/2 point in a skill for Complexity 1, 1 point for Complexity 2, 2 points for Complexity 3, 4 points for Complexity 4, 8 points for Complexity 5, and an additional 8 points per +1 Complexity. For example, a neural-net AI system with Complexity 5 has IQ 9 and can learn Body Language, a Mental/Hard skill, at the 8-point level, or Body Language-11.

Computers can also be programmed with defenses against hackers or virus programs. Treat this as the skill of Computer Operation. The intruder uses the skill of Computer Hacking to break in; this may represent the capabilities of a virus, or a human operator at a computer workstation – or, in a cyberpunk setting, a human being who has jacked in.

Another defense against hacking is to have a computer that has no connection to the Internet or any other external communications route. Computers assigned to maintain physical security are normally set up this way.

Additional information on constructing computers is in ***GURPS Vehicles*** (see p. VE60-62).

Robots

A computer may be given control of a mobile body to enable it to restrain or kill intruders itself, rather than simply summoning human guards. This is usually envisioned as putting the computer inside the mobile body, like a brain inside the body of a man or animal. But if computers are large, a body able to hold one is too big and awkward to be practical. Instead, the computer is immobile and interacts with the body by wire, radio, infrared laser, or other means. The same thing may be done if it's important that all mobile units act together, rather than on their own initiative.

There is a risk to this: if the wire is cut or the signal is jammed, the remote unit freezes and does nothing. Intruders likely carry wire cutters or jammers.

A countermeasure is to give the mobile unit a small internal computer, which is normally in communication with a larger immobile computer. The large computer can operate the mobile unit remotely, or give it orders and update them as needed. If communication is cut off, the mobile unit is able to do something on its own. Of course, it may also be subverted, if operatives carry equipment for hacking into a security robot's brain. The fact that the robot is designed to take orders from outside creates a channel for false commands.

To design a security robot, see ***GURPS Robots.***

Androids

Classically, an android is an artificial lifeform shaped like a human being. However, androids are envisioned as not having the same freedom of choice as human beings; they have Reprogrammable Duty, if not outright Slave Mentality, making them effectively robots made out of living flesh. More recent literature has portrayed clones the same way – not just as copies of an existing person, but as undergoing accelerated maturation, growing up without human contact, and being trained by virtual-reality experiences or direct brain imprinting. A different sort of android can have a biologically functional body, but be controlled by a computer. In effect, it is a robot with a flesh and blood body – the opposite of a cyborg, which has a human brain in a robotic body. ***Transhuman Space*** uses the term "bioshell" for this option.

Any of these artificial lifeforms can be programmed to serve as a guard. Presumably, this guard would be indifferent to its own survival and totally devoted to the person or site it is assigned to protect.

Mythical and Magical Automata

One of the oldest stories about an intelligent machine describes Talos, a man constructed from bronze who supposedly patrolled the shores of ancient Crete as an unsleeping, nearly indestructible watchman. In other words, the earliest imagined uses for automata included guarding against invaders. Such protective functions are attributed to various other legendary beings through the ages.

Bound Spirits

Many kinds of immaterial spirits can be called to the service of human beings, and that service may include protection from harm. Sorcerers have enslaved demons, shamans have spirit allies, and even holy saints have guardian angels. These can be represented in ***GURPS*** in terms of mana-based magic (see pp. M113-116) or in terms of ritual magic (see ***GURPS Spirits***). Angels, animal spirits, demons, djinn, elementals, and thought forms (see pp. SPI46-63) all offer models for a spiritual protector.

It may be possible to bind a spirit into an animal (a familiar) or inanimate object (a fetish); see pp. CI37-38. Such a bound spirit can have various functions. It may simply act as a sensor, alerting the person it protects to certain types of danger. A person with a familiar may be able to see through the familiar's eyes. A bound spirit may be able to wield powerful magic of its own, either strictly at the will of the person it protects or carrying out previously defined orders. For example, a spirit bound into a doorknob may be able to strike against anyone who passes through unauthorized.

In a higher-tech setting, a spirit may be bound into a computer or robot.

Golems

The golems of Jewish legend were created by inscribing holy words on the foreheads of human images shaped from clay or other materials. Many accounts explicitly describe them as created to protect Jewish communities. Golems are superhumanly strong, untiring, and nearly indestructible, but also obedient to the letter of their creators' orders; in short, they are much like nonsentient robots with Slave Mentality and Reprogrammable Duty.

In ***GURPS,*** golems are made with the Golem spell from the College of Enchantment (see p. M44, or pp. MIiii54-66 for detailed rules). The energy cost of their creation varies with the material of which they are made, from 250 for a clay golem to 800 for an iron golem (see pp. M116-117). The energy cost can be paid in the standard way for mana-based magic; alternatively, for a treatment closer to Jewish legend, it can be paid for with character points, at 1 point per 20 energy points. (See the discussion of gematria on pp. STM135-137 or CB77.)

Zombies

Whether zombies are drugged slaves (p. 59) or corpses reanimated by magic (see pp. M73, M117, UN88-89), they are virtual automata, naturally suited to mindless tasks such as security. Unfortunately, they're usually conspicuous, but in some settings this may be an advantage. A zombie is Single-Minded and has a High Pain Threshold; it's also invulnerable to many sorts of injuries, from freezing cold weather to drugs and poisons.

Investigations

Investigations by police or intelligence organizations can prevent an operative from accomplishing his mission – at least if he has a criminal record, or if he is not especially careful in his preparations for his current mission. An agent may have left his fingerprints somewhere, or carelessly talked about his plans in company. Trying to acquire large amounts of explosives also invariably sets investigators loose; they may trace the operator before he can complete his mission.

Crime Scene Methods

GURPS Cops examines the methods and procedures of law-enforcement investigators. At a crime scene, the crucial point from an operative's point of view is to leave as little evidence as possible. Every small puzzle piece, from a single drop of blood or a fiber from the floor covering in his car, to shell casings and gloves to a weapon or a fingerprint, can lead the investigators to the operative and should be avoided or taken with him.

Disposing of Evidence

Forensic science at TL6+ can match a weapon to a crime by a variety of techniques, including finding traces of blood or body tissue and comparing wear patterns on a bullet to a gun barrel. Despite folk wisdom, forensics experts can match shotguns as well as pistols, revolvers, and rifles. A prudent operative disposes of any weapons after a kill.

When a gunman prepares for a hit, he should completely obliterate the stamped serial numbers on his weapon, to prevent detectives from tracing the weapon's ownership. Where the number is on a nonessential part, he can drill through or chisel out the metal. Where it is on the outside of the barrel, he should repeatedly stamp over it with random numbers and carefully file the numbers down. (Both of these methods are, of course, illegal.) Serial numbers may be out of sight – during the 1920s, hitmen frequently removed the serial numbers from their Tommy guns, but were traced anyway since they missed the serials hidden under the wooden foregrip. Prior to the killing, an assassin should don gloves and clean the

interior and exterior of the gun as well as all accessories and ammunition, because gun metal may pick up and retain fingerprints – if very badly, as only in less than 10% of all cases are fingerprints on firearms usable, and almost never on ammunition. The gloves also protect against DNA deposits (one of the clearest traces) and microscopic metal and gunpowder residues, which are clear indicators that somebody held and/or fired a gun.

After the hit, any spent ammunition is retrieved and the spent and unspent ammunition is discarded – preferably the whole box, as some manufacturers stamp cartridges with identifying numbers – to prevent the police from finding any matching ammunition in the killer's possession. A single-shot weapon or other weapon without automatic case ejection is preferable, since cases may be ejected several yards and difficult to find in a hurry. Otherwise, a brass catcher (p. 69) may be used. The weapon is disassembled as much as possible and the inside of the barrel is filed to distort the gun's signature grooves; it's obvious when a gun barrel has been reamed, but the impressions on the cartridge head are probably not enough to make a positive match. Then the weapon and the suppressor are discarded, for several reasons. The rasping of the barrel may cause it to malfunction; any ammunition left on the scene is now associated with the gun, as even unfired rounds can become indelibly marked when cycled through the chamber. Possession of a mutilated weapon can also be used as circumstantial evidence. It's best to toss the weapon components in separate areas, such as scattered through a lake or in a random series of dumpsters. Alternatively, many weapons – self-loading pistols, rifles – allow the swapping of barrels; a hitman can use an aftermarket barrel for the act and afterward replace it with the original barrel, dumping only the contaminated barrel. While dumping the complete weapon is safer, this practice allows use of, for example, an officially issued sidearm. Note that blood on a weapon, including a pistol that touched the victim at the moment of the kill, is very difficult to remove and usually traceable by forensics.

The same applies to any other weapons used in a killing. Lead pipes are conveniently easy to dispose of, as lead melts at a relatively low temperature. Wooden clubs can be burned.

Clothing worn during a killing should be disposed of; it may be smart to dress in a disposable outer layer, such as a cleaner's coverall, that can be taken off on the spot, revealing normal clothing underneath. The outer clothing is frequently tainted with blood, powder residue, etc. Ideally, it should be burned; dumping it like a weapon sometimes has to suffice.

If the killer's skin – for example, on the hand – was splattered with blood or powder residue, a thorough rinse with bleach is needed. However, gunpowder residue is next to impossible to completely wash off and is detectable for days; certain heavy metals in the residues can be traced in the hair and nails for several months afterward.

Forensic Nano

Settings where nanotechnology is out of the laboratory and in general use may apply it to the investigation of crimes. Biochemically based nanotech operates only in a wet environment; this includes human bodies (living or recently dead), so it can be used to investigate cause of death. Inorganic nanotech can function in a dry environment and can produce a minutely detailed description of an area, useful for criminal investigation. If available, nano grants +5 to skill in Diagnosis, Forensics, or Pathology.

It takes an hour for each hex of ground (or a single body) to be analyzed; the nano operates for TL-6 hours before recharging. Directing it requires a laser or IR communicator and a Datalinked computer. $2,000, 0.5 lb.

Nanotechnology can also provide countermeasures. "Cleaner" nano can clean up an area, removing clues that might otherwise betray the user. The user selects options from a menu and then releases the nano at the scene of the crime; it takes half an hour to clean up each hex or body. Once this is done, obtaining evidence requires a Quick Contest of Forensics vs. Forensics; cleaner nano grants +5 to Forensics skill for removing evidence. Cleaner nano is a specialized product of advanced technology; in most settings it is available only to elite agents with a suitable Patron. If it can be purchased, its base cost is $4,000, but it has a black-market premium, and unlicensed possession counts as evidence of criminal intent. 0.5 lb.

In settings where nanotech is commonplace, less specialized domestic and industrial nanocleansers are available, though industrial nanocleanser is usually licensed and regulated. See pp. UTT29 and UTT30 for details. Using these products removes organic residues, and industrial nanocleanser reduces corpses to simple molecules such as carbon dioxide and water, but neither affects inorganic materials such as bullets or damage to the site. In addition, it's fairly obvious that they've been used, since they clean up everything at the site, leaving it abnormally sterile. They're used by run-of-the-mill criminals and terrorists – or by elite professionals pretending to be such as a cover-up.

Corpse Identification

There are various methods available to identify a corpse; most of them also work to identify a careless operative, whether he is alive or dead.

All require an extensive database to work from. Somebody not on file – either because he's Zeroed (see p. CI00), or more usually because he hasn't had any dealings with the police or a doctor previously – can't be found. Forensics or relevant medical skill rolls are required.

Anthropometrics

Anthropometrics deals with the measurement of the body – height, dimensions of the hand or skull, teeth. The best bet is usually the teeth – they not only hold up better than the rest of the body, but are often on file with a dentist somewhere. For practical purposes, a full set of dental records is just about as unique to a given adult as his fingerprints. Dental records usually can help to identify a corpse that was burned or put into an acid bath; they may also identify a killer who left his bite marks on food – or even a victim!

Fingerprints

The most famous identification method is available at TL5, but only becomes really useful at TL6. A human's fingerprints are unique and can't be faked. Many objects don't retain fingerprints very well, however – gunmetal is remarkably resistant to them, and rock or masonry won't show them at all. On the other hand, they may sometimes be found on human skin. An operative should take great care to avoid leaving them and wear gloves all the time. Not only is this awkward in a lot of situations, but the operative needs to remember that gloves may take prints *internally*, and dispose of them properly.

Blood Type

From early TL6, the basic blood types can be identified, and at TL7, blood-type identification is a routine method to at least narrow the possibilities down – e.g., that the operative has blood type A, AB, or whatever.

DNA

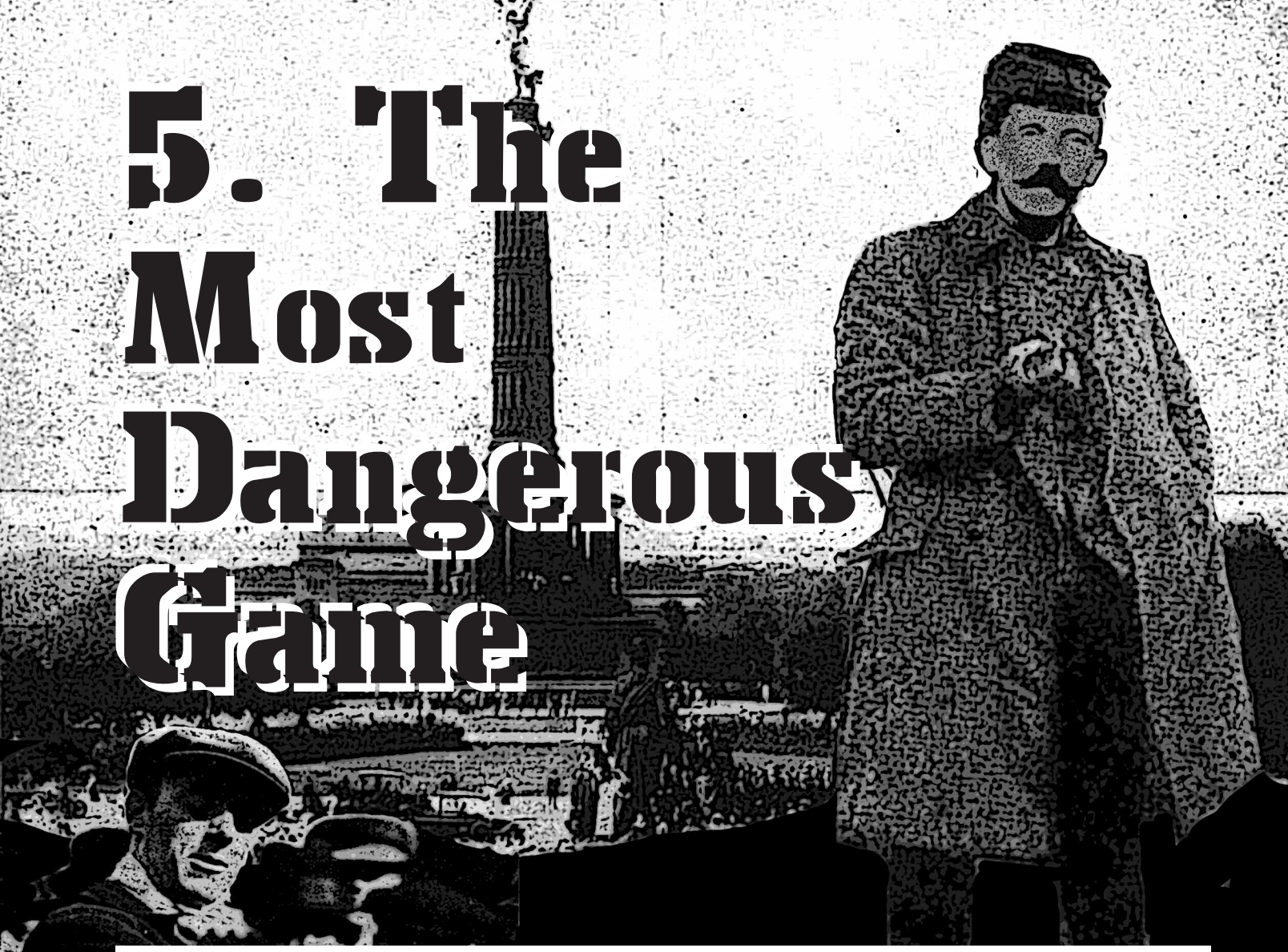
Perhaps the single most important advance in forensics, the late-TL7 methods of identifying the DNA (deoxyribonucleic acid) of body tissue or fluids make it possible to link the tiniest amounts of evidence to a specific person. A single strand of hair, speck of blood, or flake of dry skin is enough. It requires extra care by the operative to avoid contact with his subject or anything in the vicinity of the crime.

Pathology

An autopsy is the only definite way to find out how somebody died. Even the most obvious death may not be what it seems. An autopsy can reveal if somebody was strangled with a garrote before he was hung up to make it appear as a suicide, and it is usually the only way to tell if somebody was poisoned or which bullet out of several actually killed.

A full autopsy requires the Pathology skill (see p. 24, or pp. C59, UN109) and a surgical theater that is fully equipped (save for anesthesia and some sterilization equipment . . .).

5. The Most Dangerous Game



The Prince spoke, and the roomful of agents fell silent.

"Eleven months ago, an Ismaili group seized a research facility in southwestern Iraq. Our informants have learned that that base housed an experimental machine purchased from former Soviet officers in Kazakhstan, a device for journeying into the past. Now they are preparing for such a journey, to change the past. We have discussed this proposal with several learned judges, who agree that this is a blasphemous defiance of Allah's will. We ask you to thwart this venture and punish its agents.

"Two men are to be sent to Germany in 1920. The Ismailis believe the Nazi death camps hardened the will of the Zionists to claim Palestine and left the West unwilling to deter them. Without Hitler, they think, the Jews would still be in Europe. So they have been ordered to kill Hitler . . . and you will be sent to protect him."

Al-Qadi said, "So to strengthen the Jews we are to preserve Hitler?"

"And by preserving the Zionist state, we are to strengthen Islam," the Prince replied. "Truly man can only marvel at the designs of Allah."

With the concepts in this book, covert operations can be played from operative-client negotiations to the final payoff. Campaigns can be played as gruesome violence or comedic flippancy – it's all in the details.

In addition to operative-centered campaigns, GMs can graft operatives onto any existing world. One-shot adventures, wherein the characters of a pre-existing campaign are sent to kill someone or blow something up, or stop someone else from doing so, can breathe new life into a worn, monotonous campaign. Operatives can fit into any setting, from ancient China to ***Transhuman Space*** colonies. See Chapter 1 for notes on specific settings.

Campaign Roles

Regardless of setting, covert operatives provide an edge of tension in any campaign – how much of an edge depends on what role they play.

Adversaries

For a moderate level of tension, use operatives as enemies for a party of adventurers. This can work on a one-shot basis, with a group of adventurers threatened by a skilled killer, or assigned to guard someone from such a killer. On a continuing basis, a specific operative or group of operatives can be a recurring threat; to enhance the drama, give the adversaries a somewhat sympathetic cause, a sense of honorable conduct, or encourage the formation of emotional bonds between an operative and a player character.

It's also possible to focus a campaign on a defensive mission, either a struggle against a specific group, or protection of one or several key targets against a variety of foes.

A law-enforcement team or detective agency may also be assigned to investigate a killing or other crime. To make this more complicated, the criminal or his patrons become aware of their efforts and start trying to discourage them; this is a classic *film noir* plot.

Adventure Seed: Arsenal

Modern war consumes enormous quantities of munitions; any threat to industrial production is very much a threat to national survival. Now investigators have uncovered plans to destroy an ammunition factory – with the cover story that careless handling of materials caused the explosion. If the public believes this, it will not only stop production but also hurt morale, particularly among current and prospective workers. Special investigators are assigned to identify and arrest the saboteurs.

With suitable adjustments, the factory in question can be anything from a powder mill in the American Civil War to a lend-lease plant in the Soviet Union during World War II. In the latter case, making American industry look unreliable is an added payoff of the sabotage.

Adventure Seed: The Flame Dagger

In the ongoing war between Moslems and Crusaders, the Assassins have been a source of problems for both sides. Too weak to take over territory, they send agents from fortresses in Syria to strike at enemy leaders. The noble Saladin, a Kurd who is now *de facto* ruler of Egypt, has been the object of such attacks in the past. Now, as the war intensifies, he faces renewed threats. Are the assassins striking on their own behalf, or did Frankish rulers hire them? And either way, can his household guards keep him safe from intruders – and are they loyal enough for him to rely on?

Adventure Seed: Narcotraficantes

The government of Colombia has been fighting a nearly hopeless battle against cocaine merchants for years. Government officials who try to combat the gangsters face kidnapping, shooting, bombing, and other threats. In an effort to stabilize the region, the United States has recruited highly skilled agents to offer the same kind of protection to Colombian officials that the Secret Service offers to American officials. Can this extraordinary police force keep the key Colombian leaders safe while they work to shut down the drug traffic?

Adventure Seed: No Pressure

In the year 2050, space stations, Lagrange colonies, and lunar settlements are moving from raw frontiers to thriving industrial communities. But not everyone favors the settlement of space. A splinter political movement, the Ultragreen Faction, is planning the explosive decompression of a major space facility. Columbia Station, in geosynchronous orbit above Ecuador, has become a major research facility (including military research) and deep-space launch site; the failure of its vacuum seals could kill hundreds of people and waste enough assets to bankrupt several large businesses. Can the station's security forces spot the saboteurs and stop their plans?

Adventure Seed: Spy Smashers

In the days after the attack on Pearl Harbor, the United States government has recruited everyone with useful skills to fight Axis tyranny – including a number of masked crimefighters who formerly operated outside the law as vigilantes. Now their services are needed on the home front to combat spies and saboteurs. Information has come in that a group of German agents is planning to sabotage a major naval research project and perhaps destroy the Navy's main research site in the process. Can the ex-vigilantes intercept the saboteurs and strike terror into the Axis?

Note: Some interesting meetings are possible in this mission. Robert Goddard was doing research on JATO (jet assisted takeoff) units (see pp. WWii106-107); Isaac Asimov, L. Sprague de Camp, and Robert Heinlein were working together at another naval research facility.

Protagonists

For an edgier approach, have the player characters *be* a group of operatives – members of a ninja clan, a secret religious order, or a resistance movement. Such operatives can be played two ways: as heroes or as antiheroes.

In an antiheroic treatment, the operatives are clearly outside the law and unconcerned with higher moral justifications. They want to get paid, or to follow orders. Any virtues they have are limited to competence and cold professionalism. The best settings for campaigns of this type are societies where everyone is compromised, such as the Italian Renaissance, a gangster-dominated American city, or a decaying cyberpunk future.

In a heroic treatment, the operatives have some redeeming qualities. They may be serving a cause, such as the protection of their native land, by acting outside the law; resistance fighters in a conquered country or agents of an intelligence agency often use deadly force, but can plausibly be portrayed as heroes. They may have a strong sense of mutual loyalty. They may simply have a sense of honor and be unwilling to take jobs that would compromise it. In an extremely cinematic treatment, a team of operatives may be secret avengers, punishing powerful criminals whom the law can't touch.

Another approach is to portray a society where assassination or kidnapping is viewed as a game or an art. Perhaps new technology, or magic, makes killing less permanent, or perhaps elaborate formal rules limit collateral damage, so that innocent bystanders aren't threatened. The resulting contests of skill can be framed as a comedy of manners or as a high-risk athletic event.

Adventure Seed: Angels of Death

Under the rule of the Borgias, the Papal States have been expanding through Italy, ruthlessly subjugating everyone who opposes them. Now, the independent city-state of Monteverdi is next on the list of targets. The young, recently widowed Contessa di Monteverdi is doing all she can to defend her city by conventional methods, but the papal forces look overwhelming. Hoping to keep her city free, she hires a group of assassins to make their way into the invading army and kill its leaders and key support people.

Adventure Seed: Hostile Debriefing

As the Manhattan Project nears completion, American scientists grow concerned about whether Nazi researchers are paralleling their work. Could the war end with an atomic *Götterdämmerung*? Germany's greatest physicist, Werner Heisenberg, has a speaking engagement in neutral Switzerland, creating an opportunity to find out what he knows about German progress. But Heisenberg is no supporter of the Allied cause; he tried to persuade other scientists that a German victory was inevitable and desirable, and he advocated a global scientific agreement to conceal the possibility of atomic weapons from political and military leaders.

A small group of British and American agents are sent to take Heisenberg into custody and get him to Allied territory for interrogation. To make the job harder, they must do so without leaving any evidence to prove Allied involvement; Switzerland's neutrality is too useful to sacrifice. At a minimum, they need to maintain plausible deniability; if possible, they should give misleading evidence of what happened to Heisenberg, pointing to private criminals or Russian spies.

Adventure Seed: Syracuse

The expanding Roman Empire has sent its legions to conquer Sicily, whose principal city, Syracuse, is under siege. But the tyrant of Syracuse has a secret weapon: Archimedes. The brilliant mathematician has become the head of an elite group of artificers who devise brilliant new weapons and other gadgets, from pneumatic man-portable bolt throwers to huge solar mirrors that set fire to Roman fleets. Now Syracuse needs a few heroic soldiers to master the new weapons and carry them on secret missions against the Roman command and supply lines.

Adventure Seed: Templar Gold

On trumped-up charges of blasphemy, sodomy, and witchcraft, the king of France has sentenced the Knights Templar to death and seized their treasury. But much of their wealth has mysteriously vanished. Now Vatican spies have reported that the gold is on the way to Scotland. The Pope wants the treasure back, but the Templars are in no trusting mood after one betrayal.

Agents of the Vatican are sent to retrieve the gold, by any means necessary. If they can handle the matter diplomatically, they are welcome to do so, and the Pope has authorized offering a place in the Vatican to any Templars who come in from the cold. But piracy on the high seas, or a secret raid on hidden Scottish strongholds, is equally acceptable. The one thing the agents must *not* do is let the king of France get the gold first – but French agents already have joined the chase.

Party Members

Hardest of all to make believable is a mixed group of operatives and other adventurers. Covert operatives tend to be paranoid loners – that's why they're still alive. With low moral standards and loads of deadly skill, they aren't the sorts of adventuring companions most people would choose. Conversely, from the operative's standpoint, he's being asked to team up with a group of amateurs who are likely to endanger him. So how can such incompatible people work together?

One approach is to give the operative a cover identity and a Secret. He may be there to betray the other adventurers, though this is a risky theme, and some player groups resent it. He may have formed bonds with the other adventurers that make actually betraying them a hard choice. Or he may be assigned to work with them, for the same goals, but they do not approve of his methods. The other *players* may not even know that one of them is playing an assassin or terrorist.

It's also possible to have a team of incompatibles brought together by the urgency of a task or mission. In any party, the players *and* characters need to recognize that each has his strengths and weaknesses. The operative needs his party's reputation to get along in the law-abiding world, and the party needs the operative's skills. Disagreements on how to accomplish their goals can be a source of drama.

Another option is to include a fugitive former operative (see p. 20) in the party. His skills make him useful; his conflict over whether to risk exposure by revealing them add drama to a cast of characters.

What restrains the operative from killing other members of the party, or from ignoring their ideas about nonviolent methods and killing anyone who gets in the way? The restraint can be internal, in the operative's unwillingness to do so; or it can be external, in another adventurer having something on the operative. In either case, tension over these possibilities sharpens the dramatic edge of this approach.

Adventure Seed: Desperate Remedies

A group of priests and scholars, investigating certain odd events in recent history, find evidence of corruption in the Church. While they are debating what to do about it, they are approached by agents of a secret inquisitorial body within the Church, which has the power to deal with such problems. But if they accept the offer to work together on this case, they find themselves teamed with disturbing fellow agents: ruthless inquisitors, fanatical nun-assassins, or the like. Do they accept assurances that they are performing a holy service, and believe that God will forgive any sins they must commit to succeed? And if their consciences revolt, what do the secret inquisitors do about it?

Adventure Seed: I'll Be the Victim!

It's winter in the Alps and the roads are impassable. Stuck in an old hotel with a few months of down time on their hands, a group of adventurers decided to practice stealth and assassination. One after another, they took turns being the assassin and the victim. Then it became real. For reasons unknown, someone is stalking the carpeted halls, poisoning the coffee, and strangling the staff.

What's *really* happening is that a bored NPC party member has bribed the staff to help him pull an enormous prank on his comrades. The disappearing staff are simply moving to other rooms or trekking to the village to spend time with their families. The prankster is happy to see the party's skill increasing, but may not be so smug once he's discovered.

Adventure Seed: On Her Majesty's Seelie Service

The Faerie Queen has turned to mortals for aid. One of the magical treasures of the elven realms has been taken by the dark elves and must be retrieved before they can use it as a weapon against other races. A band of mortal adventurers can do so without being bound by the elaborate magical restraints of faerie politics. If they succeed they can expect rich rewards.

But the queen has sent an advisor with them: Gwynplaine, a renegade dark elf exiled to her court. He has expert knowledge of dark-elven lands and armies and some skill in magic. Unfortunately, he's also contemptuous of mortal races, both for their lack of skill and for their sheer physical repulsiveness. And he has a motive for betrayal: revealing the other adventurers to the court of the dark elves could be rewarded, perhaps even with permission to return to live again among his own people rather than as an exile. Can he be trusted?

(As a stylistic note, in certain campaigns Lord Gwynplaine is exactly the sort of character who ought to have bishonen looks, see p. ME33.)

The Unwritten Treaty

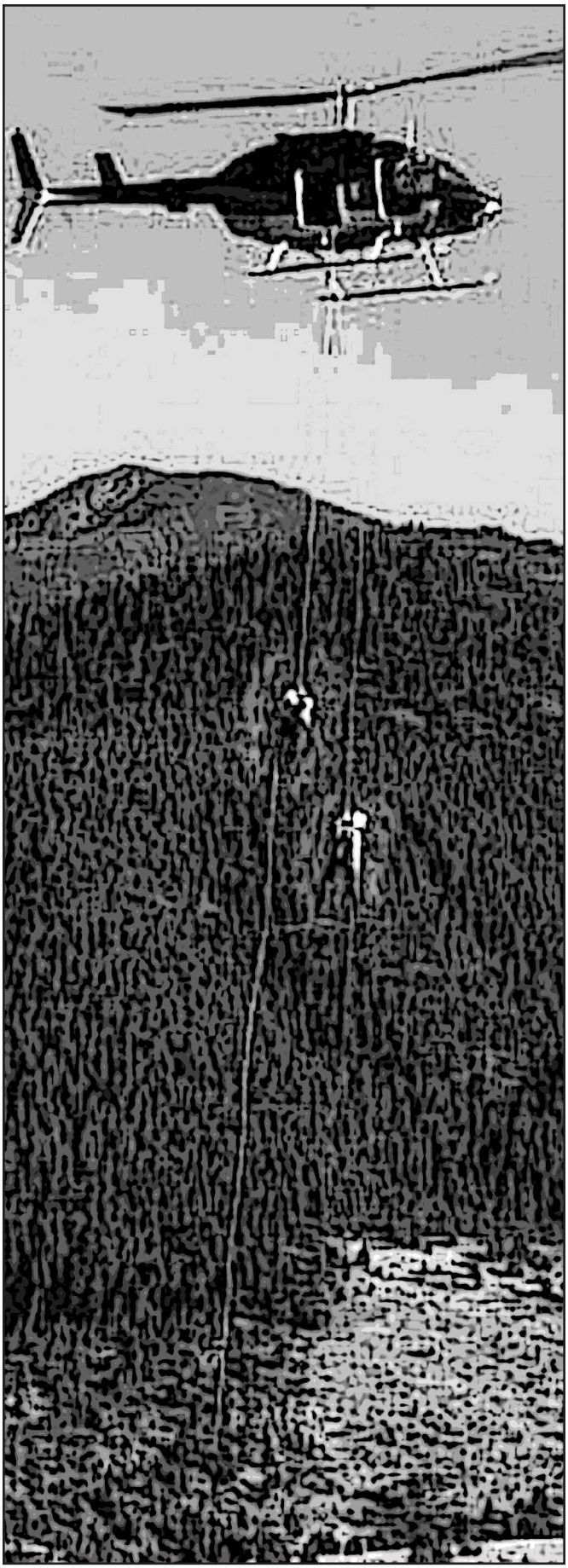
Some groups of players operate under the assumption of *player-character immunity*: player characters will not injure each other, or restrain each other's actions, regardless of how they might act toward nonplayer characters who behave in the same way. In a medieval setting, a highborn knight may team up with a gutter thief or a bishop with a sorcerer; in a modern setting, a police detective and an assassin may work together. If one character does something illegal or unethical, the other characters look the other way. And if the GM respects player-character immunity, the people around them don't react badly when the knight brings the thief to court or the sorcerer invites the bishop to visit his coven.

From a roleplaying point of view, this has obvious advantages; it lets characters express themselves according to some disadvantages, without hurting other players. A thief who runs off with NPCs' jewelry, for instance, isn't going to be turned in or killed by his traveling companion the knight, no matter how upright the worthy himself behaves. It also has practical advantages, making it possible to assemble a group of adventurers with all the skills required for a job. For these reasons, a GM may want to establish full player-character immunity in a campaign.

But in the real world, people who keep the wrong company face mistrust or far worse problems – insulating the player characters from such consequences makes the setting feel less *real*. And it also limits the players' freedom of choice and their ability to express their character concepts. A character whose disadvantages involve legal or ethical constraints needs to act according to those constraints for good roleplaying. For these reasons, a GM may want to let player characters restrain or punish other PCs' illegal or unethical acts, if not encourage them to do so.

Such questions are almost sure to arise in a campaign where operatives make up some, but not all, of the party. It's generally best to establish ground rules on player-character immunity at the start, rather than wait until a collision of player assumptions threatens to derail the game.

There is a way for a GM to have the some of the benefits of both approaches. First, establish as the ground assumption of the setting that player characters don't have immunity. Then come up with a compelling reason for incompatible people to set aside their differences and work together. Examples include a threat greater than any harm they might inflict on each other, an authority powerful enough to compel them to team up, or a goal they all want to achieve. A campaign with this kind of doubt and tension can invite strong roleplaying and lead to dramatic storylines.



Genre

There's more than one way to play the Great Game. Fictional treatments of covert operations fall into several different genres, each with its own style and characteristic story elements. A covert-ops campaign can recreate any of these.

Suspense

One way to write about covert action is to stay fairly close to real operations. In a campaign of realistic suspense, details and planning are vitally important. The best operatives have backup plans for all the contingencies. To work these out, they spend much of their time collecting and studying available information – and so should the players. This genre is kin to the police-procedural and the realistic spy fiction of writers such as John Le Carre. There are no larger-than-life heroes and no cinematic action scenes. The heroes are skilled professionals getting a job done under stressful conditions. Everything has a cost, and making compromises is just part of the cost.

Encourage attention to detail in this kind of campaign. When players ask questions about a proposed job, be ready to answer them, and make the answers relevant to the outcome. Use realistic technology and make knowing its capabilities matter. If the characters have a support organization, have the players make Administration or Politics rolls to get nonroutine help from its staff; if they're on their own, dramatize their procurement and recruitment problems.

Technothrillers

Technothrillers as a genre add the marvelous inventions and vehicles of science fiction to covert-operations plots. Typically the gadgetry looks only mildly futuristic; it's supposed to seem possible that secret organizations in the contemporary world already have these devices. That doesn't mean that the scientific principles have to be plausible! The approach to technology is often cinematic: most of these advanced devices work perfectly. While a few are experimental designs given to catastrophic failures, difficulty of use and other minor defects are less common. The action is mostly cinematic, as well.

The classic television treatment of this genre was *Mission: Impossible.* Earlier, the James Bond novels and films sent their hero out with sophisticated gadgetry to defeat superscientific villains. Tom Clancy's novels take a somewhat less cinematic approach to technology, while still keeping it at the center of many plots.

The key to technothrillers is that the advanced technology is secret. Useful gadgets are reserved for elite agents, rather than coming into everyday use; those same agents prevent the use of doomsday weapons and save civilization. If an invention has changed the world, and everybody knows about it, the campaign *is* science fiction, a different genre.

Chapters 3 and 4 of this book provide gadgetry for a technothriller campaign; for the people who create it, see the box on p. 117.

Crossovers

The first four books listed below cover topics closely associated with covert ops. The others offer fascinating genres in which to introduce covert operations.

GURPS Black Ops

Very high-powered covert operatives in a secret war against inhuman or illuminated foes. Provides a model for a highly cinematic campaign.

GURPS Cops

The police are part of the opposition for most covert operations, whether terrorist, subversive, or straightforwardly criminal. However, police forces may carry out their own secret operations against organized crime.

GURPS Espionage

Spies collect the data that guides the planning of covert operations. Under pressure, field operatives planning a mission may have to collect their own intelligence; elite agents may be assigned to jobs of both types. Other sorts of spies may have to spot and stop covert attacks.

GURPS Special Ops

The military side of covert operations. Details the training and equipment of special forces in the early 21st century. Civilian covert operatives may have to work with such military personnel – or thwart them.

GURPS Cyberpunk

The scheming megacorporations of cyberpunk futures often find work for undercover agents. Freelancers can earn a good living by doing the right jobs and getting the right reputation, but watch out for betrayal! Codes and computers play a big role, but other tools and skills are useful.

GURPS Horror and GURPS Cabal

Things Man Was Not Meant to Know often must be battled in secret; the authorities may not acknowledge the threat, or may be trying to cover it up. Operatives may or may not have access to advanced technology, superhuman powers, or magic. The Cabal can provide the framework for such a campaign, in a present-day or historical setting.

GURPS Illuminati

In these campaigns, the Illuminati are the world's greatest sponsors of covert operations. They may run secretive training facilities, hire the most-skilled freelancers available, or manipulate puppet organizations into doing the job for them – or different groups may prefer different approaches.

GURPS In Nomine

Both angelic and demonic operations on Earth are covert as a matter of policy in this setting; anything more open risks a literal Armageddon. Songs and artifacts replace a lot of technology, but the characters, organizations, and missions fit right in – especially in a relatively dark campaign.

GURPS Japan

Ninja are legendary Japanese covert ops, and their historical environment is perfect for some styles of campaign. This book also includes a template for ninja (see p. J59). More information on ninja equipment and cinematic combative abilities is in ***GURPS Martial Arts*** (see below).

GURPS Martial Arts

One motive for the development of unarmed combat skills was to strike against agents of a hostile central government without carrying an identifiable weapon. The skills in ***GURPS Martial Arts*** can be useful in a historical drama or a present-day thriller. For a full treatment of ninjutsu and ninja equipment, both historical and cinematic, go to this book (see pp. MA20-21, MA93-94, MA119-123).

GURPS Mecha

The anime that ***GURPS Mecha*** is based on often has characters with hidden agendas and plots filled with intrigue. Mecha themselves are perfect targets for sabotage, their highly trained pilots for assassination or kidnapping, and their specialized components (if any) for theft.

GURPS Steampunk and Castle Falkenstein

Castle Falkenstein is ideal for a romanticized treatment of covert operations in the Age of Steam; its example characters can be a covert-ops team. Grim treatments can focus on other sorts of operatives. With the relatively low budgets of 19th-century governments, amateur and irregular operatives can play a role even in a realistic campaign. Labor movements, such as the First International Workingmen's Association, can sponsor their own operations.

GURPS Swashbucklers

"Cloak and dagger" wasn't just a nickname for spies (see p. 13). Daring swordsmen may be sent on missions they can't talk about. For example, a French campaign can have adventurers thwarting Cardinal Richelieu – or working for him to preserve the French monarchy against its foes.

Transhuman Space

The solar system of ***Transhuman Space*** embodies a less cynical view of the future than most versions of cyberpunk, but covert operations are still important. Old-style human operatives compete with genetically engineered humans and animals and infomorphs. Information itself becomes a target for destruction, corruption, or theft – or if the information is self-aware, for murder or assassination.

Historical and Fantastic Settings

When an intrigue or suspense plot takes place in a historical, science fiction, or fantastic setting, the effect changes. There's no longer an exclusive focus on the success or failure of the plot; now the exploration of the setting captures some of the audience's attention. This is true to some degree in much present-day suspense fiction too. For example, James Bond discovers Japanese culture and history in *You Only Live Twice* – but Bond isn't Japanese, so he and the reader learn about Japan at the same time. The effect is stronger when the hero is as exotic as the setting.

Ideally, the elements that make the setting different are also critical to the success or failure of the intrigue. In science fiction, these elements are often technological. The intrigue plots of cyberpunk classics such as William Gibson's *Neuromancer* and Vernor Vinge's "True Names" depend on the computers and virtual reality that define the cyberpunk milieu; in the much more distant future, the aristocrats of Frank Herbert's *Dune* learn swordsmanship and the use of poisons because personal force shields have made ranged weapons obsolete. Historical fiction and fantasy usually focus directly on the exotic cultures they portray. (Magic in fantasy usually supports the existing society, rather than changing it as technology would.) The intrigues succeed or fail because of the customs of those cultures, such as in the Japan of James Clavell's *Shogun.* A roleplaying campaign can achieve the same effect; look for the customs, magics, or technologies that provide unique goals or methods for intrigue. Pursuing the intrigue can be the vehicle for the characters to explore the setting.

Camp

Many suspense shows of 1960s TV, such as *The Man from U.N.C.L.E.* and *The Avengers*, took a light approach to their subject. Their heroes had technothriller-style gadgets, their villains were evil masterminds, and their plots were filled with dramatic twists, without too much concern about plausibility. Exaggeration and a touch of humor reminded the audience that this was entertainment. The prototype steampunk show *The Wild, Wild West* took the same approach in a historical setting, with technothriller-style inventions in the Old West. *Get Smart* was outright parody, played entirely for laughs.

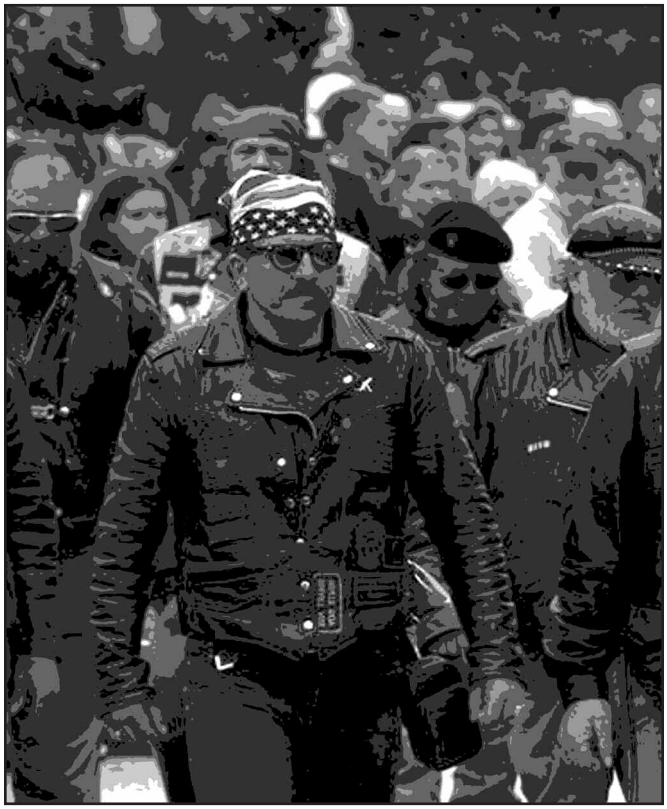
In this kind of campaign, violence usually isn't lethal; letting adventurers spend character points to have injuries be "only a flesh wound" is in genre. Their adversaries' plots aim more at sabotage or bloodless coups than mass murder, or are easily thwarted with only picturesque collateral damage. Both heroes and villains should have exaggerated mental disadvantages and entertaining quirks. Any intrigue campaign may hint at sympathy between adversaries; in a camp campaign, evil twins and hero/villain romances can be commonplace.

The Organizational Milieu

Friends

Romantic images of operatives portray them as loners. Some of them are. But many operatives belong to an organization. It may teach them their skills, it may provide them with tools and resources, and it may find them jobs – or it may limit them to certain kinds of targets. Equally importantly for roleplaying campaigns, it gives them a social outlet, a group of other people who can see them undisguised.

Some aspects of such organizations can be described in terms of advantages and disadvantages. Others just have to be roleplayed.



Criminal Gang

A general-purpose criminal organization has many uses for covert operatives. Crime bosses can't maintain control of their territories by calling the police; they have to have their own enforcers. And since rival lawbreakers can't call the police, either, it's relatively safe to eliminate competitors by threats or outright violence. The underworld is often divided up into territories in an almost feudal style, and any crime boss who shows signs of weakness loses his territory, if not his life. Having access to illegal enforcers also makes possible a variety of other enterprises, from loan sharking to protection rackets.

Small criminal gangs usually depend on their own resources for enforcement; some of the gang members are heavies, and they make the important decisions. Larger gangs have members with specialized skills, such as marksmen and bombers, or may be willing to outsource some killings, providing jobs for professionals. Some members of a gang may be sociopaths, but zealots are rare.

Foreign spies or domestic conspirators may hire criminals for certain types of jobs, making the job appear to be an ordinary crime rather than a politically motivated act.

A small gang is an Ally Group. A larger gang can be a Patron, typically with a base value of 10 points. Very powerful gangs have a base value of 15 points.

Employment Agency

An employment agency specializes in finding work for operatives and finding operatives for people who need something illegal. Realistically, an employment agency is usually one person who keeps no written records of anything. Fictional employment agencies may be larger and more elaborately organized.

Anyone who wants to stay in this business makes a point of deniability. He won't say, "I'll send someone over to see you." He'll say, "If you go to Chunky's Tavern on Tuesday night and ask for the back room, you might see someone who knows somebody who can help with your problem." Euphemisms and double talk are safer ways of discussing anything illegal.

An employment agency is usually a Contact for its customers. It may be the same for its talent pool, or it may actually be their Patron – if so, the agency is not likely to be available very often if they get in trouble.

Guild

Fans of fantasy games and novels are familiar with assassins' guilds. As guild members, assassins receive training, weapons, job offers, and a safe haven. In return, they pay tithes and pledge to keep the guild's secrets. While there is no evidence of actual organizations like this, GMs should feel free to speculate.

Actual medieval guilds provide a useful model. A common pattern was seven years of apprenticeship, doing odd jobs and learning the trade while living with one of its masters. Next came journeymanship, which granted the right to work for hire – the word comes from *journée*, a day's work. After some years as a journeyman, an individual gained full membership as a master craftsman, with his own shop and the right to train apprentices. The most-senior masters eventually became syndics, one of whom was the head of the guild. The guild as a body set prices and shut down unlicensed competitors who might drive them down; an assassins' guild would probably do this very permanently.

An assassins' guild is not usually a Patron, but its senior members may be Patrons with a base value of 10 points. Independent members of the guild may have a Claim to Hospitality, worth 2 points for a one-city guild or 5 points for a more widespread association.

Military Unit

Military personnel who get sent on covert-ops missions often belong to special forces (see ***GURPS Special Ops***). These forces can provide their operatives with very expensive equipment, including some not known to the public.

Ninja Clan

Ninja are among Japan's most dramatic figures and appear in many novels, movies, and comics, especially in historical settings (see ***GURPS Japan***). The actual facts about them are more elusive; see ***GURPS Martial Arts*** for some information about the historical evidence (pp. MA10-11). The treatment here is slightly cinematic, aimed mainly to tell good stories about ninja, whether as adventurers or adversaries.

Ninja are criminals, killing for money – but their usual customers are ambitious aristocrats with political agendas, rather than ordinary criminals. In effect, they are private-enterprise espionage forces. (Ian Fleming's *You Only Live Twice* has James Bond witnessing Japanese secret-service agents going through a version of ninja training.) However, individual ninja aren't freelancers; they work for a family business, and are expected to serve it fanatically. In a setting where ninja have secret martial arts, members of a clan may have some of the attributes of zealots. But in matters not directly affecting the welfare of the clan, they act like professionals.

A ninja clan, realistically, is a small organization, on the scale of a 10-point Patron. It actually counts as a Patron for its members; after all, they are family. The members are taught to feel a Sense of Duty to the clan. But this is to the clan as a whole; they are expected not only to sacrifice themselves to its needs, but to accept other clan members doing so, and even to sacrifice them when the clan requires it. Then they can grieve for their honorable deaths in the clan's service, and perhaps avenge them.

Political Conspiracy

Political conspiracies tend to be small; increased size means increased risk of betrayal. The ones that grow large and survive tend to have a cell structure, in which any one conspirator knows – and can betray, voluntarily or otherwise – only a few other conspirators. Conspirators are usually personally recruited and may have illusions about how free they are to leave the conspiracy. As a result, conspiracies often spend a lot of time in arguments over both goals and methods.

The goal of most conspiracies is to change the legal and political system of the larger society. Sophisticated ones, guided by doctrines such as Marxism or anarchism, realize this; less-sophisticated ones may think of their goal as driving out an oppressor or avenging a wrong.

A conspiracy is seldom a Patron, but a cell may be an Ally Group, typically a small one. (Two to five people can keep a secret, but six to 20 probably can't.) Members of a conspiracy may have a larger organization as Patron, or may have a Claim to Hospitality on other conspiracies under the same umbrella organization. By definition, anyone in a conspiracy has a Secret.

Religious Order

Religion and politics have been closely intertwined through much of history, and many bands of killers have had a religious justification for their acts. The Assassins (p. 6) and Thugs (p. 14) are some of the more well-known examples. The Knights Templar seem to have been warriors more than assassins, but some documents suggest that they were also trained for espionage, practicing the pretended abjuration of their faith and worship of idols as preparation for capture and torture. With this sort of background, a Catholic order of assassins can be made plausible. (Among other settings, the comic book *Evangeline* portrays a nun in a science-fiction future in this role.)

A religious body that sponsors assassinations often has a special body of esoteric teachings, which place the initiated above common moral rules. The members of the body commonly practice a Discipline of Faith; in a fantasy, cinematic, or illuminated setting this may justify the Trained by a Master advantage or the possession of mystical powers. It's also common for religious assassins to obey the orders of a teacher with total devotion, and thus to have Fanaticism. Religious Intolerance is likely as well.

A religious order can be any size of Patron. The 10-point and 15-point levels are common, but an organization comparable to the Roman Catholic Church may arguably be a 30-point Patron. If it has access to supernatural powers, or especially if it is actually run by supernatural beings – in a ***GURPS In Nomine*** campaign, for example – add 10 points. It's reasonable for such a body to be available fairly often; its members may be expected to keep their superiors closely informed of their deeds and even their thoughts.

Secret Agency

A prototype for this type of organization is Her Majesty's Secret Service, as portrayed in Ian Fleming's James Bond novels. Agencies of this type almost always do more than collect and analyze information; some of their agents are sent to do something about what the information reveals. Agents of this type are usually a small elite – Fleming refers to the coveted "00" number of agents licensed to kill. Whatever the agency's point value as a Patron – 30 points for a national government, plus 10 points for advanced technology, is possible – agents at this level are able to call on it frequently. But its support may have a price tag, in expectations of loyalty; agents may be expected, for example, to commit suicide rather than let themselves be captured, and if they fail to do so, other agents are sent to silence them. Working for this kind of agency also typically grants some level of Security Clearance. Agents working in their own society may have Legal Enforcement Powers, often at the 15-point level. Finally, a secret agency probably grants some measure of Administrative Rank, at least to its staff, if not to its freelancers.

Technical Support

In a cinematic campaign, certain agents may have access to advanced gadgetry (see p. 112). If so, they'll be well acquainted with this fellow.

Technical Genius **100 points**

Attributes: ST 10 [0]; DX 10 [0]; IQ 14 [45]; HT 10 [0].

Advantages: Administrative Rank 3 [15] and High Technology +1 [20]. Also pick 25 points from Collected [5] or Imperturbable [10]; Gadgeteer [25]; Intuition [15]; Lightning Calculator [5]; Manual Dexterity [3/level]; Mathematical Ability [10]; Security Clearance [varies]; Single-Minded [5]; Versatile [5]; Wealth [varies]; +1 IQ [15]; or additional Administrative Rank [varies; up to 15 points].

Disadvantages: A total of -25 points from Absent-Mindedness [-15]; Bad Sight [-10]; Bully [-10]; Curious [varies]; Overconfidence [-10]; Stuttering [-10]; Unfit [-5] or Very Unfit [-15]; or Workaholic [-5].

Primary Skills: Electronics/TL or Engineer/TL (M/H) IQ+2 [8]-16; and Armoury/TL, Electronics Operation/TL, or Mechanic/TL (M/A) IQ [2]-14.

Secondary Skills: Computer Programming/TL or Mathematics (M/H) IQ-2 [1]-12; Chemistry/TL, Electronics/TL, Engineering/TL, Metallurgy/TL, or Physics/TL (M/H) IQ-1 [2]-13; and Research (M/A) IQ [2]-14.

Background Skills: A total of 4 points in Administration, Armoury/TL, Computer Operation/TL, Demolition/TL, Electronics Operation/TL, Fireworks/TL, Lockpicking/TL, Mechanic/TL, Scrounging, SIGINT Collection/Jamming/TL, Telegraphy/TL, Traffic Analysis/TL, Traps/TL, or Video Production/TL; and 1 point in Abacus, Bicycling, Carousing, Chess, Cryptology/TL, Gambling, Mathematics, Musical Instrument, Origami, or any Combat Art or Sport.

Foes

Law Enforcement

For many sorts of covert operatives, the primary opposition is police forces. Police officers guard high-profile targets; police detectives investigate any successful assassination or terrorist act. General information on law enforcement can be found in ***GURPS Cops***, along with information on specialized forces that covert operatives are particularly likely to encounter, such as bomb squads and SWAT teams.

Private Security Forces

In the United States and other countries with market-oriented economies, security is often a business, and a big one. Small firms can hire guards to patrol buildings or construction sites, large buildings and large corporations have their own security, and wealthy men often have one or more personal bodyguards. They also worry about whether their guards are loyal.

Special Purpose Agencies

National governments, as well as a few smaller organizations, maintain agencies that are specifically trained to work against covert operatives. Usually these are elite forces, well paid and able to command the cooperation of local law enforcement. Core professional skills would be around 15 or 16, and quality agents will have all their secondary skills at 12 or higher.

Protectors

This section presents templates for people who work against covert operatives in various ways, either stopping them from causing harm or repairing the harm they have already done. For other possibilities, see ***GURPS Cops*** and ***GURPS Warriors***. In a covert-operations campaign, these characters may be the opposition; in other campaigns, they may be the heroes.

Bodyguard — 95 points

Bodyguards are dedicated to protecting a person, usually at the risk of their own lives. They have good combat skills, overall, but these emphasize protecting another person and taking an attacker out of action over protecting themselves. (See *The U.S. Secret Service*, pp. 120-121, for an example.) Their training also typically pushes alertness; the best guards don't sit passively waiting for someone to attack their charges, but actively look for signs of hostile intent. This template describes an active bodyguard of this type.

Attributes: ST 11 [10]; DX 13 [30]; IQ 12 [20]; HT 11 [10].

Advantages: Fit [5]; Administrative Rank 1 or Military Rank 1 [5]; and pick one of Alertness +3 [15], Combat Reflexes [15], Danger Sense [15], Empathy [15], or Peripheral Vision [15]. Also pick 15 points from Alertness [5/level]; Composed [5]; Extra Hit Points [5]; Fearlessness [2/level]; High Pain Threshold [10]; Higher Purpose [5]; Legal Enforcement Powers [varies]; Rapid Healing [5]; Security Clearance [varies]; Single-Minded [5]; increase Fit to Very Fit [10]; or additional Administrative Rank or Military Rank [5/level].

Disadvantages: Extremely Hazardous Duty [-20]. Also pick one of Code of Honor [-15] or Fanaticism [-15]; and -10 points from Edgy [-5], Light Sleeper [-5], No Sense of Humor [-10], or Overconfidence [-10].

Primary Skills: Body Language (M/H) IQ+2 [8]-14; Fast-Draw (P/E) DX+1 [2]-14. Pick one of Beam Weapons, Black Powder Weapons, or Guns (P/E) DX+5 [8]-18*; Blackjack or Knife (P/E) DX+3 [8]-16; or Fencing (P/A) DX+2 [8]-15.

* Includes +2 skill for IQ 12.

Secondary Skills: First Aid (M/E) IQ [1]-12; Holdout (M/A) IQ [2]-12 or Electronics Operation (Sensors) (M/A) IQ [2]-12; Shadowing (M/A) IQ [2]-12. Also pick one of Brawling (P/E) DX+1 [2]-14; Wrestling (P/A) DX [2]-13; or Judo, Karate, or Staff (P/H) DX-1 [2]-11.

Background Skills: Diplomacy (M/H) IQ-1 [2]-11; Savoir-Faire (M/E) IQ [1]-12; and one of Criminology, Politics, or Streetwise (M/A) IQ [2]-12.

Counteragent — 0 points

Why wait for the enemy's operatives to attack? In some settings, a more effective strategy is to take the war to the other side. This requires identifying the goals of the opposing forces and the resources they're using to attain those goals. That makes it possible to kill their operatives, blow up or burn down their bases, cut their supply lines, jam their messages, confiscate their funds, and otherwise make their work difficult.

The agents assigned to this type of mission are, of course, covert operatives themselves. Use any of the templates in Chapter 2 (pp. 26-29) with the following motivational lens:

Advantages: Administrative Rank 1 or Military Rank 1 [5]; Composed [5]; and 20 additional points from Administrative Rank [5/level], Higher Purpose [5], Legal Enforcement Powers [varies], Legal Immunity [varies], Military Rank [5/level], Security Clearance [5], or Single-Minded [5].

Disadvantages: Extremely Hazardous Duty [-20] and Secret [-30].

Skills: A total of 20 points in the main template's primary and secondary skills.

Negotiator — 85 points

In a hostage situation, the goal is to get the hostages out alive. Often the best way of doing this is talking with the people who've taken the hostages, rather than shooting at them. A skilled negotiator can buy the hostages time, calm the hostage-takers down, and sometimes persuade them that their best choice is to surrender and get out alive. This is easiest with criminals, hardest with ideological or religious fanatics, and unpredictable with emotionally disturbed people.

Many law-enforcement authorities have only a part-time negotiator, with adequate training but limited experience. This template, though, reflects a veteran or specialist. Hostage negotiators are trained never to say a flat "No," even to outrageous requests such as demands for drugs or guns. Instead, they buy time by promising to find out what can be done. One of the less-obvious advantages of a specialist over a police chief, sheriff, or senior officer is that the negotiator has less authority and has to go through channels.

Attributes: ST 10 [0]; DX 10 [0]; IQ 13 [30]; HT 10 [0].

Advantages: Administrative Rank 3 [15]; Charisma +1 [5]; Composed [5]; and Legal Enforcement Powers [5]. Also pick 15 points from Administrative Rank [5/level]; Charisma [5/level]; Empathy [15] or Sensitive [5]; Voice [10]; +1 IQ [15]; or increased Legal Enforcement Powers [varies].

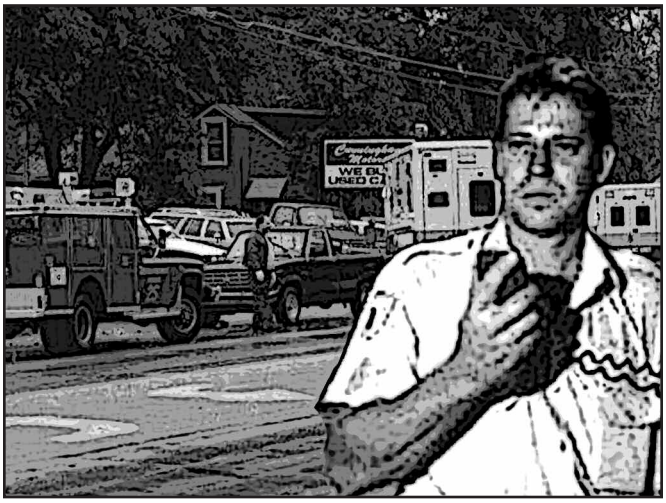
Disadvantages: Sense of Duty (Hostages) [-5]. Also pick -10 points from Code of Honor [varies]; Duty [varies]; Nightmares [-5]; or increased Sense of Duty [varies].

Primary Skills: Diplomacy (M/H) IQ+1 [6]-14; Law Enforcement (M/A) IQ+1 [4]-14. Also pick one of Criminology (M/A) IQ+1 [4]-14; or Detect Lies or Psychology (M/H) IQ [4]-13.

Secondary Skills: Administration or Politics (M/A) IQ [2]-13. Also pick two of Acting or Fast-Talk (M/A) IQ [2]-13; or Bard or Leadership (M/A) IQ+1 [2]-14*.

* Includes +1 from Charisma.

Background Skills: Law (M/H) IQ-1 [1]-11; and 4 points in Acting, Administration, Bard, Body Language, Criminology, Detect Lies, Fast-Talk, Intelligence Analysis, Leadership, Philosophy, Politics, Psychology, or Theology.



Rescue Worker — 85 points

After a terrorist attack, a large-scale accident, or natural disaster, somebody has to go in and clean things up: rescue the survivors, carry out the dead, and, if possible, leave the clues undisturbed for the investigators. This is a nightmarish job at best – people who do it too often are at high risk of burnout. It becomes worse if the rescue site is still dangerous, adding terror to shock and horror.

Attributes: ST 11 [10]; DX 11 [10]; IQ 10 [0]; HT 11 [10].

Advantages: Strong Will +2 [8]. Pick an additional 20 points from Absolute Direction [5]; Administrative Rank [5/level]; Alertness [5/level]; Breath-Holding [2/level]; Collected [5]; Courtesy Rank [1/level]; Disease-Resistant [5]; Fit [5] or Very Fit [15]; Legal Enforcement Powers [5]; Military Rank [5/level]; Night Vision [10]; Sanctity [5]; +1 to any attribute [10]; or additional Strong Will [4/level].

Disadvantages: One of Code of Honor [-10]; Duty (12 or less) [-10]; or Sense of Duty (Anyone in Mortal Peril) [-10]. Also pick one of Flashbacks [-5]; Nightmares [-5]; Post-Combat Shakes [-5]*; or Workaholic [-5].

* Post-Combat Shakes applies to the aftermath of a disaster rather than of a combat mission.

Primary Skills: First Aid (M/E) IQ+2 [4]-12; Leadership (M/A) IQ+2 [6]-12; NBC Warfare (M/A) IQ+2 [6]; and Traps (M/A) IQ+2 [6]*.

* "Traps" in this case also includes unsafe conditions in a building or environment, whether or not anyone deliberately created them.

Secondary Skills: Diagnosis (M/H) IQ [4]-10 and Lifting (P/H) ST-1 [2]-10. Also pick three of the following: Jumping or Swimming (P/E) DX+1 [2]-12; Climbing (P/A) DX [2]-11; Throwing (P/H) DX-1 [2]-10; or Scrounging (M/E) IQ+1 [2]-11.

Background Skills: Administration, Law Enforcement, or Professional Skill: Firefighting (M/A) IQ+2 [6]-12; and 2 points in Architecture, Computer Operation, Demolition, Diagnosis, Driving, Electronics Operation (Communications), Piloting, or Research.

Customization Notes: In a futuristic setting, Exoskeleton, Free Fall, and Vacc Suit may be added to the list of secondary skills.

The U.S. Secret Service

The United States Secret Service was founded in 1865, originally to combat counterfeiting of the newly introduced federal currency. Two years later, it was authorized to prevent "frauds against the government," fighting alcohol smugglers, land frauds, mail robbers, foreign spies, and the Ku Klux Klan. In 1902, after the assassination of President McKinley, the USSS was formally charged with the mission for which it is most famous today: the protection of the president. However, investigation of various crimes remains an important part of the service's mission.

Today, the Secret Service has some 4,500 employees, and about 2,000 of these are special agents. Its headquarters are in Washington, D.C.; some 100 field offices are located in all continental states, Hawaii, and Puerto Rico, as well as in Canada, Colombia, Cyprus, France, Germany, Great Britain, Hong Kong, Italy, the Philippines, Russia, and Thailand. The Secret Service has several major divisions:

Uniformed Division: The White House was originally protected by a few Washington, D.C., police officers and the "Bucktail Brigade" of the 150th Pennsylvanian Regiment, U.S. Army. In 1922, these were replaced by the Army's White House Police, which was integrated into the USSS in 1930 and renamed the Executive Protective Police in 1970. In 1977, it received its current name, and it merged with the Treasury Police Force in 1986. The Uniformed Division has four branches. The White House Branch protects the president, vice president, and their residences, including the White House itself. The Tactical Branch contains the service's Counter Assault Teams (CAT), countersnipers, dog patrols, explosive-ordnance disposal specialists, and the Firearms Training Division. The Foreign Missions Branch protects foreign diplomatic missions in the United States. The Administration and Program Support Branch manages and supports the Uniformed Division.

Presidential Protective Division: This is the most famous part of the Secret Service; its plainclothes agents are the ones directly guarding the president and the others eligible for protection. This includes the president-elect (since 1908); the family of the president (1917); former presidents and their spouses for life, and their children until age 16 (1963); major presidential and vice-presidential candidates and nominees and their spouses within 120 days of Election Day (1968); foreign heads of state or other important guests as required (1971); and the vice president and family (1974).

Tactical Security Division: Founded in 1964 after President Kennedy's assassination, this is today the largest division of the USSS. Its members are responsible for technical support. This includes the tools used by agents, such as surveillance systems and scrambled radios, but also countersurveillance methods and a bomb squad.

Forensic Services Division: The second-largest division, formed in 1965, manages vast laboratories – including biological, chemical, and photo labs and fingerprint archives – to identify and process evidence, especially counterfeited currency and forged documents.

Information Resources Management Division: This division collects all data in connection with the service's work in two mainframe systems. It can connect with all field offices via satellite and also plug into other federal systems, especially the FBI's National Crime Information Center (NCIC).

Citizens aspiring to become special agents, rather than uniformed officers or technicians, must be between 21 and 37 years of age, possess a 3-year college education or *investigative* work experience with a law-enforcement agency (having been a traffic cop doesn't count), be in excellent physical condition, and pass a battery of tests. They receive 11 weeks of intensive basic training at the Federal Law Enforcement Training Center (FLETC) in Glynco, Ga., followed by 11 weeks of specialized instruction at the James J. Rowley Training Center in Laurel, Md.

During his career, a special agent is assigned to both protection and investigation units. Much of the work consists of investigations, including undercover operations; see ***GURPS Cops*** for more details. Agents operate long hours in undesirable conditions on short notice, travel a lot, have to relocate as the service requires, and are paid on the same scale as other government employees.

Use the *Bodyguard* template on p. 118; many features from the Federal Agent (see p. C47) and Undercover Agent (see p. C51) templates should also be present.

Whenever a protected person travels, the service sends an advance team, which together with agents from the closest field office surveys all sites to be visited. Local law-enforcement agencies and other public services, such as hospitals, are alerted and assigned places in the operation, directed from a temporary command center. Protective research is implemented; this includes both technical support, such as bomb searches or countersurveillance measures and the evaluation of information on potentially dangerous groups and individuals in the area. The Secret Service maintains a file of the 40,000 people deemed most dangerous to the president; these are checked by agents and placed under surveillance. After each operation, agents evaluate the performance of the team and individual agents, to constantly improve procedures.

Agents are expected to give their lives for the people they protect (Extremely Hazardous Duty, p. CI78). They are trained *not* to seek cover or crouch in a tactical firing stance, but to stand fully erect with their limbs outstretched, even when firing their own weapons – in game terms, these agents don't Dodge. This is to distract the assailant by providing a highly visible target, as well as to provide cover for their ward.

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The U.S. Secret Service (Continued)

Aside from protective duties, the Secret Service is today mainly concerned with "white-collar crimes" such as credit fraud as well as computer and telecommunications crimes.

Since 1999, all special agents, as well as the uniformed officers, have been issued SIG-Sauer P229 pistols (p. 67). These replaced the SIG-Sauer P228 (see pp. C63, SO114) in use since 1993, which in turn had replaced the S&W Model 19 Magnum revolver (2.5" barrel and .38 Special ammo, see p. HT110) with agents and the S&W Model 10 Military & Police revolver (4" barrel, see pp. C63 and HT110) with uniformed officers, both in service since 1950. Similar revolvers have been standard sidearms since the service's foundation.

Agents also carry heavier weapons. During the first half of the 20th century, these included Auto-Ordnance M1921 and M1928 Thompson submachine guns (p. 68) and Winchester M1897 shotguns (see pp. HT111, W94). Since 1963, the chosen submachine gun has been the IMI Uzi (see pp. B209, HT116), but beginning in the 1990s, this has been replaced by the H&K MP5A3 (see pp. B209, C64, HT116, and SO117) and FN P90 (see p. HT116). The compact H&K MP5K is carried under coats and in briefcases (p. 35). The Remington Model 870 (see pp. B209, C63, and HT112) has been the standard shotgun for many years now. CAT officers also have the Colt M4A1 assault carbine (see pp. MF26, SO116), and the Remington Model 700 bolt-action sniper rifle (p. 67) for countersniper use.

The service exclusively employs hollow-point ammunition (see pp. B209, HT7, and MF4-5) in its handguns and submachine guns.

Site Security — 100 points

Site-security forces are not bodyguards; their goal is not to preserve a specific person's life, but to keep out or apprehend intruders. They may be just bored rent-a-cops sitting in front of monitor screens, or soldiers on guard duty trying to stay awake. But the ones who guard high-security facilities have much better skills. This template assumes that higher skill level.

Attributes: ST 10 [0]; DX 13 [30]; IQ 13 [30]; HT 10 [0].

Advantages: Administrative Rank 1 or Military Rank 1 [5]; Alertness +1 [5]. Also pick 20 points from Absolute Direction [5] or 3D Spatial Sense [10]; Alertness [5/level]; Combat Reflexes [15]; Composed [5]; Danger Sense [15]; Fit [5] or Very Fit [15]; Night Vision [10]; Security Clearance [varies]; or additional levels of Administrative Rank or Military Rank [5/level].

Disadvantages: Duty (12 or less) [-10].

Primary Skills: Area Knowledge (Site) (M/E) IQ+1 [2]-14; Holdout (M/A) IQ [2]-13; and Shadowing (M/A) IQ [2]-13. Also pick either Electronics Operation (Sensors) (M/A) IQ+1 [4]-14 or Stealth (P/A) DX+1 [4]-14.

Secondary Skills: Administration (M/A) IQ-1 [1]-12; Intimidation (M/A) IQ-1 [1]-12; one of Criminology or Streetwise (M/A) IQ-1 [1]-12; one of Brawling (P/E) DX [1]-13, Judo (P/H) DX-2 [1]-11, or Wrestling (P/A) DX-1 [1]-12; and 4 points in Animal Handling, Axe/Mace, Beam Weapons, Black Powder Weapons, Broadsword, Fencing, Guns, Short Staff, Shortsword, or Tonfa.

Background Skills: Forensics (M/H) IQ-2 [1]-11; and either Climbing (P/A) DX-1 [1]-12 or Running (P/H) HT-2 [1]-8.

Contracts

The contract is a useful device for structuring a scenario. Before sending operatives on an assignment, write a short document summarizing what the assignment is, and what they get on completion. You will want to address the following points:

The Target

Every mission must have an objective; generally, in covert operations this is conceived of as the "target." It may be a specific person, several specific people, any random representatives of a target group, or even an object or some data. See pp. 6-8 for further discussion.

The mission must begin by defining this target and – just as importantly – defining what's to be done to it. While killing or destroying the target is a common goal of covert operations, many other possibilities exist. The goal may be to kidnap the target (or steal it, in the case of objects or data), to compromise the target's professional standing or reputation by planting compromising information (either real or manufactured), to convince the target to perform some act against its will, etc. See pp. 108-110 for more ideas.

The Site

Every mission must take place in one or more locales. The most important detail here is the location of the target. It also may be the most elusive. A living target might be traveling; the fact that they are traveling may be the only reason that a covert operation can get to them to begin with. An important part of the mission might be investigative work to determine where the target is, and where he's going, with enough lead time to plan a quality operation before he gets there.

Other sites are involved in most missions: The operatives generally need a place to stage their mission and possibly train for it. They may need one or more "neutral" sites at which to arrange meetings with informants or black-market contacts selling illegal equipment. Any decent operation will also offer one or more "safe houses," a discreet apartment or other residence to which the operatives can flee should the operation go well and truly wrong.

The Players

Who is supposed to do the job, and are they allowed to subcontract parts of it? As an interesting twist, the GM might have the parties backing a covert operation contact only a subset of the PCs. Perhaps the other PCs have backgrounds that conflict with the employer's agenda. For instance, an employer with a Chechen background might refuse to hire ex-Russian operatives. They probably *won't* be telling the operatives they hire that they're a Chechen organization, however. If pressed on why they refuse to hire the particular PC, they'll say something to the effect of, "We just don't trust him," rather than, "He's a Russian."

If so inclined, the hired PCs can press the employer to hire the other PCs. ("If they don't go, we don't go.") The employer might yield to this pressure – a contact with a strong sense of irony ultimately might find it humorous to hire a Russian to unsuspectingly further a Chechen agenda. If the employer still refuses, the hired PCs might take the job anyway, but have the rejected PCs work the operation with them, off the books. This can provide a valuable ace in the hole should the people backing the operation try to double-cross the operatives, but it's also an added risk should those employers find out that their desires have been ignored.

Regardless, those sponsoring the operation will also have a policy on the operatives "subcontracting" part of the work. They may want the operatives to only use the employer's own personnel for support functions. They may want the right to "vet" any new hires, accepting or rejecting candidates that the operatives bring to their attention before recruitment. At a minimum, they almost certainly will want to know who else is being brought into their enterprise. This can be a source of conflict, if a PC wants to use a trusted contact but refuses to tell his employer whom that contact is.

The Debriefing

Given the expense and risk of a covert operation, any sane sponsor is going to want to thoroughly debrief the operatives afterward. Usually, this is much like an interrogation, with the sponsor's representatives firing skeptical questions at the field agents about what they accomplished and whether they broke any of the ground rules in doing it. If the debriefers and operatives are part of the same team – such as a government agency – this might be a little more pleasant. If the debriefers have reason to believe that the operatives are trying to pull a fast one on them, it won't be, same team or not.

The sponsor will want to establish when and where the debriefing is to take place, and the operatives would be wise to inquire about it before the mission, as well.

Additionally, most operations don't automatically result in any physical "token" of the mission's success – if an operative assassinates a powerful recluse from 800 yards away before making a hasty exit, how is his employer to know that the target really is dead? Some sort of proof of the mission's success usually will be required; this should be defined before the job is taken.

The Delivery

Other operations do create a token; in fact, the token is the point of the mission. In a theft or kidnapping, the job won't be considered complete until the item or person is delivered to the employers. These arrangements should be made in advance: who will take delivery, as well as when and where the transaction will occur. Also, the prudent operative will inquire as to how how much damage to the victim or merchandise is acceptable. As often as not, the answer will be, "None," but an experienced operative will understand that anyone willing to stage a covert operation to get something usually will accept a bit of wear and tear, if only grudgingly.

The delivery terms usually go hand in hand with the terms of payment; see below.

Support

In a realistic campaign, operatives rarely possess the support infrastructure that they need. They're only the tip of a long spear. In addition to the safe houses and "subcontractors" previously discussed, the operatives will need information, equipment, perhaps even armed extraction teams on standby. Usually, the employer supplies most of these resources, but exactly what will be provided and what the operatives will have to find for themselves needs careful negotiation, especially in a freelance operation. If the operatives are government agents, most of the support that their agency provides will be standardized; still, plenty of room will remain for negotiating how much backup the agency will put on the specific job at hand.

Secrecy

Any covert operation requires *some* level of secrecy. Whether freelance or full-time, the operatives will need to know exactly what they can tell subcontractors and contacts, what they can divulge if they get caught, etc. The single person in charge of the operation may need to know what he can and can't tell the other operatives.

Deadlines

Most operations need to be accomplished within some kind of time frame. For dramatic purposes, it's usually best to give this some sort of concrete limit – "by Friday the 27th or the North Koreans will move in" – but some scenarios will have to make do with "as soon as possible." In either case, a useful device for ratcheting up tension is finding some means of shortening this time frame halfway through the adventure.

Other jobs will have to be done at a specific time, when the target will be a certain place, for instance. This is even more demanding, because with a standard deadline the operatives can always move in early and – should things go wrong – leave themselves time for another attempt. With the specific-time deadline, they get one shot only.

Ground Rules

How much freedom of action do the operatives have? Do they have to follow a rigidly structured plan, can they come up with their own plan, or do they make things up as they go? How much reporting will the employer expect during the course of the operation? Again, if the operatives are government agents or the like, the ground rules will be standardized (usually to an extreme level of detail). Freelancers, though, need to feel out what it is their employer will expect.

Collateral Damage

An important subset of the ground rules is the question of how much collateral damage, if any, is acceptable. Again, full-time operatives usually had this issue spelled out for them during their first weeks of training, but freelancers working for shady sponsors will have to negotiate the topic carefully. Even if the employer generally is unconcerned with the topic, there may be specific sorts of collateral damage that *will* trigger their wrath. A criminal syndicate might not flinch to see the operatives kill a few dozen rival hoodlums, but if a 6-year-old passer-by gets killed in a firefight, they might offer the operatives up to the authorities in a flash, to keep the heat from reaching them.

Payment

For freelancers especially, all of the above leads to the most important question: How much, how, and when do the operatives get paid? Do they get advances, or funds for expenses, or are they doing the job on spec? Usually, a quality operative can demand some payment upon taking the job, with all expenses paid by the employer, but should expect at least half of his payment to wait until the job has been successfully completed. Of course, operatives desperate for work might have to accept much less favorable terms.

If the operatives are members of an organization, rather than freelance, are there internal rewards for success, such as good reviews or promotion?

In most cases, this contract won't actually be in writing. But a competent principal has worked it all out and briefed the middleman. And a competent operative won't take a job until the principal *does* work it all out, if he hasn't done so already. So don't bother with legalese about "the party of the first part." But do spell out all these points, clearly. Then, if necessary, roleplay a principal who hasn't thought things through, and see if the operatives pin him down. If they don't, and they violate one of the contractual terms that he didn't think to tell them about, they'll find out when the principal refuses to pay them, or sends someone else out with a contract on them.

If any of the operatives have Common Sense (see p. B20), roll against it if they haven't asked about one of these points. Each overlooked point requires a separate Common Sense roll to spot it; a critical success on Common Sense spots every problem area.

Open Contracts

Underworld legend talks about "open contracts," in which a crime boss offers to pay a large sum to anyone who kills a designated target. Realistically, the idea has a lot of problems. Such an offer may attract incompetents who put the target on guard, or cause unacceptable collateral damage. Verifying that the job has been done may be a problem, or more than one group may claim the credit for it. And letting previously unknown groups walk in and claim to have killed an enemy or blown up a building is a big security risk. A representative of the boss might discuss whether the operatives can prove that they've done the job, and then be arrested as an accessory when he admits that he's authorized to pay for it.

But even in a realistic campaign, a crime boss may be offended enough by an enemy's actions to send a constant stream of pursuers after him. Or he might simply express a wish for someone to do something about the offending person, without getting specific about what he wanted or what he would pay for it. And in a cinematic treatment, or a historical or fantastic setting, the rules can be different enough to make such practices commonplace. Medieval Europe offers some instructive examples; in many ways, its feudal aristocrats acted like successful crime bosses who didn't have to worry about the law coming down on them. More recently, Iranian religious leaders openly set a price on the life of Salman Rushdie for his novel *The Satanic Verses.*

Thirty Pieces of Silver

"Can I give you a check?"

Freelance operatives are naturally cautious about the form their payment takes. They don't want to give themselves away by accepting payment, so they need to avoid anything that leaves a trail of records. Checks are bad; credit cards are worse; online transactions are an even bigger problem than transactions in writing. Even payment in banknotes can be risky, if the notes are large enough for banks to keep records of them; criminals prefer small, unmarked bills for a reason.

In a low-tech society (TL1 to 4), the operative hasn't much choice; payment is going to be in precious metals or some other commodity. The big tradeoff here is between being small enough to be concealable, such as gold or precious gems, and being so high in value as to be memorable – giving the innkeeper a ruby to pay for your dinner is a bad idea. A close relationship with a moneychanger can help a lot.

In a high-tech society (TL5 to 7), exchange takes place mostly through negotiable paper – promises to pay, such as banknotes (including Federal Reserve notes), and orders to pay, such as checks. The development of legal rules under which a note can be payable to the bearer, and can be handed from person to person without a record of each holder, makes banknotes anonymous enough to be used by criminal enterprises. By the early 21st century, small unmarked bills are the most anonymous form of payment most people can imagine; they're less conspicuous than gold and the small denominations leave no records.

In an ultra-tech society (TL8 and above), criminal transactions move onto computer nets when strong encryption routines make secrecy technologically feasible, and when using those routines isn't itself illegal. If sending an encrypted message brings the police to your door asking questions, assassins stick to paper money, or even payment in kind. If quantum computing makes it possible to crack any conceivable code, the same thing happens. Otherwise, sending an order to shift a credit balance to an operative's account becomes increasingly popular. Banks that safeguard their depositors' privacy take on the role of moneychangers in the ancient world; an operative may well have a close relationship with such a bank. The right sort of bank can even act as a very quiet patron for certain operatives.

Bibliography

The following is far from complete, but covers essential fictional sources in various media and a variety of useful nonfictional works. The subject area is deliberately kept in narrow focus; it excludes crime, espionage, and irregular warfare, except when they involve covert operations as this book defines them. Space doesn't permit plot or content summaries for all of this material, so it's provided only when necessary in the authors' judgment. Online lists at Amazon (**www.amazon.com**), the Internet Movie Database (**www.imdb.com**), and the Library of Congress were invaluable in checking this information; the first two can often provide much more information on a work.

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