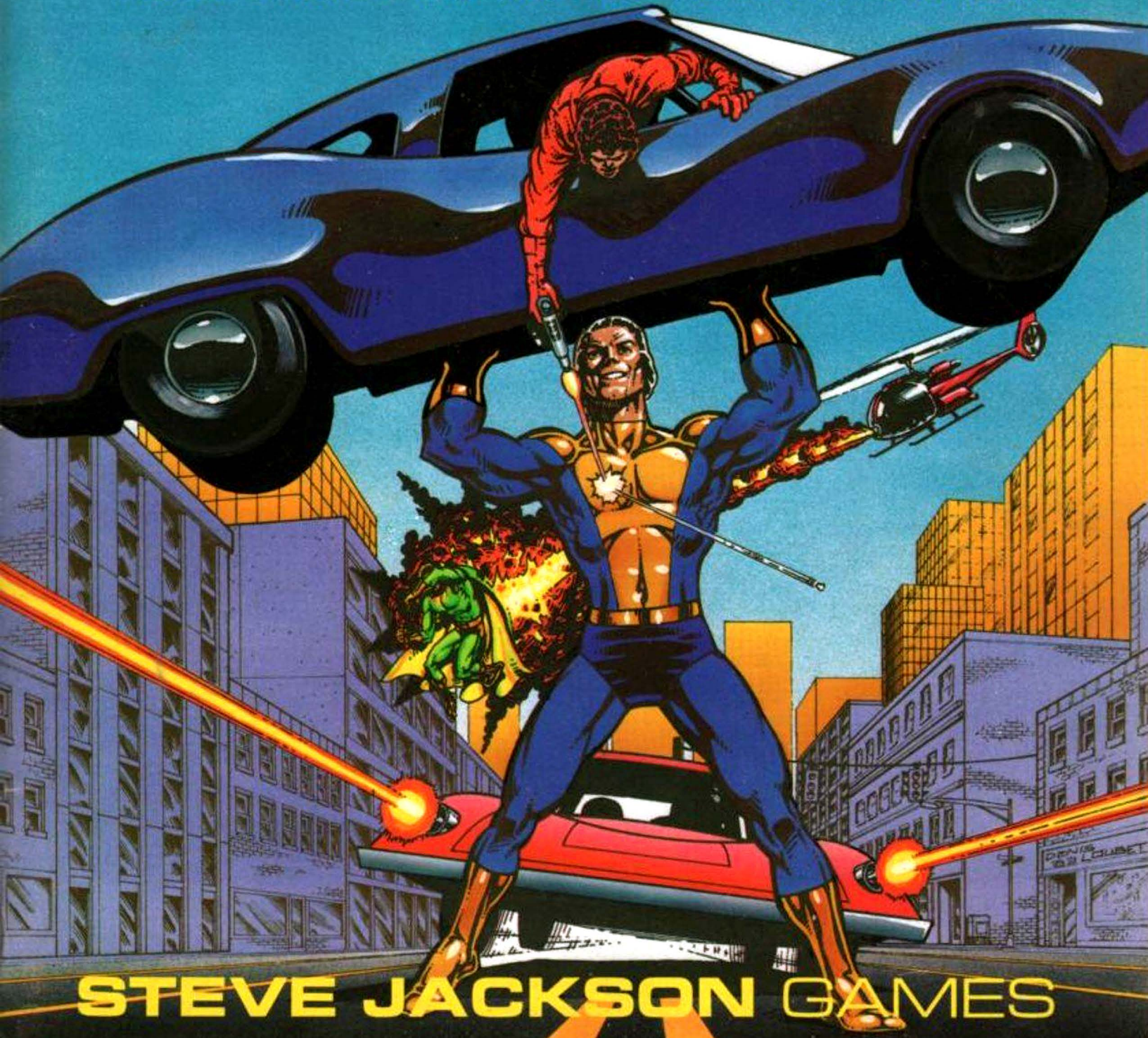# AUTODUEL
CHAMPIONS

CAR WARS Superheroes and CHAMPIONS Autoduelling in one SUPER-SUPPLEMENT!

STEVE JACKSON GAMES

AUTODUEL CHAMPIONS

A CAR WARS and CHAMPIONS Supplement

MAYBE THAT WASN'T SUCH A GOOD IDEA...

STEVE JACKSON GAMES

Contents

Introduction

Super cars and superheroes: They've gone together ever since the Green Hornet first cruised the streets in his vehicle, Black Beauty. Yet no contemporary game has fully dealt with the topic of combining superheroes with duelling-class cars.

Obviously, when it comes to putting together a combat cars/superheroes module, it's a good idea to use the best components available: Steve Jackson Games' *Car Wars,* the tactical boardgame of autoduelling, and Hero Game's *Champions,* the role-playing game of superhero activities.

Autoduel Champions will show the discerning referee how to combine the two games. In Section One, we present rules for autoduelling in *Champions.* These rules are compatible with the vehicle movement rules from *Champions II* and *Espionage,* but use the best features of the vehicle creation rules from *Car Wars.* At the end of Section One is a section on translating the useful items from *Car Wars* supplements and publications into *Champions* terms.

Section Two contains a long-awaited addition to *Car Wars,* with aerial rules, specifically helicopter movement and combat. These rules are referred to again in Section Three, Superheroes in *Car Wars,* which introduces rules for super-skills and super-powers (including, of course, Flight). At the end of Section Three is a section on converting useful *Champions*-series rules into *Car Wars.*

And, after Sections One and Three, there are campaign adventures to start a prospective superduelling referee off right. Bound into the center of the supplement are a two-sided map (*Car Wars* scale on one side, *Champions* scale on the other) and a set of full-color counters for each half of this rulebook.

This is a supplement whose time has come. Welcome to the world of *Autoduel Champions!*

                           —*Aaron Allston*

Section One

CHAMPIONS
Autoduelling

North America, A.D. 2033. It's a new American frontier. The collapse of the U.S. government plunged the country back into the good old days — days of wilderness lawlessness, banditry, regional dictators, and of the men and women who combat them. Modern-day knights and gunslingers are in demand; but the automobile has replaced the horse, and the machine-gun and recoilless rifle have made the sword and Winchester obsolete.

Welcome to 2033. It's a rough world, but it's the only one around . . .

1.1 Character Creation

As in *Champions* (and *Espionage*), *Autoduel Champions* characters receive an initial number of Character Points (just like Power Points) to allocate among Characteristics and Skills. Each beginning character receives 50 Character Points; if he wishes to start with more such points, he must take on certain character disadvantages which increase his starting point total.

Autoduel Champions characters have the same characteristics as *Champions* characters (Strength, Dexterity, Constitution, Body Pips, Intelligence, Ego, Presence, Comeliness, Physical Defense, Energy Defense, Speed, Recovery, Endurance, and Stun), and the same starting values for those characteristics (ST 10, etc.); unlike their superheroic counterparts, however, they have certain limits on their characteristics which they can only exceed by spending even more points.

Characteristic limits for *Autoduel Champions* characters are:

Characteristic	Cost per Point of Characteristic	Characteristic Limit
STR	1	20
DEX	3	20
CON	2	20
BODY	2	20
INT	1	20
EGO	2	20
PRE	1	20
COM	½	20
PD	1	8
ED	1	8
SPD	10	4
REC	2	10
END	½	50
STUN	1	50

In order to increase a characteristic over its limit, you must spend 2x the characteristic's normal cost per point above the characteristic limit. *Example:* A player wants his character to have a Strength of 23. 20 is the stated limit. For each point above 20 that the character has, he must pay 2x the normal purchase cost. The normal purchase cost per point of STR is 1 Characteristic Point; therefore for each point of STR above 20, the character must pay 2 Characteristic Points. It gets expensive. Our character has to spend 10 points to get to 20 and an additional 6 points to get to 23.

Skills Chart

Following is the list of skills available to *Autoduel Champions* characters. The chart shows the skill, the cost to purchase the skill (in Character Points), the cost to buy a +1 to the roll in the skill (for example, to get a 12– roll in Electronics skill instead of the normal 11– success roll), and the way to determine the success roll in the skill.

Just as in *Champions*, a player creates his character by allotting his Character Points between Characteristics and Skills. By this means, the *Autoduel Champions* player may create a character ranging from the intrepid jack-of-all-trades duellist to

the cantankerous master mechanic ("The engine, she canna take it!") to the lone wolf biker to the crazed survivalist to the local policeman to the frenzied terrorist. And, if the initial 50-point allowance isn't quite enough for you to build the precise character you want, you can always load the poor chap down with disadvantages — which are discussed immediately after the descriptions of the individual skills. Note: Where success rolls and other details differ between *Champions* and *Autoduel Champions*, use the latter rules for autoduelling characters. If *Espionage* is also being used, use the *Espionage* methods instead.

Skill:	Cost:	Cost for +1:	Roll:
Acrobatics	5	2	9+(DEX/5)
Area Knowledge	2	1	11–
Breakfall	3	2	9+(DEX/5)
City Knowledge	2	1	11–
Climbing	3	2	9+(STR/5)
Combat Vehicle Operation	3	2	9+(DEX/5)
Computer Programming	3	2	9+(INT/5)
Detective Work	3	2	9+(INT/5)
Disguise	3	2	9+(PRE/5)
Electronics	3	2	11–
Familiarity	1, 2, or 3	n/a	n/a
Gunsmith	3	2	11–
Knowledge	2	1	11–
Languages	1, 2, 3, or 4	n/a	n/a
Lockpicking	3	2	9+(DEX/5)
Luck	5/level	n/a	n/a
Martial Arts	= to STR	n/a	n/a
Mechanics	3	2	11–
Money	varies	n/a	n/a
Paramedic	3	2	9+(INT/5)
Professional Skills	2	1	11–
Running	2/1"	n/a	n/a
Sciences	2	1	11–
Security Systems	3	2	9+(INT/5)
Skill Levels	n/a	varies	n/a
Stealth	5	2	9+(DEX/5)
Transport Skills	varies	n/a	n/a

Skills Listing

Acrobatics operates exactly as it does in *Champions*, except that here it costs a mere 5 character Points, and you cannot diminish falling damage; that requires the skill Breakfall. To buy a +1 to your Acrobatics roll still costs 2 points.

Area Knowledge is a specific understanding about a large geographic area, such as the Free Oil States, Germany, etc. Purchase of Area Knowledge gives the character an 11– basic roll to know a specific fact about the area of his choice. A +1 to the roll costs 1 point. It is also possible to temporarily increase the roll, when searching for a specific fact, by consulting atlases or resource materials; the GM should give the character a temporary +1 to +3 when he has time to study materials available. *Example:* Chad (the Bad) Hoffritz has put 3 Character Points into Area Knowledge of his home area, the Republic of Texas. Chad will have a 12– roll on 3 dice to know a specific fact about Texas — for example, in which areas IH 35 is now impassable, which roads to the other Free Oil States are patrolled, which bike gangs operate in which regions, etc. If he botches a roll, and can't remember

which area has the meanest farmers, he can consult an appropriate resource — such as the *North American Road Atlas and Survival Guide* (3rd ed.) — to temporarily augment his roll, at the GM's discretion. Area Knowledge only permits knowledge of a large area; small regions are covered under City Knowledge, below.

Breakfall is a skill which enables individuals to take less damage from dangerous falls — such as from the top of a semi or from a fast-moving motorcycle. With a roll of 9 + DEX/5 (+½ points), a character may (a) stand up after a fall without wasting the normal half-phase required for that action; (b) take less damage from falls; for every 1 by which he makes his Breakfall roll, he may subtract 1d6 from the amount of damage a fall would do. A character may also use the skill to minimize damage taken when he suddenly has to jump from a moving vehicle — or is abruptly thrown from a moving vehicle. A character jumping/being thrown from a moving vehicle, when he hits the ground, will take the appropriate damage for his speed. Consult your *Champions* "Segmented Movement" chart. If a character riding a motorcycle at 50 mph is suddenly thrown and impacts, he will take 12 dice damage — 50 mph translates to approximately 12"/ segment (which is actually 51 mph), and impacting at 12" causes 12 dice damage. This is, on the average, a mortal wound for a normal man and still seriously injurious to even exceptional characters. But if a character can make his Breakfall roll, he takes less damage — subtract 1d6 for every 1 by which the character makes his roll (i.e., if he has a 13- skill roll and rolls an 8, subtract 5 dice from the damage he would take). A character rolling from a moving vehicle is presumed to decelerate at 5"/ segment, and must make a Breakfall roll every segment to control his roll. A motorcyclist thrown from his 15"/segment cycle will make his Breakfall roll the first second; if he's not stunned, he makes it for 10" the second segment, 5" the third segment, and he stops on the fourth. A Stunned character may not make a Breakfall roll.

City Knowledge is a thorough understanding of a city's (or small region's) layout, streets, alleys, hospitals, political faction headquarters, major garages, etc. It costs 2 points for an 11- roll and 1 point for every +1 to the roll. Advantages for access to resource materials are handled the same way as with the skill Area Knowledge.

Climbing is the skill which enables a character to climb exceptionally difficult surfaces — brick walls, moving vehicles, etc. For 3 points, the character may make a roll of 9 + STR/5 to climb a difficult surface; a +1 to the roll costs 2 points. While climbing, the character is at ½ his normal DCV, climbs no faster than 1"/phase, and is incapable of conducting an attack while moving. Sample modifiers to the success roll: -1/3" the surface is moving, if it is moving; -3 if the surface is zigzagging or otherwise performing combat maneuvers; +1 if the character only climbs ½"/phase; +3 if the surface has a gentle incline (say 45° instead of 90°), etc. An unsuccessful Climbing roll means that the character cannot successfully climb the surface; it generally means he wasn't even able to get off the ground, and will not have a dangerous fall. On extended climbs, the GM should have the character roll for every 10" of surface travelled. Simple climbing surfaces — such as ladders or low trees — generally do not require the Climbing skill.

Combat Vehicle Operation is a skill near and dear to every duellist's heart. For 3 points, a character is allowed to add his CV to the CV of any vehicle he is driving (for which he has the appropriate Transport skill). This generally makes the vehicle significantly harder to hit; it is rationalized as the driver's ability to weave, dodge, and perform other combat maneuvers designed to baffle anyone attacking his vehicle. With a roll of 9 + DEX/5, the skill user may accomplish difficult vehicular combat maneuvers: controlled skids, jumps, controlled rolls, bootlegger reverses, etc. See the sections on Movement and Combat for more details. A +1 to the Combat Vehicle Operation roll costs 2 points.

Computer Programming operates as it does in *Champions*, but costs only 3 points, plus 2 points for a +1 to the roll.

Detective Work operates as it does in *Champions*, but costs only 3 points, plus 2 points for a +1 to the roll. Note that a GM using *Espionage* with this game will generally prefer use of the *Espionage* detective skills.

Disguise operates as it does in *Champions*, but costs only 3 points, plus 2 points for a +1 to the roll, and is a Presence-based skill.

Electronics operates as it does in *Champions*, but costs 3 points plus 2 points for a +1 to the roll. Electronics Skill is not required to, say, use a targeting computer or CB radio — every character is presumed to have a basic familiarity with those functions — but would be necessary to repair one. When repairing electronic devices with this skill, some sample roll modifiers include: +1 to +3, good-to-excellent working conditions (workshop, good light, no pressure); +1 to +3, using good-to-excellent equipment to perform repairs; -1 to -5, poor-to-miserable repair conditions; -1 to -3, attempting to repair in varying degrees of combat; -1 to -5, lack of proper equipment; +1 to +3, preparing for some time in excess of a single phase.

Familiarity with a weapon is required for a character to use it well or buy skill levels with it. A character receives a -3 to hit when using an unfamiliar weapon. For 1 point, a character may buy familiarity with a specific weapon (vehicular laser, heavy handgun, tripod-mounted recoilless). For 2 points, a character may buy familiarity with a weapons group (all handguns, all blades, all machine guns). For 3 points, a character may buy familiarity with a general weapons group (all firearms, all hand-to-hand weapons, all vehicular weapons, all artillery). Familiarity with a weapon must be purchased before the character can buy skill levels with the weapon.

Gunsmith is the skill of cleaning and fixing firearms, most commonly small firearms (pistols and rifles), but also including larger ones such as machine guns. An 11-roll is purchased for 3 points; each +1 to the roll costs 2 points. With a successful roll, a character may clear a gun (in one phase) which has jammed in combat, recognize a specific gun by sight or sound, assemble his own ammunition under workshop conditions, and perform other, similar activities relating to gun maintenance. To repair a damaged gun, a character must make a successful roll with much the same modifiers as are mentioned under Electronics Skill. A failed repair roll means that the weapon has been inadequately repaired; it may not function at all, or it may (if the character fails a Luck roll) seem perfectly normal and then fail or even explode at a crucial moment in combat.

Knowledge skills grant the character a thorough understanding in some specific field of knowledge. For 1 point a

character has a basic understanding of a specific knowledge field; for 2 points the character receives an 11- roll in the field; +1 to the roll costs 1 point. Sample knowledge fields include AADA organization (how regional offices relate to central offices), heraldry (recognizing duellists or companies by the colors they paint on their vehicles), sports (including auto-duelling), history, Brotherhood organization (knowledge of the loose association of truckers and busdrivers still operating on the roads), etc.

Languages enable one to speak with those who speak the same language. Every character is presumed to speak the language of his area of origin, perhaps with a regional accent. To speak any secondary languages, a character must spend points. For 1 point, a character can speak a few words in a foreign language ("Halt! Die! Friend!"). For 2 points, the character may perform fluent conversations but with an accent. For 3 points, he has complete command of the language, with an accent. For 4 points, he talks like a native.

Lockpicking is the manual-dexterity side of Security Systems, which in *Autoduel Champions* is two skills. For 3 points (+1 to roll for 2 points), a character may use credit cards, bobby pins, and other tools to pick mechanical locks, crack safes, etc.

Luck operates exactly as it does in *Champions.*

Martial Arts operate exactly as they do in *Champions,* except that the first x½ damage bonus costs x½ STR but all subsequent x½ damage bonuses cost x1 STR. It's more expensive to be a really nasty martial artist here.

Mechanics allows the character to perform routine mechanicking functions with a roll of 11-. The skill costs 3 points with a +1 to the roll per 2 additional points. The mechanic character can repair and replace normal mechanical items, building them in some cases (such as constructing a dune buggy from parts — the bizarre preoccupation of many contemporary tinkerers), or perform less pleasant mechanical functions like snipping brake cables or setting a wheel to fall off. A tool kit is necessary for all but the most simple of mechanical tasks. An unsuccessful roll usually means that the intended repair (or sabotage) is an utter failure, but it may mean that the intended repair simply fails at an inopportune moment.

Money is what one buys equipment and services with. As explained in the section on the Starting Character, a beginning character starts with $1,000 and practically nothing else. However, if he wishes, he may — only when he is first created — spend points and receive extra starting money. For each point spent, add $1,000 to the character's starting money total. The GM may wish to limit the dollar amount a character can receive to begin with, but there are rich folks in 2033, too — and the value of the money received is often more than compensated for by the cost to the character in statistics and abilities.

Paramedic allows the character to perform normal emergency medical functions: stop bleeding, set broken bones, treat shock, etc. A knowledge of a specific science (such as toxicology) may be required for a paramedic character to make certain diagnoses (such as about poisonings). A character who has Paramedic and also buys the Medical Professional Skill bears the professional title of Doctor. Paramedic costs 3 points for a 9 + INT/5 roll, and 2 points for a +1 to the roll.

Professional Skills are exactly like Knowledge Skills in cost and effect, except that they deal with certain recognized professions: Air-Traffic Controller, Doctor, Journalist, Engineer, Construction Manager, etc.

Running acts and costs exactly as per *Champions,* until you exceed +4" of Running (or 10" total). After +4", each extra 1" costs 4 points.

Sciences function much the way Professional Skills and Knowledge Skills do. For 2 points a character gets an 11- roll in a specific science; +1 to the roll costs 1 point. Sample sciences include semantics, linguistics, computer languages, electronics (note that the electronics science may not be used in lieu of the electronics skill; it simply provides the character with an understanding of the actual scientific functions and processes which he manipulates with the skill), physics, oceanography, mutant research, animal husbandry, etc. A character may buy a lesser understanding of the science (a basic understanding, roughly equivalent to a bachelor's degree in that science) for 1 point.

Security Systems operate as per *Champions* — minus the Lockpicking functions — but costs only 3 points for a 9 + INT/5 roll, and 2 points for +1 to the roll.

Skill Levels operate as per *Champions.*

Stealth operates as per *Champions.*

Transport Skills give the character a familiarity with vehicles not held by the average person. The beginning *Autoduel Champions* character is presumed to know how to drive a four-wheeled passenger vehicle under noncombat circumstances. Knowledge of less common vehicles must be purchased. For 1 point, a character can operate a specific vehicle; for 3 points, he may operate all vehicles in a vehicle group; for 5 points, he may operate all vehicles in two vehicle groups; and for 10 points, he may use all contemporary vehicles.

Ground Vehicles Group	*Air Vehicles Group*
Construction Equipment	Light Plane (one-engine)
Heavy trucks (semis)	Light Plane (two-engine)
Military Vehicles	Large Plane (multi-engine)
Motorcycles	Commercial Jet
Off-road Vehicles	Military Jet
Trains	Helicopter
	Light Jet

Water Vehicles Group	*Recreational Vehicles Group*
Light Sailboat	Ballooning
Large Sailboat	Hang Gliding
Large Boat (yacht)	Horses
Ship (freighter)	Parachute
Large Ship (military)	Scuba
Small submersible	Skating
Submarine	Skiing

High-Tech Vehicles Group
Space Shuttle
Hovercraft/Ground Effects Vehicle
Jet Pack

Of course, most of these are totally useless in a typical *Autoduel Champions* campaign — the Ground Vehicles Group is the only really useful one in that context. (However, the others

may come in useful if the GM chooses to expand his campaign's horizons.)

That's the extent of *Autoduel Champions* skills. Many more skills appear in Hero Games' *Espionage* rules system, and a GM wishing to expand his *Autoduel Champions* in the direction of spy-related adventures is advised to pick up that rules system. In such an instance, the more complex and complete *Espionage* skill rules take precedence over the ones presented here.

Disadvantages

Disadvantages work the same way they do in *Champions*: they bring the character more initial creation points, help define the character's personality, background, and state of grace with the world, and help propel him into more interesting and diverse adventures. They can also get him killed.

Following are the disadvantages available to *Autoduel Champions* characters. They are based on the *Espionage* disadvantage point totals for 50-point characters.

Berserk, as a disadvantage, essentially doesn't exist for 50-point characters, only for 100-point superheroes. If it's really within your character conception, you can approximate it with a psychological limitation.

Dependent NPCs work as per *Champions*, but on a different point scale:

The NPC Gets Involved:	Pt. Bonus
Infrequently (8–)	+3 pts
Occasionally (11–)	+5 pts
Frequently (14–)	+8 pts

The NPC is:	Pt. Bonus
Competent (+50 pts, on a level equivalent with player-char.)	+0 pts
Normal (no extra points)	+3 pts
Incompetent (–20 points)	+5 pts

Hunteds operate much as they do in *Champions*, with the following point totals:

Hunter is a single person	+1 pts
Hunter is a small group (less than 10 people)	+3 pts
Hunter is a medium group (10-50 people)	+5 pts
Hunter is a large group (more than 50 people)	+8 pts
Hunter has advanced weapons and/or 50+ pt chars.	+3 pts
Hunter shows up occasionally (8–)	+0 pts
Hunter is after character full time (11–)	+3 pts
Hunter is after the character fanatically (14–)	+5 pts

Physical limitations operate as per *Champions*, with the following point totals:

How Often Limitation Affects	Pt. Bonus
Infrequent circumstances	+3 pts
Frequent circumstances	+5 pts
All the time	+8 pts

Limitation Impairs	Pt. Bonus
Slightly	+0 pts
Greatly	+3 pts
Fully	+5 pts

Psychological limitations operate as per *Champions*, with the following point totals:

Frequency of Occurrence	Pt. Bonus
An uncommon situation	+3 pts
A common situation	+5 pts
A very common situation	+8 pts

Intensity of reaction	Pt. Bonus
Character reacts with hate, disgust, etc.	+0 pts
Character takes irrational actions concerning the situation	+3 pts
Character becomes totally useless in situation due to total collapse or frantic retreat	+5 pts

Reputation behaves rather like Public Identity in *Champions*. Reputation operates in two parts: how often the average person recognizes the person's name or organization, and what sort of reputation it is. A person might have a wholly unwarranted reputation, and members of certain well-known organizations have "automatic" reputations whenever they are identified as a member of the organization.

How Often the Average Person Recognizes Reputation	Pt. Bonus
8–	+1 pts
11–	+3 pts
14–	+5 pts

Reputation is one of:	Pt. Bonus
Milquetoast: Trustworthiness, Boy Scoutishness	+0 pts
Strong: Violent Retaliation, "Gunslinger" mentality	+1 pts
Maniacal: Random and Unexpected Violence, Psychopath	+3 pts

Sample reputations: The Brotherhood of truckers has a reputation known to everyone of courteous driving, helpfulness, and violent retaliation against transgressors against the Brotherhood: 6 pts for the "violent retaliation" plus 5 points for the "helpfulness" — except the second and subsequent disadvantages are worth less points, as explained later. "Mad Dog" Szivaszevski has a reputation known to about half the average populace (11–) of cannibalism and sadism: 6 pts. Chad Hoffritz has a reputation known to about half the population (11–) of being a "gunslinger" — seeking big-name duellists and killing them for the glory, and having the same sort of idiots seeking him: 4 pts.

Unusual Looks operate precisely as per *Champions*, with the following point totals.

People React Poorly	Pt. Bonus
On an 8–	3 pts
On an 11–	5 pts
On a 14–	8 pts

In addition, an 8– Unusual Look is easily concealable (under a combat helmet, for example); an 11– Unusual Look can be concealed with the Disguise skill (but don't rely on it too much); and a 14– Unusual Looks cannot usually be concealed at all.

Unluck performs exactly as per *Champions*.

Unlike *Champions*, where multiple disadvantages of the

same type become less cost-effective in groups of two (that is, the first two disadvantages of a given type earn full point values, the next two earn one-half the listed point values, the next two earn one-fourth, and any subsequent ones earn nothing), *Autoduel Champions* is a little harsher on purchasers of multiple similar disadvantages. The first disadvantage of a particular type will earn full points; the second of the same type will earn one-half; the third will earn one-fourth; and any subsequent ones are valueless. Example: Marcy "Pyro" Ledbetter chooses two Psychological Limitations. Killing appeals to her so much that she'll place herself in exceptional danger to accomplish it (very common situation, irrational actions: 11 pts). Also, she's fascinated with fire, and may become mesmerized — even in the middle of a raging fight — by any large-scale fire (uncommon situation, irrational actions: 6 pts.). But since she has two similar disadvantages — two psychological limitations — the second one is worth one-half the listed point value, and will only be worth 3 points to her. If she were to take yet another psychological limitation, it would be worth only one-fourth the listed point value.

Equipment

Following is a list of equipment available for the 2033-era autoduellist. The first part of the list describes personal weapons, each of which is described in terms of damage done, range modifiers, size, shots contained, type of fire, and cost per shot or round.

Equipment Table

Weapon	Damage	Range	Size	Shots	Fire	CPS***	Cost
SMG	2d6K	-1/4"	10	30	select	$1	$250
Rifle	2d6K	-1/5"	12	20	single	$1	$120
Shotgun	3d6K*	-1/6"	12	5	single	$1	$120
Heavy Pistol	1d6+1K	-1/3"	4	7	single	$1	$100
Light Pistol	1d6K	-1/3"	3	7	single	$1	$ 75
Derringer	1d6-1K	-1/1"	1	2	single	$1	$ 75
Frag. Grenade	2d6KE	-1/3"**	3	1	n/a	n/a	$ 25
Conc. Grenade	7d6E	-1/3"**	3	1	n/a	n/a	$ 25
Large Knife	1d6K	-1/3"	4	n/a	n/a	n/a	$ 20
Stiletto	½d6K	-1/3"	2	n/a	n/a	n/a	$ 10
Baton	2d6	n/a	5	n/a	n/a	n/a	$ 3
Bat	4d6	n/a	9	n/a	n/a	n/a	$ 5
LAW	4d6K	-1/4"	10	1	n/a	n/a	$500
VLAW	2½d6	-1/4"	6	1	n/a	n/a	$200
Crossbow	1d6+1K	-1/4"	10	1	single	$1	$100

   * Observe normal rules for shotgun damage; if using both *Espionage* and *Champions*, use *Espionage* rules.
   ** Throwing range modifier, that is.
   *** Cost per round of ammunition.

There are other non-weapon items of equipment available, including:

Item	Size	Cost	Function
Light Combat Suit*	6 (folded)	$ 250	Stops 4 res. PD & ED
Med. Combat Suit*	8 (folded)	$ 500	Stops 6 res. PD & ED
Heavy Combat Suit*	10 (folded)	$1,000	Stops 8 res. PD & ED
Walkie-Talkie	2	$ 100	½-mile range, CB bands
Binoculars	3	$ 300	10x mag. Telescopic Vision
Pistol/Rifle scope	1	$ 500	+1 to OCV using weapon
Flashlight	3	$ 10	Illumination
Tool Kit	6	$ 600	Minor repair & maintenance
Helmet Radio	0**	$ 300	Same as Walkie-Talkie
Handgun magazine	1	$ 10	Holds 7 rounds
Rifle magazine	2	$ 10	Holds 20 rounds
SMG magazine	3	$ 10	Holds 30 rounds
Silencer	1***	$ 100	Quiets automatic pistols
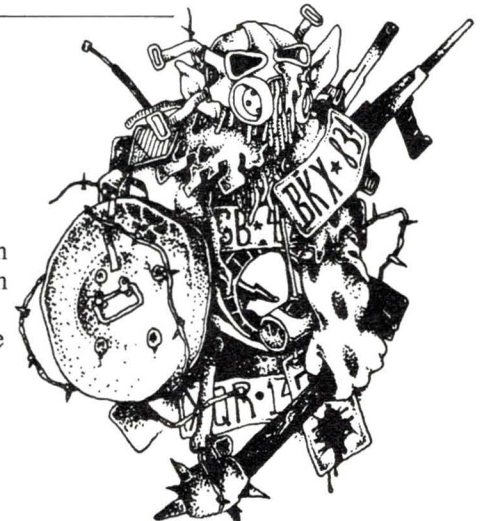
   * A Combat Suit consists of a full-body jumpsuit plus boots, belt, gloves, and helmets, available in a variety of colors. As a full-body suit, it needs no activation roll; if using *Espionage*, it covers the 3-18 target body range. The helmet includes a retractable polarized vision plate which acts as two points of Flash Defense and reduces glare. A suit's size counts against someone's Size load whether it is worn or carried. Combat suits come in all sizes and "breathe" for comfort.
   ** The Helmet Radio may be installed in a Combat Suit's helmet with a voice-activation trigger (installation is free) making it far easier to stay in easy communication with allies.
   *** Added to the Size of the pistol, of course.

The new equipment term listed is Size. A person can carry up to 2x his STR in Size Points before starting to suffer movement restrictions; each item carried will be a certain number of Size Points in size. For example, a standard Rifle has a size of 12; this is well within 2x of the average person's STR, so its bulk will not slow the average man.

If a person is carrying Size Points more than 2x and up to 3x his STR he loses 1" of ground movement and 1 from his DCV. More than 3x and up to 4x his STR, and he loses 2" and 2 from his DCV. This is totally separate from STR vs. weight; if a GM feels that a character is carrying excessive weight, he can further reduce the character's running speed. (Note that these movement reductions are before the doubling that occurs with running — a character slowed to 5" normal movement can run no faster than 10" when running.)

Package Deals

The final section on creating a *Champions*-system *Autoduel Champions* character involves the Package Deals. These are structured packages of specific skills and disadvantages which members of certain groups must purchase. For example, to be a member of the American Autoduel Association, one must be able to drive a vehicle in combat situations, must know how to use vehicular weapons, and must have a thorough knowledge of both the area in which he operates and of the AADA working structure (so that he can notify the right people when he needs help or wants to inform the AADA offices of something). On the down side, all AADA members have a certain reputation — deserved or not — they are known to the common citizen on an 11- roll as "gunslinger" types.

It can be argued that a character can take all the above mentioned skills and disadvantages without being a member of the AADA. True enough. But being an AADA member has the added advantage that it gives the character a group to identify with, a ready source for help or companionship in tough times, etc., and gives the GM a vehicle (no pun intended) from which to launch the character into specific adventures.

Following is a list of certain organizations, including brief notes on their histories, the benefits they bring to their members, and the skills and disadvantages necessary for a character to be a member of that organization.

The American Autoduel Association is a widely-known organization which was founded on the following premises:
(1) That the Constitutions grant the individual the right to keep and bear arms;
(2) That common sense grants the individual the right to scrap anyone threatening him;
(3) That recreational duelling between consenting adults not only is not a harm to society, but is a deterrent to randomly violent individuals, as it keeps the combat skills of the common citizen honed; and
(4) That recreational duelling between consenting adults is a hell of an exciting thing to watch. Or participate in.

The AADA provides certain benefits to its members — including often-updated copies of the *North American Road Atlas and Survival Guide*, cheap tow and repair services, a magazine (*Autoduel Quarterly*) and local newsletters, political clout in the preservation of the individual's right to mayhem (as shaky as the newly-recentralized government is, it still has some power, and AADA lobbyists are plentiful in Washington), companionship for like-minded individuals, and regular regional and continent-wide sports events.

The AADA Package:

Combat Vehicle Operation	3 pts.
Area Knowledge (choice)	2 pts.
Familiarity, vehicular weapons	3 pts.
AADA Knowledge	2 pts.
Reputation: 11-, gunslinger	-4 pts.
Total Cost:	6 pts.

The Police exist in most communities. In larger cities, they are regional employees of the city government. In smaller communities, they are often mercenary protection operations, being paid via revenues collected by local governments. The mercenary police units are usually at least as competent as their big-city counterparts, but are occasionally little more than organized terrorists and extortionists.

Being a police officer in 2033 has certain advantages. The most important of these is that police have vehicles and weaponry provided by the community they serve. Of course, the vehicles and weaponry are community property, but the police are still better-armed than most other citizens. Disadvantages include the fact that police bear the reputation of being willing (nay, under orders) to aid the defenseless — and are thus open for tricks and ambushes — and that they are generally hunted by lawbreakers in their communities.

The Police Package (from an average police force):

Familiarity, firearms & vehicular weapons	6 pts.
Area Knowledge (local)	2 pts.
Police Knowledge	2 pts.
City Knowledge	2 pts.
Combat Vehicle Operation	3 pts.
Reputation: Aid the defenseless, etc. 14-	-5 pts.
Hunted: Local lawbreakers (50-pointers) on an 8- roll (large group)	-8 pts.
Total Cost:	2 pts.

The Paladins are a Midwestern cycle gang — a loose society of several similar bike gangs, in fact, all under the nonrestrictive authority of the grimly charismatic Thomas "Hell-bent" Braker. The Paladins are not a random-violence cycle gang, but rather a mutual-defense society of nonconformists. They finance themselves by waging war on other bike gangs, on terrorists, on the vestiges of organized crime still operating — in short, they're hated by practically every other outcast group on the highways. Common citizens, enchanted by the gang's Robin Hood-type reputation, are generally friendly

toward the Paladins, and the bike gang and the truckers' Brotherhood are on amicable terms.

Being a Paladin does have its advantages. Truckers, ordinary citizens, and local authorities (of the federal or respectable regional variety) will not interfere with a vehicle bearing Paladin colors. A Paladin's death in honorable combat will not spark any retaliation, but an ambush attack or other sneaky maneuver will generally see the transgressor slain — no matter how wealthy or powerful he is, the bikers will eventually find a way to scrap him. Hellbent Braker's initial concept when founding the original Paladins, that of creating a latter-day order of highway chivalry, results in frequent press writeups and occasional good publicity all around. On the down side, Paladins are attacked on sight by members of the criminal organizations mentioned and have to live up to their chivalric reputation. Paladin colors are white and red.

The Paladin Package:

Motorcycle transport	1 pt
Familiarity: Firearms, vehicular weapons, melee weapons	9 pts
Hunted (criminal organizations, normals, 50+, 11-)	-11 pts
Reputation (11-, chivalric/Robin Hood)	-3 pts
Area Knowledge (local)	2 pts
Combat Vehicle Operation	3 pts
Gunsmith	3 pts
Total Cost:	4 pts

The MONDOs are a pedestrian vigilante society, the Midville (Ohio) Operatives for Neighborhood Defensive Ordnance. They make a good model for other regional pedestrian combat groups. They're well-trained, well-armed, tenacious, and (due to recent coverage of several combat operations in Midville) well-known across the country as effective if lunatic defenders. To citizens of the average town, they're heroes. To Midville-area citizens, they're an amusing, if noisy, social group which has brought some prestige to the community.

About the only advantage to being a MONDO (over being an independent warrior) is the fact that the crew gets free alcohol after any defense of their community. That's good enough for them . . .

The MONDO Package:

Familiarity: Firearms & melee weapons	6 pts
City Knowledge (local — Midville)	2 pts
Luck (how else would they have endured?)	5 pts
Running +1"	2 pts
Reputation (14-, gunslinger)	-6 pts
Hunted (local bike gangs, medium group, normals, 8-)	-5 pts
Total Cost:	4 pts

The Brotherhood is a widely-known association of individuals who make their livings transporting and protecting cargo and passengers on the highways of 2033. It exists for the same reason as many of the above organizations — companionship among persons of the same interests, and mutual defense — and has roots of indeterminate antiquity.

Brothers have the reputation of being courteous drivers, quick to assist defenseless or discommoded motorists. It is also widely known that they will formidably retaliate against any transgressor stepping on other Brothers. Sneak-attackers tend to find their camps overrun and steamrollered; exorbitant tax collectors wake up to find vehicular boycotts of their communities. Wide and imaginative are the fates which befall those who mess with the Brotherhood.

The Brotherhood Package:

Familiarity: Trucks	1 pt
Combat Vehicle Operation	3 pts
Familiarity: Vehicular weapons	3 pts
Area Knowledge (highways and throughways)	2 pts
Reputation (14-, violent retaliation)	-6 pts
Reputation (14-, helpful & courteous) x½	-3 pts
Professional Skill: Trucking	2 pts
Knowledge: The Brotherhood	2 pts
Total Cost:	4 pts

Of course, many other package deals are possible, as there are many other organizations in operation on the North American continent. Each individual GM is encouraged to create as many as necessary to flesh out his campaign.

If using the *Espionage* rules, a GM may wish to add "Package Deal" bonuses to these as per that game.

The Starting Character

The beginning player-character is assumed to start with the following skills and other benefits:

4 pts worth of familiarity with his native language
A passing knowledge of the 4-wheeled passenger car
$1,000 starting money
An 8- success roll in each of the following skills:
    Climbing
    Combat Vehicle Operation
    Detective Work
    Disguise
    Paramedic
    Stealth

That 8- success roll means that any average person has a slight chance to perform one of those skills. No overall Skill Levels may be put to that success roll — if you don't buy the skill, you can never achieve better than an 8- roll.

The character can choose his own weight — though that will automatically be noted at 100 kg on the Vehicle Record Sheets, to allow for personal equipment — and his own features, etc.

Let's put together a beginning character to see how that process works.

Our mythical player wants to create a young, impetuous autoduelling fan who is now devoted to making his living on the roads. The character, whom our player names Jack Ordway, hasn't spent all his time in idle adoration of his duelling heroes, though — he's conscientiously trained himself in several skills he thinks will help him make a good living on the fun-filled highways.

Jack wants to be a forward scout, a cyclist riding point for transport convoys. It's a goal he's made well-known, and he's called "Ranger" by his friends.

Where to start? Well, Jack would naturally want to be a member of the AADA, and thus chooses the AADA Package:

Combat Vehicle Operation	3 pts
Area Knowledge (the midwest, home territory)	2 pts
Familiarity: Vehicular weapons	3 pts
AADA Knowledge	2 pts
and Reputation (11-, gunslinger)	-4 pts

It's a good place to start. He's a cyclist, so he's given Motorcycle Transport (1 pt). His player gives him Truck Transport (1 pt) as well, reasoning that Ranger would have learned how

to operate every type of vehicle on the road. Ranger also picks up Breakfall (3 pts) — he knows how to put a cycle down, and how to take a tumble. He takes Familiarity with all firearms (3 pts) and melee weapons (3 pts) — he wasn't fooling around in his schooling. And, because of his devotion to the field of duelling, he takes Knowledge: Heraldry (3 pts); on a 12- roll, he can identify a car on the road by the colors it flies, assuming that the driver's been around for a while and he's flying unique colors.

All of this adds up to 24 Character Points. Jack has his 50 starting points plus 4 points for his AADA reputation, so he's still under control.

Now he chooses Characteristics. Ranger wants to be notably above average in his Strength, Dexterity, and Constitution due to the rigors of his training, so his player gives him a 13 in each (costing 3 + 9 + 6 = 18 pts). Ranger is naturally intelligent, so he's given 3 points in INT. He's self-assured and egotistical, but not massively so, so he's given 4 points in EGO, for a score of 12, and 2 points are put into both PRE and COM to reflect above-average personal attributes — for a PRE of 12 and a COM of 14.

He *is* a biker, and has taken falls, and has grown somewhat tougher because of them; he's given 2 points each in PD and ED. (With scores of 13 each in STR and CON, he started with PD and ED each 3, and now they're up to 5). To SPD go 7 points, giving him a SPD of 3 — better than the average man — and Ranger will (for now) have to rely on his natural REC, END, and STUN.

All of this adds up to 40 points — plus the 24 points in skills makes 64, which exceeds his starting total (50) plus disadvantages (4). He must either trim characteristics and skills or take more disadvantages. He takes more disadvantages.

Ranger is reckless, and his GM decides this will lead to Irrational Actions in very common circumstances — total of 8 points. And his player decides that he wants Ranger to make a lifelong enemy on his first adventure — a 50-point character, an enemy biker, who shows up on an 8-. 4 points.

Now, Characteristics plus Skills (64 points) no longer exceed Starting Points plus Disadvantages (66 points). He has 2 extra points to spend. He decides to increase one of his Skill rolls: Combat Vehicle Operations, so that he manipulates his vehicle better. Now he's balanced.

But not finished — he still has money to spend. A thousand dollars, to be exact. He didn't want to spend his 2 last points on money, because he preferred to be a more capable character, and can't afford a decent cycle on $1,000, so he decides to spend his bucks on personal equipment. He'll try to hire on with some convoy as a gunner until he can earn enough to seek his true vocation.

Ranger chooses a light Combat Suit ($250), an SMG, 120 rounds of ammunition, and four clips ($250 + $120 + $40 = $410), a heavy handgun ($100) and ten clips of eight rounds each ($80 + $100) for a total of $940 — which leaves him well-armed and gives him $60 to live on until he finds a job. He'll find one, of course.

So, Jack "Ranger" Ordway looks like this:

Value	Characteristic	Pts	Pts	Skill/Knowledge	Roll
13	Strength	3	0	Climbing	8-
13	Dexterity	9	5	Combt. Vehic. Op.	13-
13	Constitution	6	0	Detective Work	8-
10	Body	0	0	Disguise	8-
13	Intelligence	3	0	Paramedic	8-
12	Ego	4	0	Stealth	8-
12	Presence	2	3	Breakfall	11-
14	Comeliness	2	2	Transport:	
5	Physical Def	2		cycles, trucks	n/a
5	Energy Def	2	6	Familiarity: firearms	
3	Speed	7		melee weapons	n/a
6	Recovery	0	2	Area Knowledge:	
26	Endurance	0		Midwest America	11-
24	Stun	0	3	Familiarity, vehicular	
				weaponry	n/a
Disadvantages: 50+		Pts	2	AADA Knowledge	11-
Reputation: 11-			3	Heraldry Knowledge	12-
gunslinger		4			
Hunted, single, 50-				*Equipment*	
point biker		4		Body Armor (4 PD, 4 ED)	
Reckless (common,				SMG, 100 Rounds (4 clips)	
irrational		8		Heavy Pistol, 80 Rounds (10 clips)	

So, Ranger Ordway is ready to start — but with no *place* to start. We'll take up on that in "Campaigning" immediately after "Vehicle Creation," "Movement," and "Combat,"

AUTODUEL CHAMPIONS
Character Record Sheet

CHARACTER NAME: _____ **PLAYER:** _____

Value	Characteristic	Cost	Base	Pts.
_____	STR	x1	10	_____
_____	DEX	x3	10	_____
_____	CON	x2	10	_____
_____	BODY	x2	10	_____
_____	INT	x1	10	_____
_____	EGO	x2	10	_____
_____	PRE	x1	10	_____
_____	COM	x½	10	_____
_____	PD (STR/5)	x1	_____	
_____	ED (CON/5)	x1	_____	
_____	SPD 1+(DEX/10)	x10		_____
_____	REC (STR/5)+(CON/5)	x2	_____	
_____	END (CONx2)	x½	_____	
_____	STUN (BODY)+(STR/2)			
	+(CON/2)	x1	_____	_____

Characteristics Cost: _____

Pts.	Skill and Knowledge	Roll
_____	Climbing	_____
_____	Combat Vehicle Op	_____
_____	Detective Work	_____
_____	Disguise	_____
_____	Paramedic	_____
_____	Stealth	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Base OCV and DCV

DEX/3 = _____

END:_____	Phases
	1
	2
	3
STUN:_____	4
	5
	6
	7
	8
BODY:_____	9
	10
	11
	12

Disadvantages: 50+ Pts.

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

Disadvantages Total: _____
Experience Spent+ _____
Total Points= _____

_____ Skills and Knowledge Cost
_____ + Characteristics Cost
_____ = Total Cost

MONEY:

On Hand: _____
At Home: _____
In Bank: _____

EXPERIENCE:

Spent: _____
Unspent: _____
Total: _____

INT Roll (9+INT/5): _____ **DEX Roll (9+DEX/5):** _____ **EGO Roll (9+EGO/5):** _____ **PER Roll (9+INT/5):** _____

Known Affiliations:
_____
_____
_____

Vehicles Owned:
_____
_____
_____

Colors and Device (if any):
_____
_____
_____

Personal Weapons	Weapon Damage	OCV/ Range Mod.	Wpn. Size	# of Shots	Placement/ Notes
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Personal Equipment	Equipment Size	Placement / Notes
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

1.2

Vehicle Creation

Next on our hit parade is the section on constructing vehicles — specifically, passenger cars and motorcycles.

It can't hurt to refer to the Vehicle Record Sheet on page 22 while reading the next section — it makes a handy reference. We'll also take a step-by-step example of vehicle creation throughout this section of rules.

Please note from the start that *all* component costs will be given in US dollars from AD 2033, the setting of the "official" *Car Wars* universe, and all weights will be given in kilograms.

Components

A vehicle is defined by eight components (seven, in the case of motorcycles), each of which has certain characteristics. Each component performs a function or number of functions (the engine provides power, the armor stops damage, etc.), and can withstand a certain amount of damage before ceasing to function.

The components of a vehicle are:

(1) Vehicle Style
(2) Armor
(3) Chassis Strength
(4) Engine Type
(5) Suspension Type
(6) Tires
(7) Vehicular Weapons
(8) Extra Equipment.

An additional "component" type — drivers, passengers, personal equipment, cargo, etc. — is not considered part of the vehicle itself, and is therefore shown on the Vehicle Record Sheet separated from the rest of the vehicle components.

While we're going through the steps of introducing you to character-creation, we'll also be building two vehicles: Ranger Ordway's dream machine — a fast, versatile scout motorcycle, with light armor, some weaponry, and a long-distance two-way radio — and Vulf Heinze's sports car, a fast and mobile compact with enough armor and weaponry to keep him feeling secure when cruising the city streets.

General Notes

Champions gamers not familiar with the *Car Wars* vehicle creation system should pay attention here. To the right are schematic diagrams for a passenger car/van/pickup and for a motorcycle with sidecar.

As you can see, the diagram only shows which end is which and indicates the position of the wheels. Except for these major restrictions, the players are allowed to design their cars with equipment positioned wherever they wish.

Some minor restrictions and other notes: You do not need to indicate a placement for targeting computers (which are assigned to an individual seat) or armor (which is noted on the

vehicle record sheet — you do not need to draw it in). Of primary use on this chart are wheels, passengers, weapons, the engine, equipment which takes space, and cargo.

Note that no more than one-third of a vehicle's spaces may be allotted to any one side of a vehicle. Thus, a Luxury car may not have more than (19 ÷ 3 = 6.33) 6 spaces worth of equipment or weapons flush against the front of the vehicle, or flush against the left, right, rear, or top. Passenger and crew seats may not be placed more than two side-by-side in a subcompact, three abreast in a compact through luxury, or four abreast in a pickup or van. But, within these restrictions, a vehicle's designer can exercise a good deal of freedom in arranging a vehicle's interior.

Passenger Car / Van / Pickup
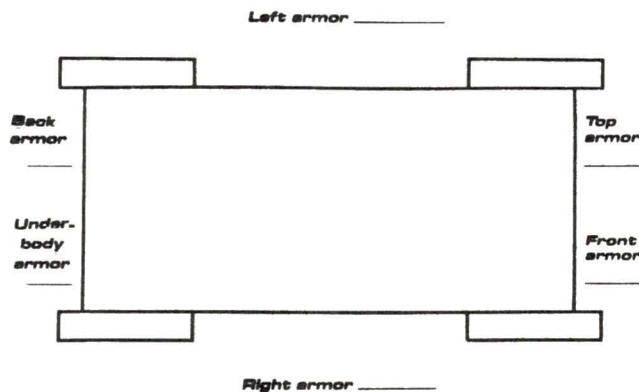
Motorcycle with Sidecar
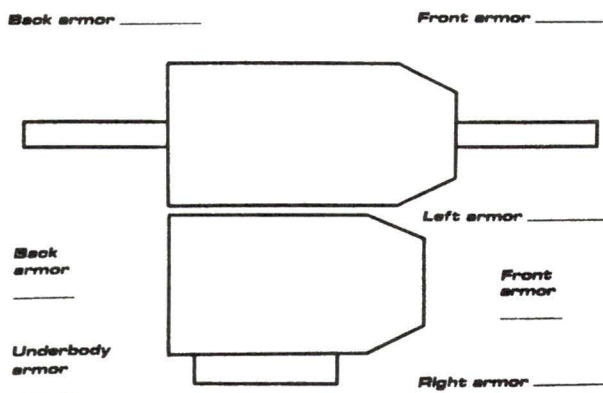
On the next page are some examples of vehicle interior arrangement. Don't worry about the roughness with which they're laid out; the examples are as neat and complete as you need to be.

As you can see from the examples, upon the spaces for the vehicle components are recorded the components' resistant Def, the BODY, and the shots used. For example,

Rocket Launcher
Def 1 BODY 2 |
Shots 10 ||||

would indicate that the rocket launcher has sustained 1 point of BODY in damage (vehicle components, of course, take no

STUN damage) and has fired 5 of its 10 shots. *Characters'* defenses and BODY, of course, are recorded on their individual character record sheets.

Vehicle Interior Arrangements

Finally, when you've laid out your vehicle as you want it, you need to assign every item of a single type a number. Passengers and crew, being people, count as things of a single type. Weapons are a category. Cargo is a category.

For example, if a car has three occupants — one driver, one gunner, and one passenger — label the driver 1, the gunner 2, and the passenger 3. When it has five weapons systems — two machine-guns, a smokescreen, a laser, and a flamethrower, they become, "Machine Gun 1. Machine Gun 2. Smokescreen 3. Laser 4. Flamethrower 5." Why? Well, in combat, a damage result may indicate that "Passenger/crew" takes damage. If there are several, the person doing the damage rolls randomly to see which one is hit. But this discussion needs to be in the Combat section anyway, so let's push on . . .

Vehicle Style

Below is the chart showing all the characteristics of all the Vehicle Styles available to *Autoduel Champions* characters.

Vehicle Style	BODY	Price	Weight	Load	Spaces	DCVM
Subcompact	8	$300	500	STR 27	7	–3
Compact	9	$400	650	STR 31	10	–3
Mid-sized	10	$600	800	STR 33	13	–4
Luxury	10	$800	900	STR 34	19	–5
Station Wagon	10	$800	900	STR 34	14+7	–5
Pickup Truck	11	$900	1,050	STR 35	13+11	–5
Van	10	$1,000	1,000	STR 34	24+6	–6
Light Cycle	5	$200	125	STR 20	4	–1
Medium Cycle	6	$300	150	STR 22	5	–1
Heavy Cycle	7	$400	175	STR 24	7	–1
Light Sidecar	3	$300	100	STR 15	2	–1*
Heavy Sidecar	4	$450	175	STR 18	3	–1*

* This DCVM is cumulative with the DCVM of the motorcycle frame size being used. That is, a Heavy Sidecar with a DCVM of –1 attached to a Heavy Cycle with a DCVM of –1 makes for a vehicle with a DCVM of –2.

Explanation of terms:

The *Vehicle Style* is pretty self-evident. It's the vehicle size and type the vehicle designer wants. If you want a large car equivalent to a '68 Chrysler New Yorker, choose a Luxury style. If you want the 2033-style Honda Civic, choose a Compact style.

BODY, like the BODY score in characters and other *Champions* objects, is a reflection of how much damage the vehicle's chassis can endure before the vehicle can no longer function. The Combat section of this rulebook details how a vehicle sustains and endures damage.
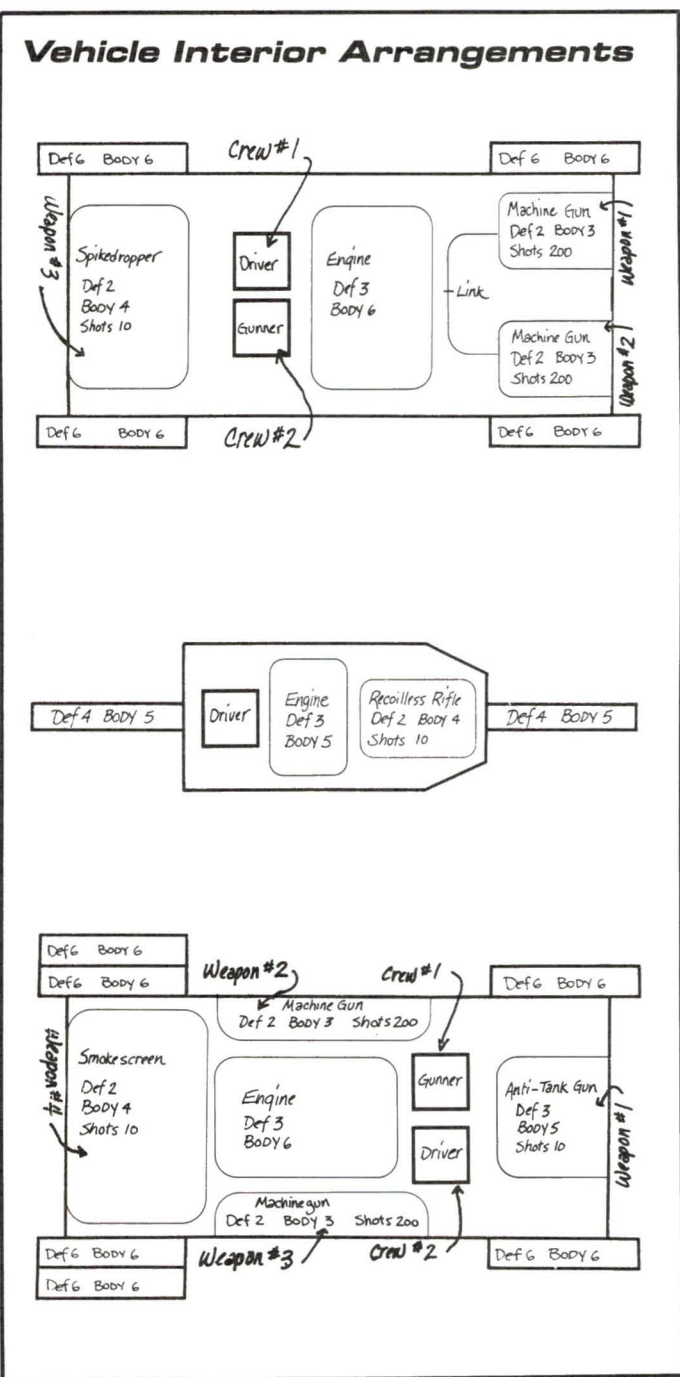
Cost is the dollar price of the components.

Weight shows the component weight in kilograms.

Load determines the amount of weight the Vehicle Style can support. It is expressed as a Strength score from *Champions*; the chart on page 15 shows how much weight any given Strength score from 15 to 37 can sustain. The weight of the Vehicle Style is the first thing applied to the load the vehicle can carry — thus, of the 2,400 kg a STR 33 mid-sized car can hold up, 800 kg of the style weight is already used up.

Spaces is a reflection of how much interior room a vehicle has. The average human takes one space; a human plus the room necessary to operate complicated vehicle controls takes two spaces. A Luxury vehicle has 19 spaces to allocate between passengers, crew, engine, weapons, equipment, and cargo. Vehicles with a number followed by a "+" and some other number are styles which have some spaces automatically allocated to cargo space; this cargo space may not be used for any active vehicle weapons, equipment, or crew. For example, in a Station Wagon, only 14 spaces may be allotted to crew, engine, weapons, and equipment; the "+7" may hold passengers, cargo, or empty air, as the designer wishes.

DCVM, or Defensive Combat Value Modifier, is a reflection of the fact that a larger vehicle will be easier to hit than a

smaller vehicle, and even a small vehicle will be easier to attack than a pedestrian. As will be explained in Combat, a vehicle is assigned a Defensive Combat Value (just as characters have in *Champions*), based either on the DCV or its driver, assuming the driver has Combat Vehicle Operation. Let's assume that a dextrous combat driver has a DCV of 6. If he is driving a subcompact, which is substantially larger than a man, he gets his DCV of 6 modified by the DCVM of the subcompact style (-3), for a final vehicle DCV of 3.

Here is the promised chart of vehicular strength:

Vehicular Strength	Weight Maximum	Vehicular Strength	Weight Maximum
15	200 kg	27	1067 kg
16	233 kg	28	1200 kg
17	267 kg	29	1400 kg
18	300 kg	30	1600 kg
19	350 kg	31	1866 kg
20	400 kg	32	2134 kg
21	466 kg	33	2400 kg
22	533 kg	34	2800 kg
23	600 kg	35	3200 kg
24	700 kg	36	3833 kg
25	800 kg	37	4267 kg
26	933 kg		

Example: Ranger Ordway wants the largest cycle available for his personal bike, so chooses the Heavy Cycle frame: 7 BODY, $400 cost, 175 kg weight, STR 23 (thus it can carry 600 kilograms), 7 spaces, DCVM -1. He doesn't want a sidecar.

Example: Vulf Heinze wants a compact: 9 BODY, $400 cost, 650 kg weight, STR 31 (thus, it can carry 1866 kg), 10 spaces, DCVM -3.

Armor

Vehicular armor is designed to ward off the effects of damage — from pretty nasty weapons, in the case of *Autoduel Champions* vehicles.

Unlike armor in *Car Wars*, which is ablative (if 3 points' damage is done, 3 points of armor goes away, and so on until none is left), *Autoduel Champions* armor endures. Since it is more cost-effective than *Car Wars* armor, it also costs a lot more. Additionally, weight and price do not increase as a straight-line formula, but geometrically — thus, 8 points of armor will weigh and cost more than twice as much as 4 points of armor.

The charts below show how much it costs *per vehicle side* to armor a vehicle.

How to use the charts: Decide what sort of vehicle style you're armoring. A vehicle has six sides to armor: front, back, top, bottom, right side, and left side. Decide how many points of armor you want on a particular side and cross-reference the points with the vehicle style. The figures shown will indicate how much the armor will cost and weigh. Note: Cycles may only armor front and rear.

On the next page are two examples of how to purchase armor for vehicles. Note that in most cases of vehicle construction, a vehicle designer waits until the end of the design process to assign armor values, utilizing whatever weight capacity is left over for the vehicular armor. In this case, though, the examples will occur at this point in the text.

Armor Cost Table 1: Cycles, Sidecars

Armor Pts	Light Cycle		Medium Cycle		Heavy Cycle		Light Sidecar		Heavy Sidecar	
	Cost	Wgt	Cost	Wgt	Cost	Wgt	Cost	Wgt	Cost	Wgt
1	10	8	11	11	12	12	5	11	5	12
2	15	10	16	13	17	15	7	13	7	15
3	22	13	24	17	26	20	11	17	11	20
4	33	17	36	21	40	25	17	21	17	25
5	50	20	55	25	60	30	25	25	25	30
6	75	27	83	33	90	40	38	33	38	40
7	113	33	125	42	135	50	57	42	57	50
8	170	40	188	50	203	60	86	50	86	60
9	255	53	202	67	305	80	129	67	129	80
10	383	67	423	83	458	100	194	83	194	100
11	575	80	635	100	687	120	291	100	291	120
12	863	107	953	133	1,031	160	437	133	437	160
13	1,295	133	1,430	167	1,547	200	656	167	656	200
14	1,943	160	2,145	200	2,321	240	984	200	984	240
15	2,915	213	3,218	267	3,482	320	1,476	267	1,476	320
16	4,373	267	4,827	333	5,223	400	2,214	333	2,214	400
17	6,560	320	7,241	400	7,835	480	3,321	400	3,321	480
18	9,840	427	10,862	533	11,753	640	4,982	533	4,982	640
19	14,760	533	16,293	667	17,630	800	7,473	667	7,473	800
20	22,140	640	24,480	800	26,445	960	11,210	800	11,210	960

Armor Cost Table 2: Cars, Vans, Pickups

Armor Pts	Subcompact		Compact		Midsized		Luxury Car or Station Wagon		Pickup		Van	
	Cost	Wgt	Cost	Wgt	Cost	Wgt	Cost	Wgt	Cost	Wgt	Cost	Wgt
1	11	11	13	12	15	17	19	21	21	23	29	
2	16	13	19	15	23	20	29	25	32	28	44	35
3	24	17	29	20	35	27	44	33	48	37	66	47
4	36	21	43	25	53	33	66	42	73	46	100	58
5	55	25	65	30	80	40	100	50	110	55	150	70
6	83	33	98	40	120	53	150	67	165	73	225	93
7	125	42	147	50	180	67	225	83	248	92	337	117
8	188	50	220	60	270	80	338	100	372	110	507	140
9	282	67	330	80	405	107	507	133	558	147	761	187
10	423	83	495	100	608	133	761	167	837	183	1,142	233
11	635	100	743	120	912	160	1,142	200	1,256	220	1,713	280
12	953	133	1,115	160	1,368	213	1,713	267	1,884	293	2,570	373
13	1,430	167	1,673	200	2,052	267	2,570	333	2,826	367	3,855	467
14	2,145	200	2,510	240	3,078	320	3,855	400	4,239	440	5,783	560
15	3,218	267	3,765	320	4,617	427	5,783	533	6,359	587	8,675	747
16	4,827	333	5,648	400	6,926	533	8,675	667	9,539	733	13,013	933
17	7,241	400	8,472	480	10,389	640	13,013	800	14,309	880	19,520	1,120
18	10,862	533	12,706	640	13,544	853	19,520	1,067	21,464	1,173	29,280	1,493
19	16,293	667	19,062	800	23,316	1,067	29,280	1,333	32,196	1,467	43,920	1,867
20	24,440	800	28,593	960	34,974	1,280	43,920	1,600	48,294	1,760	65,880	2,240

Example: Ranger Ordway wants to have four points of armor front-and-back. Consulting the Motorcycle Armor Chart, we find that four points cost $40 and weigh 25 kilograms. He buys it twice, once for front and once for back, ultimately costing $80 and weighing 50 kg. He may eventually wish to increase his vehicular armor, but he'll do that once he's assigned all other vehicle components and knows how much weight capacity he has left over.

Example: Vulf Heinze wants 9 points of armor on the front and rear of his car and 8 points on all other sides. 9 points for a compact car, on the chart, cost $330 and weigh 80 kg; 8 points cost $220 and weigh 60 kg. The total cost and weight:

Front Armor:	9 pts	$330	80 kg
Rear Armor:	9 pts	$330	80 kg
Top Armor:	8 pts	$220	60 kg
Bottom Armor:	8 pts	$220	60 kg
Right Armor:	8 pts	$220	60 kg
Left Armor:	8 pts	$220	60 kg
TOTAL:		$1870	440 kg

If you buy no armor for a specific side of a vehicle, it is presumed that there is nothing on that side — for instance, a car with no top armor is a convertible, a car with no top or side armor is like a jeep, etc. Cars, trucks and vans *must* buy at least one point of front, back, and bottom armor; sidecars must buy at least one point of bottom armor.

Chassis strength is a reflection of any reinforcement made to the integrity of the chassis (also known as the Vehicle Style component). Chassis Strength allows you a greater load-bearing capacity and adds to the damage the vehicle can withstand.

Chassis Strength	Modifier to BODY and STR	Price
Light	-1	20% to Vehic. Style cost
Standard	0	None extra
Heavy	+1	+50% to Vehic. Style cost
Extra Heavy	+2	+100% to Vehic. Style cost

Thus, a Luxury car, which starts with STR 34 and 10 BODY, will be upped to STR 36 and 12 BODY if the designer opts for an Extra Heavy chassis. There is no additional modifier to the chassis weight — the increased strength and body come from better materials and construction techniques.

Motorcycles and sidecars may not take this option. Pickups and vans which take an extra-heavy chassis *must* have a six-wheel chassis, which costs $100 extra plus the weight of the extra tires. See Tires for more details.

Example: Ranger Ordway is constructing a motorcycle, which cannot take the chassis modification option. Try again.

Example: Vulf Heinze isn't going to load his cruiser compact down too much, but does want some extra weight capacity, and decides to take a Heavy Chassis. His compact, which originally had a STR of 31 (1866 kg capacity), 9 BODY, and cost $400, now has a STR of 32 (2134 kg capacity), 10 BODY, and costs an extra $200 (50% of $400 is $200).

Engines

The engine, naturally enough, provides the power to drive the vehicle. 2033-era engines are massive electrical batteries, which can be charged at a vast number of in-town garages or streetside walled truck stops. The larger an engine is (as a rule), the more power it produces and the larger a vehicle it can transport.

Of the terms presented on the Engine Table below, *Price* and *Weight* should be self-evident as to meaning. *Def/BODY* refers to how much damage the engine can withstand — for instance, a Super engine has a resistant defense — physical and energy — of 3, and can take 6 points of damage before becoming totally useless.

Factors, meaning Power Factors, determine how much of a weight-load the engine can pull and how fast the vehicle can accelerate. The formulas for computing acceleration: If a vehicle's Factors are less than one-third of its total weight (in kilograms), it cannot move. If a vehicle's Factors are one-third its total weight but less than one-half its total weight, it has an acceleration of 1"/segment (about 5 mph/second). If the Factors are one-half the weight but less than the weight, acceleration is 2"/segment (about 10 mph/second). If the factors exceed the weight, acceleration is 3"/segment (about 15 mph/segment). How these accelerations work is explained in the section on Movement.

When a vehicle's engine is destroyed, computers, lasers and other electronic functions no longer work; all other weapons and systems still function.

Example: Ranger Ordway wants the best-possible speed and acceleration for his cycle, so he buys a Super Cycle engine. This costs $2000, weighs 100 kg, and takes 2 spaces, while pulling 500 power factors. So far, his cycle (with him on it) weighs 175 kg (frame) + 50 kg (armor) + 100 kg (engine) + 100 kg (him) or 425 kg. At the moment, the Power Factors (500) exceed the weight (425), so he can accelerate at 3" or 15 mph/second. If the rest of his equipment (including tires) exceeds 75 more kg, then the Factors will be greater than one-half the weight of the vehicle but less than the weight of the vehicle, and he will only be able to accelerate at 2" or 10 mph/second.

Example: Vulf Heinze also wants the best-available engine, but the Super engine would take 6 spaces out of the 10 that his compact starts with, so he compromises on a Large ($2000, 450 kg, 5 spaces, 1000 factors, 100 mph). So far, his vehicle weighs 650 kg (compact) + 400 kg (armor) + 450 kg (engine) + 100 kg (him) or 1600 kg. His engine has 1000 Power Factors, and thus his Factors are less than the weight but greater than one-half the weight of the vehicle — thus, an acceleration of 2" (10 mph/sec). If the vehicle weight ever exceeds 2000 kg (exceeding 2x the Factors), acceleration will drop to 1" or 5 mph.

The *Max Speed* column is pretty self-explanatory: A car with a small engine cannot exceed 80 mph (19"/segment) on the straightaway, a car with a large engine cannot exceed 100 mph (23"/segment), etc.

Suspension

Suspension determines the handling ability of the vehicle — how often and with what measure of success a vehicle can execute combat maneuvers, as explained in the section on Movement.

Suspension	Price	Turn
Light	No extra	3
Improved	+100% style cost	4
Heavy	+150% style cost	5
Van Light	No extra	2
Van Improved	+100% style cost	3
Van Heavy	+150% style cost	4
Cycle Light	No extra	2
Cycle Improved	+100% style cost	3
Cycle Heavy	+200% style cost	4

The TURN score is the determination of a vehicle's maneuverability, also as explained in Movement. Note: the HC of a pickup weighing more than 2,750 kg is the same as a Van HC.

Example: Ranger Ordway wants exceptional handling for his cycle. Since he's just dreaming of the ideal bike, he can afford anything he wants. Thus, he takes Cycle Heavy Suspension. This costs $800 (200% of the $400 style cost for the cycle) and gives him a TURN value of 4.

Example: Vulf Heinze, on the other hand, is designing his car for actual construction and has to pay attention to his credit rating. He opts for Improved suspension — he's designing a street vehicle with nominal weapons anyway, not a combat race-vehicle. Improved sus-

Engine Table

Engine	Price	Wgt	Spaces	Def/BODY	Factors	Max Speed	
Small	$ 500	250	3	2/3	400	80	mph/19"
Medium	$1000	350	4	2/4	700	90	mph/21"
Large	$2000	450	5	3/5	1000	100	mph/23"
Super	$3000	550	6	3/6	1300	100	mph/23"
Small cycle	$ 500	50	1	1/2	200	90	mph/21"
Medium cycle	$1000	75	1	2/3	300	100	mph/23"
Large cycle	$1500	88	2	2/4	400	100	mph/23"
Super cycle	$2000	100	2	3/5	500	100	mph/23"

Weapon	OCV/Range	Damage	Def/BODY	Wgt	Price	SPC	Shots	CPS	WPS
Machine gun	(0) -1/5"	2½d6K[1]	2/3	75	$1,000	1	200	$2.5	.125
Flamethrower[2]	(+1) -1/6"	2½d6K	1/2	225	$ 500	2	10	25	5
Rocket Launcher	(-1) -1/8"	4d6K	1/2	100	$1,000	2	10	35	2.5
Recoilless Rifle	(0) -1/10"	4d6K	2/4	150	$1,500	2	10	35	2.5
Anti-tank gun	(-1) -1/22"	4½d6K	3/5	300	$2,000	3	10	50	5
Laser	(+1) -1/24"	5d6K	1/2	250	$8,000	2	note[3]	note[3]	note[3]
Mine-dropper	note[4]	2d6KE	1/2	75	$ 500	2	10	50	2.5
Spike-dropper	note[4]	2d6	2/4	13	$ 100	1	10	20	2.5
Smokescreen	note[4]	note[5]	2/4	13	$ 250	1	10	10	2.5
Paint Spray	note[4]	note[5]	1/2	13	$ 400	1	25	10	1
Oil Jet	note[4]	note[5]	2/3	13	$ 250	2	25	10	1
Heavy Rocket	(-2) -1/8"	5d6KE	1/2	50	$ 200	1	1	n/a	n/a

(1) This is an autofire weapon, so the damage is actually 2½d6 per *hit*. As with any autofire weapon, vehicular machine guns fire ten rounds per burst, and thus could possibly hit ten times for 2½d6 per hit.

(2) The flamethrower should probably not be positioned at the front of a vehicle. If a flamethrower fires in the direction the vehicle is moving, and the vehicle is moving at 3" or faster, the vehicle's own armor on that side takes the damage.

(3) The laser draws its energy from the vehicle's engine; thus, it has a theoretically endless supply of shots, and the shots neither have weight nor cost money.

(4) These weapons do not really roll to hit. Make a to-hit roll anyway — a roll of 17 or 18 means the weapon has jammed or otherwise failed. These weapons normally automatically deposit vile substances behind the car — mines, in the case of a mine-dropper; oil, in the case of an oil jet, and so on. The substances are deposited, one counter per successful roll, in the arrangement shown to the right. If a vehicle's counter touches a counter representing a nasty substance, the substance affects the vehicle (see Movement). Spikes damage all four tires; mines only detonate on an activation roll of 11-.
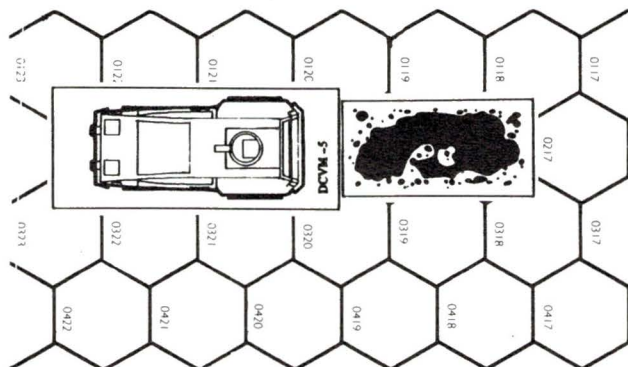
(5) These weapons do no actual damage. When a smokescreen, oil jet, or paint spray is successful, it produces one counter of substance, as shown above. Smoke and paint clouds last ten seconds; oil is permanent unless cleaned up somehow. Smoke makes it harder to see, as per normal darkness rules, and lasers cannot penetrate it. If a vehicle touches a paint cloud, the paint sticks to windshields and goggles for about a second; the player must turn away from the board and call out his actions based on memory, for one full segment. An oil pool is difficult to drive in; see Movement.

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pension costs 100% of his original vehicle style cost (which was $400, so his suspension costs $400 more) and gives him a TURN of 4.

Tires

The function of tires on a vehicle is pretty self-evident. Cars, trucks, and vans need four (but trucks and vans can have six instead); cycles need two, sidecars need one. There are four types of tire; the better the tire, the more it will cost and weigh and the more damage it will be able to absorb.

Tires	Price (per tire)	Weight (per tire)	Def/BODY
Standard	$50	15 kg (8 if cycle)	2/2
Heavy-duty	$100	20 kg (10 if cycle)	3/3
Puncture-resistant	$200	25 kg (13 if cycle)	4/5
Solid	$500	38 kg (19 cycle)	6/6

Tires may be carried as cargo; each tire takes 1 space. The front tires of a vehicle must be of the same type, and the two or four rear tires must be of the same type. A four-wheeled vehicle may instead have six wheels; this requires a special chassis which costs $100 extra.

Example: Ranger Ordway, mindful of the weight his cycle is accumulating, decides on heavy-duty tires. Each one costs $100 and weighs 10 kilograms, so he spends $200 and loads 20 kg onto his bike. In addition, he buys a third tire for a spare, costing $100 more and weighing 10 kg more. Each tire has 3 points of resistant defense and can take 3 points of damage.

Example: Vulf decides on five puncture-resistant tires (four on the car, one as cargo). This costs a total of $1000, weighs a total of 125 kg. Each tire has four points of resistant defense and can take 5 points of damage.

Vehicular Weapons

Now we come upon the playthings of destruction. Without vehicular weapons, an autoduelling campaign would be considerably less amusing.

Explanation of terms:

OCV/Range indicate technological limitations imposed on the weapon. The OCV number is the modifier to the OCV of

the individual firing the weapon. Lasers are easy to target with and thus the firer of a laser gets a +1 to his OCV when firing a laser. On the other hand, the rocket launcher is a difficult weapon to master and thus the firer takes a -1 when firing it. Range is short for Range Modifier, just like in **Champions**. The firer of a recoilless rifle takes no minus to his OCV within 10" of his target, takes a -1 if the target is 11" to 20" away, -2 if it is 21" to 30" away, etc.

Damage is just like in **Champions**. For example, 2d6KE means "two six-sided dice of killing explosive damage."

Def/BODY, as usual, is a measure of the resistant defense and BODY of the weapon in question.

Shots indicates how many rounds of normal weapon ammunition the built-in weapon magazine holds. A machine gun magazine, for example, holds 200 rounds of ammunition. It's possible to increase a weapon's capacity for ammunition — see "extra magazines" in the section on Equipment, immediately following.

CPS is the Cost Per Shot of ammunition. For instance, a quantity of jellied petroleum product necessary to accomplish one blast with a flamethrower costs $25.

WPS (surprise!) is Weight Per Shot — in kilograms, as usual. The weight of the first magazine's load of ammunition is not counted in with the weight of the weapon — that is, a fully-loaded Rocket Launcher will weigh 100 kg + 25 kg. The weight and spaces of the original ammo *magazine* are included in the initial weapon figure; subsequent magazines add their own weight and space.

When purchasing a weapon, the vehicle designer must assign the weapon a place in the vehicle — i.e., front, rear, left, right, top (turrets only — see Equipment). There's a blank ("Placement") on the vehicle record sheet to indicate where the weapon goes — i.e., "Front left" or "Right center" or "Turret."

Each "active" seat in a vehicle (that is, the seat of a crewman) has a control board which has the following devices: A TV screen (inactive unless a computer or other camera hookup is active), a joystick, a radio access button and microphone, and a board showing all weapons the vehicle is bearing and which weapon is active for this seat. Crewmen may "trade" weapons controls by shutting off one button and activating another; a crewman may not "take" a weapon from another crewman. One seat is designated the Command seat and its board *may* take weapons controls away, may override or disengage other seats' radios, etc. (A sidecar on a motorcycle may also have such an arrangement, if it has a weapon, but cycles themselves do not; weapons firing buttons are on the handlebars, and thumb controls are used for aiming weapons.)

Example: Ranger Ordway's bike has 45 kg left before it will drop to 10 mph/second acceleration, and has 3 spaces left for equipment. He has a difficult choice to make here — he can either keep his beloved acceleration or put in a decent weapon. He decides to keep his acceleration, and decides to rely on his personal weapons and one smokescreen. The smokescreen costs $250 and adds 13 kg weight plus the weight of 10 shots: 25 kg. He's a bare 7 kg under weight. The smokescreen, of course, is rear-mounted (having it in front would be strange — think about it.)

Example: Vulf doesn't have as much of a weight problem to deal with. He has, however, only 2 spaces left, and needs 1 for any — ah — companions, and so can afford only a one-space weapon. He opts for the old reliable machine gun, but does not assign it a position in his vehicle just yet — see the next section to find out why.

Equipment

Each car is presumed to come already equipped with the following good stuff:
(1) A CB radio with a one-half mile broadcasting range, plus an AM-FM radio with typical reception range.
(2) An air conditioner.
(3) A jack.
(4) Doors — builder's choice: Two or four doors, plus access to the engine and cargo areas (if any).
(5) A locking mechanism for all doors.
(6) Gauges — speedometer, odometer, fuel (energy) gauge, clock, computerized systems damage screen (shows which parts of the vehicle have sustained damage, either from weapons, debris, or neglect).
(7) Cigarette Lighter.
(8) Hi-beam/low-beam selector, windshield wipers, controls for turn signals, windows, ignition switch.
(9) Dome light.
(10) Seat belts.

Anything else, you have to buy.

Equipment Table

Equipment	Cost	Wgt	Spaces	Def/BODY
Extra magazines	$ 50 (+ ammo)	8 (+ ammo)	1	(see notes)
Targeting computer	$ 1,000	0	0	n/a
Hi-res computer	$ 4,000	0	0	n/a
Vehicular computer	$16,000	0	0	n/a
Gun turret	$ 1,500	100	0	n/a
Small turret	$ 1,000	75	0	n/a
Weapons linkage	$ 50	0	0	n/a
Fire extinguisher	$ 300	75	1	(see notes)
Pop-up turret (reg.)	$ 2,250	150	0	n/a
Pop-up turret (sm.)	$ 1,250	100	0	n/a
Rocket platform	$ 150 + $100 per rocket	100 + rocket wgt.	0	n/a
LAW/VLAW mount	$ 25	0	0	n/a
Wheelguards	$ 55 each	25 each	0	Def 5
Portable Shop	$ 4,000	150	4	5/3/per case
Long-range radio	$ 500	0	0	n/a
Life Support System	$15,000	200	2	4/2
Weapons concealment	+75% weapon cost	+25% weapon wgt.	0	n/a
Propellors	$10,000	50	1	4/2
Magic Wand	$ 500	0	0	n/a
Radio Control	$ 4,000	0	0	n/a
Ejection seats	$ 250 each + $50	50	0	n/a
Infrared camera	$ 1,000	0	0	n/a

An *extra magazine* doubles the amount of ammunition a weapon can carry — thus, a machine-gun with an extra magazine can carry 400 rounds instead of 200. It adds 2 BODY to a weapon's BODY total. A vehicle may have multiple extra magazines. A magazine in the body of a car *may* feed up to a turreted weapon. The cost and weight listed for an extra magazine does not include the cost and weight of the ammunition to go into it. When one or more extra magazines are used, note the spaces they take up in the spaces column of the Ammo row in the Vehicle Record Sheet.

A *targeting computer* is a crude set of cameras, one at every side of the car and one on any turret, which increases the OCV of its user. A Targeting Computer is installed at one control board (i.e., Driver, Front Passenger, Rear Left Passenger, etc.); it is an Electronics-skill job to install, remove, or relocate a targeting computer. These computers are shock-resistant — ordinary collisions and violent maneuvers will not cause them to crash. An ordinary targeting computer adds a +1 to the OCV of the person using it, with whatever *vehicular* weapon he is using; a hi-res targeting computer gives +2 to the user's OCV.

A *vehicular computer* is a vehicular-mounted personal computer which includes computer, monitor, disk drives, and joystick, as well as a disk storage area which can hold 50 disks. The vehicular computer can act as a hi-res targeting computer, but can also perform most tasks common to a contemporary personal computer: Word-processing, data storage and retrieval, business computation, game-playing, etc. Each such function takes one disk/program; the average program costs $50. Common programs for a self-employed autoduellist to have include Personal Business, AADA regional maps (a hi-res map of an area about the size of Ohio takes one full disk, and is at the same level of detail as a contemporary state map), AADA city maps (likewise), Personal Calendar, etc. A Vehicular Computer in the same vehicle as a Long-Range Radio makes for a formidable combination, as explained later. A standard program takes about five seconds to insert the disk and boot. Targeting Computers and Vehicular Computers take no room and only give out when the engine is destroyed.
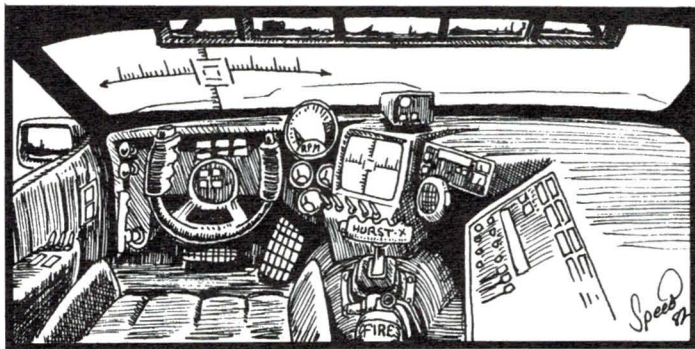
A *gun turret* is a device placed in the roof of a car which holds a certain number of weapons. A turret has a 360° field of fire, and twirling it the entire 360° still gives the user enough time to fire it in the same phase. A turret does not add space to a car; a Luxury Vehicle without a turret has 19 spaces, and one *with* a turret has 19 spaces. A normal turret holds two spaces' worth of weapons (examples: a flamethrower, or a machine gun with an extra ammo magazine); a small turret holds one space worth. Weapons in a gun turret are protected by a vehicle's top armor.

A *weapons linkage* is a pretty simple mechanical operation, easily performed by the average mechanic with an average toolkit, by which two weapons on the same side of a car are linked to fire together. *Example:* Two machine guns are placed in a regular turret. A weapons linkage is added. This adds a little complexity to the control panels in the car, because the person firing the machine guns may fire one MG, or the other, or both at once, as he chooses. If one weapon is destroyed, the linkage is wrecked.

Fire extinguisher systems are like standard portable fire extinguishers, except they're a lot better — the system analyzes which part of a car is on fire (smoke detectors) and floods that section with oxygen-absorbing foam or water (buyer's choice) through a network of plastic pipes laced through the car. If a vehicle is on fire, the fire extinguisher will activate on a 14-roll and snuff out the fire on a roll of 3-6 on 1d6. They add 2 BODY to the engine's BODY total, and are destroyed when the engine fails.

The *pop-up turret* is just like a regular turret except that it is automatically concealed (you never have to buy "weapons concealment" for a weapon in a pop-up turret). A small one costs $1,250, a regular one costs $2,250. A pop-up turret takes a full second to rise into assault position — thus, if a driver activates his turret at Dex 13 of Phase 4, it will become ready to fire at Dex 13 of Phase 5. Unlike a normal turret, a pop-up turret does not protect the weapon in question with the top armor.

A *rocket platform* is an exterior mount for Heavy Rockets. Such a platform may hold up to three rockets (the base price is $150, plus $200 per rocket, plus the cost of the rockets), and has a 360° firing arc like a turret. Unlike a turret, though, it does "add space" to a vehicle — for example, a Luxury Van with a three-rocket platform does not lose three interior spaces. The rack is on top, and so takes no interior room from the vehicle. Only van-sized vehicles may have rocket platforms.

LAW/VLAW mounts. Like the rocket platform, the LAW/VLAW mount adds space to a vehicle in that it mounts one-shot weapons to the exterior of a vehicle. LAWs may be mounted on a vehicle's front, right, left and rear — four weapons to a side, as a matter of fact. However, there are disadvantages when firing these weapons. LAWs fired from a vehicle's rear are at -6 to the firer's OCV, from the right and left at -5 and from the front at -3. Targeting computers and skill levels in vehicular weapons do not help; in fact, not even skill levels in LAW help, unless specifically bought for vehicular LAWs. In addition, the GM must rule as to whether they can hit their target at all; all LAW mounts are straight ahead from the mount surface, so the vehicle must either be lined up exactly with the target or sweep its arc of fire (by turning) across the target. An exception to these disadvantages involves the motorcycle: Firing a LAW from a fairing mount is only at a -1, and the motorcycle can even target airborne targets if the driver can accomplish a Combat Vehicle Operations roll and pop a wheelie, aiming the weapon by turning the fairing. A disadvantage to exterior mounts for these weapons is that people can tamper with exterior weapons.

Wheelguards are armor plates which protect the wheels they cover. Normal wheelguards weigh 25 kg each (so a car with guards on all four wheels weighs 100 kg more) and cost $55 each. They have a Def of 5, and activate on a 14- roll. Six-

wheeled vehicles and cycles also may have them; cycle wheel-guards weigh half as much, and one guard covers a wheel on both sides.

The *Portable Shop* is a mechanic's dream — a fairly complete mechanic's shop, minus only the large hydraulic jacks. It comes in four cases (each case weighing 37½ kg and taking one space), and includes jacks, heavy-duty cutting torch, thermite, lubricants, engine parts and fluids, electronic testing gear, a fire axe, and droplights and beams which will run off an active engine. Each case has a Def of 5 and 3 BODY. Assuming that the portable shop automatically has the equipment to perform a normal mechanicking job, it has a 14- chance to be usable if one case is missing or destroyed, 11- if two cases are gone, and 8- if three cases are gone.

A *long-range radio* is an upgrade from the radio a car starts with. A long-distance radio has a 25-mile clear range; the GM can modify this downward in hilly terrain or peculiar weather, or upwards in flat terrain or within exceptionally low radio communications areas. A long-distance radio in the same vehicle with a vehicular computer gives the user the following advantages: (1) Instant television communication with any vehicle or headquarters similarly equipped, within range; (2) a modem hookup, so that the computers may send data to each other at high speed; (3) standard television reception from local station broadcasts; (4) terminal access to open computer files from facilities within range; and anything else the GM can be persuaded to allow.

Life Support Systems are useful when driving through large-scale fires or other nasty circumstances; the system makes the vehicle airtight and stores ten man-hours of breathe-able air (i.e., 2½ hours per man if there are four crewmen in a car) and can recycle air at one man-hour per hour (thus if a vehicle has only one crewman, it can stay sealed up essentially forever). Motorcycles may not be equipped with this option. The "life support" power equivalent is 20 points of Life Support.

Weapons concealment is a way of not alerting casual onlookers as to what weapons a vehicle carries. Example: A character wants to conceal his front-mounted recoilless rifle. For $1,125 (75% of the weapon's original $1,500 cost), the rifle's port is concealed behind a plate which retracts when the weapon is activated, and the interior controls do not reflect the fact that a recoilless rifle is present. In fact, if all a vehicle's weapons are concealed, then the control boards are also concealed. A turret does not have to be a pop-up turret to be concealed; normal concealment will consist of a fake luggage rack being built onto it. The luggage rack rotates as the turret does. It does not take any time to make a concealed weapon ready for firing.

Propellors are often used in conjunction with Life Support. If a vehicle has propellors and life support, it can seal up, drive into the water, and then cruise underwater at up to 2"/segment. If it does not have life support, the propellers may let the vehicle cruise at the top of the water until it fills up and sinks and drowns the crew (about 8 minutes).

The *Magic Wand* is a handy little item often used by people who need quick getaways. It's a hand-held unit, often attached to a wrist-bracer or wrist-sheath, which when triggered will lock/unlock a car's exterior locks. Each Magic Wand and corresponding vehicle receiving equipment are tuned to a particular frequency and assigned a different code, so it's very difficult to break into a car using the wrong Magic Wand (though successful rolls with Security Systems and Electronics would probably accomplish it). A higher-tech version of the Magic Wand, which costs $1,500, will also *open* the doors and start the engine if the user wishes.

Radio controls are used to remote-control vehicles. A radio control unit is attached to a vehicle's controls (it can be attached so as to be unseen) and a handheld joystick control is electronically tuned to it. A person using a vehicle's remote control can make it perform any normal maneuver (at a -3 to the Combat Vehicle Operations roll) or fire any one weapon at a time (at -3 to hit). However, if the vehicle has a vehicular computer and long-range radio hookup, and the long distance operator can plug his control into another one, he can operate the car as if he were in it. In fact, a whole crew could "man" a remote-controlled vehicle this way, provided that there were enough computer-radio hookups. Only one remote-control joystick per crewman is necessary for this kind of network usage, and only one computer at either end of the hookup is necessary.

Ejection seats activate at the end of the phase in which they're triggered. An ejection seat will send its rider shooting 30" upward with the use of rocket boosters; this takes two segments. The seat begins dropping on the third segment, and releases a glider-parachute which allows the person in the chute to glide as though he had that power at 8"/segment, losing 1" altitude/turn (unless he wants to lose altitude faster; you can fall as fast as you want). A person has to be wearing his seat belt to use this feature — otherwise, he falls out. A car's command control can activate all the ejection seats in a car, and each seat's control can activate its ejection seat. Incidentally, when the ejection occurs, a pop-up section in the vehicle's roof allows the seat's passage and then drops back into place on its hinges.

Infrared cameras add the same kind of cameras that targeting computers do, but with an infrared attachment. This means that a vehicle equipped with this can ignore nighttime modifiers and even drive without lights at night.

Example: Ranger wants two pieces of equipment for his scout cycle: a long-range radio (what good is he without *that*?) at $500 and 0 weight, and four LAW mounts for his cycle (they'll be front-mounted, on his fairing), at $25 each, or $100, plus the cost of four LAWS, $500, or $2,000.

Example: Vulf buys a small pop-up turret for his cruisermobile; it costs $1,250, weighs 100 kg, and keeps his vehicle looking street legal. The turret, of course, goes on the roof.

Wrapping Up

The finished diagrams for Ranger's and Vulf's vehicles are on the following page. Of course, Ranger's vehicle is just a fantasy for now — he'll put it together when he has the money, but will just keep with what he has available until then. Vulf's is real, though; his autoduelling revenues have brought him enough money to put it together, and he'll soon be notorious on his city streets with his sneaky little compact . . .

Ranger's Cycle

CHARACTER: Ranger Ordway PLAYER: Aaron Allston
VEHICLE NAME: Fenimore

Vehicle Style: Hvy Cycle DCVM: -1 STR: 24 Load: 700 BODY: 7
Chassis Strength: ___ STR: 24 Load: 700 BODY: 7
Engine: Super Cycle Factors: 500 Max.Speed: 100 mph / 23"
Suspension: Cycle Heavy TURN: 4
Tires: 2 x Heavy-Duty

Armor:
- Top ___
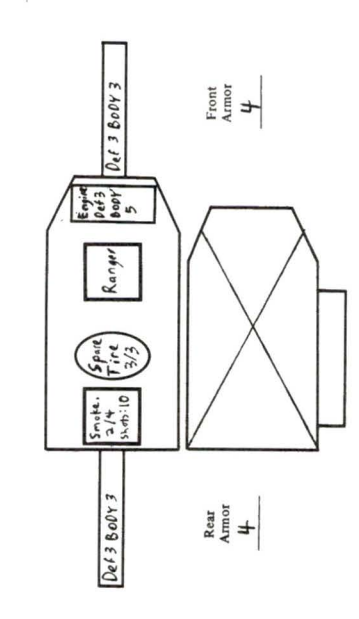- Bottom ___
- Front 4
- Rear 4
- Right ___
- Left ___

Weapon	OCV/Range	Damage	Shots	Placement	Cost + Ammo Cost	Wgt + Ammo Wgt
Smoke	-1/-1/5"	-	10	Rear	250 +100 = 350	13 + 25 = 38
4xLaw	-1/-1/4"	4d6K	4"	Fairing (front)	2000 +- = 2000	- + - = -

Equipment	Placement	Notes
Spare Tire	Cargo	Heavy-Duty
Radio	Fairing	Long-Range
Mounts		4 x LAW mounts

Crew and Passengers	OCV	Skill Levels	Placement	Notes
Driver Ranger	4	none	Front	

Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
400	400	175	175		7
-	400	-	175		7
2000	2400	100	275	2	5
800	3200	20	275		5
200	3400	20	295		5
40	3440	25	320		5
40	3480	25	345		5
350	3830	38	383	1	4
2000	5830	-	383		4
100	5930	10	393	1	3
500	6430	-	393	-	3
100	6530	-	393	-	3
n/a	6530	100	493	2	1
n/a					
n/a					
n/a					
TOTALS: 6530		493		1	

Vehicle Style: Heavy Cycle
Number of Doors: None
Weight: 493 kg TURN: 4
Notes:
Colors Flown (if any): AADA sticker
Obvious Weaponry/Equipment: Four LAWs, front (fairing); Smokescreen, rear.

Front Armor 4
Rear Armor 4

Spare Tire 3/3
Smoke 3/4 Shots: 10
Engine Def 3 BODY 5
Ranger
Def 3 BODY 3

Vulf's Roadster

CHARACTER: Vulf Heinze PLAYER: NPC
VEHICLE NAME: Kurtzman

Vehicle Style: Compact DCVM: -3 STR: 31 Load: 1866 BODY: 9
Chassis Strength: Hvy STR: 32 Load: 2134 BODY: 10
Engine: Large Factors: 1000 Max.Speed: 100 mph / 23"
Suspension: Improved TURN: 4
Tires: 4 x Puncture-Resistant

Armor:
- Top 8
- Bottom 8
- Front 9
- Rear 8
- Right 8
- Left 8

Weapon	OCV/Range	Damage	Shots	Placement	Cost + Ammo Cost	Wgt + Ammo Wgt
MG	+0/-1/5"	2d6K	200	Turret	1000 +500 = 1500	75 + 25 = 100

Equipment	Placement	Notes
Spare Tire	Cargo	Puncture-Resistant
Turret	Roof	Small pop-up variety

Crew and Passengers	OCV	Skill Levels	Placement	Notes
Driver Vulf	4	none	Driver's Seat	

Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
400	400	650	650		10
200	600	-	650		10
2000	2600	450	1100	5	5
400	3000	-	1100		5
800	3800	100	1200		5
220	4020	60	1260		5
220	4240	60	1320		5
330	4570	80	1400		5
330	4900	60	1460		5
220	5120	60	1540		5
220	5340	60	1600		5
1500	6840	100	1700	1	4
200	7040	25	1725	1	3
1250	8290	100	1825	-	3
n/a	8290	100	1925	2	1
n/a					
n/a					
n/a					
TOTALS: 8290		1925		1	

Vehicle Style: Compact
Number of Doors: Two
Weight: 1925 kg TURN: 4
Notes:
Colors Flown (if any): AADA sticker
Obvious Weaponry/Equipment: None

Rear Armor 9 Def 4 BODY 5
Bottom Armor 8 Def 4 BODY 5
Left Armor 8 Def 4 BODY 5
Front Armor 9 Def 4 BODY 5
Top Armor 8
Right Armor 8 Def 4 BODY 5

Large Engine Def 3 BODY 5
Vulf
Passenger (if any)
Spare Tire Def 4 BODY 5
Popup MG Def 2 BODY 200: Shots 200:

Movement

Now that we have actual vehicles, we can begin to show you how to accomplish one of their primary functions: Movement. These rules will show you how to move your car or motorcycle, in much the same manner as someone would show you how to drive – simplest functions first.

Straight Ahead

A moving vehicle moves every segment; the movement consists of an even number of inches. All movement occurs on the standard *Champions* hex-grid, and cars are represented by the 25mm-scale cars printed on the bind-in card with this supplement. When using these cars, position them so that the center of the vehicle occupies a full hex; when a car is wider than one hex, position it so that the excess width is divided off to either side (see the diagram below).
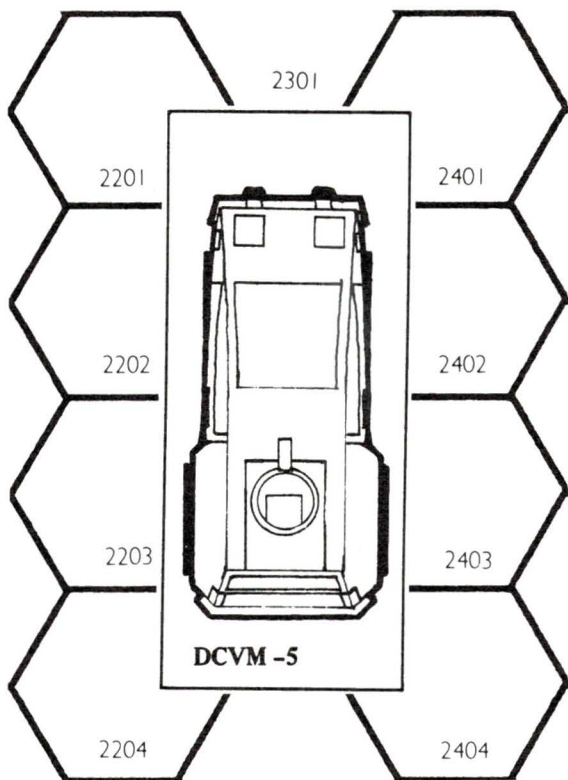
The front of a car is always at the front of a hex, as shown above.

How fast a vehicle may move is determined by its engine; normal vehicle engines these days cannot provide more than 100 mph of speed, which translates to 23" per segment. That is, a car travelling in a straight line at 100 mph will move 23" each and every segment it maintains that speed.

Vehicles may also accelerate and decelerate. A vehicle's acceleration is determined by its engine power and its overall weight. In the vehicle examples given in the Vehicle Creation section, we determined that Ranger Ordway's cycle has an acceleration of 3"/segment and that Vulf Heinze's cruiser-

mobile has an acceleration of 2"/segment. That section of vehicle creation also stated that accelerations of 1", 2", and 3" translated into acceleration factors of 5, 10, and 15 mph/second respectively.

It works like this: A vehicle with an acceleration of 3 (15 mph/sec.) can accelerate 3"/segment. Thus, in segment 1 it could go from a full stop to 3"/segment; in the next segment it could accelerate to 6"/segment, the next segment to 9"/ segment, and so on until it reached its maximum velocity (in the case of a vehicle with a powerful engine, 23"/segment or 100 mph). A car with lesser acceleration – say, of 1 (5 mph/ second) would go from a stop to 1"/second, then 2"/second, and so on (thus taking 23 seconds to go from full stop to 100 mph – hardly an acceleration dream).

Cars can also decelerate. (This is convenient when one wishes to stop.) A car coasting to a stop (with no application of brakes) will decelerate at 5 mph/second (1"/second). Brakes may safely be applied to slow the vehicle at 10 mph/second or 15 mph/second (2"/second or 3"/second). When a vehicle's driver wishes to decelerate at greater than 15 mph/second, things tend to get sticky.

If the driver wants to decelerate at 4"/segment, he must make a Combat Vehicle Operations roll at +4 (that is, if he has a 13- roll normally, he must now roll 17-). If he succeeds the roll, the deceleration is smooth and uneventful. If he fails the roll, he must go to Crash Table 1 (page 28), subtracting 2 from his roll there (thus, a roll of 3 becomes a roll of 1). The deceleration is still accomplished, even if that Combat Vehicle Operations roll failed.

If the deceleration is at 5"/segment, the driver makes his Combat Vehicle Operation roll normally; if he misses it, he must roll on Crash Table 1 at a -1 to the roll. If the deceleration is 6"/segment, he must make his Combat Vehicle Op roll at -1; failure means he rolls on Crash Table 1 normally. Additionally, a car decelerating at 6"/segment, receives 1d6-2 die of killing damage to each tire. A car decelerating at 7"/segment goes automatically to Crash Table 1 and does 1d6+1 killing damage to each tire.

Turning

Vehicles can turn, too, making it easier to avoid obstacles and follow city streets.

All vehicles move in accordance with the hex-grid – either along a line of hexes (Figure A) or in a line 30° off from the hex-line (Figure B).

There are four basic maneuvers for a car to undertake. They are the Drift, 30° Turn, 60° Turn, and Bootlegger Reverse. Motorcycles may only perform the first three maneuvers. Other maneuvers which a driver may attempt, but which generally only occur when he loses control, include fishtails, skids, and rolling. These will be explained later in this section.

Vehicles may not safely perform maneuvers any time their drivers wish; they must meet certain restrictions. Vehicular maneuverability is determined by the vehicle's TURN score, which you will remember was determined by the vehicle's Suspension and Body Style. Ranger's Cycle has a TURN of 4; Vulf's compact has a TURN of 4 also. The higher a TURN number, the more quickly and easily a vehicle may perform difficult maneuvers. Note that a vehicle's first maneuver after a full stop may occur at any time after the vehicle has started up again, but subsequent maneuvers may only occur after appropriate lengths of space and time have been accomplished.

The intervals between the times a vehicle may perform maneuvers are determined by its current velocity and its TURN. If a vehicle's current velocity (in inches per segment, not miles

Figure A

Figure B

DCVM-3

DCVM-3
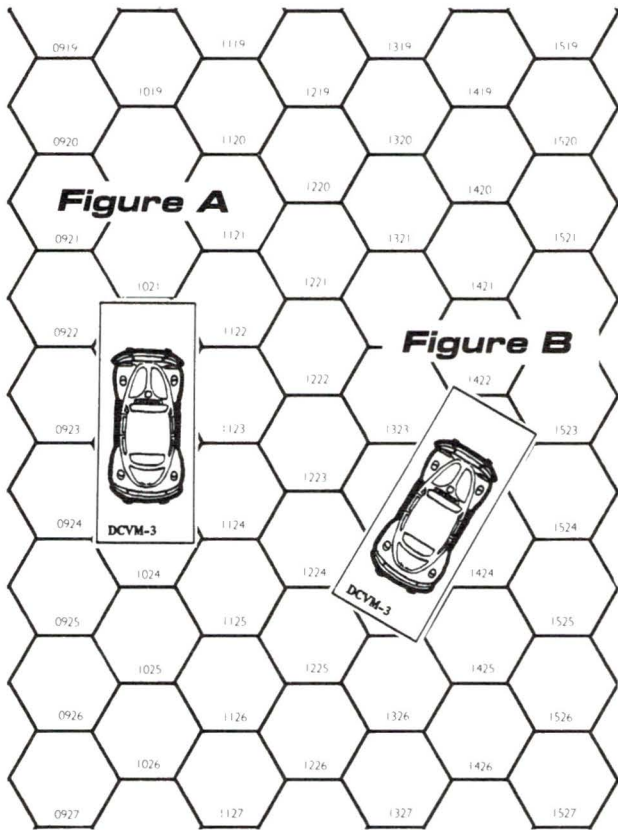
per hour) is 1x its TURN or less, it can accomplish a full maneuver every segment; if its velocity is 2x its TURN or less it can change every 2 segments, and so on, as shown in the chart below:

Vehicle's Velocity	Vehicle May Perform Full Maneuver
up to 1x TURN in "	Every Segment
up to 2x TURN in "	Every 2 Segments
up to 3x TURN in "	Every 3 Segments
up to 4x TURN in "	Every 4 Segments
up to 5x TURN in "	Every 5 Segments
up to 6x TURN in "	Every 6 Segments

and so forth

A 60° turn is a full maneuver. 30° turns and drifts are half-maneuvers, and the bootlegger reverse constitutes two full maneuvers. Here's what all that means:

Let's say Ranger Ordway is travelling at 12"/segment (about 50 mph). His TURN, you recall, is 4. 12" is 3x his TURN of 4, so he may perform one full maneuver every 3 segments.

Let's say he starts off at his velocity of 12" on Segment 6 — he's been accelerating since Segment 3, and let's presume he's just performed a 60° turn in Segment 6. If he wants to perform another full 60° turn, he must wait until Segment 9. If he wants to perform two half-maneuvers, say one drift and one 30° turn, he may perform the first half-maneuver no sooner than halfway between now and then (half of the three seconds is 1.5 seconds, which would make him move in Segment 7.5. Since there *is* no Segment 7.5, he moves instead in phase 7). He would then perform his second half-maneuver at his normal time to act in phase 9.

Maneuvers

The *Drift* is essentially a "skip" or slight lateral movement while maintaining the same general direction. Two drifts, one after the other, would be equivalent to a full lane-change on most contemporary streets and highways. The Maneuvers chart on page 25 shows the consequences of a drift, showing the vehicle's initial facing and path, then the facing and path immediately after the drift is accomplished.

The *30° Turn* is a slight reorientation of the vehicle's direction. The Maneuvers chart indicates exactly how the reorientation is accomplished.

The *60° Turn* is merely a sharper reorientation, as shown on the Maneuvers chart.

The *Bootlegger Reverse* is the most difficult of these listed maneuvers. Only four-wheeled and six-wheeled vehicles may accomplish it. This is the very flashy maneuver where a vehicle uses a turn and controlled skid to abruptly reverse direction. On the first segment of the Bootlegger, the vehicle must be moving at between 5" and 9" per segment. The vehicle moves its full move, then turns sideways. The driver immediately makes a Combat Vehicle Operations roll. If the die roll is successful, the bootlegger reverse will be successful. On any subsequent segments between the start of the bootlegger and the next time the driver can execute a maneuver, the vehicle skids sideways in the direction it was moving, decelerating at 1"/segment. On the driver's next active opportunity to maneuver, the vehicle finishes its reverse, facing now in precisely the opposite direction it is moving, continues its move for this segment; once it reaches the final hex of its movement, it is fully stopped at that hex. Each tire takes 1d6-2 damage.

If the die roll fails, the vehicle immediately suffers the effects as if he had gone to Crash Table 1 and rolled a 5: It's rolling.

Example: Vulf Heinze is travelling at 8"/segment. His TURN is 4, so he may perform a full maneuver every 2 segments. On phase 2, he begins his bootlegger reverse — he moves 8" forward and turns sideways; luckily, he makes his Combat Vehicle Operations roll, and will not flip his vehicle. On phase 3, he may not perform a maneuver, so his car stays sideways, moving now at 7". On phase 4, his car completes its reverse, rolling backwards 7 more inches and coming to a complete stop there. Each of his tires now suffers 1d6-2 killing damage.

A car may make its maneuver at any point along the length of its move. For instance, a car moving 7" wishes to perform a drift. It can do so immediately, before it moves (when acceleration/deceleration is announced), or when it has moved 1" or 2", or at any point until just after it has moved its 7". An exception is the bootlegger, which behaves exactly as written.

More Than One Vehicle

Unfortunately for the average man's peace of mind, several cars and vehicles are likely to be on the road during any given combat.

The Combat Order Sheet, which is functionally identical to the Adventure Record Sheet from *Champions II*, will regulate combats.

Each character who is to be involved in a combat situation is listed on the sheet — higher DEXes first, lower DEXes later. If two or more characters have the same DEX, they are then listed in order of their respective SPD scores.

(If two drivers have the exact same DEX and SPD, consider them simultaneous, and let them move that way. *Example:* Ranger and Vulf are driving in the same combat, and have identical SPD and DEX scores. When their turn in the phase comes up, the GM has each player touch his character's vehicle counter. Ranger is moving at 15" and Vulf is moving at 10". The GM counts to 15 aloud, and each player moves his

Maneuvers

The examples shown are:

60° Turn: The car, moving at a speed of 5", moves one inch, executes its turn, and continues for 4". The cycle, moving 4", moves 2", turns, and moves 2" to finish.

30° Turn: The car moves 2" forward, executes its turn, and continues for the rest of its 6" move.

Drift: The car, moving at 4", executes its drift and then moves its 4" forward. The cycle moves its full 2" move forward and then executes its drift.

Bootlegger Reverse: This car has a TURN of 5 and is moving 5"; thus, it has an action every segment. On its first segment it moves 5" and turns sideways. On its second segment it turns backward and moves the remaining 5", stopping in its final position.

As you can see from this chart, a maneuver may be performed before a car moves at all during a segment, OR during the move, OR after all movement, at the driver's discretion.

60° Turn

30° Turn

Drift

Bootlegger Reverse

Combat Order Sheet

Current Vehicle Speed

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Character	DEX	SPD	1	2	3	4	5	6	7	8	9	10	11	12	OCV	DCV	Veh. DCVM	Veh. DCV	TURN
1)			O	O	O	O	O	O	O	O	O	O	O	O					
2)			O	O	O	O	O	O	O	O	O	O	O	O					
3)			O	O	O	O	O	O	O	O	O	O	O	O					
4)			O	O	O	O	O	O	O	O	O	O	O	O					
5)			O	O	O	O	O	O	O	O	O	O	O	O					
6)			O	O	O	O	O	O	O	O	O	O	O	O					
7)			O	O	O	O	O	O	O	O	O	O	O	O					
8)			O	O	O	O	O	O	O	O	O	O	O	O					
9)			O	O	O	O	O	O	O	O	O	O	O	O					
10)			O	O	O	O	O	O	O	O	O	O	O	O					
11)			O	O	O	O	O	O	O	O	O	O	O	O					
12)			O	O	O	O	O	O	O	O	O	O	O	O					
13)			O	O	O	O	O	O	O	O	O	O	O	O					
14)			O	O	O	O	O	O	O	O	O	O	O	O					

character's vehicle the requisite number of inches, one inch per inch counted. Vulf stops at the count of 10, while Jack continues until 15 is counted.)

On that Combat Order Sheet are listed, in addition to the character's pertinent data, the TURN and Max Speed of his vehicle. Also shown is a bank of numbers from 0 to 23 — not surprisingly, this will keep track of the vehicle's current speed. A number of marked colored counters are provided with the counter sheet bound into the center of this supplement. Each number bank for a character driving a vehicle will have one of these counters on it, on the number representing the inches/segment the vehicle is moving. (Unlike the original *Car Wars* game, there is nothing here to differentiate between a car moving 5" forward or 5" backward — it's still 5"/segment.) Note that a character may choose to accelerate or decelerate just before he moves his vehicle, and only then, every phase.

Example: Ranger and Vulf are in combat with two bikers — one very agile individual on a bike with pretty good performance capabilities, and one singularly fast but undextrous nebbish on a pretty poor excuse for a motorcycle.

The Combat Order Sheet for this encounter looks like Figure A (below).

Let's assume that, through some miracle of coincidence, all four vehicles performed full maneuvers on Phase 12 of the last turn. We know from the chart that Biker 1's TURN and current speed (3 and 10", respectively) translate into the fact that he can next maneuver in Phase 4 of this turn (10 ÷ 3 = 3.33, which is "up to 4x" Biker 1's TURN). Ranger and Vulf can each maneuver in Phase 3, as can Biker 2.

In Phase 1, Biker 1 goes first and decides to brake down to 7" per phase. With his TURN of 3, he can now maneuver instead in Phase 3. This turn, though, all he does is move straight forward 7". Ranger and Vulf go next; before they move, they can either accelerate or decelerate, and Ranger decides to kick 'er up to 12". He can still maneuver next in Phase 3, as 12 (inches, his current speed) ÷ 4 (his TURN) still equals "up to 3x" his TURN. Vulf keeps the same speed. Now the GM counts, at about 1 number to the second, from 1 to 12, and Ranger and Vulf simultaneously move their vehicles; Vulf stops moving at the count of 11, for he was moving only 11". Biker 2 decelerates to 2", which means he can move his

paltry 2" and then maneuver *this phase*. He opts for a 60° turn, preparatory to getting out of the way of Vulf's oncoming cruisermobile.

Their Combat Order Sheet's Speed record now looks like Figure B (below).

Exceeding Performance Characteristics

It's possible for a skilled driver to do more with his vehicle than he's supposed to be able to. This generally consists of performing more maneuvers than the driver is supposed to. A driver may *attempt* to perform a maneuver *every segment* if he wishes. However, the more maneuvers are attempted, and the more difficult the maneuvers, the more likely the driver is to end up puréed over several hundred feet of asphalt.

Every time a driver attempts a maneuver when he's not supposed to, he makes a Combat Vehicle Operations roll, with the following modifiers:

Maneuver Is:	Modifier
A half-maneuver (30° turn, drift)	-0
A full maneuver (60° turn, half of a bootlegger)	-1
First such "illegal" maneuver	-1
Second such "illegal" maneuver	-2
Third such "illegal" maneuver	-3
Fourth such "illegal" maneuver	-4
Fifth such "illegal" maneuver	-5
Each subsequent illegal maneuver is at an additional	-1
Hazardous conditions (gravel, ice, rain, etc.)	*see Hazards*

If he fails that roll, he goes to Crash Table 1, adding 2 to the roll.

Obviously, a character who has bought up his Combat Vehicle Operations roll to a level where he can perform extra maneuvers like this on a regular basis deserves the extra maneuverability he has. It's the middle-level driver, though, who makes for the best stories when he succeeds with a wild stunt — or fails.

Figure A

Name	DEX	Phases	OCV	DCV	Turn	Max.	Speed
Biker 1	14	1 2 3 ④ 5 6 7 ⑧ 9 10 11 ⑫	5	5	3	23"	1 2 3 4 5 6 7 8 9 ⑩ 11 12 13 14 15 16 17 18 19 20 21 22 23
Ranger	13	1 2 3 ④ 5 6 7 ⑧ 9 10 11 ⑫	4	4	4	23"	1 2 3 4 5 6 7 8 ⑨ 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Vulf	13	1 2 3 ④ 5 6 7 ⑧ 9 10 11 ⑫	4	4	4	23"	1 2 3 4 5 6 7 8 9 10 ⑪ 12 13 14 15 16 17 18 19 20 21 22 23
Biker 2	10	1 2 ③ 4 5 ⑥ 7 8 ⑨ 10 11 ⑫	3	3	2	19"	1 2 3 ④ 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Figure B

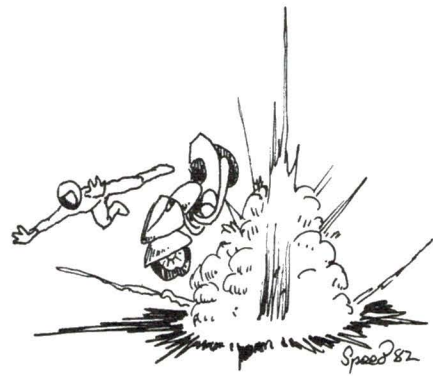| Name	DEX	Phases	OCV	DCV	Turn	Max.	Speed
Biker 1	14	1 2 3 ④ 5 6 7 ⑧ 9 10 11 ⑫	5	5	3	23"	1 2 3 4 5 6 ⑦ 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Ranger	13	1 2 3 ④ 5 6 7 ⑧ 9 10 11 ⑫	4	4	4	23"	1 2 3 4 5 6 7 8 9 10 11 ⑫ 13 14 15 16 17 18 19 20 21 22 23
Vulf	13	1 2 3 ④ 5 6 7 ⑧ 9 10 11 ⑫	4	4	4	23"	1 2 3 4 5 6 7 8 9 10 ⑪ 12 13 14 15 16 17 18 19 20 21 22 23
Biker 2	10	1 2 ③ 4 5 ⑥ 7 8 ⑨ 10 11 ⑫	3	3	2	19"	1 ② 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

So far, you've learned to drive in a straight line, make turns, drive around with other vehicles, and exceed normal performance characteristics — all on a featureless asphalt plain. Unfortunately, there are other things besides vehicles on the roads — things like potholes, curbs, debris, rubble, oil slicks, ice, water, snow, rain, walls, lamp posts, fences, mines, caltrops, ruts, and more.

There are two things to do with hazardous terrain: Drive over it or run into it. This is the "driving over" section. But first, the Crash Tables mentioned earlier.

Crash Table 1: Skids and Rolls

d6 Roll	Effect
1 or less	*Trivial Skid.* On its next movement segment, the vehicle keeps its same orientation, but moves ¼ (round down) its movement in the direction it was originally facing (the other ¾ is in the correct direction). Weapons fire from vehicle is at –3 this phase.
2	*Minor Skid.* As above, but the vehicle moves ½ (round down) its movement in the original direction. Weapons fire is at –6.
3	*Moderate Skid.* As above, except that it moves ¾ its movement (round up) in the original direction. Weapons fire is at –6.
4	*Severe Skid.* As above, but moves full move in original direction. Weapons fire is no longer permitted this phase.
5	*Roll.* Car moves full move in correct direction, then turns sideways (at 90° to current movement direction) and begins rolling. On the next movement segment, it will roll onto one side for every 2" of movement it has. Thus, for every 8" of movement it has, it will make one complete revolution. Each side rolled onto will take the damage appropriate for a crash at the speed the vehicle was moving (see page 29). The sequence of sides rolled onto is side, top, side, bottom. Every segment after the first segment of rolling, the unlucky vehicle subtracts 5"/segment from its velocity. Every time the car rolls onto its bottom, each wheel takes ½ the listed damage for a crash at the appropriate speed; when all four tires are gone, the vehicle bottom begins absorbing the damage. Once a car stops rolling, it may be driven if it can be righted (or lands right-side up) and has three wheels operating. A cycle may not be driven after a roll; the frame is twisted. An occupant may attempt to jump out at any time, observing the Breakfall rules.
6 or more	*Roll and Burn.* As above, but the vehicle is burning. Fire does 1d6K damage to each interior component per segment.

Crash Table 2: Fishtails

This table is used if the vehicle loses control due to a Hazard, as will be explained below.

1d6 Roll	Effect
2 or less	*Minor Fishtail.* Roll randomly to see whether fishtail is to the left or right. If, for instance, it is to the left, give your vehicle an involuntary 30° Turn to the right. Reverse for a right fishtail. Weapon fire is at –3 for the rest of the phase.
3,4	*Major Fishtail.* As above, but it's an involuntary 60° Turn. Weapons fire is at –6 for the rest of the phase.
5	*Minor Fishtail and Skid.* Execute a minor fishtail, then roll on Crash Table 1. Weapon fire is at –6.
6 or more	*Major Fishtail and Skid.* Execute a major fishtail, then roll on Crash Table 1. No further weapons fire is permitted this turn.

Modifiers to Crash Tables 1 and 2

Add or subtract these figures from the 1d6 roll on the above tables as they apply.

Vehicle is moving	1-2"	–6
Vehicle is moving	3-4"	–2
Vehicle is moving	5-9"	–0
Vehicle is moving	10-14"	+1
Vehicle is moving	15-19"	+2
Vehicle is moving	20-23"	+3

Boiled down, road hazards have two effects: they do damage to the car, especially tires, and they make it easier to lose control. A vehicle has run over a hazard if any part of the vehicle counter crosses any part of the hazard counter, even if the "picture" on the counter indicates otherwise; presume that the hazardous material is spread out a little from the concentration shown.

Any time a vehicle crosses a hazard, the driver must make a Combat Vehicle Operations roll. If he fails, he goes to Crash Table 2. If he succeeds, nothing adverse happens, except for any damage done to the vehicle or its wheels. Below is a list of typical road hazards; each one will have a modifier, beneficial or not, to the Combat Vehicle Operations roll and perhaps another effect upon the vehicle.

Road Hazards and Modifiers

Hazard	Roll Mod.	Other Effect
Gravel	+2	none
Ice	-1	none
Oil	-1	none
Standing Water	0	none
Vehicle Collision	-3	damage as per speed (see below)
Pedestrian Collision	-2	damage as per speed
Heavy Debris	-2	damage as per speed
Light Debris	0	1d6 damage per tire
Curb		none

Enemy Action Hazards

Enemy action may also create a hazardous situation.

Action/Hazard	Roll Modifier
Tire is shot away or otherwise destroyed	-3
Driver injured	-1 per BODY of most severe wound
Enemy fire does 1-8 pts damage	0
Enemy fire does 9-12 pts damage	-1
Enemy fire does 13-16 pts damage	-2
Enemy fire does 17-20 pts damage	-3
and so on	

Note that when a vehicle loses one tire, it is still drivable. Its driver must make a Combat Vehicle Operations roll every segment to be able to perform maneuvers normally; if the roll is unsuccessful, go to Crash Table 1. If a six-wheel vehicle loses a tire, its driver must make a continual Combat Vehicle Operations roll at +3 to the roll (thus a 14– becomes a 17–). These continual rolls must be made until the wheel can be replaced or the tire changed.

It is conceivable that a driver would want to purposely perform some of the "accidental" maneuvers listed — perhaps to pretend that he's out of control. If this occurs, consider the trivial skid, minor skid, and all fishtails as a half-maneuver, or the moderate skid, severe skid, and roll as a full maneuver. If the driver rolls his car on purpose, roll 1d6; on a 6, the vehicle starts to burn.
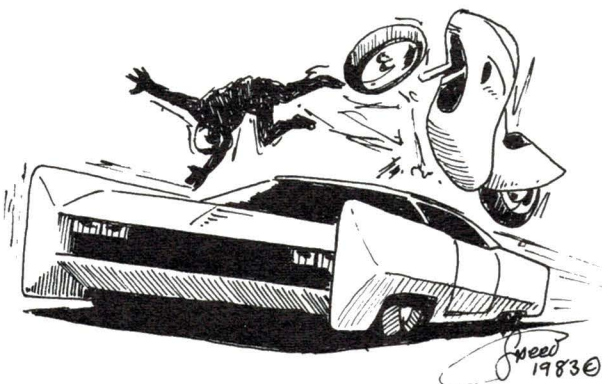
Crashing

A vehicle crashes by running into something. When a vehicle counter touches the counter or other representation of an object, it has collided with that object. No "to hit" roll is necessary.

To determine the damage done when one thing crashes into another, first find (a) the vehicle's weight and (b) its current speed. Find the d6 damage equivalent of the weight from the chart below, and add it to the d6 damage equivalent of the speed from the chart below that.

Damage Tables:
Vehicle Weight and Speed

Mass	Damage	Knockback Modifier
100 kg	0	–0"
150 kg	1d6	–1"
200 kg	2d6	–2"
300 kg	3d6	–3"
400 kg	4d6	–4"
600 kg	5d6	–5"
800 kg	6d6	–6"
1.2 ton	7d6	–7"
1.6 ton	8d6	–8"
2.4 ton	9d6	–9"
3.2 ton	10d6	–10"
and so on.		

Speed	Damage	Multiplier
½"/segment	1d6	x¼
¾"/segment	2d6	x¼
1"/segment	3d6	x¼
1½"/segment	4d6	x½
2"/segment	5d6	x½
3"/segment	6d6	x½
4"/segment	7d6	x¾
5-6"/segment	8d6	x¾
7-8"/segment	9d6	x¾
9-12"/segment	10d6	x1
13-16"/segment	11d6	x1
17-23"/segment	12d6	x1

The third column of the Speed Damage table above gives a multiplier for the damage normally indicated for a vehicle's weight. If, for instance, a vehicle is moving 1" per segment, multiply the damage its weight would do by ¼ (dropping fractions of ¼) and then add the damage indicated for its speed to find the damage it will do when it hits.

Thus, a vehicle moving 23" and weighing 1500 kg would do 12d6 + 8d6 or 20d6 normal damage when it impacts — but it should surprise no one that a one-and-a-half-ton car moving at 100 mph will mortally wound the average man if it hits him.

Here are some simple formulas for determining what happens when two objects collide.

(1) Vehicle A and Vehicle B collide head-on: Vehicle A does damage to Vehicle B based on their combined speeds plus Vehicle A's weight; Vehicle B does damage to Vehicle A based on their combined speeds plus Vehicle B's weight. (Any moving object large enough not to be counted as "debris" (GM's determination), including most pedestrians, counts as a vehicle here.)

(2) Vehicle A runs head-on into Vehicle B's side: Vehicle A

does damage to Vehicle B based upon its speed plus weight; Vehicle B does damage to Vehicle A based on its weight.

(3) Vehicle A sideswipes Vehicle B (i.e., both cars were moving on parallel courses — either in the same direction or in opposite directions — and one sideslipped into the other in a pushing-nuisance kind of maneuver): Vehicle A does damage based on their relative speeds (if they're going the same direction, the faster car's speed minus the slower car's speed; if they're going in opposite directions, the speeds added together) plus its weight; Vehicle B does damage to Vehicle A based on its weight. Both damages suffer the modifier for speed.

(4) Vehicle A runs into a wall: Vehicle A does damage based on its weight and speed; the wall does damage as if its Def x 100 kg were its weight. If Vehicle A does 2x or more the wall's Def, it goes through with a reduction of 2" to its speed; if it does 1x or more but less than 2x the Def, it loses 5" from its speed but continues; if it does less than 1x the wall's Def it stops cold.

When two vehicles run head-on into one another, they are both slowed down. Take the Speed and Knockback Modifier of one vehicle and add them together, then compare to the added Speed and Knockback Modifier of the other car. The remainder, divided by 2, is the speed by which the "winning" car and the other car are moving in the "winning" car's original direction. *Example*: Vulf Heinze is colliding head-on with Biker 2. Vulf is moving at 14" (11d6) his weight is 1925 kg (thus 9d6 damage and -9" knockback). Biker 2 is moving at 10" (10d6) and his bike weighs 450 kg (5d6, -5" knockback). They collide. Vulf does 11d6 + 9d6 +10d6 (both velocities are added together, remember) or 30d6 to the biker. Biker 2 does 10d6 +5d6 +11d6 or 26d6 to Vulf. (Obviously, a head-on collision at a combined speed of better than 100 mph is *not a good idea*.) Now we determine who goes where. Vulf's speed + knockback mod. is 23; Biker 2's is 15. 23 - 15 is 8; 8 ÷ 2 is 4, so at the next phase Vulf's car will be moving forward at 4" per segment, throwing a gory mess all over the street.

A vehicle's speed may not be greater after a collision than before (unless it was rear-ended by a vehicle headed the same direction, or some other peculiar circumstance occurs). If Vulf were to hit a pedestrian, his speed + knockback of 33 versus the pedestrian's speed + knockback of 0 would not translate into a forward velocity of 17" for Vulf. Vulf would be moving at 14" as before.

When one vehicle runs head-on into another vehicle's side, or T-bones it, the car being run into tends to be the one unexpectedly moving in an unanticipated direction. Here's an example of how it works: A vehicle moving 10" (10d6 damage) and weighing 1500 kg (8d6 damage, -8" knockback) hits the side of a car weighing 1700 kg (9d6 damage, -9" knockback). The car doing the ramming does 18d6 damage. The car being rammed itself does 9d6 damage (meaning that the attacking vehicle by no means gets off scot-free). The attacker's speed + knockback modifier is 18; the "defender's" knockback modifier is 9. (The defender's speed is irrelevant, since he is being struck at an angle where it will not come into play.) 18 - 9 = 9; 9 ÷ 2 = 4.5 or 4, so the vehicle being rammed unexpectedly will move 4" in the direction of the ram. (On its next segment, the attacking vehicle, speed drastically reduced, will move the same 4" forward.) The defending vehicle, upon being struck, makes a Combat Vehicle Ops roll (at -3, for a Vehicle Collision); ditto for the attacker.

If the defender makes his roll, he may continue forward the next phase, speed undiminished though slightly relocated. If the attacker makes his roll, he may continue forward at 4"/phase (remember, above we calculated his speed after collision). If either vehicle misses the roll, it goes to Crash Table 1. The attacking car will add 1 to its 1d6 roll because it was moving at 10". Assuming that the defending vehicle was moving 9", it rolls unmodified.

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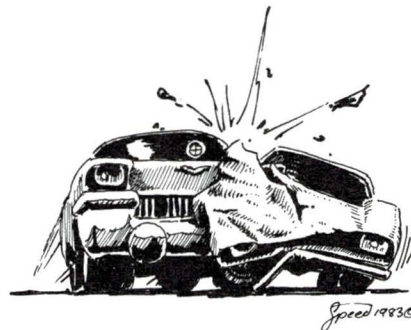
When vehicles sideswipe one another, the only damage factors that come into play are one-half the effects of their respective weights and relative speeds.

Example: Two cars are moving side-by-side at 10" each. One sideswipes the other, using a Drift maneuver. Their relative speed is 0", as they were on parallel courses at identical speeds. The attacker's mass is 1300 kg; the defender's is 1000. The 1300 kg effects are 2d6 (8d6 × ¼) and -8" knockback; the defender's mass effects are the same (round up). Thus, when they collide, the attacking car does 3d6 and the defending car does 3d6; 7" knockback versus 7" knockback means that the defending car will not be moved in the direction of the swipe.

Always remember that any collision means that the participants must make a Combat Vehicle Operations roll. When multiple collisions occur in the same phase, each subsequent roll by a driver is at a cumulative -2. Example: Driver 1, moving at 15", is T-boned by Driver 2. He manages to keep control of his car. However, immediately thereafter he is again T-boned, from the opposite side, by Driver 3. He must now make his Combat Vehicle Operations roll at an additional -2 to keep control (plus the normal -3 for any Vehicle Collision, so he may be in trouble). If he succeeds yet again, but is struck again before the phase is over, he must roll at (-3/collision, -2/for his second crash, -2/for his third crash) , or a total -7 to his roll. Bad news.

It should be clear to you by now that crashes are *bad news*. It's possible to do massive amounts of damage with a heavy vehicle and a fast impact — but you're likely to take almost as much damage, or even more if you're running into a sturdier vehicle. That, plus the possibility of wiping out, make the crash really a desperation combat maneuver.

Also obvious is the fact that I haven't said anything about *where the damage goes*. If a car is T-boned to the right side for 20 dice normal damage, and the vehicle's right side has 10 pts of armor, then obviously 10 dice of damage got through. For the answer to that, roll as if it were a weapons attack (page 32), and apply the damage to the components rolled. If a car is struck head-on, the front armor takes the damage first, then front-mounted weaponry (roll randomly), then the engine (if it is in a forward location), then the driver or gunner (roll randomly), then passengers or cargo (roll randomly), then

engine if rear-mounted, then rear weapons, then rear armor. If a vehicle is hit from the rear, use the above in reverse order. Collision damage keeps going until it is completely "used up." For instance, 25 dice (at about 1 BODY each) will go through 14 points of front armor, leaving 11 dice, go through one Def2 BODY 4 front weapon, leaving 5 dice, and stop on a Def6 BODY 6 engine, doing 2 points of damage to it.

In any crash, the crew and passengers will take some damage. When a crash has occurred, find out by what amount the vehicle's speed has been abruptly altered. *(Examples:* A vehicle crashes into a bunker at 23" and stops dead. The car went from 23 to 0; the amount by which the speed was changed is 23". A car is T-boned and abruptly moves 4" to the side; the amount is 4". A motorcycle moving 10" has a head-on with a van and ends up moving 10" backwards; the amount is 20".)

That damage is the amount of dice damage each person in the car takes from associated shock, whiplash, etc. If a character has stated that he's buckled his seat belt, he takes only half this damage. PD and body armor also take off this amount. For instance, let's say our motorcycle rider who's just impacted on the van in the example above has a PD of 8 and really good combat suit, which is also 8 PD. He'll need 'em, because he's just taken 20 dice damage — for, say, 20 BODY and 73 STUN. 20 - 16 is 4, so he takes 4 BODY (the benefits of good armor and a really tough physique are obvious); 73 - 16 is 57 STUN, so he's undoubtedly out until next Labor Day. However, an average man (PD2) with no armor, ramming into an immovable object at 23" and abruptly stopping, takes 23 BODY; 23 - 2 = 21, so he's going to be squashed like a bug. Controlled braking does not do this sort of damage, but crashes do. (So do falls. Don't drive your car off the top of a building.) Motorcycles do not have seatbelts.

Note that a passenger/crewman can be injured by the penetrating damage from a T-bone and *again* by damage from the unexpected movement. T-bones are nasty.

There is also the possibility that a vehicle struck by another vehicle will be thrown onto its side instead of staying upright. If a vehicle is due to be knocked back more than 3", it may end up on a side; roll 1d6. A 1-3 means it stays on its wheels; a 4 means it lands on a side (referee's choice); a 5 or 6 means the top. A knocked-back vehicle usually keeps the same facing.

Jumping

It is possible for a car to jump a chasm or other problem. It's not necessarily *safe*, but it's possible.

A vehicle's safe-jump distance is the distance between (a) where it "takes off," i.e. leaves the road surface, and (b) where its trajectory leads it to the lowest altitude it needs to be to avoid crashing. To find this number, find the vehicle's speed, how much higher or lower the target area is than the starting area, and any special circumstances such as ramps.

Subtract 6 from the vehicle's speed. Add 1 for every inch the starting area is higher than the target area. Subtract 1 for every inch the starting area is lower than the target area. If the vehicle is moving on a ramp, add one for every 5° of the incline, up to 45°. (If the ramp is more than 45°, begin subtracting one for every 5° above 45° — thus, a 55° ramp is a net +7). Subtract 1 for every 500 kg of the

vehicle's weight (rounding up). This totals into the safe-jump distance the vehicle has under these particular circumstances.

Example: Ranger Ordway is trying to jump a chasm, from one mountain road to another. He is moving at 20". (20 - 6 = 14). His target road is 6" below his starting road (14 + 6 = 20). The road's incline makes a natural 15° ramp (20 + 3 = 23). Ranger's vehicle weighs slightly under 500 kg (23 - 1 = 22). Ranger's safe-jump distance is 22". The GM shouldn't let the player compute that. Instead, it's a matter of:

Ranger: Does it look like I can make the chasm?
GM (rolls a perception roll for Ranger, who makes it by 1): You don't think so; it looks like it's just outside your range.
Or, *GM (rolls a perception roll for Ranger, who misses it by lots): Looks like it'll be no problem.*

Now that we know (a) how a vehicle gets into the air and (b) how far it can jump, we find out (c) how it lands. Whenever a vehicle jumps, the driver must make a Combat Vehicle Operations roll to land safely. For modifiers to this roll, see the table below.

Jump Modifiers

Bad terrain being landed on	standard terrain penalties
Light sidewind during jump:	-1
Strong sidewind during jump:	-4
7-9" speed:	-0
10-12" speed:	-1
13-15" speed:	-2
16-18" speed:	-3
19-21" speed:	-4
22-23" speed:	-5
0-30° incline:	-0
31-40° incline:	-1
41-50° incline:	-2

If the roll is successful, so is the landing. If the roll fails, the vehicle goes to Crash Table 1, with normal modifiers for the speed *plus* one-fourth of the distance being attempted (that is, a jump of 22", if failed, would result in a roll on Crash Table 1 with normal speed modifiers, plus 4 more to the roll due to the distance involved). In other words, don't jump often; when you do, don't miss.

Another problem with a jump (even a successful one) is that the passengers and crew will take damage from the "collision" with the ground at the end — even if it was controlled. Each passenger or crewman will take a number of dice equal to one-third the distance attempted. In the case of a special circumstance, such as a ramp at the end of a jump precisely angled to soften the descent, the damage drops to one-fourth of the distance. Again, physical defense and armor do count against this.

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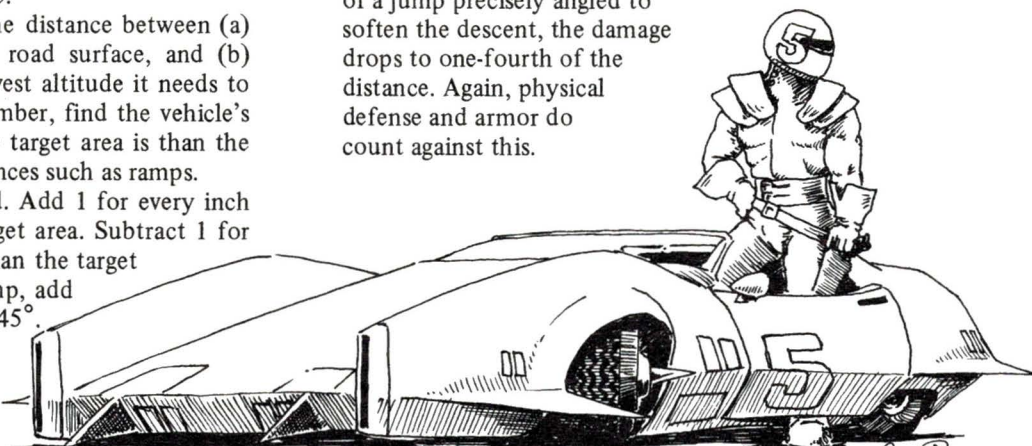
1.4

Combat

Of course, you want to do more than merely move around and run into each others' vehicles. You want to shoot at them, too.

As *Champions* players, you should be familiar with the game's methods for range modifiers (which, in the case of vehicle weapons, as usual take in the Braced factor), aiming, etc.

There are a few differences, though.

First, a character may opt to fire once per segment instead of only during his phases; this is with vehicular weapons only. However, any once-per-segment firing is at OCV 0 instead of the character's normal OCV. If he chooses to fire only during his active phases, he fires at his normal OCV. During a character's active phase, he may choose to (a) fire now at his full OCV, waiting until his next active phase to fire again, or (b) fire now and once per segment at OCV 0. A character may alternate this choice. For example, a character with a Speed of 3 may choose to fire at his full OCV in 4, at OCV 0 in 8, 9, 10, and 11, and then at his full OCV again in 12. Remember, this is with vehicular weapons only.

Skill levels can apply to both kinds of firing. Let's say a character has four 5-point Skill Levels in vehicular weaponry. Let's also say that he chooses to fire once per segment, in segments 8, 9, 10, and 11 as above. He may choose to use his skill levels all at one time, giving him an OCV of 4 during one segment, or spread them about, giving him an OCV of 1 in each segment, or clump them so that he has an OCV of 0 in 8, of 2 in 9, of 0 in 10, of 2 in 11, or any other such combination. Or, if he's just firing once per active phase, he can use his skill levels in their normal mode then.

A vehicle's driver and each person labelled Gunner may fire a vehicular weapon; each one of those may fire a weapon at the same time, up to the number of vehicular weapons, and each vehicular weapon may fire at the same time, up to the number of firers. Passengers may only fire hand weapons.

Now that we know how to fire, we must (unfortunately) learn how to be fired at.

First off, a vehicle's normal DCV is determined by its driver's DCV minus the vehicle size's DCVM. As you'll remember from the vehicle creation rules, a larger vehicle is easier to hit. Example: Ranger, with his own DCV of 4, on his motorcycle, with its DCVM of –1, has a vehicle with a net DCV of 3. Even if a driver is wearing a combat suit which lowers his DCV, his basic DCV is used here.

Each vehicle counter provided with this rulebook has a DCVM printed upon it. Choose a vehicle counter with a DCVM matching the one of the vehicle being portrayed.

A driver without the skill Combat Vehicle Operations does not add his DCV to the car's; the vehicle's DCVM itself becomes the DCV. That is, a luxury vehicle driven by a noncombat driver will have a DCV of –5.

(If a gamemaster wishes to use the DCV-from-velocity chart from *Champions II* when having someone shooting at a vehicle not in combat, feel free.)

When a vehicle is fired upon and hit, first find out which side the attack hits. If an attack can logically only hit one side of the vehicle, that side's armor takes damage first. If an attack can hit two sides, roll randomly to see which it is. Then roll on the chart below to see where the damage goes. Roll 3d6 against the chart if the attack was from a side; roll 2d6+1 if it was from the front; roll 2d6+6 if it was from the rear. (In the event it was from the top or bottom, use best judgement; it'll probably be 3d6. 3d6 is used when mines are run across.) Alternatively, an attacker can target a specific side (at –1) and a specific component (see the chart below for modifiers).

Vehicle Damage Location

Roll	Location of Hit	To be Hit
3-6	Front Wheel	–7
7-8	Engine	–6
9	Passengers	–6*
10-11	Chassis	–7
12	Cargo	–7
13-14	Vehicular Weapon	–7
15-18	Rear Wheel	–7

* Passengers strapped into combat seats are at DCV0, but are at –6 to be individually targeted.

When a target is rolled and there is more than one example of that target type available (*Example:* Vehicular Weapon is rolled, and the vehicle has several), the GM rolls randomly to see which one is hit, modifying the roll as he sees fit for the circumstances — for example, an attack from the front, striking a weapon, will probably only hit a front-mounted or turret-mounted weapon, so the GM would roll only between those choices. A GM may also decide that the damage goes to one particular component without rolling — for example, when collision damage hits a side of the car where there is only one passenger or crewman, the GM may decide that the crewman is hit.

The third column in the chart above shows what the to-hit modifiers are if an attacker aims for a particular component.

Blow-Throughs

When the damage of an attack is 2x the defending vehicular armor (or more), we have a problem. The armor is blown through, punctured, ignored — the attack has punched a hole in the armor and proceeds at full effect to whatever component it's going to hit. (That hole may later be targeted through at a –8: this does not include collision damage, only weapons damage.) If one round from an autofire burst produces a blow-through, consider all subsequent shots in that burst to be blow-throughs.

Damage and Systems Checks

Let's examine, component by component, what happens when each vehicle part is damaged. When a component takes damage (after defenses) of

less than ¼ its BODY, the system fails on a 3d6 roll of 8–; from ¼ to ½ its BODY, the system fails on a 3d6 roll of 11–; more than ½ its BODY, the system fails on a 3d6 roll of 14–; more than its BODY, the system fails.

When a front wheel "fails," the driver must immediately make a Combat Vehicle Operations roll to stay in control, going to Crash Table 1 if he fails. Every phase thereafter that

the vehicle is moving, its driver must make a Combat Vehicle Operations roll. (If he's also having to make such rolls due to hazards, every subsequent roll in the same segment is at the standard cumulative -1.) If both front wheels are lost, the driver must make continuous control rolls to keep the car from cracking up as it decelerates at 5"/segment. With one wheel gone, the vehicle loses 1d3 off its TURN score; with both wheels gone it loses its TURN score and can only slide forward straight.

When the Engine fails, the vehicle immediately begins to decelerate at 4"/segment, and will not accelerate; computers, lasers, radios, windshield wipers, headlights, and other electrical functions will not work. All non-laser weapons will still function, as will turrets.

Passengers do not "fail" like vehicle systems, of course. Ignore that reading. Remember that if a driver is hit for more than 2 points BODY (after armor), he must make one Combat Vehicle Operations roll to stay in control.

If the Chassis fails, it's all over for that vehicle. It breaks up, sliding forward and decelerating at 5"/segment. The GM can choose where the breaks occur (based on earlier descriptions of where damage has fallen) or roll randomly (1d6: 1, behind rear seats; 2-3, between front and rear seats; 4-5, in front of front seats; 6, GM's option). Depending on circumstances, passengers and crew may wish to ditch and rely on Breakfall skills (such as when the car is sliding toward a chasm, mechanical rice-picker, or series of mines).

Cargo and Vehicular Weapons failure effects are pretty evident; the equipment will no longer work. In the case of heavy rockets, rocket launchers, anti-tank guns, and other explosive ballistic weapons, a roll of 2 or 3 levels of Unluck indicate that the ammunition detonates in the magazine, doing normal damage to vehicle passengers and crew.

Rear-wheel damage has much the same effect as front-wheel damage. The driver must make his control roll. (If the wheel was one of the rear wheels in a pair, when a vehicle has four rear wheels, this roll occurs, but is not necessary to maintain every segment. If a six-wheeled vehicle loses both rear wheels on one side, the effects are as listed before.) When a vehicle loses the rear wheel(s) on one side, it loses 1d2 TURN. When it loses all rear wheels, it loses another 1d2 TURN.

A last special note: If one vehicle is chasing another, always move the leading car first in the sequence. This is to prevent a slower car from rear-ending a faster car, which doesn't often occur in real life.

1.5 Campaigning

As with any RPG, *Autoduel Champions* campaigns will involve creation of a consistent game-world, recurring player-characters, and adventures and opponents appropriate to the genre.

The genre in question is 2033-era autoduelling. This was the world-setting of the original *Car Wars* game, which has been further fleshed out in *Sunday Drivers*, *Truck Stop*, *Autoduel Quarterly*, and several issues of *Space Gamer* magazine. Here are some basic things to remember:

The United States, somewhat worse the wear after more than thirty years of government fragmentation, food shortages, rampant bandit activity, and other calamities, is still a functioning political entity — it's no longer necessarily the most powerful nation in the world, but, as the past years' problems were world-wide, it's hard to say who is really on top.

Economic problems have led to the decentralization of US government, and even with the recent resurgence of the "old regime," most regions are locally regulated. Oil is in short supply, especially north of the Free Oil States of Texas, Louisiana, and Oklahoma, so on the North American continent the most common form of transport is the electrically-powered passenger vehicle. Most petroleum is currently used to produce plastic products.

Weapons combat outside of city limits is tolerated in most parts of the continent — even encouraged, in bandit-rife areas, especially the Appalachians and the western states. The most common form of urban protection is the civic defense league, a neighborhood watch organization sanctioned by the local government (if any).

The focus of an *Autoduel Champions* campaign will be upon individuals who perform vehicular combat on a regular basis. This sort of activity is common among any number of occupations: Bounty hunters, professional duellists (who, like
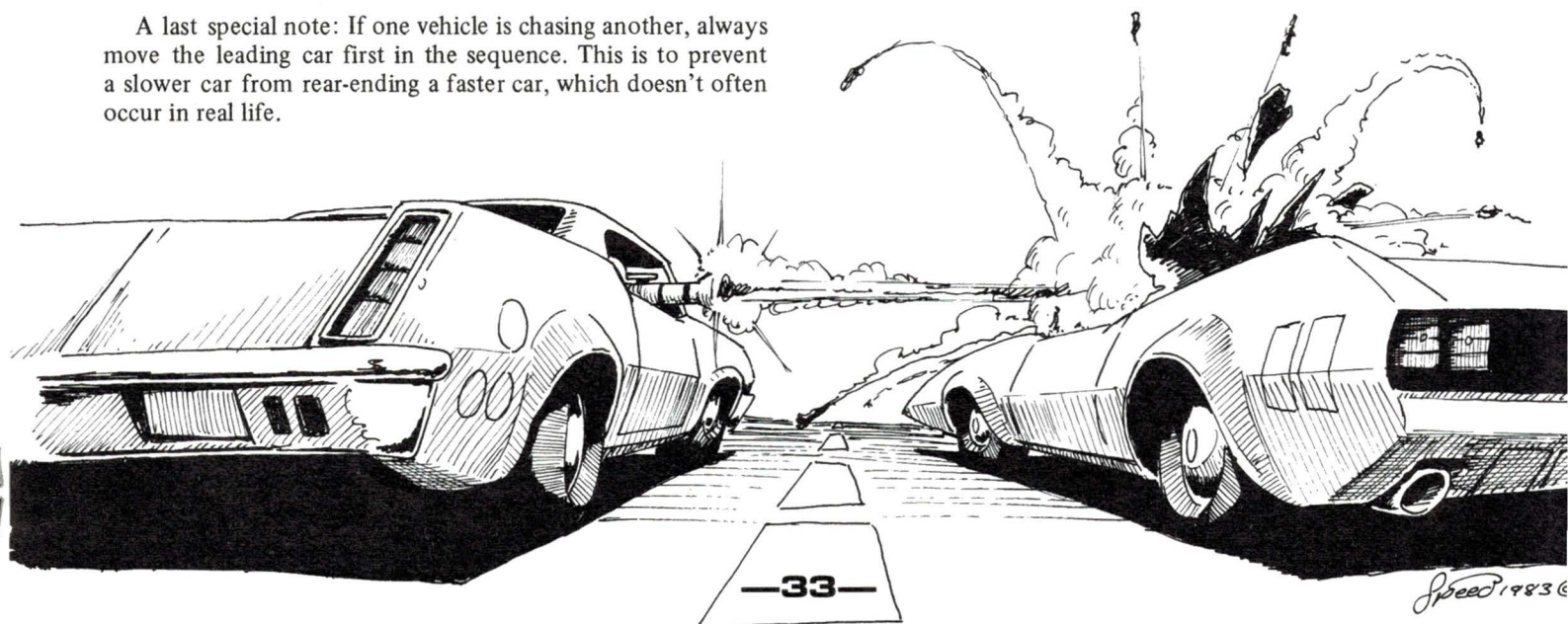
the professional racers of today, perform their combats in arenas, broadcast to millions of TV watchers, and operate on standard duelling circuits for annual prize events), police, bandits, bike gangs, government investigators, troubleshooters, assassins, truckers, couriers, and more. The GM can choose to base his campaign around one or several of these choices, or around the inhabitants of a specific town, or the members of a given organization. The last choice is a good one, particularly because it can rationally bring together duellists of various backgrounds and goals into the same adventure.

From the GM's point of view, the *Autoduel Champions* campaign is simply a high-tech Western. Plotwise, there's no difference. Savages in the hills, bank robbers, posses, territorial sheriffs, gunslingers, cavalry, wagon trains, and other classic themes all have 2033-era equivalents here.

In this section are presented (a) notes on how to repair and salvage vehicular equipment and (b) several scenario suggestions to kick off an *Autoduel Champions* campaign.

Salvage and Repair

In an ongoing campaign, vehicles and weaponry become damaged and need repair.

Vehicular armor will need repair after any fight in which it has stopped damage. Roll 1d6 for each side of the vehicle which has stopped damage but not been blown through; the number rolled times $50 is the amount that must be paid at a mechanic's shop to return the armor to pristine condition. (If the dollar amount is not paid, due to lack of facilities or money, reduce the armor value on that side by 1d3 for that fight and again for every subsequent fight until repairs can be initiated.) If a blowthrough has occurred, half the cost of the side armor must be paid for a repair. If two or more blowthroughs have occurred on a side, the armor on that side is considered a loss and must be replaced.

Other components have a regular price scale. If a component (such as a vehicular weapon, engine, etc.) has taken one hit, cost to repair is 10% of the component's original cost. If it has taken 2 hits, cost is 30% of the original. If it has taken 3 hits, cost is 50%, and so on. Obviously, once damage is up to the complete damage it could take, or 6 hits, or system failure, then it's most cost-effective to replace the entire unit.

A vehicle or component may be sold for salvage. The salvage value of an item is (Original Cost) minus (Cost to Repair). Damaged parts may be bought for this value or sold for *half* this value.

A character who is a mechanic and has a Portable Shop (or better) may perform the repairs listed above for one-third the listed cost; a mechanic character, of course, must have the Mechanic skill. Repair of lasers and computers also requires the Electronics skill. The problem with doing your own mechanicking is that it takes a long time.

Each job attempted (fix machine gun; repair left armor; repair turret; repair bottom armor; install new weapons system) takes at least a full hour. To perform a job correctly in that time takes a successful Mechanic roll.

Repair Roll Modifiers

No equipment available . . . . −3
Tool kit only available . . . . −1
Portable shop available 0
Full machine shop or garage available . . . . +1
Simple job (replace weapons linkage,
     dismount weapon for salvage) . . . . +2
Medium job (repair any weapon except
     rocket or laser; reweld or patch armor;
     salvage radio or computer from wreck) 0
Hard job (Jury-rig most components for
     temporary usage — such a jury-rig gives
     1 BODY and no Def to a component,
     and once that's gone the component
     cannot be jury-rigged again until
     repaired; repair laser or power plant
     or radio) . . . . −2
Very hard job (Jury-rig heavy rocket or laser) . . . . −4

Any number of mechanics can work on the same vehicle or component, but no more than three can work on the same item at once. Each rolls separately for success at the end of each hour.

Functions such as reloading ammunition, replacing or removing a tire, or salvaging spare ammo magazines can be accomplished by any geek with a tool kit. Such operations take approximately five minutes per function (changing a tire counts as two functions; pulling six ammo magazines would be six functions).

Don't forget, either, that a mechanic character would perform all his own mechanical operations — but if the other player-characters expect the same assistance for free, they're probably out of their pathetic little minds. A mechanic character may give certain friends a discount, but it still has to be worth his while.

Scenarios

The most common scenario, used to gain beginning player-characters some money and notoriety (though it's certainly deadly) is Amateur Night, straight from *Car Wars*.

Autoduelling is the #1 broadcast sport on the North American continent. In order to foster the sport, the various networks sponsor local tournaments for beginning duellists.

Each participant in a combat (there are usually four combatants per fight) is given a fairly inexpensive combat car — a typical example is the Dragonfly from the back of this section. The car is a present; it becomes the combatant's. In return, he signs a waiver testifying that his survivors have no claim against the network or facilities, and a contract stating that if he loses this contest, the contest's "winner" receives rights to the vehicle. A character is the winner of a combat when all of his opponents are (a) dead, (b) unconscious, or (c) surrendered.

Thus, the winner of the four-man combat wins all four vehicles, and may keep them, sell them for salvage, or whatever he wishes. Generally, the sale of the three losing vehicles will bring enough to pay for repair of the winning vehicle and perhaps upgrade its equipment.

The map in the center of the book depicts a typical arena. For general adventuring, we recommend that you obtain a large sheet of 25-mm scale hex paper, perhaps having it laminated for repeated use, with different terrain marked in water colors.

Several player-characters can participate in the same combat, but not all of them will come out of it alive. A character can participate in Amateur Night a total of three times, or until he wins once, whichever is soonest. (If he loses three times, the networks won't have anything to do with him. If he wins once, he's no longer classed as an amateur.)

Nastier duels come in the form of the pro autoduelling circuit. In numerous areas around the continent, arenas and racetracks hold professional competitions in various divisions — the vehicular divisions being in terms of equipment cost. Division 5, the least expensive (and least-watched) division involves duelling vehicles worth up to $5,000; Division 10 involves vehicles worth up to $10,000; Division 15 is for $15,000 and under vehicles; and so on. Most beginning duellists prefer to stay in Division 5 until they master their skills. Above Division 30 is Unlimited-Class duelling, the hobby of the successful duellist. Winners of pro duels do not win their opponents' vehicles, but rather dollar amounts — ranging from $1,000 for Division 5 minor tournaments to upwards of $100,000 in major Unlimited-Class tournaments.

A GM can commence his campaign based on one or two Amateur Nights. Such tournaments aren't just combat, after all. Characters will meet each other, make allies, make long-term enemies, encounter potential employers, stumble across sabotage, and more. As a character becomes better-known to the duelling circuit, he'll receive offers of employment — for short-term jobs or long-term positions. A campaign could be entirely based upon a tour of the 2033 duelling circuit!

Costs

Two other recurrent costs (other than all the equipment listed previously) need to be noted.

A character needs to spend $50 a week for subsistence-level food and housing.

Also, there are standard costs for recharging a vehicle engine. Most truck stops, urban garages, major hotels, AADA branch buildings, and large corporate headquarters have recharging stations. A full recharge will keep a vehicle going for 200 miles. Cycle engine recharges cost $20; car and van recharges cost $50. They take ten minutes per recharge.

Heraldry

Finally, some notes on 2033-era heraldry.

Individuals and organizations are able to register "devices" — unique patterns of colors and representative symbols — with the AADA. The AADA devices are *not* passed through or in any way compared with arms passed through European colleges of arms, a fact little appreciated in Europe.

The GM may recommend that his players each choose distinctive devices, or at least usual colors. If he really wishes to get into this facet of the autoduelling world, he can dig up a simple text on medieval heraldry to learn proper uses of standards, charges, colors, metals and furs, plus the usual format for "emblazoning" — translating a device into a standard word format. This isn't a necessity for a successful campaign, but it's sure to add, ah, color — especially if the campaign leans towards a "knights on wheels" theme.

1.6 Converting CAR WARS to CHAMPIONS

If you're going to be utilizing any other *Car Wars* releases in a *Champions*-system game, here are some things you may want to remember:

Any time a new weapon is released in a *Car Wars* publication, compare its damage to other *Car Wars* weapons which have already been translated into *Champions* terms to get the equivalent *Champions* damage.

Armor equivalencies can be gauged from the chart below.

Car Wars Armor	Champions Defense
0	2
1	3
2–3	4
4–5	5
6–7	6
8–9	7
10–12	8
13–15	9
16–19	10
20–24	11
25–31	12
32–39	13
40–49	14
50–63	15
64–79	16
80–100	17
101–126	18
127–159	19
160+	20+

Autoduel Quarterly, SJ Games' magazine for the autoduelling aficionado, will present regular historical updates and campaign settings from the official AD 2033 *Car Wars* world. These will include entries from the *North American Road Atlas*

and Survival Guide to aid the GM in creating new adventure settings.

When converting *Car Wars* items to *Champions,* the money cost of the item stays the same. Divide the weight by two and the result is the number of kilograms the item weighs in *Champions.* (Admittedly, this is only an approximation, but it's very clean and easy to remember.) Power factors for engines are likewise divided by 2. For DP of most objects, divide the DP listed by 2; the result (rounded down) is the resistant defense the object has, and the result again (rounded *up* this time) is the BODY the object has. Take the handling class of a *Car Wars* vehicle and add 2 to get the *Champions* TURN score. The movement-rates chart in the back of *Champions* gives a fair comparison between inches/segment and mph figures. Maximum Load is a fair contrast to the Strength chart given earlier, and Spaces function identically.

Since the combat system for *Champions* is itself very well-defined, no real adaptations have to be made. A machine gun in *Champions* operates as listed in those rules, so none of the corollary *Car Wars* rules need to be dealt with.

Maneuvers: A drift is a drift, and a bootlegger is a bootlegger. The 30° turn corresponds most closely to the swerve, and the 60° turn performs the same general function as both the bend and hard swerve.

Scale: On the average, movement of ½" in *Car Wars* comes close to corresponding to 1" of *Champions* movement. If you were, for example, so foolish as to convert the *Sunday Drivers* or *Truck Stop* maps over to *Champions,* 2" of *Car Wars* scale would equal about 5" of *Champions* scale. This topic is dealt with in more detail in the *Champions*-to-*Car Wars* rules from Section Three of this rulebook.

All this should give you a good start toward using any *Car Wars* product with your *Champions* campaign. Have fun, and be sure to leave your safety *off* — it's a dangerous world.

The Blue Ghost:
A CHAMPIONS
Autoduelling Adventure

"The Blue Ghost" is a *Champions* autoduelling adventure for three to five beginning duellist characters. Characters and circumstances presented here are based solely on *Champions* and the autoduelling rules from this rulebook, and do not rely on *Espionage* or *Justice, Inc.* skills and equipment.

To The Players

The management of the Ashland Duel Emporium is in something of a predicament. It's hosting the regional AADA semifinals tournament in two weeks, a tournament which traditionally has its first-place prize awarded in cash in an oversized trophy cup. Several times in past years there have been attempts upon the trophy cup; they have generally been failures. But now the Blue Ghost has announced that he is coming for the trophy and its $300,000 prize.

The Ghost is a notorious bandit-thief. He and his driver/paramour, Sunshine Callahan, have been responsible for some of the most clever and stylish robberies of the last few years. The Blue Ghost generally operates an indigo-blue luxury vehicle with a white death's head on the hood; the helmet of his indigo combat suit has a pale death's head screened over the faceplate, so that he can see out but others cannot see in. He is reputed to be a master of disguise; no one knows what he looks like, it is said, except Sunshine. The Ghost is an able and deadly duellist, but not a murderer; he will not kill except in a fair fight.

The manager of the Ashland Duel Emporium has hired several local duellists to cruise the area on lookout for the Ghost's vehicle. In addition, several talented but poverty-striken beginning duellists have been given free use of ADEmporium Dragonflies, which are normally only used in the Amateur Night duels on Tuesdays. Cash rewards have been offered for encounters with the Ghost: $1,000 for each encounter in which shots are fired on the Ghost, $4,000 for any vehicle in on the "kill" of the Ghost's vehicle, $15,000 for delivery of the Ghost dead,

$35,000 for delivery alive, $10,000 for delivery of Sunshine alive if the Ghost gets away.

Players intending to participate in this adventure should read no further.

To The Referee

Any characters who already have vehicles will be hired at the rate of $250 a night to patrol the streets of and highways around Ashland, a small town which has aggressively sponsored the sport of autoduelling. A character who does not have a vehicle or position on a vehicle as gunner will receive no nightly wage but will be granted free use of an ADEmporium Dragonfly (and he'd better not drive off into the sunset — Foaming Louie Friedman, manager of ADE, has friends in many circles). Dragonfly users *will* be charged for any repairs needed upon a Dragonfly which has been damaged in any circumstance but a fight with the Ghost. Any combat with the Ghost is "official" and documented if observed by another duellist or AADA official at the site of the battle.

Characters are expected to put in at least six hours a day in cruising the area, checking in to the base every half-hour. Each of the Dragonflies loaned to duellists is fitted with long-distance CBs instead of the normal half-mile-range units.

The characters should spend a couple of fruitless days searching around the area before anything of significance happens. Things which can occur during that time: Radio report of a blue car with death's head spotted west of Ashland, and the first vehicles on the scene (perhaps including player characters'), finding it parked and empty, blow it to confetti to trap the

Ghost in the immediate area — and find out that it belonged to a legitimate duellist who'd parked it outside a friend's home. Some devious prankster had put a death's head on the hood in white shoe polish. Another radio report: "This is the Blue Ghost. In two days, I'm going to show all the professional duellists in this region how incompetent they really are. End transmission." Certain hints from other duellists, in encounters which can be played out in a local tavern, that there may be as much combat between bounty-hunting duellists as between duellists and the Ghost (a lot of people want that bounty, and want even more the notoriety that comes with catching the famous "Bonnie & Clyde" team). A "rain" on the duel arena, two days into the manhunt, of several hundred white plastic death's heads from an undetermined source; a search of the surrounding field brings no clues and so forth.

On the third day of the manhunt, sometime during midday, comes a radio transmission: "This is the Blue Ghost. I'm at the Asphalt Plain, seven miles west of Ashland. Sunshine and I are waiting for you to come out here and make fools of yourselves." The Asphalt Plain, former site of a failed shopping center since razed, is now a broad asphalt expanse where aspiring duellists go to do their first, practice, combat driving. It's kept up mostly by private contributions from local duellists with fond memories of the place. (Use any large sheet of 25mm hexes to represent the Plain; scatter occasional debris counters across it.)

Within thirty seconds, another voice (players recognize as a local duellist) exclaims, "He's here! It's true! He's mine!" Hopefully, this transmission should occur when the player-characters are close to the Plain, because every cruising duellist within transmission range is immediately going to head for that landmark.

And the Ghost's vehicle is there, sitting, idling, in the middle of the Plain. The first thing it does when any attacking vehicles come within visual range is retreat across the Plain, avoiding all other cars and attempting to stay outside of their effective ranges. Its turret does not move, and what can be seen of the driver and gunner through the smoked windshields indicates they aren't terribly active yet either. A few taunts will come over the radio, though.

When the Ghostmobile has retreated and dodged around and eluded as many pot-shots as can be expected from the approaching duellists, it will turn on its attackers. The turret swings into action and begins firing laser beams at the duellists, and recoilless rifle shells arc from the front end. Against a force that will mostly consist of lightly-armed and armored Dragonflies, it's another case of the big machine being crawled over by hordes of smaller vehicles. Non-player-duellists coming upon the scene may try to bluff each other and the player-characters off the scene in order to increase their odds of being the Duellist Who Captures The Ghost. NPCs will not attack the player-characters, but if the players start a fight it will escalate into a general melee.

However, while this battle is going on, the Blue Ghost and Sunshine Callahan are sitting in the "real" Ghostmobile, outside the main offices of the Ashland Duelling Emporium. The Ghostmobile is disguised as a station wagon, a breakaway fiberglass mounting over its chassis. The Ghost is disguised as Foaming Louie Friedman, down to the characteristic white flecks in his mustache and beard. The real Foaming Louie is tied up in the back of the Ghostmobile, not at all happy about the current situation. Moments before, as the Ghost saw Foaming Louie drive up to the front of the ADEmporium, he made his fateful challenge over the airwaves. He immediately exited his vehicle, unobtrusively ordered the real Louie to enter his car (under the threat of a submachine gun), and began to tie Louie

# BLUE GHOST Character Stats

The Blue Ghost

Value	Characteristic	Pts	Pts	Skill/Knowledge	Roll
13	Strength	3	7	Lockpicking	14–
14	Dexterity	12	7	Combt. Vehic. Op.	14–
18	Constitution	16	5	Detective Work	14–
13	Body	6	7	Disguise	14–
18	Intelligence	8	3	Paramedic	13–
12	Ego	4	5	Stealth	12–
13	Presence	3	5	Area Knowledge:	
18	Comeliness	4		Midwest	14–
7	Physical Def	4	6	Familiarity: Firearms	
7	Energy Def	3		& Veh. Weapons	n/a
3	Speed	6	10	+2, Veh. weapons	n/a
7	Recovery	0	2	Transport, cycles	
36	Endurance	0		and trucks	n/a
30	Stun	1			

Disadvantages: 50+	Pts
Reputation: 14–	
bandit	6
Psych. Lim.: Loves	
to show off	
(very common,	
irrational)	11
Unluck	5
DNPC: Sunshine;	
14– competent	8
Hunted: Police, 14–	16
Experience	31

Equipment
SMG (select fire)
Hvy Combat Suit (stops 8, not worn during Foaming Louie disguise)
Walkie-talkie

Vehicles Owned
2 Blue Ghost custom vehicles

Colors and Device
Blue field, white death's head

Sunshine Callahan

Value	Characteristic	Pts	Pts	Skill/Knowledge	Roll
8	Strength	-2	3	Electronics	11–
18	Dexterity	24	15	Combt. Vehic. Op.	19–
10	Constitution	0	3	Paramedic	12–
10	Body	0	6	Familiarity: Firearms	
15	Intelligence	5		& Veh. weapons	n/a
10	Ego	0	7	Computer	
13	Presence	3		Programming	14–
20	Comeliness	5			
4	Physical Def	2		*Equipment*	
4	Energy Def	2		SMG	
3	Speed	2		Light Combat Suit (stops 4)	
4	Recovery	0			
20	Endurance	0		*Known Affiliations*	
20	Stun	1		Blue Ghost	

Disadvantages: 50+	Pts
Reputation: 8–,	
bandit	2
Unluck	5
Hunted: Police, 8–	11
Psych. Lim.: Over-	
protective of	
Blue Ghost	
(very common)	8
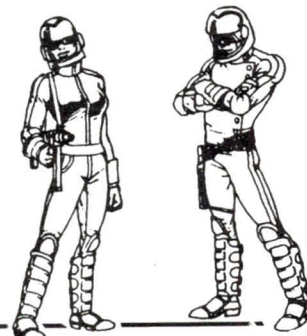
up. Within moments, the first confirmation calls about the Ghost's presence in the Asphalt Plain began to roll in, and most of the guards and duellists still at the Emporium charged out of the gates in their vehicles. During all of this time, Sunshine was driving the fake Ghostmobile, using the vehicular computer/radio control setup in the real Ghostmobile. When the Blue Ghost finished tying Foaming Louie up, he immediately grabbed his controls for the turret weaponry on the fake Ghostmobile, which is when that worthy vehicle turned around and began to lay the sting on its attackers.

The battle the Ghost and Sunshine vicariously fight with their radio-control equipment is a delaying action. The longer they fight, the more defenders are drawn toward the battle. The first time any shot or bad control roll wrecks the fake Ghostmobile, the Ghost will exit his real vehicle, walk into the Emporium offices (as Foaming Louie), crack the safe in Friedman's office, and remove the trophy and its $300,000 prize. With a beep on his walkie-talkie he will summon Sunshine, who will drive to the front door just in time for him to step through it and into the car; he'll have naturally unwrapped the submachine gun he was carrying in a handful of ADEmporium mechanic's uniforms, and will be holding it upon the startled office personnel in the outer offices. Elapsed time between when he exits his vehicle and reenters it: About four minutes. If all has gone according to plan out at the Asphalt Plain, he will be a mile or two down the eastbound highway before the very angry duellists roll in to the Emporium from the Asphalt Plain. (Foaming Louie he will leave untied by the side of the road a couple of miles away; let Louie explain to lots of enraged duellists why he, Louie, was seen to walk out of the offices with the coveted prize. Two miles after that, the Ghost will eject the fake fiberglass cover and will drive off to safety under his own colors.)

However, player-characters may grow suspicious during the course of the battle on the Asphalt Plain. The best way for this to happen is if one of the inflated dummies representing the Ghost and Sunshine is hit — it will deflate. Other ways include a character successfully rolling on his Electronics skill when using his radio and picking up the signals of radio-control transmission, a perception roll made at –3 by any occasional user of radio-control equipment to detect the telltale lag time between stimulus and response in the fake Ghostmobile, etc. If a player grows suspicious and breaks off combat, leaving the fake Ghostmobile to his competitors, he will make it back to the ADE site (as depicted on the map bound into the center of this magazine) just as the Ghost is driving off the opposite (east) side of the map. If the player-characters can engage and defeat him, great. If they engage and are defeated, still good, as they get reward money for attacking him. If they neither stop the anonymous station wagon driving away nor even figure out the deception in the first place, they will end up with some valuable experience and an enigmatic and interesting opponent to face in the future. Any way it goes, it can be an interesting adventure.

On the map bound into the center of this supplement, note the following things:

The walls of the arena itself are heavy steel-reinforced concrete with 15 DEF and 5 BODY. All the building walls shown are 4 DEF and 4 BODY. Spectator stands extend over the administrative offices; the staircases shown between the buildings lead to them. At the center of the stands is the pressbox, which broadcasts most duelling action through the local network affiliate. The stands consist of DEF 3 BODY 4 benches. Since vehicular weapons in arenas such as this are temporarily restricted in fire arcs so they cannot fire over the walls, the stands are relatively safe. The garages, not shown, have mechanics' shop equipment (just like Portable Shops, plus hydraulic jacks capable of supporting 4,000 kg. vehicles).

Ashland and Surrounding Area

Crusader Territory

Fangio River

Ashland Duel Emporium

The Asphalt Plain

City Of Ashland

Ashland Lake

Cyclone Territory

N

SCALE: 1 inch = 1.5 miles

Ghostmobile
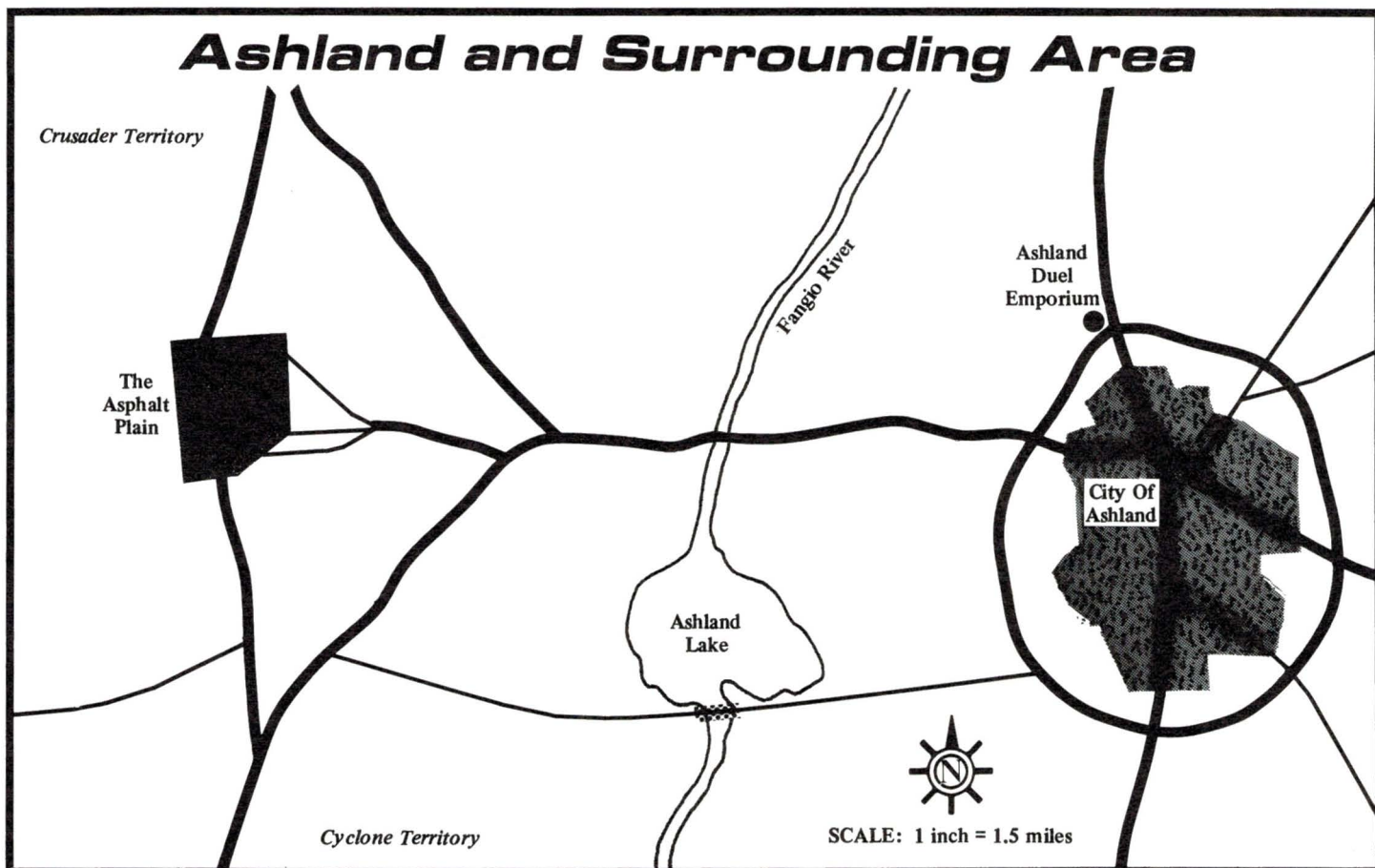
							Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
CHARACTER: Blue Ghost				**PLAYER:** NPC								
VEHICLE NAME: Ghostmobile												
Vehicle Style: Luxury	DCVM: -5	STR: 34	Load: 2800	BODY: 10			800	800	900	900		19
Chassis Strength: Extra-Heavy		STR: 36	Load: 3833	BODY: 12			800	1600		900		19
Engine: Super		Factors: 1300	Max.Speed: 100 mph / 23 "				3000	4600	550	1450	6	13
Suspension: Heavy		TURN: 5					1200	5800		1450		13
Tires: 4 × Solid							2000	7800	152	1602		13
Armor: Top 10							761	8561	167	1769		13
Bottom 10							761	9322	167	1936		13
Front 14							3855	13177	400	2336		13
Rear 14							3855	17032	400	2736		13
Right 10							761	17793	167	2903		13
Left 10							761	18554	167	3070		13

Weapon	OCV/Range	Damage	Shots	Placement	Cost + Ammo Cost	Wgt + Ammo Wgt	Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
Laser	+1/-1/24"	5d6K	∞	Turret	8000 + — = 8000	250 + — = 250	8000	26554	250	3320	2	11
Recolless	+0/-1/10"	4d6K	20	Front	1500 + 700 = 2200	150 + 50 = 200	2200	28754	200	3520	2	9
Xtra Mag.	—/—	—	—	For Recolless	50 + — = 50	8 + — = 8	50	28804	8	3528	1	8
	/				+ =	+ =						
	/				+ =	+ =						

Equipment	Placement	Notes					Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
Computer	—	Vehicular Computer					16000	44804	—	3528	—	8
Radio Control	—						4000	48804	—	3528	—	8
Radio	—	Long-Range					500	49304	—	3528	—	8
Turret	Roof	Laser inside					1500	50804	100	3628	—	8

Crew and Passengers	OCV	Skill Levels	Placement	Notes			Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
Driver Sunshine	6	—	Driver's Seat	In "fake" Ghostmobile,			n/a	50804	100	3728	2	6
Blue Ghost	5	+2, vehic.	Gunner's	Sunshine and Ghost			n/a	50804	100	3828	2	4
				weigh only 5 kg			n/a					
				each (inflatable			n/a					
				dummies)			n/a					
				TOTALS:				50804		3828		4

Dragonfly

							Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
CHARACTER: Variable				**PLAYER:** —								
VEHICLE NAME: Dragonfly												
Vehicle Style: Compact	DCVM: -3	STR: 31	Load: 1866	BODY: 9			400	400	650	650		10
Chassis Strength: Heavy		STR: 32	Load: 2134	BODY: 10			600	1000		650		10
Engine: Medium		Factors: 700	Max.Speed: 90 mph / 21 "				1000	2000	350	1000	4	6
Suspension: Heavy		TURN: 5					600	2600		1000		6
Tires: 4 × Puncture-Resistant							800	3400	100	1100		6
Armor: Top 7							147	3547	50	1150		6
Bottom 7							147	3694	50	1200		6
Front 8							220	3914	60	1260		6
Rear 8							220	4134	60	1320		6
Right 7							147	4281	50	1370		6
Left 7							147	4428	50	1420		6

Weapon	OCV/Range	Damage	Shots	Placement	Cost + Ammo Cost	Wgt + Ammo Wgt	Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
Flame.	+1/-1/6"	2½d6K	10	Turret	500 + 250 = 750	225 + 50 = 275	750	5178	275	1695	2	4
MG	+0/-1/5"	2½d6K	200	Front	1000 + 500 = 1500	75 + 25 = 100	1500	6678	100	1795	1	3
	/				+ =	+ =						
	/				+ =	+ =						
	/				+ =	+ =						

Equipment	Placement	Notes					Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
Turret	Roof						1500	8178	100	1895	—	3

Crew and Passengers	OCV	Skill Levels	Placement	Notes			Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
Driver							n/a	8178	100	1995	2	1
							n/a					
							n/a					
							n/a					
							n/a					
				TOTALS:				8178		1995		1

Vehicle Record Sheet

CHARACTER:_____ **PLAYER:**_____
VEHICLE NAME: _____

Vehicle Style:_____ DCVM:_____ STR:_____ Load:_____ BODY:_____
Chassis Strength:_____ STR:_____ Load:_____ BODY:_____
Engine:_____ Factors:_____ Max.Speed:_____mph / _____"
Suspension:_____ TURN:_____

Tires:_____

Armor: Top _____
Bottom _____
Front _____
Rear _____
Right _____
Left _____

Weapon	OCV/Range	Damage	Shots	Placement	Cost + Ammo Cost	Wgt + Ammo Wgt
_____	___/___	_____	_____	_____	___ + ___ = ___	___ + ___ = ___
_____	___/___	_____	_____	_____	___ + ___ = ___	___ + ___ = ___
_____	___/___	_____	_____	_____	___ + ___ = ___	___ + ___ = ___
_____	___/___	_____	_____	_____	___ + ___ = ___	___ + ___ = ___
_____	___/___	_____	_____	_____	___ + ___ = ___	___ + ___ = ___

Equipment	Placement	Notes
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Crew and Passengers	OCV	Skill Levels	Placement	Notes
Driver_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Item Price	Total Price	Item Weight	Total Weight	Item Spaces	Spaces Left
		■		■	
		■		■	
				■	
				■	
				■	
				■	
				■	
				■	
				■	
n/a	100			2	
n/a					
n/a					
n/a					
n/a					

TOTALS:

Left Armor: _____

Rear Armor _____

Bottom Armor _____

Right Armor: _____

Front Armor _____

Top Armor _____

Vehicle Style _____
Number of Doors: _____
Weight: _____kg. TURN:_____
Notes: _____
_____
_____
_____

Colors Flown (if any): _____
_____

Obvious Weaponry/Equipment: _____
_____
_____
_____

Section Two

2
CAR WARS
Helicopters

Sleek, fast, and powerful, helicopters cruise the skies of 2033. They're not practical for long-distance travel, but they're the premier attack and rescue vehicles of the age. Like their 20th-century counterparts, they're fast, versatile, maneuverable, with the potential for heavy firepower and armor. They're also less safe and more cantankerous than ground vehicles. Don't rely on them for a relaxed and soothing adventure . . .

2.1 Construction

Helicopters in *Car Wars* follow construction rules similar to those for cars. Choppers, however, consist of only five basic component types: body style (which determines rotor diameter), engine, weapons, armor, and special equipment (such as winches, powerful searchlights, and the like). A blank Helicopter Record Sheet is located on page 50. (A standard *Car Wars* Vehicle Record Sheet can be used to create your helicopter; simply cross out the lines for Chassis Strength, Suspension, and Tires.)

Armor on a helicopter may be placed on the top, sides, front, back and bottom, but will not protect the rotor or the stabilizing rotor at the rear.

The DP listed in the next-to-last column of the Helicopter Body and Armor Chart below are for the helicopter's main rotor and stabilizing rotor. The vehicle's main rotor provides upward and directional force; the stabilizing rotor keeps the helicopter from spinning out of control. How they function — and what happens when they cease to function — is explained under Maneuvers in the section entitled Crashing.

The last column gives targeting modifiers for firing at helicopters; for instance, when firing at a Standard helicopter, you are at +0 for front and back and +2 elsewhere.

Acceleration for helicopters is computed differently than for cars, as a significant part of their power goes toward merely staying off the ground. With a helicopter, if its power plant's factors are less than its weight, it is underpowered and will not lift off; if the factors are at least equal to its weight but less than one and a half times its weight, its acceleration is 5 mph on the straightaway; if the factors are one and a half times its weight or more, acceleration is 10 mph on the straightaway.

Power Plants

POWER PLANT	Price	Weight	Spaces	DP	Factors	Maximum Speed
Mini	$10,000	2,500	8	16	6,700	180 (air)
Small	$15,000	3,000	10	20	13,400	200 (air)
Standard	$20,000	3,500	13	26	20,000	200 (air)
Super	$25,000	4,000	16	32	26,700	200 (air)

Helicopter Arcs of Fire

Right Weapons / *Front Weapons* / *Rear Weapons* / *Left Weapons*

Weapons

Weapons work for helicopters pretty much the way they do for land vehicles. There are certain differences in mountings, methods of aiming, and so on, but all of the weapons available to ground vehicles are usable for helicopters. (Note that dropped-weapon equipment won't be as useful. Paint sprays and smokescreens operate normally, but a helicopter has to be within 7½ feet — ½" game-scale — of the ground for oil sprays, spike-droppers and mine-droppers to work; above that altitude, the oil and spikes spread out too much to be effective, and the mines will explode on contact if dropped from above that height. If a helicopter is *trying* to drop mines on top of a target, that's a different matter, but there are better weapons for that sort of thing.)

Vehicular weapons may be mounted on a helicopter's front, back, sides, and bottom. Turrets may only be bottom-mounted. A turret may fire as a left, right, front, or back-mounted weapon placement, and is protected by bottom armor. Side- and bottom-mounted weapons, unlike car-building limitations, *may* be taken from cargo spaces. Rear-mounted weapons *must* be.

Arcs of fire must be considered three-dimensionally, however, which is more complicated than computing fire arcs for ground vehicles. Ground vehicles all tend to fight at the same altitude; when helicopters come into the picture, things get a little more complex.

The picture at the top of this column shows the arcs of fire of weapons on a helicopter.

When two helicopters are at roughly the same altitude, that arc of fire automatically applies. However, when there is a difference in altitude, consult the following simple formula:

Helicopter Body Style and Armor

BODY SIZE & ARMOR	Body Price	Body Weight	Spaces (& cargo)	Armor cost/wt.	HC	DP: Rotor/ Stab. Rotor	Targeting Modifiers
One-man*	$10,000	500	13	$16/8	3	2/2	-1/front & back, +1 elsewhere
Small	$20,000	800	19	$20/10	2	3/2	-1/front & back, +1 elsewhere
Standard	$40,000	1200	24 (+6)	$30/14	1	3/2	+2/top, bottom, right, left
Transport	$80,000	2000	24 (+17)	$35/17	0	4/2	+2/top, bottom, right, left

*This particular model can be purchased in a "stowaway" format. For an extra $1,000, you can purchase a one-man model that can be broken down into component parts, with a hinged fuselage and folding rotors, and fit into any cargo area holding 13 spaces. The breakdown process takes a tool kit and fifteen minutes, ditto to put it back together.

If the distance between attacker and target is equal to or greater than the difference in their relative altitudes, the attacker can fire upon the target. This refers to apparent difference on the playing-board — simply measure, with a ruler, the distance between the attacker and the defender; if the distance is equal to or greater than the difference in their altitudes, the target is within the attacker's arc of fire. In the case of helicopters only, measure from the actual picture of the helicopter body, not the counter; otherwise, the targeting gets peculiar at close ranges.

Example: An Eastern Driving Safety Enforcement League (EDSEL) helicopter is firing upon a car. The helicopter is 4" (60') up in the air. The target is within the arc of fire shown for the chopper's forward-mounted weapons, and is 5" (75') away. The distance between attacker and target is (equal to or) greater than the difference in their altitudes (5" is greater than 4"), so the chopper can fire upon the target.

Bottom-mounted weapons on a helicopter operate differently. Bottom-mounted weapons, naturally enough, shoot straight down. If the target is at a lower altitude than the attacker, and the distance between target and attacker is *less than* the difference in their altitudes, the bottom-mounted weapon can hit the target.

Example: Independent duellist-supporter Terrence "Ozone" McGillicuddy decides to take the EDSEL chopper out of commission. His helicopter is above and to one side of the EDSEL machine, and Ozone wants to fire his bottom-mounted rocket launcher. Ozone's chopper is 7" above and 8" to one side of the EDSEL helicopter. Since the target is at a lower altitude, but the distance between target and attacker is *not* less than the difference in their altitudes, Ozone cannot hit the EDSEL with his rocket launchers.

Both ranges — lateral and vertical — are used to determine the range modifier of one vehicle firing on another.

Certain new weapons are available for choppers and other vehicles. They are listed on the Helicopter Weapons Chart below.

The Vulcan is an ultra-heavy machine gun. Its primary advantage is that contemporary models are baffled so that it is impossible to see where slugs are coming from at night; a helicopter with an infrared linkup and all lights off can stay effectively invisible at night. It may be mounted in any helicopter weapons position, or in any ground vehicle.

Bombs are similar to heavy rockets in size, but are dropped instead of fired. Thus, they can only be bottom-mounted. They explode on impact. If they hit the road instead of a target, immediately place an obstacle counter on the point of impact, and surround with debris counters; this represents the crater which occurs when the bomb hits. In addition, the bomb has a 2d6 blast effect in a 2" radius.

The Heavy Paint Sprayer creates a larger paint cloud; use the new large counters and place one directly under the helicopter. This device (and other dropped-substance weapons) may only be mounted on a chopper's underside. Heavy Oil Jets and Heavy Smoke Screens are functionally identical to

their smaller counterparts, but also use the new quadruple-sized counters. Note that the clouds appear 7½' (½") below the chopper; if the helicopter is within 1" of the ground, its paint and smoke (or any other paint/smoke directly below) will disperse instantly.

Armor

Armor follows normal *Car Wars* rules for placement and how it absorbs damage. As noted before, it may be placed on a helicopter's top, sides, front, back, and bottom, but will protect neither the main rotor nor the stabilizing rotor.

Special Equipment

A wide variety of special equipment is available to helicopters and other vehicles. Where appropriate, these devices may be installed in ground vehicles as well. A representative sampling:

Equipment	DP	Weight	Spaces	Price
Winch	3	100	1	$ 500
Personal Parachutes	4	20	2G	$ 200
Vehicular Parachutes	4	150	3	$ 1,500
Stealth Mode	2	200	2	$16,000
Infrared	—	100	1	$ 4,000
Sound Enhancement	2	150	1	$ 6,000
Sound System	2	100	1	$ 1,000
Skids	—	———	—	———
Skid Stretchers	2	25	0	$ 300
Pontoons	7	50	—	$ 500
Cyberlink	1	100	1	$16,000
Bomb Bay	—	100	1	$ 1,000
Side Door		1000	—	$ 1,000
Radar	—	———	—	$ 2,500
Searchlight	1	50	1	$ 200
Remote Control	—	———	—	$ 2,000

Winches are mechanisms which haul up cargo and personnel on stout cables. They must be mounted on a side with a door (or in the bottom, in the case of a helicopter with a bomb bay), and may only be used when that door is open. The machine consists of a revolving drum mechanism and a 90' (6", game-scale) cord. The mechanism is capable of supporting 4,000 lbs, the cord likewise. The mechanism safely reels out the cord at 1"/second; it will reel it in at 1"/second if the weight attached is less than 1,000 lbs, ½"/second if the weight is 1,000-1,999 lbs, and ¼"/second if the weight exceeds 2,000 lbs. The cable takes 1 person and 3 seconds (6 seconds in the case of a vehicle or similar-sized object) to attach to the object in question. Example: a hovering helicopter can lower one crewman 90' in six seconds. That crewman takes another three seconds to attach the cable to another character being rescued, and then

Helicopter Weapons

Weapon	To Hit	Damage	DP	Price	Wgt	Spaces	Shots	CPS	WPS
Vulcan	6	2	3	$2,000	350	2	20	35	5
Bomb	9	4	2	$ 100	100	1	1	—	—
Hvy Paint Sprayer	—	—	3	$ 800	50	2	10	40	8
Hvy Oil Jet	—	—	4	$ 500	50	3	10	40	8
Hvy Smoke Screen	—	—	4	$ 500	50	2	10	40	20

This diagram shows the location of the spray from a vehicle-mounted Heavy Oil Jet or similar device (A), compared to the spray from a regular oil jet (B).
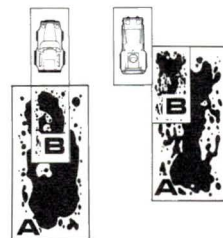
the winch mechanism takes another 6 seconds to reel the two of them up. If he'd attached it to a heavy motorcycle, it would take longer.

The cable of a winch cannot be hit by any weapon except a flamethrower or laser using the area effects rules from *Sunday Drivers;* under those circumstances, it has 10 damage points, and is targeted at a –8.

Personal Parachutes are used when personnel are bailing out of an aircraft. (A person bails out by moving his counter to a square which is not considered floored – i.e., he steps out of the door, off the assault ramp, or through the bomb bay.) Falling rates are described later, but a parachute will not activate in time to save the character unless he bailed out at an altitude of 20" or higher. The parachute opens once the character has fallen for 16", brakes the character's descent for the next 4", and then acts as a hang-glider (explained at the end of the helicopter rules). An opened parachute may only be damaged by a flamethrower; however, it is at a +3 to be hit due to its large size. "2G" means "two grenades' equivalent."

Vehicular Parachutes operate much the same as personal parachutes, but are used when making drops of large crates of supplies or actual vehicles. Vehicles of a weight up to 2,000 lbs can utilize vehicular parachutes. They require a height of 30" or more to operate successfully, opening after 20" of falling and becoming like a hang glider after another 10". They are +4 to hit with flamethrowers.

Stealth Mode is a baffling system for a helicopter's engine and rotors; it enables a helicopter to fly at one-half its speed and acceleration, but very quietly, so that characters more than 2" away or within closed buildings or cars cannot hear the helicopter.

Infrared is a targeting and piloting aid. When using infrared, a helicopter does not need to rely on its own or other vehicles' lights to perform combat or navigation; it operates as though it were in daylight, taking no nighttime modifiers for targeting and not revealing its position (unless it fires a weapon). Infrared takes no space and only ceases to function when the vehicle's power plant is destroyed.

Sound Enhancement is another tool for sneakiness. Whenever the helicopter is using Stealth Mode, its personnel may listen through the walls of a car or through one building wall and hear what is being discussed beyond. It may only "hear" through one building wall, so while it may hear through one wall and listen to persons in the room beyond, it may not hear through the wall beyond *that.*

Sound Systems really have no combat usage. They can be used as a public address system or to broadcast recordings or transmissions to folks within a distance of many blocks. Appropriate music blasted toward targets can enliven any helicopter strike; Wagner is recommended.

Skids are standard equipment on helicopters; any helicopter will have a pair of skids to land upon. Thus, no price is listed for them. To target a skid is at a –8.

Skid Stretchers are man-sized cylinders mounted to a helicopter's skids. Each one "adds" one space of room to a helicopter (it can hold one person without taking up space inside the fuselage). Skid stretchers are unarmored and thus defenseless, and are targeted as though they were pedestrians.

Pontoons are skid mounts which enable a helicopter to land upon water. If one or both pontoons are destroyed, a helicopter that has landed upon water will sink to the point it cannot lift off after three turns. Targeting pontoons is at a –3.

A *Cyberlink* is an advanced targeting computer with a link to the helmet of the pilot or gunner using the weapon. Unlike standard targeting computers, each cyberlink may be hooked up to only one weapon (or two linked weapons). Cyberlinks give the firer a +3 to hit. This cannot be combined with the bonus from regular targeting computers.

Bomb Bays are bottom-mounted doors which are used to drop large equipment. (Use of bombs with helicopters does not require a bomb bay, but dropping vehicles and equipment does. Winches can be used through bomb bays, and personnel can drop through it.) The bomb bay doors are actually the helicopter's bottom armor, so when they are open, the helicopter effectively has no bottom armor. To open bomb bay doors, one crewman of the helicopter must activate them (does count as a firing action); at the end of the *next* turn, they are open. The same sequence is used to close them. Grasshoppers (c.f.) may have bomb bays.
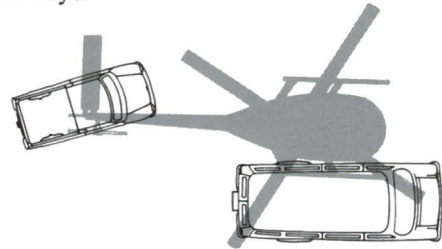
Side Doors are standard equipment on helicopters; standard and transport choppers come with one free side cargo door on the right. However, if you want a helicopter to have a left-side cargo door as well, pay the $1,000 listed. Opening and closing cargo doors is accomplished the same way as opening bomb bays, and an open cargo door means the helicopter has no functioning armor on that side.

Radar is used for navigation, combat, and surveillance in poor-visibility situations (nighttime, fog, light rain, etc.). A vehicle with radar can function normally under those conditions, with no visibility modifiers to hit. However, unlike infrared, radar does not identify objects shown on the screen; they appear only as blips. This is a device used mostly for role-playing scenarios. It works as long as the chopper's power plant works.

Searchlights are used to spot items on the ground (and in the air) during nighttime maneuvers. A searchlight used on a moving object may track that object with a to-hit roll of 3 or more (plus normal modifiers for range, target size, etc., but not darkness modifiers); a crewman is required to operate the light. A searchlight may also be used to blind the driver and crew of another vehicle. With a to-hit roll of 6 (plus normal modifiers), the "gunner" may blind his target, and the target's player must turn away from the board and describe subsequent actions based on what he remembers while he is "blind." He is blinded only as long as the searchlight "hits" him. A blinded character may still fire, but at a –10 modifier; all maneuvers are +D3. Searchlights may be targeted at a –3.

Remote Control Gear can be used to drive any vehicle from outside. The RC Gear's range is limited to the range of the radio in the vehicle being piloted. A remotely-controlled vehicle can

do anything a manned one can do, but its HC is at –3 and it suffers a –3 modification on all "to hit" rolls. RC sending and receiving sets take no weight or space, but *each* set costs $2,000 – thus, it takes $4,000 to pilot any vehicle remotely. (Control signals are encrypted; therefore, under normal circumstances, there is little chance of deliberate or accidental signal interference.) A single set will control all functions of a vehicle – steering, acceleration, all weapons, etc. However, a character piloting a vehicle by remote control cannot do anything else, and cannot do anything by remote control that he could not do in person (i.e., only one firing action per character per turn). A single sending set *can* be modified so that two or more people can use it at once, each for different weapons, to crew a multi-station vehicle remotely. Vehicle-mounted RC equipment is linked to the computer (if any) and is destroyed only if the computer is lost.

If a vehicle has Stealth Mode, Sound Enhancement, Sound System, and/or a Cyberlink (and/or a communications center from *Sunday Drivers*), all this equipment is placed in an Electronics Bay, which goes in front of the motor. Whenever a damage result indicates that the Electronics Bay has been struck, roll randomly between the equipment items in the bay. Only one piece of equipment takes the damage before the rest of the damage moves on, but all of the rest of the equipment has a chance of failing.

Make a Systems Check on each individual piece of equipment. Roll 2d6. On a 2-7, the equipment is fine. On an 8-10, the equipment is damaged, but functional, as per jury-rigging in *Truck Stop*; on any further result of 8 or better, it is destroyed. On an 11-12, it is destroyed.

2.2 Helicopter Movement
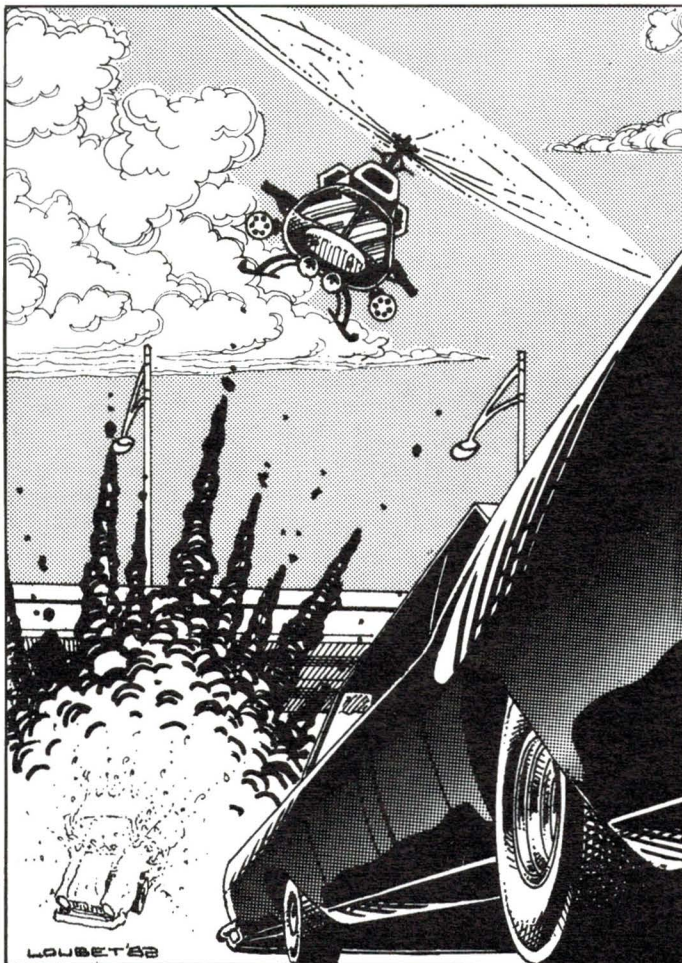
Helicopter movement is a good deal more versatile than ground movement, mainly because there are three dimensions of movement instead of two. Let's learn the normal aerial maneuvers in the simplest order.

A hovering helicopter moves forward exactly as a car does, in 1" increments on the phases shown for the speed. On the following page is a chart showing vehicular movement at speeds up to 200 mph.

Acceleration on the straightaway (i.e., upon a straight flight-path, with the helicopter maintaining altitude) works exactly as per *Car Wars*. At the beginning of a new turn, vehicles reset speeds, moving their record counters to the appropriate speed blanks on the chart above, and then follow that line's phases when moving for the rest of the turn. Accelerations of 5 mph and 10 mph are available to helicopters.

Climbing is fairly easy to handle. For each helicopter, a player keeps a scratch-pad record of the helicopter's altitude, measured in quarters of an inch (i.e., 4¼" meaning 63.75 feet in the air). In order to climb, a helicopter sacrifices ½" of forward movement for ¼" of climb. That is, a helicopter which has the option of moving 2" forward could instead move 1½" forward and climb ¼", or move 1" forward and climb ½". *A helicopter may not climb at more than ½" per turn.*

In order to take off, a helicopter must (a) spend three turns (seconds) warming up, kicking the rotors up to flight speed, etc.; (b) go through one turn at speed 0 while starting the lift-off; and (c) go to whatever speed its acceleration indicates to start the liftoff. (If the acceleration is 5, the vehicle may only lift off ¼" on its first turn. If the acceleration is 10, the vehicle may either move ½" and climb ¼" or just climb ½".) A helicopter down on the ground but not switched off may stay in its warm-up mode, and thus only have to take one second at speed 0 before taking off.

A helicopter may pick up additional acceleration when diving. A too-steep dive can have disastrous effects upon a helicopter, but a shallow dive can safely increase a vehicle's speed.

A helicopter spends a full second diving, moving as many inches as its current speed indicates. For every ½" of altitude the player specifies he has lost, the helicopter picks up 5 mph of forward speed during the acceleration phase of the next turn. Keep track of how much speed is picked up through diving, as this will later have to be offset when the chopper pulls out of the dive. However, a helicopter must accelerate into a dive; the pilot cannot simply go from level flight to a 60' dive and pick up 40 mph of speed, all in one second. A helicopter can pick up 10 mph/turn of acceleration while diving, above and beyond any normal acceleration the helicopter has. Once a helicopter's speed reaches 200 mph, the only way it can accelerate is through diving. (If a helicopter exceeds 200 mph in speed, find its current speed *minus 100 mph* on the speed chart. Move the vehicle in the phases indicated for that speed but add 1" of movement to each phase. Thus, a vehicle moving at 240 mph would move 2" in 1, 3" in 2, 2" in 3, 3" in 4, and so on.)

The aircraft pulls out of a dive by applying some of its speed toward raising altitude – as before, with ½" movement, raising

Movement Chart

On the chart below, the numbers show how far the vehicle moves in that phase. "1" means it moves 1 inch and "2" means it moves 2 inches. Thus, a vehicle moving at 170 mph will move 2" on phases 1 and 2, 1" on 3, 2" each on 4 and 5, 1" on 6, 2" on 7, 8, and 9, and 1" on 10, for a total of 17" in 1 turn.

Speed	1	2	3	4	5	6	7	8	9	10
0										
5					½					
10					1					
15				1			①			
20				1			1			
25			1				1		①	
30			1			1			1	
35		1		1		1		①		
40		1		1		1		1		
45	1		1		1		1		①	
50	1		1		1		1		1	
55	1	1		1		1		1		①
60	1	1		1		1		1		1
65	1	1		1	1		1	1	①	
70	1	1		1	1		1	1	1	
75	1	1	1		1	1	1		1	①
80	1	1	1		1	1	1		1	1
85	1	1	1	1	1		1	1	1	①
90	1	1	1	1	1		1	1	1	1
95	1	1	1	1	1	1	1	1	1	①
100	1	1	1	1	1	1	1	1	1	1
105	1	1	1	1	1½	1	1	1	1	1
110	1	1	1	1	2	1	1	1	1	1
115	1	1	1	2	1	1	◇2	1	1	1
120	1	1	1	2	1	1	2	1	1	1
125	1	1	2	1	1	2	1	1	◇2	1
130	1	1	2	1	1	2	1	1	2	1
135	1	2	1	2	1	2	1	◇2	1	1
140	1	2	1	2	1	2	1	2	1	1
145	2	1	2	1	2	1	2	1	◇2	1
150	2	1	2	1	2	1	2	1	2	1
155	2	2	1	2	1	2	1	2	1	◇2
160	2	2	1	2	1	2	1	2	1	2
165	2	2	1	2	2	1	2	2	◇2	1
170	2	2	1	2	2	1	2	2	2	1
175	2	2	2	1	2	2	2	1	2	◇2
180	2	2	2	1	2	2	2	1	2	2
185	2	2	2	2	2	1	2	2	2	◇2
190	2	2	2	2	2	1	2	2	2	2
195	2	2	2	2	2	2	2	2	2	◇2
200	2	2	2	2	2	2	2	2	2	2

① : *If the vehicle has not yet taken its half-move, it must do so now.*
◇ : *If the vehicle has not yet taken its 1½" move, it must do so now. The 1½" move **must** occur in a segment marked with a "2."*

its altitude ¼". However, in the case of a helicopter which has been diving for speed, that altitude gain first has to offset the dive rate. Another difference is that the dive rate (that number kept track of earlier in this paragraph) is *reduced* 5 mph/½" of "climb." Thus, forward speed slows when the chopper pulls out of dive.

For example, a chopper has been diving and has gained 35 mph of speed through the dive. It can't just "stop diving" – it has to "gain altitude" to offset the dive. An aircraft which has gained 35 mph in acceleration through diving is losing 3½" of altitude per second.

But, in this case, the chopper pilot cannot apply half the vehicle's speed toward climbing. That would put too much stress upon the bird and tear it apart. With a diving helicopter, the player can only put 1" of movement *per turn* toward climb – thus, the character goes to a 30 mph dive at the end of the first second, 25 mph at the end of the second, 20 at the end of the third, and so on until it is at level flight at the end of the seventh turn.

A helicopter *can* lose altitude without diving, at the rate of ½" per turn whether it is moving or hovering.

Choppers can also slow down at 5 or 10 mph/second; they can manage to slow at 15 mph/second if necessary, but must immediately roll on the Helicopter Crash Table.

Now, we have helicopters flying straight, climbing, descending, diving, pulling out of dives, and slowing down. All that's left is Maneuvers and Crashes and the like.

Maneuvers

Maneuvering helicopters, in terms of game mechanics, is just like maneuvering cars in *Car Wars*. During each of its movement phases, a helicopter player may specify a maneuver for the craft. Each maneuver has its own difficulty class (i.e., D1, D2, etc.) which reduces the helicopter's Handling Status for the turn. A helicopter's initial Handling Class is determined by the size of the helicopter; it is modified by the pilot's Helicopter skill and his reflex rolls. (Having Helicopter will not add to the handling class; Helicopter-1 adds one to the vehicle's HC while that pilot is flying it, Helicopter-2 adds 2, etc.) Once the helicopter gets to a certain Handling Status, depending upon the chopper's speed, the helicopter is in trouble and will have to make a control roll, perhaps followed by a roll on the Helicopter Crash Table.

The maneuvers:
Moving straight ahead, while climbing or dropping, takes no HC adjustment.
Diving is a D1 maneuver in any phase in which the chopper moves 2" or more forward.
Veering, shown to the right, is exactly like a bend in *Car Wars*, and is a D3 maneuver. Note that maneuvers made during a 2" movement phase always take place in the second inch of the move. This is true of all maneuvers.
Drifting (a D3 maneuver) is very similar to the ground-vehicle "steep drift."
Rotating (a D2 maneuver) is a fast means of turning around for a helicopter moving at 20 mph or less. On each movement phase, move the helicopter in the direction it had previously been heading, but rotate it 90°. At the end of two phases, it is facing in the opposite direction to its original movement. (It doesn't have to be stopped – see Flying Backwards, below.) 0 mph and 5 mph helicopters may rotate as well, turning 90° each phase.
Flying Backwards has few tactical advantages in *Car Wars* except for aerial maneuvering and takeoffs in uncomfortable

circumstances. A helicopter may fly backwards at up to 20 mph; a helicopter flying backwards may perform Drift, Veer, and Rotate maneuvers as usual, at +D1 for backwards maneuvers at 5 or 10 mph, and +D2 for those at 15 or 20 mph.

These, in essence, are the only maneuvers a helicopter may perform. A chopper would not be able to perform tighter maneuvers, as ground vehicles do; stress would tear it apart.

Helicopter Control Table

(The helicopter control table is identical with the *Car Wars* control table for speeds of 5-100 mph. For higher speeds, see below.)

Speed	3	2	1	0	-1	-2	-3	-4	-5	-6	mod.
105-110	safe	safe	safe	2	3	4	5	6	XX	XX	4
115-120	safe	safe	safe	2	3	4	5	XX	XX	XX	4
125-130	safe	safe	safe	3	4	5	6	XX	XX	XX	5
135-140	safe	safe	2	3	4	5	XX	XX	XX	XX	5
145-150	safe	safe	3	4	5	6	XX	XX	XX	XX	6
155-160	safe	safe	3	4	5	XX	XX	XX	XX	XX	6
165-170	safe	2	3	4	5	XX	XX	XX	XX	XX	7
175-180	safe	2	3	4	XX	XX	XX	XX	XX	XX	7
185-190	safe	2	3	4	XX	XX	XX	XX	XX	XX	8
195-200	2	3	4	XX	XX	XX	XX	XX	XX	XX	8

As you can see, high-speed maneuvers are more dangerous than low-speed maneuvers. A helicopter is substantially less maneuverable than a ground vehicle. However, it is faster and more versatile, so there are compensations.

As with *Car Wars,* you cross-index the handling status of your vehicle with its speed and roll 1d6. If you roll the number shown or higher, you keep control of your chopper. If you roll lower than the number shown, you go to the Helicopter Crash Table and roll 1d6 there, adding the number that appears in the right-hand column of this table. "Safe" means that you cannot lose control at this time. "XX" means that you lose control automatically. Example: A HC 3 helicopter performs a Drift at 140 mph. He must now roll 1d6 and roll a 3 or better to stay in control. He rolls a 2 and loses it. He must now go to the Helicopter Crash Table and roll 1d6 on that table, adding 5 to the roll for his speed.

Hazards

Hazards take effect upon helicopters immediately as they occur, with the result of decreasing the chopper's handling status.

Sample hazards:

Colliding with another aircraft or vehicle: D4.
Enemy fire does 1-5 pts damage: D1.
Enemy fire does 6-9 pts damage: D2.
Enemy fire does 10 or more pts damage: D3.
Stabilizing rotor destroyed or failed: D4.
Pilot injured or killed: D2.

Crashing

Let's move on to that least pleasant part of *Car Wars* movement rules — crashing.

There are, of course, two ways to crash with helicopters. One can simply lose control, or one can run into something (whether flying horizontally or falling vertically). The Helicopter Crash Table refers to the former occurrence. Of course, you will eventually run into some solid object if you don't regain control.

Drifting

Rotating

Veering
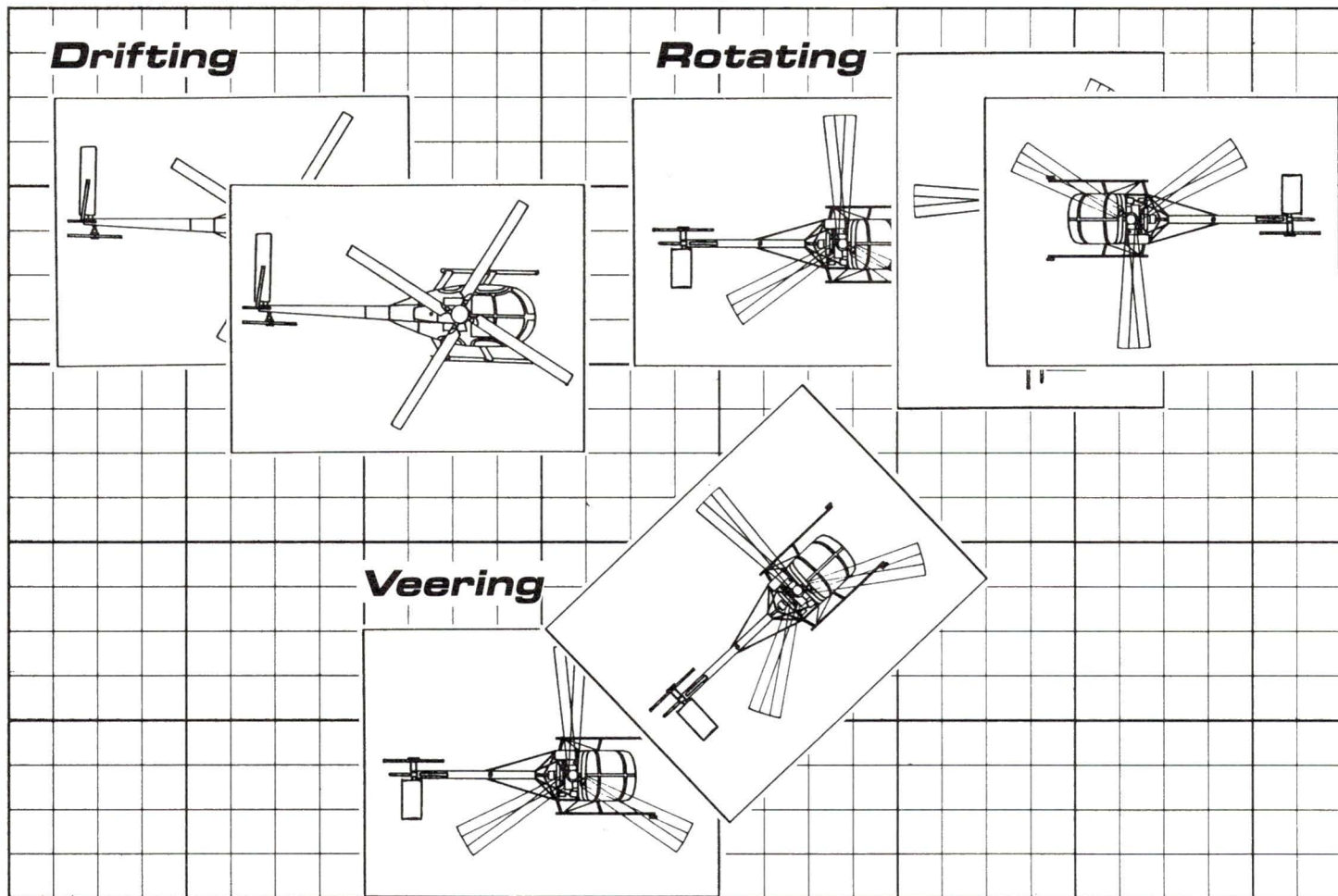
Helicopter Crash Table

Use this table if you lose control as per the Helicopter Control Table. Roll 1d6, adding the modifier indicated on the right-hand column of the Control Table. The result indicates what happens to your chopper on its next movement phase.

-1, 0, 1 . . . *Involuntary drift.* The helicopter performs a drift maneuver in the direction it was maneuvering toward, and loses ¼" altitude. (If it was flying straight, roll randomly for the direction of the drift — 1-3 left, 4-6 right).

2, 3 . . . . . *Involuntary veer.* The helicopter executes a veer maneuver in the direction of its last maneuver (if flying straight, roll randomly as above) and loses ½" altitude.

4, 5 . . . . . *Severe veer.* The helicopter executes a veer maneuver in the direction of its last maneuver. It loses 1" of altitude. Weapons fire is at a -3 this turn.

6, 7 . . . . . *Diving veer.* The helicopter executes a veer in the direction of its last maneuver. It loses 1½" of altitude and is considered diving at 10 mph. In addition, on the *following* movement phase of the helicopter, it *must* perform a drift in the direction of the veer or it will automatically continue the veer. The handling difficulty due to that drift *will* count against handling. Weapons fire is forbidden during the diving veer. Check for Systems Failure: Main Rotor, as below.

8, 9 . . . . . *Spinout.* The vehicle turns 90° to its flight-path at the end of the phase, in the direction of its last maneuver. Check for Systems Failure: Main Rotor. On its next phase, the helicopter will automatically go into a diving veer. Weapons fire is prohibited.

10 and
above . . . . *Automatic Systems Failure:* Main Rotor.

An object in free-fall accelerates at a rate of 32 ft/sec./sec. In *Car Wars,* we consult the following chart to determine how far and how fast something falls, and how much damage it takes when it hits.

Falling Chart	Distance Fallen	Total Distance Fallen	Damage
1st Second	2¼"	2¼"	1d6/1d6-2
2nd Second	4¼"	6½"	2d6/2d6-2
3rd Second	6½"	13"	3d6/3d6-2
4th Second	8½"	21½"	4d6/4d6-2
5th Second	10¾"	32¼"	5d6/5d6-2
6th Second	12¾"	45"	6d6/6d6-2
7th Second	12¾"	57¾"	6d6/6d6-2
8th Second	12¾"	70½"	6d6/6d6-2
9th Second	12¾"	83¼"	6d6/6d6-2

and so on.

Any object which is in free-fall (i.e., has nothing to slow its rate of descent) will take damage according to this table. In the fourth column of the table above, the damage amount to the left shows how much damage the point of impact takes. That is, if a helicopter drops, it will probably drop on its bottom armor; if it is moving at 8½"/second when it hits, the bottom armor will take 4d6 damage. Ignore the effects of crashing damage from *Car Wars;* instead of having whatever damage breaches the armor go on to the next component, apply the second number in the column to *each and every component* in the falling object — humans included. Body armor does not protect from this sort of damage. Thus, our helicopter dropping at 8½"/second impacts, taking 4d6 to its bottom armor. Every other component in the helicopter — front, side, top, and rear armor, engine, weapons, special equipment, etc. — takes 4d6-2 damage. (In other words, don't be inside a helicopter when it hits the ground.)

Use the above method whenever a helicopter (or any other object) crashes into an unyielding surface — such as the ground. (If the helicopter crashes into a car, the helicopter takes damage as described above and the car takes damage based on the speed of impact from normal *Car Wars* rules. If two helicopters crash into one another, treat this as a normal *Car Wars* crash, based upon the relative speeds of the two vehicles. If the helicopters' additive speeds on a head-on equal 180 mph, simply add the 15d6 from a 100 mph collision to the 11d6 from an 80 mph collision, and apply the resulting 26d6 damage as though it were a normal *Car Wars* collision.)

Any time a helicopter crashes or performs a stressful maneuver from the Helicopter Crash Table as indicated on that table, a Systems Check: Main Rotors roll must be made. There is the possibility that the rotors will fail (break, in the case of a maneuver; snap off, in the case of a collision). Note: A spinning rotor blade will do 4d6 damage to whatever it hits.

Systems Check: Main Rotors

Roll 2d6   Effect

2-7 . . . . . . *No effect.* Rotors are still in working order.

8-10 . . . . . *Rotors damaged.* Roll on this table every turn during the speed-setting phase, and consider any result of "rotors damaged" to mean "rotors fail."

11-12 . . . . *Rotors fail.* Helicopter drops like a stone. Bon voyage.

Modifiers:
+1 to the roll: Helicopter is moving faster than 80 mph, up to 120 mph
+2: Helicopter is moving 121-160 mph
+3: Helicopter is moving 161-200 mph
+4: Helicopter is moving faster than 200 mph
+1: Engine damaged
+4: Rotor damaged by weapons fire

Safe "falling" speed is 5 mph, or ½"/turn. No damage occurs to an object falling at ½"/turn, and parachutes land people and large equipment at ½"/turn. Between ½"/turn and 1"/turn, objects take 1d6 damage. When people fall, body armor does not protect against falling damage.

If a helicopter's engine fails but its rotors are still intact, it still has a chance of safely descending. Its forward momentum decelerates at 5 mph/second, and it drops ½"/turn. It must roll on the Helicopter Crash Table at the beginning of every turn.

2.3
Combat

In combat, a helicopter may target anything within its arc of fire. It may be targeted by an attacker who is within the theoretical line of fire of one of its sides, and on that side only. In other words, if a helicopter can target a vehicle with its right side, that vehicle can fire upon the helicopter's right side. If the helicopter can target with both its underside and left side, the target may return fire upon both underside and left side, as it chooses.

Ground vehicles suffer some of the same arc-of-fire problems as helicopters. Obviously, a front-mounted weapon cannot target something directly overhead. Vehicular weapons can target any object that is *farther away than the difference in their altitudes.* That is, if Helicopter A is within Car B's normal arc of fire, and is 5" away and 4" up, Car B can hit it. If, however, it is 4" away and 5" up, Car B cannot hit it.

If two vehicles are at different altitudes, add their two range modifiers together to get the correct range modifier for any shot. The "pointblank" range modifier is only correct if *both* ranges are pointblank.

Hand-held and tripod-mounted weapons effectively have no such problems — they may be pointed at any target, no matter the angle of fire. (If using these rules with *Sunday Drivers,* use these instead of the *Sunday Drivers* rules, and consider each building floor to be ¾" tall. In other words, a car 2" away from a three-story building cannot fire at a pedestrian on a third story roof — 2" is less than 2¼", and thus the distance is less than the difference in their altitudes, so the car cannot hit the pedestrian.)

Under these rules, apply no *Sunday Drivers* to-hit modification for the difference in altitudes of target and attacker.

Also, there are two new types of weapons mountings available to ground vehicles. Weapons can be top-mounted, observing the same arc-of-fire limitations as a bottom-mounted copter weapon. There is also a "universal" turret available, which will allow a turret to fire in a full hemisphere — as right, left, front, back, *and* top-mounted (or bottom-mounted, with helicopter) arcs. This upgrade costs $1,000.

Location of Damage

As with *Car Wars,* the location of damage is controlled by the part of the vehicle that was hit. In other words, if the front armor was hit, then the front armor takes damage, then whatever was behind it, then whatever was behind *that,* and so on.

Front: Front armor, front-firing weapons; pilot or co-pilot/gunner; electronics bay; motor; cargo; back weapons; back armor.

Back: As above, but in reverse order.

Right: Right armor (door); right-firing weapons; roll between pilot, co-pilot/gunner, electronics bay, engine, and cargo; left-firing weapons; left armor (door).

Left: As above, but in reverse order.

Bottom: Bottom armor; bottom weapons; roll between cargo, motor, electronics bay, pilot, or co-pilot/gunner; top armor.

Top: As above, but in reverse order.

Skids/pontoons, the main rotor, and the stabilizing rotor must be targeted individually.

Skids are at a -8 to hit; pontoons are at a -3. If one or both skids/pontoons are destroyed, the helicopter will gracelessly fall over on one side (1d6 damage to that side) when it lands, and the main rotor will break.

The stabilizing rotor and main rotor are at -6 to hit. In addition, any hit upon them, from any weapon, does ½d6 damage. (Most of the effect of any weapon attack upon a rotor will go into empty air.) If the main rotor is destroyed, the helicopter drops. If the stabilizing rotor is destroyed, the helicopter goes into an involuntary and unending series of counter-clockwise Rotate maneuvers, which will only cease when the helicopter is stopped. The pilot must make a Control roll during the first movement phase of every turn, and the helicopter's rotating maneuvers *do* count against its handling class.

Dusting

Another handy thing a helicopter can do during combat is "dust" a ground vehicle. If a helicopter drops to within 1" of a ground target over any terrain but the most scrupulously cleaned arena asphalt, the area is "dusted" — the rotors kick up a nasty cloud of dust, gravel, trash, and other materials, with the basic effect of a very large smokescreen. Put down a smokescreen directly under the helicopter in the pattern of the heavy smokescreens described earlier. This cloud stays under the helicopter as long as it's within 1" of the ground, moving wherever it moves, and is otherwise like a smokescreen in all respects. The "dusting" extends upward ½" from the ground.

Line of Sight

Any time there's a question about whether an attacker can "see" a target in the vicinity of blocking terrain, use the following simple method to determine whether or not a shot is possible.

Put one finger at the height of the altitude. Put another at the height of the target. Since this probably engages both your hands, have your opponent place a finger at the height of the top of the obstructing terrain. Does a straight line from the attacker to the target pass under the top of the obstruction? If so, the target cannot be hit.

Skills

Certain skills are necessary for a *Car Wars* campaign utilizing helicopters.

Helicopter: This is the skill used in piloting one of these aircraft. Without the Helicopter skill, one cannot even turn the engine on, much less fly the craft. Helicopter-0 gives you the ability to fly the craft; Helicopter-1, a +1 to the craft's HC; Helicopter-2, a +2; and so on. As with *Car Wars,* 10 Skill Points comprise one "level" in the skill. Skill Points are gained by combat experience as per Driver in *Car Wars.*

Helicopter Mechanic: Operates just like Mechanic in *Truck Stop.* If a character does not already have ordinary Mechanic, Helicopter Mechanic costs 10 skill points per level. If a character already has the regular Mechanic skill, Helicopter Mechanic costs 5 skill points per level until the character has equal levels in both skills. Thus, a character with Mechanic-0, which cost him 10 points, can add Helicopter Mechanic-0 for 5 points. If he then wanted to go to Helicopter Mechanic-1, that would cost 10 points, but if he afterwards wanted to raise his Mechanic score to Mechanic-1, that would only cost 5 points.

Hang Glider/Parachute: Anyone can use a parachute without this skill, but the 'chute will only drop the character safely straight down. With this skill, a character can operate a hang glider (explained momentarily) or use a parachute like a hang glider. Hang Glider-0 costs 10 points and lets a character use one of the craft; Hang Glider-1 adds one to the glider's HC, and so on.

Peculiar Equipment

Hang Gliders are unpowered gliders which can hold one flyer. A pilot must take off from a height to allow the glider to dive for speed necessary to keep the glider moving. The glider pilot runs at full speed for the edge of a 50' (about 3½") or higher cliff or building side and launches himself into the air. Along the straightaway, gliders fly at an average 20 mph. They have a HC of 2. They can observe the same diving and climbing rules as helicopters, but stall at 15 mph; the glider must immediately dive again to achieve a safe speed. Since *Car Wars* has never concerned itself much with weather conditions, we will ignore the question of updrafts and leave the use of hang gliders up to individuals refereeing role-playing *Car Wars* campaigns. Hang gliders may perform Veer and Drift maneuvers, but not Rotate maneuvers.

Grasshoppers are fairly uncommon helicopter/automobile combinations. A Grasshopper consists of a mid-sized car body which is specially modified (for $15,000 extra) to accommodate special helicopter equipment. The equipment consists of a sliding roof panel (no turrets may be mounted on Grasshoppers) from which emerges a folding rotor attachment. The rotor attachment takes one full turn to activate, during which time the roof panel slides back, and the rotors emerge and snap into their full length. For three turns the rotors must spin, and on the fourth turn the Grasshopper may take off at the acceleration determined by its motor vs. weight as per the helicopter rules. A mini-helicopter power plant must be used. The engine takes its normal 8 spaces, plus 1 space for the extra rotor equipment. This leaves only 4 spaces for the driver and any equipment, passengers or weapons he wishes his vehicle to carry. Driver skill is necessary for use of the Grasshopper on land; Helicopter skill is necessary for use in the air. Once in the air, the Grasshopper behaves exactly like a helicopter; the rotor and the stabilizing rotor, which pops out of the trunk, are each at a -6 to be hit, and the Grasshoppers to date have no bottom-mounted weaponry. They have an HC of 2 in the air.

Helicopter Record Sheet

Main rotor _____

Stabilizing rotor _____

Top armor _____

Underbody armor _____

Front armor _____

Left armor _____   Right armor _____

Back armor _____

Helicopter _____   Pilot _____

Size _____   Weight _____

Acceleration _____   Handling Class _____   Cost _____

Extras _____

Extras _____

Notes _____

SPEED TRACK

				-20	-15	-10
-5	0	5	10	15	20	25
30	35	40	45	50	55	60
65	70	75	80	85	90	95
100	105	110	115	120	125	130
135	140	145	150	155	160	165
170	175	180	185	190	195	200
205	210	215	220	225	230	235

HANDLING

		5	4	3	2	1
0	-1	-2	-3	-4	-5	-6

Section Three

3
CAR WARS
Superheroics

In another dimension, in another reality, there's another Earth. It's like the Earth we know, with its duellists, and governments laboriously reconstructing themselves, but with one important difference: Superheroes. The garish crime-fighters known to us only from comic books actually did appear in the years prior to World War II, and their descendants and imitators and students survive even today.

So do the supervillains . . .

3.1 Basics

The reciprocal of autoduelling in *Champions* is, of course, superheroes in *Car Wars.*

Let's take this time to define what we know about pedestrians in *Car Wars.*

Movement: Ordinary folk — "normals" in *Champions* terminology — run at 25 mph, which translates to one ¼" square every phase of the turn, instead of the normal phased movement for vehicles. Characters may not move across diagonals when their counters are moved on the square-grid. Running up or down one flight of stairs takes two complete seconds. The 25 mph figure is referred to as their Full Movement Rate.

Combat: Characters may make one attack per turn. They may only attack something if (a) they are within range of the target (within ¼", in the case of hand-to-hand combat; within line of sight, in the case of firing weapons; or within a certain distance, in the case of some super-powers explained later), and (b) have moved no more than half their Full Movement for the turn. (In the case of a normal man, this means 1¼" is half of a character's usual 2½" per-turn movement.) Once a character has made an attack of some sort, he may not move for the rest of the turn. An action that requires a character to move no more than half his movement this turn and freezes him in his square is called a Combat Action. Most attack-type powers hit on a 2d6 roll of 7 or more, and do damage according to the level the character has in the power. An exception is Hand-to-Hand, which hits on a 6 or better. (*Example:* One character punches another. He needs a 6 to hit. He rolls a 5. He gets a +4 to his roll, making it a 9, for being adjacent — at point-blank range. He gets a –3 for striking a pedestrian, just as with normal *Car Wars* rules; net roll, 6, a hit.) A Hand-to-Hand hit from a normal does 1d6–5 damage. Increased damage from certain skills and powers will increase that roll. The skill "Dexterity" will make it easier for characters to hit in Hand-to-Hand and make it more difficult for them to be hit in *any* combat.

Skills: Normals start out with 30 Skill Points with which to buy skills. Each skill normally costs 10 Skill Points per "level" in that skill. Each increased level means the character is more proficient in that skill. In this section of *Autoduel Champions,* *talented* normals get 150 skill points and superhero characters get *300* with which to be built. These skill points can be used to buy all varieties of skills and superpowers. However, certain of these skills and superpowers cost far more than 10 Skill Points.

Leaping: A normal character in full armor, with weapons, can leap 7½ feet (½", game-scale); he simply moves toward the gap at his normal speed, and then crosses his counter across the gap at normal speed. A normal man in no armor (but carrying weapons) can jump 15 feet (1", game-scale); just as before, he moves toward his jump-point at his normal speed, crosses that gap at normal speed, and continues moving on the opposite side for the rest of his turn; then, in the last square he's moved to, he falls down. (If he jumps no further than 7½ feet, he doesn't fall down.)

Standing back up: It takes one full turn to stand back up. On a nasty surface, it also takes a 7+ roll on 2d6 to successfully accomplish, as per the Spikes, Oil, and Mines rules from *Sunday Drivers,* (page 16).

Unusual actions: Any action which a character attempts to perform which is not covered by these rules should be handled by the referee. (If you're running a *Car Wars* superheroes adventure without a referee, you have my sympathy, and you deserve any arguments you get into.) Any action which is too difficult for a character to be able to perform automatically should be based on a 7+ roll on 2d6, with normal modifiers for range, size, etc. Example: Seeing a character in the middle of an empty street would require no roll. Seeing one character among a group of other characters would require a 7+ roll, –3 to the roll because he's a pedestrian, with whatever modifiers are appropriate to the distance (for example, +4 if he was within point-blank range/1", or –1 if he was 4–8" away.), and any other modifiers the referee thinks are appropriate. Sample modifiers:

Circumstance	Modifier
Doing it to a pedestrian	–3
To the side of an oversized vehicle (just use the normal to-hit modifiers for the size of the object in question)	+1
Performing an action without the skill normally required for use of the action (for example, mechanicking without the Mechanic skill)	–5
Chaotic/Confused conditions (hearing a gunshot in an amusement park, seeing a dime in a bucket of nickels, shooting an enemy in a moving crowd of people)	–3
Target is one full square (¼"x¼") in size but less than two squares (not cumulative with Pedestrian modifier)	–2
Target is two full squares but less than four in size	–1
Target is four full squares but less than eight in size	–0
Target is 8+ but less than 16 squares in size	+1
Target is a building (not cumulative with size bonuses above; this presumes an average-size building)	–+10
Target is basketball-sized or has one level of shrinking	–4
Target is saucer/shoe-sized or has two levels of shrinking	–5
Target is grenade-sized or has three levels of shrinking	–6
Target is keyring-sized or has four levels of shrinking	–7
Target is trying to be hit	+3

Example: Carla "Curler" Niedermeyer is throwing a spare (unactivated) grenade to her friend Cadaver Reese across the street, 5" away. To-hit with a grenade in *Car Wars* is a 9. The 5" range means a –1 to-hit modifier. Throwing at a pedestrian would be a –3 modifier normally, but Carla doesn't have to throw *at* Cadaver; she must throw the grenade either into his ¼" square or into any adjacent square, because Cadaver is going to be trying to catch the grenade; since, in HTH combat, he can reach into adjacent squares, he obviously can do so when trying to catch a grenade. Carla's target is a 10+ square area (Cadaver's square and the squares to each side and above it), which is a +1 to hit; thus, the net roll is a 9 or more. She rolls a 10 and "hits." Cadaver now has to catch the grenade (otherwise it just lands in one square of the target area). This is an "unusual action" and thus has a normal 7+ roll to succeed.

The GM assigns the grenade an arbitrary –6 to hit because it's so small. (While a pedestrian is a –3 to hit and a grenade is obviously less than half the size of a pedestrian, the bell-curve nature of the 2d6 roll means that that –6 hurts more than it seems.) He has a +4 because the grenade will be in point-blank range. He has an additional +3 because Carla was throwing it "to be hit." He's at a net +1, and so must roll 6+ to succeed. He rolls a 3 and fails, and the grenade lands in one of the squares of the target area.

Incidentally, catching an object will decrease by half the amount of damage that object would take *if it were thrown to do damage.* However, the catcher himself takes half the damage it would do. A character cannot catch an item he could not normally pick up (see Strength).

Throwing: To pick up and throw an object constitutes a Combat Action; during this turn, the character must have moved no more than one-half of his movement distance. He must be within ¼" of the object or, in the case of characters using Stretch or Telekinesis powers, within the range indicated for that power. As with any other Combat Action, a character may not move any more of his movement distance after he has performed the Combat Action. To pick up the object requires (a) the Strength level necessary to pick it up and (b) in the case of a moving object or person, a "to-hit" roll with normal size and proximity modifiers. The character throws the object in whatever direction he chooses. (If he's throwing it *at* another object, he must make another to-hit roll based on the target's size, proximity, and so forth. A successful roll means that both objects take the damage listed under Strength.)

Other unusual actions, even those not requiring a to-hit roll, generally constitute a Combat Action: You can only perform them if you have not performed more than half your movement for the turn, and can move no further for the rest of the turn after the action is performed. Such actions include kneeling, falling prone, standing up from a kneeling position (standing up from a prone position requires one full turn of doing nothing else), trying to be hit (in which case a character is +3 to be hit by the person trying to hit him, and any other bonuses he gets from Acrobatics or Dexterity skills are not counted), reloading a clip into a firearm, and so on.

3.2
Skill Points

Ordinary characters (normals) in *Car Wars* begin with 30 Skill Points with which to purchase skills. Normal skills cost 10 Skill Points per level to buy. Each level in a skill improves the character's ability with the skill. The skills outlined so far in *Car Wars, Truck Stop,* and *Autoduel Champions* (under the Helicopter rules) include those in the table below.

Skill	Skill pts/level
Cyclist	10
Driver	10
Gunner	10
Hang Glider/Parachute	10
Helicopter	10
Helicopter Mechanic	10
Mechanic	10
Trucker	10

Additional skills will be detailed further on in this section, but let's take a moment to define the types of characters which populate a *Car Wars* world.

The 30-point characters (that is, those who are given 30 skill points when created) are fairly normal individuals, the sort of average joes who concentrate on duelling skills and are generally cannon-fodder. There are 150-point characters, who are our talented normals, who know a wider base of skills and abilities, and function as ordinary heroes — spies, top-notch duellists, adventurers, and so on. Lastly, there are the 300-point super-heroes, the costumed lunatics who cruise the roads and skies in search of really *nasty* situations. It's the individual referee's choice at what level to run his campaign — normals, talenteds, or superheroes. (*Autoduel Champions* does require refereed adventures under normal circumstances. Solo programmed adventures are a possibility.)

Improvement of these skills, once a character has made his initial allotment of points, is discussed under Experience.

Lastly, please note that, for some arcane reason, skills in *Car Wars* begin at Level 0. Thus, someone who has bought just one level in Driver is Driver–0. If he gains another level he is Driver–1, and so on. This can be a trifle confusing if one is prone to forgetting that sort of thing, but it would cause even more confusion to change a long-standing skills system, so it stands.

Damage Skills

The damage system for weapons is explained in *Car Wars* and its supplements. Personal damage, the kind of damage a character can do without weaponry (or with special skills or super powers) is comparatively weak. An unarmed character with no special skills does 1d6-5 damage per hit.

Certain powers and skills will give a character better damage rolls. These skills include Martial Arts, Strength, Density Increase, and Energy Blast, and a character successfully using these abilities will do damage as follows.

Damage Skill Table

Level of Skill/Power	Damage Done
none	1d6–5
0	1d6–3
1	1d6–1
2	2d6–5
3	2d6–3
4	2d6–1
5	3d6–5
6	3d6–3

and so on.

New Characteristics

Characteristics (anyone can purchase)	Cost per level
Dexterity	30
Damage	10

Dexterity. This is an overall bonus to a character's agility and combat ability. A character with Dexterity is at a +1 to hit in hand-to-hand combat (and when using the powers Martial Arts, Energy Blast, Entangle, Flash, Missile Deflection, and Telekinesis) per level of Dexterity (thus, Dexterity-3 means +4 in those skills and powers). He is at –1 to be hit per level of Dexterity. He has +1 personal HC (Handling Class, remember?) when using Flight or Running powers, again per level of Dex. Thus, a character with Dex-2 will be at +3 in hand-to-hand and some powered combat, –3 to be hit whenever he's fired at or struck at, and at +3 HC if he flies or runs very fast. Dexterity grants no bonuses to users of normal weapons.

Damage. For every 10 skill points, the character has one extra damage point (DP). (Damage-3, then, would mean that the character has 4 extra DP, for a total of 7; normals only have 3.) This tends to make characters harder to kill.

New Skills

Skills (anyone can purchase)	Cost per level
Acrobatic	30
Climbing	10
Find Weakness	30
*Handgunner	10
Martial Arts	30
*Paramedic	10

(*: Does not correspond to any skill in *Champions*. Handgunner is the *Car Wars* equivalent of *Espionage's* Familiarity: Firearms. Paramedic is the equivalent of the *Espionage* skill of the same name.)

Acrobatics. To use Acrobatics, the character possessing the skill announces at the beginning of his turn, during the normal acceleration/deceleration notification, that he is using Acrobatics. Through the rest of his turn, he moves only in even numbered phases (2, 4, 6, etc.). He is at an additional –2 to be hit, above and beyond any bonuses for being a pedestrian, having Dexterity, range, etc. He is considered to be performing rolls, flips, dodges, etc. If he wishes to later perform a Combat Action, he should only move in phases 2, 4, and 6. During these wild gyrations, the character may cross really rotten terrain (such as rubble, debris, low walls and fences, intervening vehicles up to van-sized, etc.) at no movement penalty beyond

the penalty mentioned at the beginning of the skill description. Additionally, even when he has not announced that he's doing Acrobatics, a character may, with a 7+ roll, divide by 2 any damage he takes from falling or being hit by vehicles (round down damage; a roll of 7 becomes 3½ or 3). Each additional level in Acrobatics makes it 1 harder to hit the acrobat during his flips, and gives him a +1 when he's rolling to reduce falling and collision damage. A character with Acrobatics-1 will be at –3 to hit when flipping and rolling around and can reduce falling and impact damage on 6+ instead of 7+.

Climbing. This skill adds +1 to the character's chance for success during climbing as per the rules in section 8 of *Truck Stop.* Each extra level adds an additional +1 modifier to his chance for climbing.

Find Weakness. This is a particularly insidious skill. With a 7+ to-hit roll (with standard modifiers for distance, target size and skill, etc.) a character may spot a flaw in his opponent's defenses. This requires the same amount of time as a Combat Action, except that, if a character has not moved *at all* this turn, he may follow up a Find Weakness roll with an attack that turn. If the Find Weakness roll is successful, the character may attack his target, and his attack bypasses half of the target's armor (round down). This means that an Armor 30 area temporarily becomes an Armor 15 area for the attacker. If his attack penetrates the 15 Armor there, the vehicle still has 15 Armor left, but part of the attack made it to the interior of the vehicle (or through the body armor, or through the superhero armor, etc.). Each successful Find Weakness roll lasts for the duration of one of the character's attacks. Once that attack is made, the character must make another Find Weakness roll to do it again. (If a character makes a Find Weakness roll on a building, it means that he creates a breach as per *Sunday Drivers* with only half, rounding down, of the normal damage necessary.) If the Find Weakness roll is unsuccessful, the character may not try another roll on the target for a full 10 turns. Each additional level gives a +1 to the Find Weakness roll.

Handgunner. This is the hand-weapon equivalent of Gunner. With Handgunner, the character may get a bonus when using a hand-held or tripod-mounted weapon. Handgunner-0 gives the character the ability to use any hand-held or tripod-mount weapon at the base to-hit roll (without this skill, the character is at –3 when using the weapon). Handgunner-1 gives a +1 to his to-hit roll, Handgunner-2 a +2, and so on.

Martial Arts. This is one of the Damage Skills mentioned. As per those rules, a character attacking in Hand-to-Hand combat will do 1d6–3 damage with Martial Arts-0, 1d6–1 with Martial Arts-1, etc.

Paramedic. This skill helps save characters' lives when they've been injured. If a character is at 1 DP remaining (ie, he's unconscious), a 7+ roll will bring the character back to consciousness temporarily (a few minutes, referee's option). If a character is at 0 DP (but not below) and is technically dead, and a medic can get to him within 20 turns, the medic can save his life — the character stays at 0 DP, but is alive, and regains 1 DP every two weeks of game-time. With Medic-1, the roll is at +1; with Medic-2, the roll is at +2; and so on.

Superpowers

Champions players reading the powers list below will note that I generally have only listed combat-oriented powers. *Car Wars* is still a combat-oriented game. If you want to have an actual full-range stealthiness/detecting/supercombat comic-book campaign, you should be able to add the other *Champions* powers and skills with the advice given later on in the section. Throughout the following text, I will be making occasional remarks specifically to those players who also play *Champions;* these remarks will be placed in brackets so that non-*Champions* players can more conveniently ignore them.

Note that you can always use a power at less than its listed value. If you can fly at 60 mph, you can also fly at less than that. If you can do 3d6-1 damage with Martial Arts, you can also do 3d6-3, 3d6-5, 2d6-1, and so on. This is something to keep in mind whenever a superhero wants to pull a punch or otherwise perform at less than his all-out ability.

Superpowers (only superheroes can purchase)	*Cost per level*
Armor	30
Darkness	30
Density Increase	30
Desolidification	120
Energy Blast	30
Entangle	30
Flash	30
Flash Defense	30
Flight	30
Force Wall	30
Gliding	15
Growth	30
Invisibility	60
Missile Deflection	30
Regeneration	60
Running	30
Shrinking	30
Strength	30
Stretching	30
Superleap	30
Telekinesis	30
Teleportation	90
Tunnelling	60

Armor. This power gives the character three points of all-around armor. This armor does not go away when it is hit. Armor-0 would be 3 points of armor, Armor-1 would be 6 points, Armor-6 would be 21 points, and so on. (Since *Car Wars* makes no distinction between normal/killing and physical/energy damage, Armor and Damage Resistance and Force Field are functionally the same. In case anyone is curious, in the conversion of Power Points to Skill Points we presumed that each point of the *Car Wars* Armor power was equivalent to 1 point each of *Champions* physical and energy armor.)

Darkness. For every 30 points, the character may project one smokescreen the size of a regular *Car Wars* smokescreen counter; one edge of the counter must be within 4" of the character per level of the power. Thus, with Darkness-0, the character can project one smokescreen counter with an edge within 4"; with Darkness-1, he can project two smokescreen counters with one edge within 8"; and so on. When a character can project multiple smokescreens, the smokescreen counters appear where he wishes, within his line of sight (from *Sunday Drivers* rules); each counter must touch one other projected

smokescreen counter, and the nearest one must be within the range indicated by the level of the power. The smokescreens may be arranged in any pattern, may be stacked (presume that each cloud is ½" game-scale tall), and may be moved at the character's whim as if they were a car moving 30 mph. The smokescreen must retain the shape in which it appeared, though. The act of moving a smokescreen around does not constitute a Combat Action, though conjuring one up *is*. A character with Darkness-1 may not conjure up two smoke counters on one turn, maintain them, and conjure up two more the next turn and so have four. He can only maintain the number indicated by the level of the power.

Density Increase. For each level, the character gets 1 extra DP as per the characteristic Damage, and 3 extra armor points. He has Hand-to-Hand damage as per the Damage skills chart of his Density Increase level (thus Density Increase-2 means damage of 2d6-5 in Hand-to-Hand combat). His weight doubles with every level (thus, with Density Increase-0 he weighs 300 lbs; DI-1 means 600 lbs, DI-2 means 1200 lbs, etc.). This is a variable power, so the character with DI-3 could "turn it on" to DI-0, DI-1, DI-2, DI-3, or no power at all. He has the lifting capacity of a character with Strength of the same level. However, in order to fly, he must have as many levels of Flight as he does in Density Increase in use. If he's using Density Increase-2 he must be using Flight-2 to be able to fly (however, he'll then fly just as fast as if he were at Flight-2 normally). A character announces in the Acceleration Phase what level of Density he'll be using for the rest of the turn.

Desolidification. For 120 pts, the character may become intangible, insubstantial; he may not be touched by anything physical. When insubstantial, he may attack, with any of his powers, someone else who is insubstantial. He moves normally according to whatever movement abilities or powers he normally has, except that he moves through walls, vehicles, flying clouds of rockets and bullets, flame-blasts, etc. as though they weren't there. (If he's carrying a hand weapon when he goes desolid, that weapon goes desolid and he can use it on anything else desolid.) This is one skill where multiple levels are comparatively useless. A character announces during the Acceleration Phase whether or not he is desolid that turn. [If you are converting from *Champions* rules, assume that the character can walk through 6 DP of wall per turn, or 30 DP worth of vehicular armor, per level in the power.]

Energy Blast. This is the ability to project some sort of energy blast; when the character is created, the player decides what form that energy blast will take, flames, plasma bolts, ice, winds, or whatever. The character rolls 7+ to hit with normal modifiers for range and target size. This is one of the aforementioned Damage Skills, and does damage according to the chart presented earlier; use of the power constitutes a Combat Action.

Entangle. The character projects a chemical, net, or energy web of some sort (with special appearance chosen as per Energy Blast). He projects it in exactly the same way as a Darkness projector throws Darkness; to represent the entangling substance, use a paint cloud. Entangle-0 means one counter up to 4" away, etc, as with Darkness. The entangling substance has DP equal to 1d6 per level of Entangle; Entangle-2 means the character rolls 3d6 for the DP of each of his three entanglement counters. If the character is aiming for another character or vehicle, he makes a 7+ to-hit roll to place the entanglement on the target (if he hits, the target is stuck in the entanglement; if

he misses, the entanglement still appears where he wants it, but the character is not considered entangled in it, and can move off it from the nearest edge. If he moves further into it, he *is* entangled.). To break free of an entanglement, the character must do damage to the entanglement in excess of its DP, exactly as though it were a slab of armor. Any sort of Hand-to-Hand damage will begin to wear away the entanglement, as will vehicular weapons and super-powers and so on. Each counter of an entanglement must be destroyed individually. If several entanglement counters are stacked, and a character is trapped in one, he is only trapped in the one counter; when it is destroyed, he is free. Unlike Darkness, an Entanglement-projecting character may not move his entanglement around. However, he may project a new batch on the board every turn, and the counters do not fade away within the course of a game. A character can, only when he is created, define his entanglement as being Soft (webbing, net, energy field, etc.), where collisions with the counter do only ½ normal collision damage to the object running into it or the entanglement, or Hard, where collider and entanglement both take full damage. Use of this power constitutes a Combat Action.

Flash. With a successful 7+ to-hit roll, the character may blind all characters in one vehicle or all characters in a ½" by 1" area of the character's choice (within line-of-sight) as per the Searchlight description in the Helicopter rules. The effect lasts one full turn per level the character has in the power. Thus, a character with Flash-2 will blind his targets for 3 full turns/seconds. Use of Flash constitutes a Combat Action.

Flash Defense. This power keeps a character from being blinded by searchlights or Flash. For every 30 points, the character may subtract 10 turns from the time he would ordinarily be Flashed. He may also stare into the sun or into a searchlight with no difficulty. Use of Flash Defense is not a Combat Action and does not require an announcement that it's on.

Flight. With this power, the character can fly, utilizing the rules and maneuvers from the Helicopters section of this rulebook, at 20 mph per level of Flight. Attacking while utilizing

Flight will not freeze the character in his square; he ignores the movement restrictions from Combat Actions while flying. The character announces accelerations, decelerations, etc. exactly as do helicopter pilots. Flying characters start with a handling class of 5 and can gain additional HC with the Dexterity characteristic.

Force Wall. This power erects a wall of energy which acts as ordinary *Car Wars* armor. For each 30 points, the character gets one 1" line of force projected within 4", as per Entangle and Darkness. (Use barricade counters – 1" by ¼" – from *Car Wars Expansion Set 1* if you have them, otherwise make your own.) Each counter is worth 1d6 armor per level of power the character has. The counters are worn down and broken through just like Entanglement counters. Force Wall-1 would mean two 2d6 armor counters with one within 8"; Force Wall-2 means three 3d6 armor counters with one within 12"; and so on. Creation of a Force Wall constitutes a Combat Action.

Gliding. With this power, a character can glide at 20 mph (instead of running at 25; but though you're slower, you're more versatile), moving as per hang gliders in the Helicopter rules. A character with Gliding ignores the half-move Combat Actions restriction as Flight does. A Gliding character starts with a HC of 2; Dexterity helps.

Growth. For every 30 points, the character can get twice as heavy (as with Density Increase), gain 1 DP, and get ¼" (3.75') taller per level. Per level, he adds 5 mph movement when running, moving as a vehicle, but he has to obey the half-movement-for-a-combat-action restriction. Per level, he is +1 to hit in Hand-to-Hand combat and he is +1 to *be* hit in *any* sort of combat. For every two levels of Growth, the character has increased his effective Hand-to-Hand range by ½". (A character with four levels of Growth can hit someone 1¼" away in Hand-to-Hand combat, although someone must move adjacent to his counter to hit *him* in Hand-to-Hand.) A character must announce that he is growing in the Acceleration Phase if he is changing size, but may grow his full amount or shrink down to normal size all during that phase. This does not constitute a Combat Action.

Invisibility. For 60 points, the character may become invisible; remove his counter from the board. The referee keeps track of where the character is, as per the character's wishes and ability to move. Only one level is necessary to have the power. A character becomes invisible and reappears in the Acceleration Phase of a turn; this is not a Combat Action. When a character is attacking a square (he thinks that) an invisible character is in, he attacks at a –8. A character within the blast radius of any appropriate weapon will take blast damage normally. [If you are converting *Champions* to *Car Wars*, you can add the various extra degrees of invisibility with the point-conversion advice given later.]

Missile Deflection. With a 7+ roll, a character may deflect any power or weapon attack thrown his way. Missile Deflecting is a Combat Action. If a character is being fired upon more than once in a turn, he may roll to deflect each successive blast/bullet at a progressive –2 to his roll (-2, -4, -6, -8, etc.). In the case of a weapon item with a blast radius, the character deflects the weapon 2" away in a random direction (referee's determination). A character may not deflect something that weighs more than half of what he could normally pick up. Each successive level gives the character a +1 to his roll to Missile Deflect, as does Dexterity.

Regeneration. If a character has been hurt or has sustained damage, he regains 1 DP every *third* turn after he was hurt, during the Acceleration Phase. This takes no action and no concentration. Each level adds 1 to the number of DP regained every three turns. This power may not bring a character's DP up higher than its normal level.

Running. This gives the character the ability to run at car-like speeds. For 30 points, the character may run at 30 mph, moving on the phases a car of the same speed would. He has a HC of 5. For every subsequent 30 points/level, the character can run 10 mph faster, with no theoretical speed limit. (He uses the Control Chart for speeds of 100+ mph from the Helicopter rules if he can run that fast, however.) He performs maneuvers as cars do, brakes as a car does, etc. He does not have to move only half his movement to perform an attack; he can perform his full move and still launch an attack. He ignores curbs, chains, and debris on the roads as pedestrians do, but declares acceleration/deceleration and the like when cars do. A running character who "crashes" — falls down without running into something — will take damage as though he'd bailed out of a car moving the same speed, but he will not "burn" if a crash result indicates that result. [**Champions** players take note; this is not an adaptation of the **Champions** running rules, but rather an inclusion of a super-running power.]

Shrinking. For every 30 points/level, the character can become 50% smaller. He is harder to hit, as per the chart under Unusual Actions; with Shrinking-0 he is -4 to be hit, with Shrinking-1 he is -5, and so on. He also runs at 5 mph slower per level of shrinking, moving in phases cars of a similar speed move. (At Shrinking-4 and above, the character moves one ¼" square per turn, in Phase 7.) The character loses no DP, Hand-to-Hand damage or strength from any of his other powers or abilities. Shrinking is announced and occurs during the Acceleration Phase of the turn and does not constitute a Combat Action.

Strength. This is a measure of super-strength in a character. A character with Strength does Hand-to-Hand damage as per the Damage Chart for relevant skills, and can also pick up great heavy objects.

The chart below shows weight lifting capacities with characters possessing varying levels of Strength. Normals are presumed to be at Strength-/-2; Talented Normals are presumed to be at Strength-/-1.

(Strength-/-2)	200 lbs lift capacity
(Strength-/-1)	400 lbs lift capacity
Strength-0	800 lbs lift capacity
Strength-1	1,600 lbs lift capacity
Strength-2	3,200 lbs lift capacity
Strength-3	6,400 lbs lift capacity
Strength-4	12,800 lbs lift capacity

and so on.

With super-strength, a character can throw things at distances determined by the Strength used compared to the Strength needed. A character can throw an object 2" for every level of Strength he has *over* the level needed to pick up the object. *Example:* A superhero with Strength-4 wants to pick up and throw another character; that character weighs 150 lbs, as all normal humans are presumed to. To pick up a normal would ordinarily take Strength-/-2; our hero has 6 levels of Strength more than he needs to pick up the character. Thus, he could throw the character 12" (180' in real life).
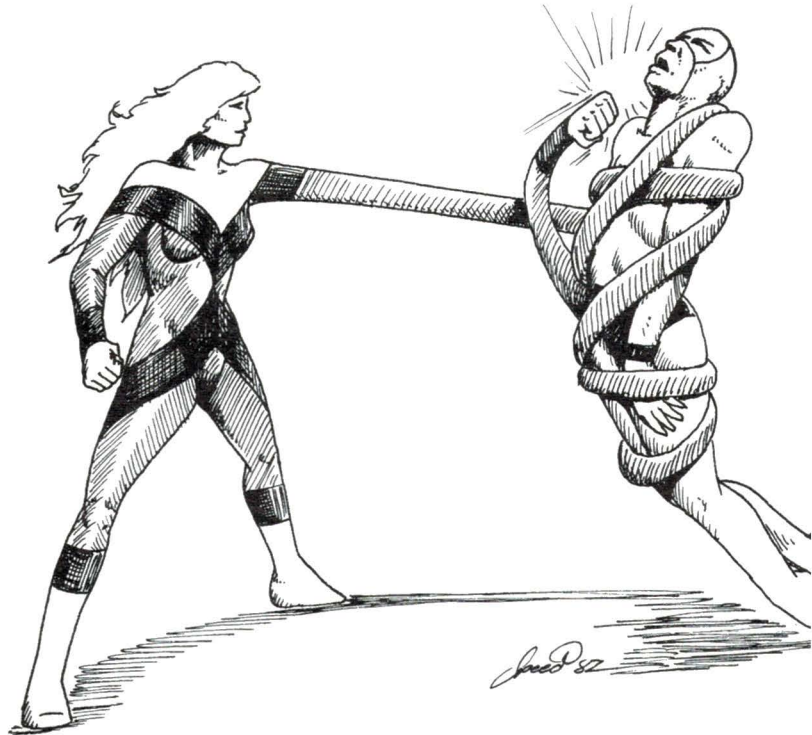
Characters and character-sized or larger objects take damage from being thrown based on their weight and the distance thrown. Find the Strength necessary to pick up an object and find out from the Damage Table what kind of Hand-to-Hand damage that Strength would do. (Strength-/-2 and Strength-/-1 both do 1d6-5 damage.) This is the *basic* damage the object takes upon impact (*and* the damage whatever it hits takes upon impact).

Find out how far the object was thrown. For every 2" it was thrown, it takes an additional 1d6 damage.

Example: A Strength-3 character wants to throw a 1000-lb motorcycle rig. He needs Strength-1 to pick up the rig, and thus has 2 more levels in Strength with which to throw it, and can thus throw it 4".

Strength-1 does d6-1 damage in Hand-to-Hand combat, so this is the base damage the object will do when it hits. If he throws it less than 2", it will do d6-1 damage. If he throws it 2" or more but less than 4", it will do an extra 1d6 damage, or 2d6-1 total. If he throws it the full 4", it will do an extra 2d6 damage, or 3d6-1. If he's throwing it *at* something, he has to make his routine 7+ to-hit roll modified by the nature of the target and its distance away.

If a character is catching an object which was thrown to do damage, reduce the amount of damage done by 2 points for every extra level of Strength the character has over what he would normally need to pick up the object. This -2/level is applied *after* the half-damage modifier from catching something.

Consider grenades to require Strength-/-5 to throw; thus, a normal man has 3 levels higher than he needs to pick it up and can throw one 6". Heavier objects such as rifles would require Strength-/-4, and heavier still objects such as tripod-mounted weapons, small tables, and the like, would require Strength-/-3.

Additionally, for every level of Strength a character has, his jumping distance is ½" greater; he still moves, when jumping, at ¼"/phase.

Stretching. This power gives its user the ability to stretch, and thus be able to hit something in Hand-to-Hand combat at a greater range. For every level he has in the power, the character's Hand-to-Hand reach is effectively ½" greater. (As noted before, a normal's usual Hand-to-Hand range is ¼".) A character with Stretching-3 would have a Hand-to-Hand range of

2¼" away from his counter. Additionally, a character with Stretching climbs as a character with Climbing at the same level. When computing line-of-sight as per the Helicopter and *Sunday Drivers* rules, assume that the character's point of sighting is anywhere he wishes within his Hand-to-Hand range. When attacking something at range, a character must still observe range modifiers; if he punches someone 4¼" away, he is at –1 to hit.

Superleap. For every level in Superleap, a character may leap 2x his usual leaping distance. For him, leaping is a Combat Action, but he travels at 1"/phase for the duration of the leap. At the end of the leap, as with any Combat Action, the character may perform no other action for the duration of the turn. Unlike normals leaping more than ½", a Superleaper does not fall down when he lands. The character may expend part of his leap going upward; he may leap ½" upward for every 1" of forward leap he chooses to allot to upward direction. A character may end his leap in a Hand-to-Hand attack if he lands within range of another object; this is called a Move-Through. The character does the normal Hand-to-Hand damage he would do to his target *plus* 1d6 for every full 2" he travelled in the leap. Unfortunately, he himself *takes* half the damage rolled from such an attack, while his target takes the full amount. Each successive level in Superleap multiplies his distance x2; a character with no extra Strength, and thus with a ½" normal leap, could buy his way through Superleap-0 (and leap 1"), Superleap-1 (and leap 2"), Superleap-2 (and leap 4"), Superleap-3 (and leap 8"), and so on.

Telekinesis. This power gives the character the ability to move things around at a distance. Telekinesis is not invisible; bands of power can be seen to emanate from the character. The strength of the Telekinesis is equivalent to Strength of the same level in lifting and throwing ability (though if you lift and throw something at a range, you must observe normal to-hit range modifiers, and apply a normal to-hit roll for success). The range at which Telekinesis works is 4" per level of Telekinesis. Use of Telekinesis is a Combat Action.

Teleportation. This is the ability to move instantaneously from one point to another without moving through the intervening distance. For every level, the character can teleport 6" of distance. Teleporting takes one phase's worth of time, and requires one Combat Action. However, a character who has not moved at all during a turn can follow a Teleport with an attack. A Teleport can be accomplished in any direction. Teleporting into a solid object does 3d6 damage to the character, and armor bonuses do not apply.

Tunneling. This is a movement power, and is therefore performed instead of other movement. When a character tunnels, invert his counter (face-side down); he is underground. He tunnels ¼"/phase/level of the power, in whichever direction he pleases. He may tunnel through 2 DP of wall structure for every level he has in the power; presume that asphalt has 2 DP. He may not tunnel through armor. This way, a character with Tunneling-0 can tunnel ¼"/phase through anything up to the density of asphalt. With Tunneling-1, he could tunnel at ½"/phase through anything up to the density of *light* building walls, and so on. He observes normal Combat Action restrictions for movement.

3.3 Experience

With normals and talented normals, the GM should grant experience based on their skill use, as per the skills in *Car Wars* and *Truck Stop*. Additionally, he should give the character 3 extra skill points if the character slogged through the adventure and contributed little to its resolution, or 5 skill points if he did a good job of role-playing and performing effectively. These extra skill points may be used to increase already-owned skills or purchase new skills, at the player's choice and with the GM's approval.

Superheroes get experience differently. They do *not* get the normal experience associated with effective use of their skills as per the *Car Wars/Truck Stop* rules. The referee should, at the end of an adventure, give the superhero character

- –3 pts if the character was much more powerful than the foes he battled
- +3 pts if the character, overall, was about equal to his opponents
- +5 pts if the character was much less powerful than his opponents
- +3 points if the character was in a very long adventure with many encounters
- +3 pts if the character made significant non-combat decisions (figured out a trap, saved a life with the Paramedic skill, etc.)
- +3 pts if the character stayed within the character conception originally described by the player
- –3 pts if the character was poorly played

These points, as with the extra points given to talented normals, will be spent upon existing or new powers and abilities.

To compensate for these extra accumulations of points, a *Car Wars* superhero should not be allowed to utilize normal equipment such as guns, vehicular weapons, and body armor on a regular basis. (On the other hand, if a character wrests away a villain's submachine gun just when it's the only thing which can save the day, and he has the Handgunner skill, why not?)

3.4 Knockback

When cars crash into one another, and when damaging superpowers are used, there is the possibility that knockback will occur. Knockback is the process by which some objects are knocked all over the map by the massive energies of superpowers and vehicular collisions.

When a vehicle crashes into another (unbraced) object such as a person or car (but not as a tree or building), there is a possibility that the target will be knocked backwards in the direction of the crash. The target object will fly backwards ½" for

every full 3 points of damage it has taken. However, heavy objects travel backwards for shorter distances: -½" for every level of Strength it would take to pick up the object. A character with Flight can keep from being knocked back, -½" for every level he has in flight. (If he's hit by a car, for instance, the GM can rule that he's been shoved one square to the side to allow for the car's passage, but the character stays in basically the same place.) Only crashes and superpowers cause knockback; ordinary weapons do not. Martial Arts does not count as a superpower for this.

Characters and objects take further damage from being knocked back exactly as if they were thrown, as explained under Strength.

In a game with superheroes, substitute the following knockback rules for the normal movement effects of Crashing from *Car Wars*. In a game with only normals and talented normals, use the usual rules. If you are using the advanced collision system from the *Car Wars* reference screen, keep on using it: it is highly detailed.

If the target object was moving *toward* the force that would send it into knockback, its knockback is further reduced, -1" per full 20 mph the object was moving.

Example: A 6,000-lb car and a 5,000-lb car collide head-on. The 6,000-lb car was moving at 20 mph and the 5,000-lb car was moving at 30. With a combined speed of 50 mph, both cars take 5 dice of damage to their front ends. Car 6,000 takes 18 points; Car 5,000 takes 23. This would mean that Car 6,000 moves backward (is knocked back) (6 x ½") 3", and that Car 5,000 moves back (7 x ½") 3½". But Car 6,000 would take a Strength-3 to pick up, Car 5,000 likewise, so they would each move back (4 x ½") 2" less. They were each moving forward at a *full* 20 mph each (Car 5,000's 30 mph does not round up to 40), and each move backwards 1" less. Thus, Car 6,000 stops where it is, and Car 5,000 is thrown ½" backwards.

3.5 Campaign Notes

The "real" world of *Car Wars* simply did not produce any superheroes. (Whether or not there ever *were* any, or whether this is simply a continuum where they never developed, is up to individual GMs; in the "official" *Car Wars* universe, they never occurred.) But a superhero *Car Wars* campaign can be set up on any number of pretexts, all up to the GM's discretion. Perhaps the growing American central government has initiated programs to create ultra-warriors to protect individual communities and boost the strike-strength of the armed forces. Perhaps this is an alternate continuum where superheroes first began to appear in the 1930s and are still active 100 years later. Perhaps the GM wants to set up a campaign in the contemporary 1980s where superheroes exist just like in the comic books. Any rationale is good enough. The adventure provided with this section can be played either in a 1980s or 2030s-type era.

A GM who wishes to expand the scope of his campaign with the use of noncombat skills from *Champions* and other *Champions*-related games (such as *Espionage* and *Justice, Inc.*) can use advice from the following section to adapt parts of Hero Games releases to a *Car Wars* campaign. Players of both games should read the following section.

3.6 Adapting from CHAMPIONS

The first thing to note is that there is a rough corollary between skill-point bases and distances in *Car Wars* and *Champions*. One inch in *Champions* (2 meters) is generally translated into ½" in *Car Wars* (7.5 feet). One Power Point in *Champions* usually equates to 3 Skill Points in *Car Wars;* a three-point skill becomes a 10-point skill, a 10-point skill becomes a 30-pointer, etc. Most damaging powers (such as Strength and Energy Blast) presumed that one level equalled 10 Power Points in the power. *Car Wars* superheroes all have effectively a Speed of 12 — they can move in every segment/turn — because monkeying around with the *Car Wars* time-scale would not have benefitted the rules.

A primary difference between the two game-systems that must continually be taken into account is the fact that *Car Wars* makes no distinction between normal and killing damage — it is essentially all killing damage, and it all acts the same. Thus, introducing the characteristic of Stun will not work.

The GM may wish to add an Endurance factor to these rules, though. As they're set up now, a superhero may simply continue to use his powers until he is knocked out or the fight is over. You may wish to add Constitution (each level costs 60 points, provides 20 Endurance pips; each level of CON and Strength give the character 2 points of Recovery, and a normal character starts with a base Recovery of 4), Endurance (each skill point gives 1 point of END), and Recovery (each point of REC costs 5 Skill Points). Recovery occurs during the acceleration phase of every third turn. Superpowers would cost 2 END per 30 Skill Points in the power in use.

Intelligence would cost 30 points per level, Ego 60. Intelligence would give a 7+ perception roll, +1 for every level above 0, and +1 to INT skills per level above 0. Ego would have to be used if ego-based powers came into use. I would recommend that only Mind Control be used of the normal ego skills; it would be considered a Damage Power when its effects were rolled, and the total would be compared against the number of levels of Intelligence the character has in the standard *Champions* mind-control chart. Each level of Mind Control would cost 60 points.

Skills, from any *Champions*-system game, would be bought with the 1 Character Point = 3 Skill Points conversion. Actually, for convenience, figure it this way:

Character Points	Skill Points
1	3
2	5
3	10
5	15
10	30
15	45
etc.	

. Don't worry about extra plusses to the skill-roll in *Champions;* the *Car Wars* equivalent is extra levels in the skill. Skill levels are unnecessary. Generally, a power or skill, if it needs a to-hit or success roll, will have a roll of 7+ in *Car Wars,* with a +1 to hit per level above the first.

Martial Arts can also cover Killing Attack: Hand to Hand in *Car Wars*. Since there is no difference between normal and killing damage here, the distinction blurs.

Use of Power Modifiers should be discouraged, with the exception of Reduced Endurance Cost, which is perfectly legitimate. A +1 advantage to a *Car Wars* power normally costing 30 points means it would cost 60 points, just as in *Champions*.

On Power Advantages: Area Effect gives the power the ability to be used on multiple targets, *at full strength,* as per the multiple target rules from *Sunday Drivers*. Explosive Power Effect means that it has a 2' blast radius at half the damage (round down) indicated to the primary target. Armor Piercing works as per the Find Weakness rules given earlier, with no to-hit roll necessary to activate the power. Attack with No Normal Defense is irrelevent here. Based on Ego Combat Value gives the definite bonus of the no-subtraction line-of-sight range modifier. Invisible Power Effects means precisely what it says, as do Hardened Defenses, Affects Desolid, Range (-¼", as per *Car Wars*), and Usable on Others.

Power Limitations: With Activation, 14– means 4+; 11– means 7+; 8– means 9+. Always On, Endurance Battery, Focus, Increased Endurance Cost, Limited Power, and Limited Uses should work as specified.

Character Disadvantages: Consider one Power Point to be worth three Skill Points, and the extra Skill Points may be used exactly like Skill Points gained through experience. See "Power Limitations: Activation" in the paragraph above for the *Car Wars* equivalents of the activation rolls. For talented normals, one Power Point is worth only one Skill Point.

Special Effects act as per *Champions*.

Armor equivalencies are listed on the chart on page 35.

And the advice on world-building and game-mastering is as applicable to *Car Wars* as to *Champions*. With care and a bit of reworking, you should be able to convert anything you like.

Animal Farm:

A CAR WARS

Superhero Adventure

"Animal Farm" is a *Car Wars* adventure for five or six superheroes with little or no experience. Characters and situations presented here are based solely upon *Car Wars* rules and the superhero rules from this supplement, and do not rely on any extra "converted" *Champions* rules from the conversion advice given.

To The Players

An emergency radio transmission has been picked up by a local autoduellist with a high-gain communications rig. The transmission, which was apparently from an inferior radio or being jammed, was from a local duellist/bounty hunter, Mandolin Jones. She had infiltrated the paramilitary organization of the insidious Doctor Cobalt in quest of the $300,000 reward for his capture. Cobalt, as most contemporary heroes know, is an armored supervillain who has been trying to carve out an empire for himself in the Rockies, though he has bases and interests everywhere. Jones said that she'd managed to find the location of a new nearby laboratory base, transmitted the location, and mentioned that she'd glimpsed Dr. Howarth Kokkelenberg within the encampment — and the transmission was cut off by static.

Kokkelenberg, some of you will remember, was a brilliant radioactivity researcher whose experiments in regulated mutations in animals impressed the scientific community until his disappearance, five years ago. If a man of his talents has been captured by the likes of Doctor Cobalt, that archvillain may have access to scientific breakthroughs which can further his long-term conquest goals.

The duellist who intercepted the message reported it to the local AADA office, which contacted your superhero group. The location broadcast by Jones turns out to be the site of the old Kelly Kennels, a decrepit and recently-closed business on the site of a long-abandoned Air Force Base. Nothing more is known about the site by the local AADA office.

Persons intending to play in this scenario should read no farther.

To The Referee

The site of the Kelley Kennels is shown on the *Car Wars* side of the map bound into the center of this supplement. Below is the key to the map, with numbered paragraphs referring to numbers on the map. If you own *Sunday Drivers,* use MONDO counters for the guards.

(1) These are small gatehouses to the left and right of the only two (normal) entrances into the Kennels. The gatehouses are DP4 each; the gate is DP6; the walls stretching around the perimeter of the Kennels are heavy concrete, and DP8. A guard is on duty at each point marked "X".

(2) This is the main roadway, asphalt, which extends down the center of the base between the administrative offices and the barracks. It is in some disrepair, with weeds overgrowing the ends furthest from the gatehouses. Place guards on the points marked "X".

(3) This is the administrative office of the Kennels, which of course is the base of Doctor Cobalt. Beside the sidewalk leading to the front office is one marked-off parking place; put one mid-sized car counter there. This, as with every other build-

ing on the complex (except the hangar) is one story tall (¾"). The exterior walls have DP6, the interior walls DP3. All doors in the building are unlocked except the one leading to the room with the "o" in it. The "o" represents Mandolin Jones, who has been dragged off and imprisoned. She was discovered several feet away from her smuggled-in radio equipment, so Cobalt doesn't know that she'd managed a broadcast. She's unarmed and unarmored, but if given access to weapons and armor is quite willing to assist the player-characters. She knows that the mercenaries are quartered in Barracks 1 and that there's something unusual in Barracks 4 — the guards don't wander too near, unless they're stationed there, and won't tell about it — but she has never seen what it is. She knows, too, that Cobalt has just recently set up this base; this is why there's no furniture in any building except Barracks 1, and why the base is so underdefended (with only 20 mercenaries and Doctor Cobalt currently in residence). She has seen Cobalt only once; he is quartered in the luxuriously-fitted cargo bay of the Model 2034 Blackwing helicopter there. She has not seen Kokkelenberg since one brief glimpse just before she was captured. There are also two guards in this building, at the "X"s.

(4) This is an unused administrative-type building, with DP6 exterior walls. This would become one of Cobalt's laboratories, and still will if the heroes fail in their quest.

(5) This represents a tiny underground hangar where Cobalt keeps his personal vehicle, a custom-built Grasshopper. A pilot is on duty at all times in the hangar and is in radio contact with Cobalt through the radio gear in his suit. At Cobalt's command, the pilot will throw a switch which will (a) activate the grasshopper's equipment and (b) set up a time-delay trigger in the hangar bay. Four seconds later, the ground over the hangar (actually artificially turfed) will slide into the surrounding ground and the hangar will rise to ground level; its doors will be open, the pilot will be in his seat, and the machine will be ready to lift off. Use the Grasshopper counter provided in the center of this booklet and center it on the hangar floor.

(6) This is Barracks 1. Exterior walls have DP10. Bunk beds have DP4 and weigh 50 lbs each, as does the table shown. Four guards at any given time (except when there's gunfire going on) will be playing cards with weapons near at hand (beside their chairs).

(7–8) These are Barracks 2-3, and are absolutely empty. They have DP10 exterior walls.

(9) This is Barracks 4, where Cobalt's elite mutant guards (Cougar, Ursus, LandCrab, Hawker, Minotaur, and Kangaroo) are quartered. When the heroes attack, Cobalt will be here, in a lab smock. If the heroes reach Barracks 4 before an alarm is sounded, he will pretend to be "the imprisoned Dr. Kokkelenberg"; the mutants will pretend to threaten his life.

(10) This is a runway to the helicopter hangar at (11).

(11) This is the hangar where Cobalt's Blackwing is kept; place a transport-sized helicopter counter on the area indicated on the map. The hangar walls are DP6; the hangar itself is 30' tall (2"). The guards within the hangar both know how to pilot the craft. At the touch of a button in the helicopter's cockpit, the hangar roof will retract against the outside walls (a function taking two full seconds), allowing the helicopter to take off directly.

(12) This once was some sort of athletics field; it's still covered with hideous glow-green artificial turf with occasional streaks of white showing here and there, and with DP5 goalposts at either end.

(13) This is a somewhat overgrown field; any maneuvers performed on it are at a +D1 hazard, and characters on foot move only in even-numbered phases.

Kokkelenberg, in reality, *is* Doctor Cobalt. When the assault on the base starts, he will be in Barracks 4, wearing his helmet down and a laboratory smock over his power armor. His animal-men will rush out of the Barrack once any hint of assault — such as machine-gun fire — is heard. Five seconds later, having radioed his helicopter pilots to power up, lift off, and attack from the air, and having told his Grasshopper pilot to stand by, he will rush to the attack in costume. He will use "Kokkelenberg's" life as a bargaining tool, and if all does not go well in the impending battle, will eventually make a run for it, saving any of his animal-men that he can.

The characters:

Doctor Cobalt/Howarth Kokkelenberg

Movement: *25 mph (normal)* Description: Blue power armor
Damage Points: *3*   with glowing gold piping on
              helmet, down arms & legs

Characteristics/Skills/Powers	Pts	Level	Notes
Armor	120	6	12 pts
Superleap	60	1	8" jump
Strength	90	2	d6–1 damage, 2" jump

Cobalt's Agents

Damage Points: *3*

Characteristics/Skills/Equipment	Pts	Level	Notes
Handgunner	20	1	+1 with hand weapons
Driver	10	0	

Submachine Gun, Body Armor, Heavy Pistol, Three Grenades

Cougar

Movement: *50 mph*   Description: Man-sized bipedal
Damage Points: *3*   cougar-like animal

Characteristics/Skills/Powers	Pts	Level	Notes
Running	90	2	50 mph, base HC 5
Martial Arts	90	2	d6–1 damage
Superleap	30	0	2" leap
Dexterity	90	2	+3 hit, –3 be hit, HC +3

Ursus

Movement: *25 mph (normal)* Description: Small bear with
Damage Points: *6*   humanoid (but furry) hands
              and feet

Characteristics/Skills/Powers	Pts	Level	Notes
Strength	150	4	2d6–1 damage, 3½" leap
Armor	120	5	12 pts worth
Damage	30	2	3 extra points

LandCrab

Movement: *55 mph*   Description: Giant (about 2"
Damage Points: *9*   or 30' tall) crab

Characteristics/Skills/Powers	Pts	Level	Notes
Growth (the 30' size given is his largest size)	180	5	+6 to hit, +6 be hit, 3d6–5 damage
Armor	120	5	12 pts

Hawker

Movement: *40 mph*

Damage Points: *3*

Description: Humanoid with beak and fine feathers growing all over his body and wings

Characteristics/Skills/Powers	Pts	Level	Notes
Flight	60	1	40 mph; base HC 5
Dexterity	120	3	+4 hit, –4 be hit, +4 HC
Martial Arts	120	3	2d6–3 damage

Minotaur

Movement: *25 mph (normal)*

Damage Points: *9*

Description: An enormous black bull walking on two legs

Characteristics/Skills/Powers	Pts	Level	Notes
Strength	180	5	3d6–5 damage, 4" leap
Damage	120	5	6 extra points

Kangaroo

Movement: *25 mph (normal)*

Damage: *3*

Description: Man-sized kangaroo with terrifyingly stereotypical boxing gloves on paws

Characteristics/Skills/Powers	Pts	Level	Notes
Martial Arts	120	3	2d6–3 damage
Dexterity	150	4	+5 hit, –5 be hit
Superleap	30	0	2" leap

The guards stationed by the helicopter have skills Helicopter–1 and Handgunner–0.

All these combatants are dedicated to Cobalt — the agents because he pays them excruciatingly well and because they're scared to death of him, and the animal-men because he's their "father." The mercenaries may run if cut off from their allies and faced with superior numbers; this is a role-playing decision for the GM to make at the appropriate time. The animal-men will only run if Doctor Cobalt attempts to escape.

This is essentially a noncerebral pound-'em-up scenario, but one which will be useful in teaching players the game mechanics and giving them a recurrent villain to contend with. Doctor Cobalt is a cool, calculating sort who simply wants to build a criminal empire in peace, using his genetically-engineered warriors as muscle. He will not be anxious to enter combat, and will call for a mass evacuation if he feels his side is losing. If he manages to escape, it's a cinch that he'll reapper in another few months with a whole new batch of animal-men from his pens in the Rockies.

The car in Area 2 is a stock Joseph Special, no modifications, doors unlocked, keys in ignition. The planning sheets for the Blackwing and the Grasshopper are below.

Alternate Scenarios

Alternate scenario suggestions for *Animal Farm*:

(1) It's a trap on the part of Doctor Cobalt — he's set up this rinky-dink base simply as a deathtrap for the region's only superheroes. He might have let Mandolin Jones leak the base's location, or she might be one of his agents.

(2) Use an assault team of duellists and helicopter pilots instead of superheroes — seven talented normals, up to twenty normals, and about $150,000 in gear should provide an interesting match for Doctor Cobalt's minions.

Blackwing

Vehicle Wt. Capacity	Acceleration	HC	Total $
26,700	10 mph	0	$172,870

Item	Cost	Wt.	Spaces	Total Wt.	Spaces Left	Notes
Body Size	80,000	2000	24+17	2000	24+17	Transport
Chassis Str.						
Power Plant	25,000	4000	16	6000	8+17	Super
Suspension						HC:
Tires						
Driver		150	2	6150	6+17	
Gunner						
Weapon	8,000	500	2	6650	4+17	Laser
Ammo						
Weapon	8,000	500	2	7150	2+17	Laser
Weapon						both lasers mounted
Ammo						front and linked
~~Weapon~~	20,000	1,000	(17)	8150		Luxury Apartment in Cargo Bay
Ammo						
Accessory	16,000	100	1	8250	1	Cyberlink
Accessory	2500					Radar
Accessory	50					Link
Accessory	1000	100	1	8350	0	Bomb Bay
Armor	12,320	5984		14,334		352 pts.
Totals	172,870			14,334		

Grasshopper

Vehicle Wt. Capacity	Acceleration	HC	Total $
5760/6700	5 mph	3/2	$38,220

Item	Cost	Wt.	Spaces	Total Wt.	Spaces Left	Notes
Body Size	600	1600	13	1600	13	mid-sized
Chassis Str.	600					XHvy.
Power Plant	10,000	2500	8	4100	5	MiniCopter
Suspension	900					HC: 3
Tires	2000	300		4400		solid x4
Driver		150	2	4550	3	
Gunner						
Weapon	1000	150	1	4700	1	MG, front
Ammo	500	50		4750	1	
Ammo						
Weapon						
Ammo						
Weapon						
Ammo						
Accessory	15,000		1			Grasshopper Modifications
Accessory		150	1	4900		Passenger Space
Accessory	4000					Targeting Computer
Accessory	2500					Radar
Armor	1120	560				70 pts.
Totals	38,220			5460		

Index

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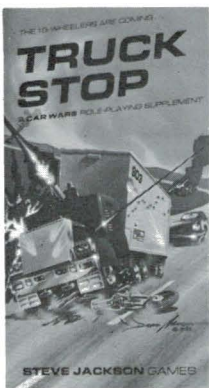
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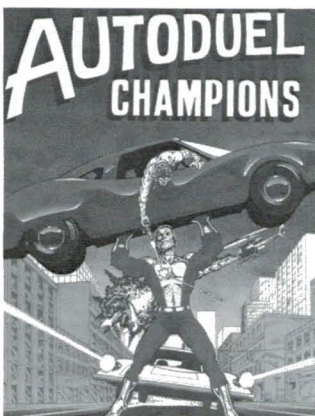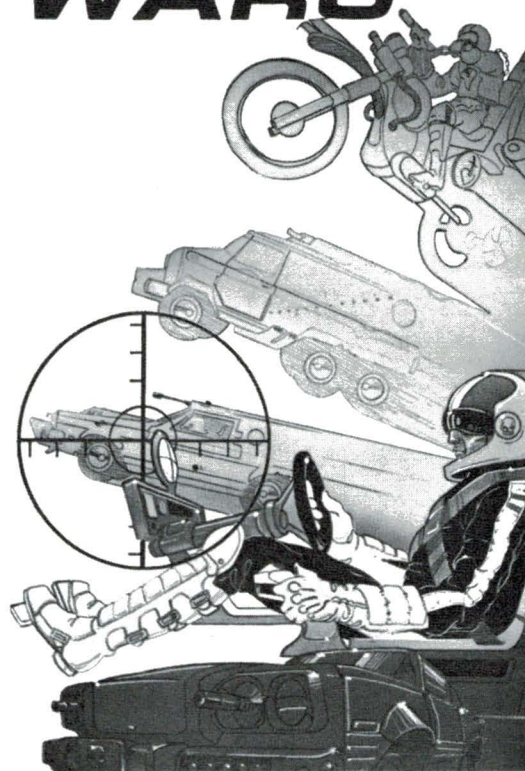
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About the Author

No one but Aaron Allston could have designed *Autoduel Champions*. An Austin resident, Aaron is a founding member of the local AADA chapter; he also designed the first *Car Wars* supplement, *Sunday Drivers*. His *Champions* credentials are equally impressive; he is one of Texas' most notorious referees, and his campaign bears a unique distinction. It is the only one ever thrown out of the SJ Games playtest sessions for being too popular.

Besides reading (and gaming) science fiction and fantasy, Aaron's interests include money, theoretical and applied hedonism, loathesome puns, and the Society for Creative Anachronism. He often attends game conventions, where he may be recognized by his maniacal laugh and his "I Am Not The *Champions* Guru" T-shirt.

In the small amount of time his hobbies leave him, Aaron edits *Space Gamer* and *Fantasy Gamer* magazines. His previous game design credits include *Sunday Drivers* (with Stefan Jones), *Justice, Inc.* (with Steve Peterson and Mike Stackpole) and *Champions Organizations Book I.*

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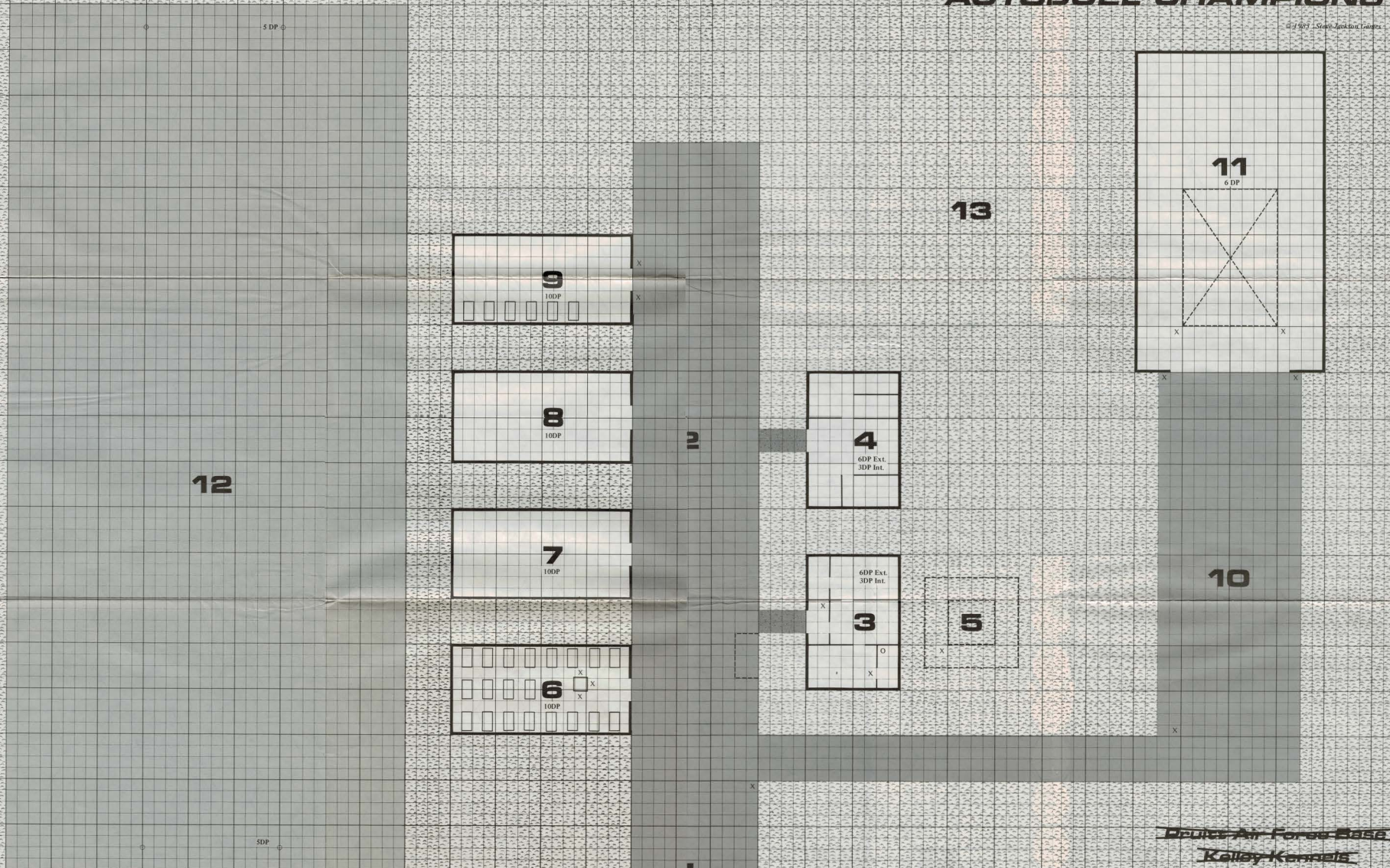
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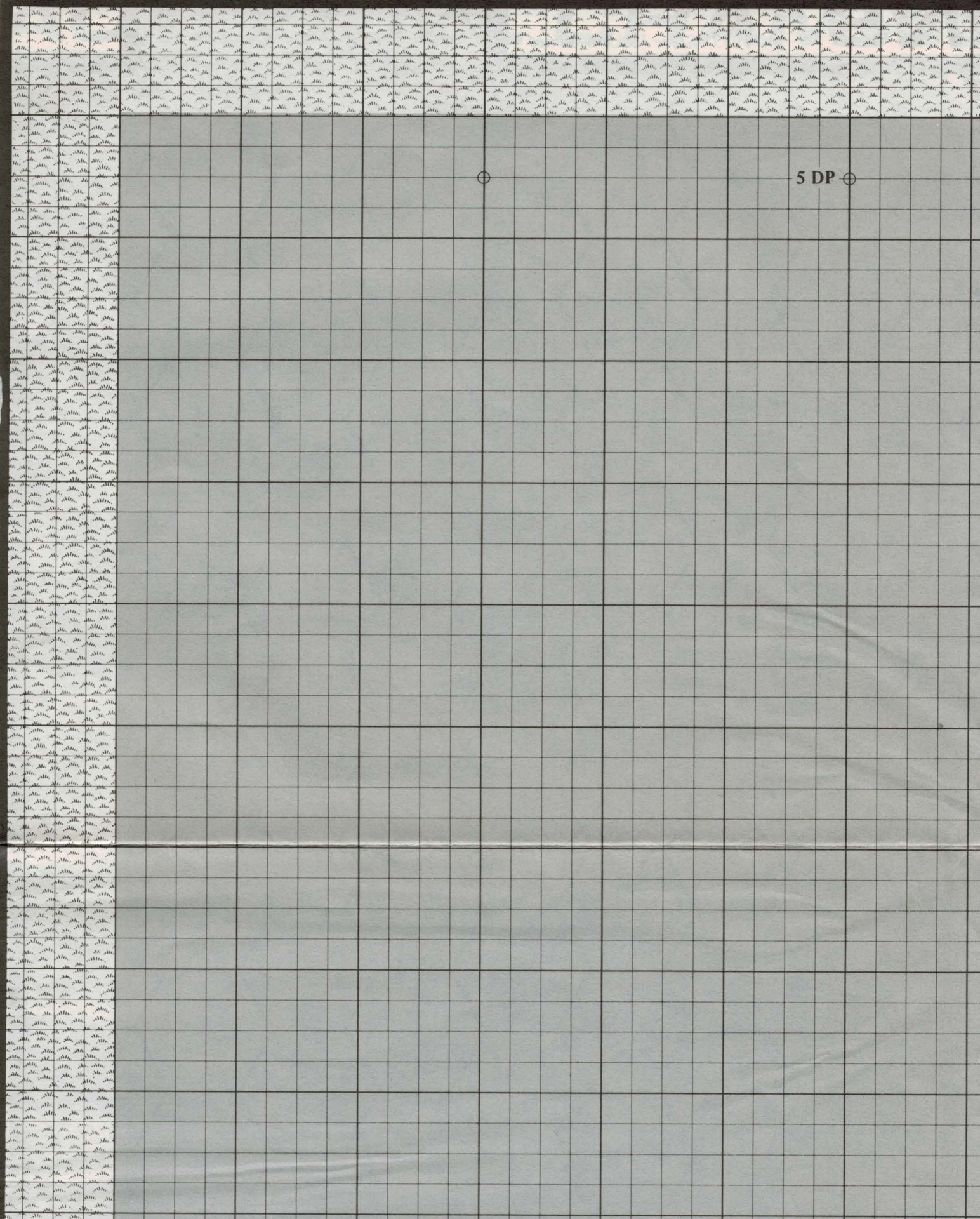*SJ Games / Box 18957-A / Austin, Texas 78760*

CAR A

CAR C

CAR B

DCVM –3

DCVM –4

DCVM –5

CAR I

CAR H

CAR G

CAR F

CAR E

CAR D

CAR 30	
COPTER 1	
COPTER 2	
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CAR A	
CAR B	
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CAR G	

CYCLE B

DCVM –2

CYCLE A

DCVM –2

CAR K

DCVM –3

CAR J

DCVM –4

DCVM –5

DCVM –5

DCVM –5

DCVM –6

DCVM –7

CYCLE D

DCVM –1

CYCLE C

DCVM –1

CAR N

CAR M

CAR L

DCVM –3

DCVM –3

AC-8 Vulf Heinze	AC-7 Black Jesse	AC-6 Crazy Eddie Ferguson	AC-5 Sunshine Callahan	AC-4 Blue Ghost	AC-3 Jerry Cordray (MONDO)	AC-2 Vera Vitale	AC-1 Ranger Ordway

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1 2 3 4

30 30 30

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5 DP

13

11
6 DP

9
10DP

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3DP Int.

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+Walls 8DP

Dr. Cobalt's Secret Lab

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DUEL CHAMPIONS

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11

6 DP

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X   X

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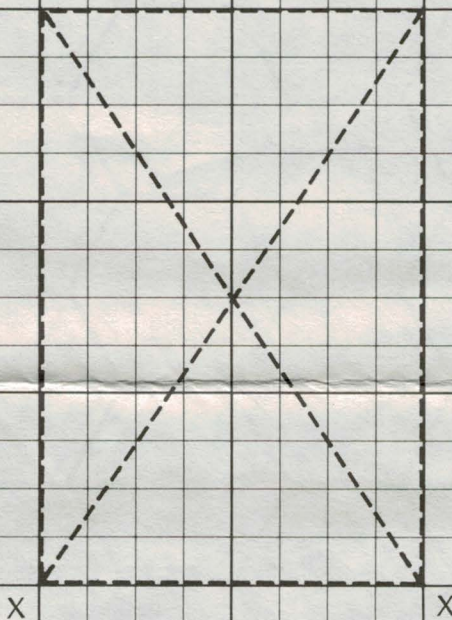
~~Druitt Air Force Base~~

~~Kelley Kennels~~

Dr. Cobalt's Secret Lab