

**And, Of Course,  
It Was Black**



**A  
D  
Q**

**Autoduel  
Quarterly**  
The *CAR WARS*® Magazine

**IN THIS ISSUE**  
Advanced Rocket  
Construction Rules  
Infantry Tactics  
in *Car Wars*  
The Hollywood Bowl  
Plus Our Regular Features

**\$3.50**  
**Vol. 7, No. 3**



# TABLE OF CONTENTS

Vol. 7 No. 3

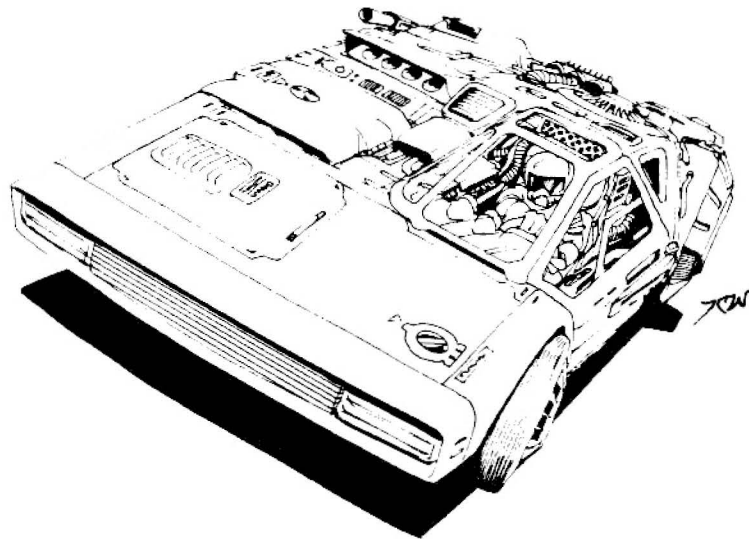
Fall 2039

## Contents

Strafing and Rockets in <i>AERODUEL</i> by Stephen Beeman . . . . .	4
Car Wars Compendium Errata . . . . .	9
The State of the Art, 2039, Part 2 by Charles Oines . . . . .	12
And, Of Course, It Was Black by Joel Mullins . . . . .	15
The Pedestrians Strike Back by Craig Sheeley . . . . .	19
Racing Tips by Craig Sheeley . . . . .	24
AADA 2039 World Championship Report . . . . .	26
Air Raiders II by Craig Sheeley . . . . .	28

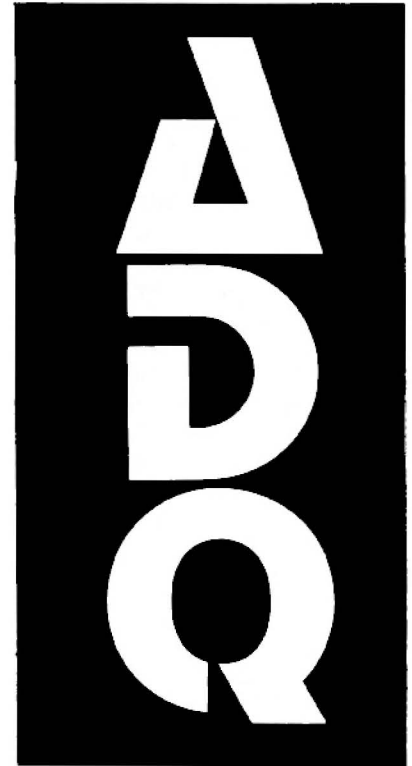
## Departments

Driver's Seat by Charles Oines . . . . .	2
AADA News . . . . .	8
Backfire . . . . .	30
ADQ&A . . . . .	31
ADQ Classified . . . . .	32



*Car Wars, Dueltrack, Car Warriors, Crash City, Truck Stop, Convoy, AADA, Uncle Albert's* and *Autoduel* are registered trademarks and the *AADA* logo is a trademark of Steve Jackson Games Incorporated or are used under license.

*Autoduel Quarterly* (ISSN 0740-3356) is published quarterly by Steve Jackson Games Incorporated, 2700-A Metcalfe, Austin, TX 78741. Please address all correspondence to Steve Jackson Games, P.O. Box 18957, Austin, TX 78760-8957. "Fall 2039" issue published September, 1989. First-class postage paid at Austin, TX. POSTMASTER: Send address changes to *Autoduel Quarterly*, P.O. Box 18957, Austin, TX 78760-8957. All material is copyright © 1989 by Steve Jackson Games Incorporated. All rights reserved. Subscription rates as of September 1, 1989 — In the United States: 4 issues, \$12. Outside the U.S.: please add 50¢ per issue for Canada, \$1 per issue for foreign surface mail. International rates are subject to change as postal rates change. NOTE: All payments must be in U.S. dollars, made by International Money Order or check drawn on a U.S. or Canadian bank. Printed in the U.S.A.



### Editor

Charles A. Oines

### Page Design and Typography

Fred Dare

### Production Staff

Carl Manz  
Kerry Hagen

### Publisher

Steve Jackson

### Managing Editor

Lloyd Blankenship

### Art Director

Valerie Camblin

### Circulation Manager

Norman Banduch

### Art in This Issue

Brad Gorby  
Jason Waltrip  
John Waltrip

# THE DRIVER'S SEAT

Summer is almost past us, there's been a total eclipse of the moon, we've easily got a boxful of Ob-Racing contest entries (see ADQ 7/2 for details), *Boat Wars*, Second Edition has gone off to the printers and will be on the shelves before you read this, the 2039 AADA World Championships are over, first and second place were taken by two River City locals, and I've managed to inflict my mail on my roommate and editorial assistant, who's pretty much wiped out the backlog of letters. Whew. Things seem to be getting back to what passes for normal here at the SJ Games Bunker.

Speaking of *Boat Wars*, I have a short note from Steve on the manuscript:

RE Oil Jets: "No effect in water." Wrong.

- (1) They ruin ducks.
- (2) They calm the water over a small area.
- (3) They infuriate environmentalists.
- (4) They upset people who think they might be FOJs.

-SJ

## Anyways . . .

We've got another packed issue for y'all. Our cover story is a fiction piece entitled *And, of Course, It was Black*, which pretty well sums up the story on its own. If you find that your MONDOs are regularly being pounded by everyone they meet, check out *The Pedestrians Strike Back*, a lecture on infantry tactics in the 2040s, reported by Craig Sheeley. *Strafing and Rockets in Aeroduel* presents a sneak peek at some new, optional rules for *Car Wars*. Catch up with the current computer technology in the second installment of *The State of the Art*. We've also got errata for the *Car Wars Compendium* (subtitled *The Oops from Hell*), with revised weapons tables and most of the other things you expect from ADQ.

Back issue update: We still have

copies of ADQ 3/1, 3/2, 3/3, 3/4, 4/1, 4/2, and everything after 5/3 available at our regular address: Steve Jackson Games, Box 18957, Austin, TX 78760-8957. The price is \$4.00, which includes postage and handling, per issue. Texas residents please add 7¾% sales tax.

## Starting Chapters

We constantly get questions on how to start AADA chapters, and I guess it *has* been a rather long time since we last printed the requirements in ADQ, so here goes:

You need five people who are members of the AADA – that is, five people who have subscriptions to *Autoduel Quarterly*. Fill out the application form on the inside back mailer cover of the latest ADQ (which, I suppose, is this one) and mail it, with a check or money order for \$15.00 (U.S. funds drawn on a U.S. bank, please!) to the AADA, Box 18957, Austin, TX 78760-8957. Please put "Attention: Chapter Charter" on the envelope so we know who to route it to.

For a *sponsored* club (run by a hobby shop or similar), all we need is a copy of either an invoice or a standing order form showing that five or more copies of each issue of *Autoduel Quarterly* are purchased. Subscription numbers are *not* needed. We do require the \$15.00 charter fee, though.

If you don't want to deface your mailer cover and can't make a photocopy, you can just send the information on a plain piece of paper (please write legibly or type, though!). The information we need is:

1. The proposed name of your chapter. It can be as mundane (River City Autoduel Association) or be as strange (Five Neanderthals Out to Rake in Dough – FNORD! for short) as you would like to make it. We only have two rules about names: You may not use the name of any existing organization (like *Prudential Insurance*) or of any chapter that has previously chosen

the name you want; and certain names which are patently offensive or could get us into legal trouble will not be allowed.

You should give us your second choice of chapter name, just in case.

2. We need the names and membership numbers of the five founding members of the chapter (in the case of a private club) or the aforementioned invoice/standing order form from your sponsor. We do accept subscriptions along with charter payments; if you are subscribing at the same time you start your chapter, or if you have only recently joined the AADA and you don't have a membership number yet, just write "NEW" instead of a membership number and we'll check our records.

3. You need to designate one of your members as chapter president. He (or she) is our point of contact with the chapter, and any club materials, play-test materials or correspondence we send out will be sent to your president. (It's traditional to elect the chapter president by combat – but, of course, it's up to you!) For a sponsored club, the sponsor will assume the position of club president. New member packets for sponsored chapters are sent directly to the president to be handed out.

-Charles A. Oines



# Fifty Years Ago Today

## The LA Freeways Come to England

A maniac driver attacked a stranger's car with a baseball bat as they sped along a motorway. When the astonished victim pulled on to the hard shoulder, the maniac followed him and smashed every window in the car.

The amazing attack happened as sales director Russel Bayliss was driving his Volvo Estate along the M3 near its junction with the M25 southwest of London. Mr. Bayliss was in the fast lane when a Ford Transit van came up behind, flashing its lights. The van rammed the rear of the Volvo, then moved into the middle lane. The driver leaned out and hammered the Volvo with the baseball bat. When the vehicles stopped on the hard shoulder, 38-year-old Mr. Bayliss cowered inside his car as the van driver tried to demolish it.

After the motorway madman left, Mr. Bayliss sought help at a pub in Chobham, Surrey.

Landlord Larry Carty said yesterday: "When I saw the car, I could hardly believe it. Mr. Bayliss looked as if he had seen a ghost."

Mr. Bayliss, who lives near Alton, Hants, said last night: "It was terribly upsetting."

—Transcribed from the *Daily Mirror*, November 29, 1988

## But is a 'Possum a D1 or a D2 Hazard?

Highway tag – the practice of running over small, furry creatures with oversized pickup trucks – has been a favorite pastime of good ol' boys in the South for as many years as there's been trucks. But this "hobby" has taken on a new (and dangerous) twist.

Environmental extremists and animal rights activists are fighting back for their four-footed friends of the forest – armed with plastic explosives, contact detonators and fake fur, these "wascally wadicals" are setting traps for the unsuspecting drivers.

"I never seen nothin' like it," admitted Billy Joe "Bubba" Johnston. "I was drivin' along in my Chevy and saw this 'dillo in the middle of the road. Now, me and Betty Sue thought we'd have a little fun and swerve toward it. Next thing you know there's a huge BOOM and my front tires had been blown off!"

Reactions to this tactic among local politicians have been mixed, and the police are "looking into the matter."

— Transcribed from the *Lubbock Sentinel*, September 22, 1989.

---

## Car Wars Editor Needed!

### Job Description

Steve Jackson Games is now hiring to fill the vacancy caused by the departure of Charles Oines. Job responsibilities include editing *Car Wars* products such as *Autoduel Quarterly*, arena books, vehicle guides, boxed games (like *Boat Wars*), and editing *GURPS* products such as *GURPS Autoduel* and Road Atlases, and occasional on-the-clock writing.

This is a full-time position, and would require relocation to Austin, Texas. Benefits include full medical insurance, paid convention travel, a profit-sharing program and a chance to shape the most popular car combat game in the world!

### Requirements

The desired applicant will have three or more years experience editing in a professional environment, preferably a newspaper or a magazine. No degree is necessary, but each two years of college-level journalism work will be counted as one year of experience. The applicant must be a fast worker, organized, and very deadline oriented. Gaming experience is not absolutely necessary (but why are you reading *ADQ* if you aren't a gamer?). However, the applicant must be not only willing, but enthusiastic, about learning both *Car Wars* and *GURPS*. Computer experience is a must, with preference given to MS-DOS background (especially Ventura Publisher 2.0 and Xy-Write III+). Finally, the qualified job seeker must enjoy corresponding with *Car Wars* fans around the world.

### Other Notes

If you are an amateur writer, or just someone who *thinks* they can do the job, please don't apply. We are looking for skilled professionals, not enthusiastic novices (but we *are* always looking for articles from new writers!). To apply, please send a resumé describing your background and experience (with references, please) to:

Loyd Blankenship, Managing Editor  
c/o Steve Jackson Games  
PO Box 18957  
Austin, TX 78760

Steve Jackson Games is an Equal Opportunity Employer



# Strafing and Rockets in AERODUEL

By Stephen Beeman

*Editor's Note: These rules (or rules like them) will be officially introduced in **Aeroduel**. For regular ground duels, consider these rules to be official variants – use them or ignore them at your leisure.*

## Multifire vs. Shell Weapons

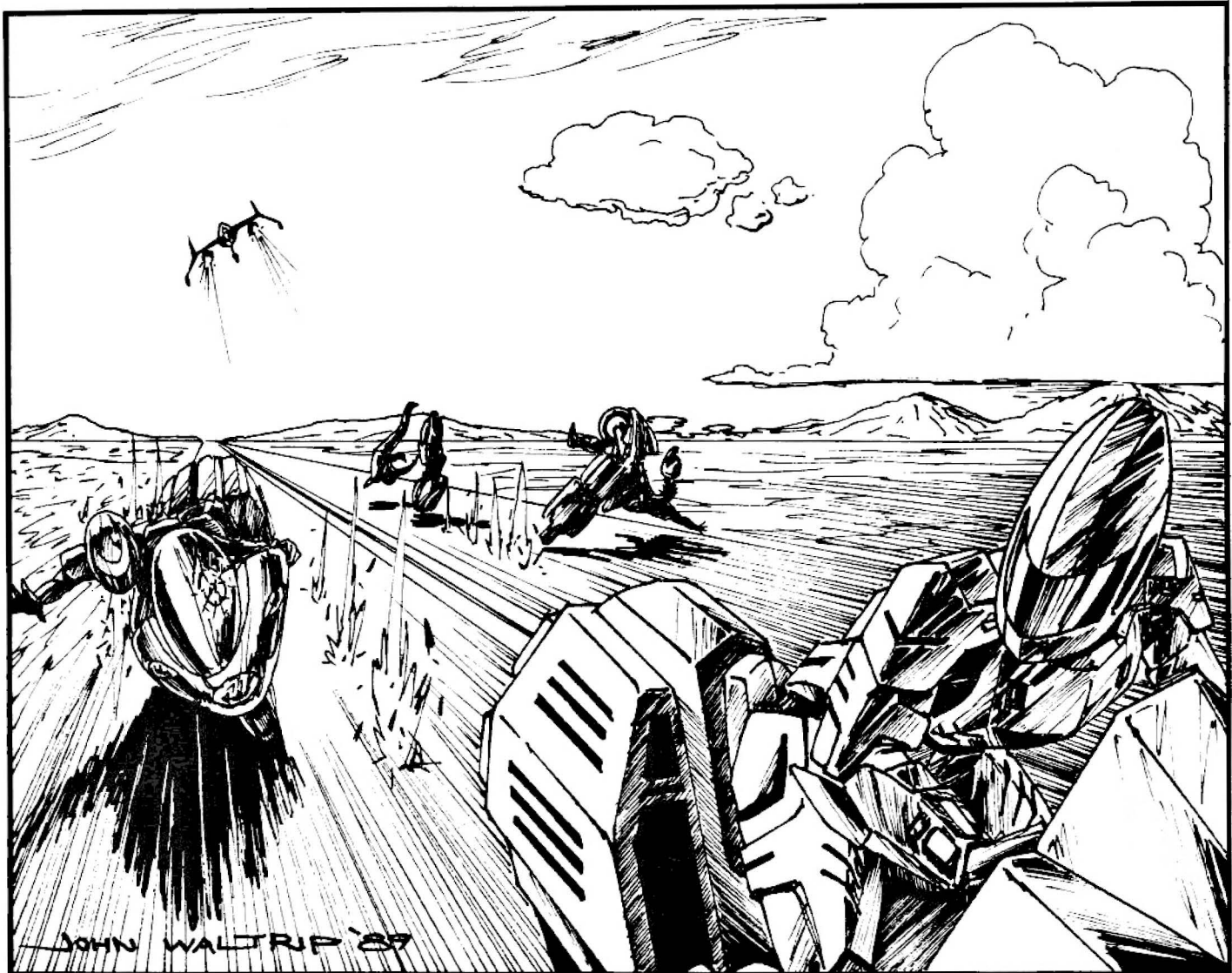
With the exception of lasers, which will be discussed later, all weapons in *Car Wars* damage their targets by hitting them with ammunition. Some weapons, such as machine guns, throw a lot of small units of ammunition; these weapons are called *multifire* weapons. Others, such as rocket launchers, throw a single larger unit of ammo; these are called *shell* weapons.

Shell weapons are easy to use – the gunner points the weapon, pulls the trigger and the target either gets hit or

doesn't. Multifire weapons are a bit more complicated. To get the full effect out of a multifire weapon, the gun must be held on the target. To simplify play, the game merely assumes that that's what the gunner does during the entire turn when firing a machine gun; thus, the machine gun's entire damage is resolved at once.

This system works fine for most situations. However, what happens when a multifire weapon is set on automatic? In regular *Car Wars*, the weapon simply does its damage at the end of the turn to whatever is in front of it. In reality, though, what happens is that every target that passes in front of the gun has a chance of getting hit by one or two rounds, and they'll take more damage the longer they stay in the line of fire.

The strafing rules below attempt to resolve this situation. They add an interesting dimension to regular *Car Wars*, and



referees may feel free to use them in groundhog duels. They are a bit more complex than the normal automatic fire rules, but the extra complexity is necessary to simulate the effects of aerial strafing runs.

## Strafing

When an aircraft strafes, it puts multifire weapons on automatic and flies past its target. The line of fire from the weapons cross the target and, with a little luck, the hapless victim gets nailed. The following rules reflect this procedure in *Car Wars* terms.

Only multifire weapons can be used to strafe. When a multifire weapon is placed on automatic, draw an imaginary line straight out from the location of the weapon. At the end of every phase, the nearest target along that line has a chance of being hit. Determine the to-hit roll normally, with two exceptions. First, computers have no effect. Second, Gunner does not add to the roll. Driver (or Pilot) skill can be added to the roll against only one target per turn, although the bonus can be applied in multiple phases against that target; however, increase the difficulty of all hazards and maneuvers by 1 whenever this bonus is being used, since the driver's ability to swerve and steer is limited.

Strafing weapons cannot aim for specific parts of a target (such as a wheel or turret), although, at the referee's option, the height of the weapon may be taken into account – an MG strafing from the side of a tractor-trailer rig might have a chance to hit the turret of a compact, for example. Note that sustained fire does count when strafing – if an object remains in the line of fire long enough, it should get hit eventually.

If the target is hit, roll for damage. The result is divided by 5, rounding down, and applied to the target as usual. Continue with the next phase, and repeat this procedure at the end of each successive phase until the weapon is shut off.

Against metal armor, strafing weapons are treated a little differently. When a die roll comes up as a metal-removing result (before dividing by 5), a point of metal armor is removed as usual. However, further rolls during that turn will not degrade the target's armor. Under no circumstances will a strafing weapon remove more metal in one turn than it would when fired normally.

Ammo can be tracked in two ways. The easy way is to mark off one round at the end of each turn that the weapon is on automatic, plus an additional round when the weapon is finally turned off. (Only mark off one round if the weapon is turned off at the end of Phase 5, rather than one for turning it off and one for the end of the turn.) However, this procedure is inefficient. If a lot of strafing is going on (for example, in an air-to-ground combat), do the following: Multiply the ammo capacity of multifire weapons by 5, and divide the CPS and WPS by 5 – i.e., break each shot down into 5 separate shots. Whenever such a multifire weapon fires in the regular *Car Wars* manner (either as a single shot or using the area effect rules), it consumes 5 shots; every phase of fire using the strafing rules consumes 1 shot.

### Special Multifire Weapons

*VFRP* – The *VFRP* is a special kind of multifire weapon. It may be set to fire one rocket every phase. Unlike other

weapons, the *VFRP* does full damage when strafing – but it only fires one rocket out of the six it could normally fire. Strafing rockets may not be laser-guided. The *MFR* pod cannot be used in this manner, as it gang-fires its six rockets.

*Lasers* – Lasers are normally multifire weapons – they put out a continuous beam of energy. Pulse lasers, however, use special optics and a capacitor to concentrate all the “zap” in one burst, and are shell weapons instead. A strafing laser cannot be used to laser-guide rockets, since the rockets need the beam to remain on-target until they arrive.

*Incendiary Weapons* – These are a special case. The complicated and realistic way to handle incendiary strafing is this: Whenever a target gets strafed by an incendiary weapon, it takes half (round up) of the burn modifier, with a burn duration of 0. On the second hit from the same weapon, it takes the remainder of the full burn modifier, and the burn duration goes up to half (round down) of the normal duration. The third hit and subsequent hits bring the duration and modifier to their normal levels. No single weapon may ever apply more than its normal burn modifier and duration in one turn to one target.

*Example:* An MG with incendiary ammo is set to strafe as the vehicle passes by a target. The first hit gives the target a fire modifier of 1 and a burn duration of 0. The second hit increases the modifier to 2, but since half of 1 rounded down is 0, the duration remains at 0. The third hit raises the duration to 1. That particular MG will have no further effect on the target's chance of catching on fire until the next turn.

*Burst Effects* – Certain strafe-capable weapons, such as the MG or AC, can be loaded with burst-effect ammunition. Assume that, when strafing with such weapons, the individual shells are spread too far apart to achieve significant burst damage, and thus in strafing mode, these weapons lose their burst effect.

*Multifire Weapons* – All area effect weapons except the *VSG*, the *AC* and the *VFRP* are capable of multifire.

### Flame Clouds and Flaming Oil

Conceptually, flame clouds and flaming oil are very similar to strafing attacks. Basically, all three kinds of attacks apply their damage continuously over an area – a patch of ground for *FCs* and *FO*, a line for strafing guns – and any target that enters that area has a chance of taking damage. In the case of *FCs* and *FO*, this chance is 100%. With these new strafing rules, flame clouds and flaming oil can be treated with a little more (dare I say it?) realism.

Flame clouds and flaming oil do their damage at the end of each phase. If a vehicle passes through a *FC* or *FO* but is no longer touching the counter by the end of the phase, that vehicle is totally unaffected – it blew through too quickly!

If the vehicle is affected, it takes damage to every exposed location. A flame cloud does 2d basic damage, while flaming oil does 1d+2. However, this damage is treated in all respects like strafing damage – i.e., it is divided by 5 (rounding down), and the fire modifiers accumulate slower.

Thus, you can see that a vehicle traveling at high speed doesn't have to fear these weapons. On the other hand, a stationary vehicle that is caught in the flames is in serious trouble.

Drop-spike plates are not affected by this rule, nor are any other dropped solid weapons. Only flame clouds and flaming oil are affected.



WHEN IN MUSKOGEE  
visit "Pistol" Pete Hendricks'

## MUSKOGEE FAIRGROUND and Family Emporium



Wherever you are in Oklahoma . . . **just follow the signs!**

Great fun for everyone ages 5 to 105!

- The world-renowned Obstacle Racing Course:  
**Great Moments in Oklahoma History!**
  - The World's largest wooden roller coaster — so big it sits on **45 acres!**
  - Picnic Areas!
  - Clowns and kiddie rides!
  - Virtual Arena™!
  - The Amazing Midway!
- And of course:

### The Fairground Racetrack

North America's favorite gas-powered racing track!

## Advanced Rocket Construction Rules

**Rocket Types** — There are two basic kinds of rockets, self-launched and rack-launched. All rockets have maneuvering/stabilizing fins, a solid-fuel rocket motor, and a warhead of some type. Self-launched rockets also contain an avionics set (gyroscope and such) to stabilize and aim the rocket once launched. Rack-launched rockets don't need such gadgets, since they are stabilized and aimed by their launcher.

**Guidance Types** — There are several kinds of guidance/homing systems. The simplest is no guidance at all — the rocket goes in a straight line and the gunner hopes it hits something. The next step up is laser-guidance — the firing vehicle paints the target with a laser, and the rocket homes in on the brightest source of laser light it can see. Other systems involve the gunner steering the rocket himself via remote control, either along a wire or using radio.

A wide range of radar-homing rockets are available. The cheapest contains a radio antenna and homes in on radar signals; the antenna is not very sensitive, and requires the target to be broadcasting radar signals — reflected pulses won't work. The next step up adds a weak radar transmitter or ultrasonic movement sensor to the above. This system can only home in on targets within a very few yards, so it still has to be aimed normally — but there's a tremendous margin for error, since all the firer has to do is get the rocket close to the target. Because this radar set is not very sophisticated, however, it can be confused by ground-scatter, and, if the target is within a few yards of the ground, the rocket will often nosedive into a rock rather than the intended recipient. The best radar-guided rocket contains a very powerful, very sophisticated radar suite. These rockets see the target and hunt it down. They are "fire-and-forget" weapons — the gunner pushes the button and goes on to more important matters.

**Rocket Speed** — The basic rocket moves about 800 mph. Within the framework of the **Car Wars** game, this is treated as instantaneous, for simplicity. Some rockets, particularly radar- and tele-guided rockets, are designed to fly slower to increase their maneuverability and accuracy.

**Rocket Range** — All rockets have a maximum time aloft of five seconds.

**Warheads** — There are several types of warheads available for rockets. The basic warhead is simply high explosive. Another common kind uses a shaped-charge explosive instead. Some warheads replace the high explosive with napalm. Flare, smoke-stream, smoke cloud and chaff cloud rockets are also available. One very rare warhead uses a special capacitor to short out vehicular electric power plants.

**Launching Systems** — Self-launched rockets don't need launching systems — the rocket drops off its mounting rails and fires. However, self-launched rockets are sometimes collected into rocket pods. The advantage of a pod is that it takes up less space than its component rockets normally would; the disadvantage is that all its rockets must fire at once, at the same target.

Rack launchers come in two types. The simplest type consists of a launching tube and an ammo feed; the stability of the launcher makes this system more accurate than other rockets. A more versatile type uses six launching tubes in a rotary arrangement. This system may fire all six tubes at once (requiring a second to reload), or it may fire one tube at a time, reloading each tube as it fires. However, this launcher is not as stable or accurate as the normal single-tube system.

### Building Rockets

First, select the basic rocket frame — HR, RL round, whatever. Then choose one guidance system and one warhead type from the list below, applying the listed modifiers. Finally, choose the rocket's speed based on its guidance — tele-guided and active-radar-guided rockets may only go either 200, 400 (-1 to hit) or 600 (-2 to hit) mph.

# Rockets

Self-Launched Rockets	Cost	Weight	Spaces	Damage
Super Rocket (SR)	\$300	150	1½	4d
Heavy Rocket (HR)	\$200	100	1	3d
Medium Rocket (MR)	\$140	50	1	2d
Light Rocket (LR)	\$75	25	½	1d
Mini Rocket (MNR)	\$50	20	⅓	1d-1

Rack-Launched Rockets	Cost	Wt.	Dam
Super	\$75	15	4d
Heavy	\$50	10	3d
Medium (RL)	\$35	5	2d
Light (MML)	\$20	2.5	1d
Mini	\$12.5	2	1d-1

Guidance	+ Cost	+ Wt.	Notes
Unguided	+\$0	+0	
Laser-guided	+\$200		+ \$500 to laser
Passive Radar	+\$100		Instant; hits like RGM
Anti-Air Radar	+\$200		+ 3/-2 vs. air/ground
Active Radar	+\$2,000	+25	TH 7; <600 mph
Wire-Guided	+\$1,000	+25	TH 6; <600 mph
Radio-Controlled	+\$2,000	+25	TH 6; <600 mph
Ballistic (artillery)	+\$500	+0	May be combined with other types of guidance

Warhead	× Cost	× Wt.	Notes
Normal	×1	×1	
Armor-piercing	×1	×1.5	
Incendiary	×1.5	×2	BM = dice + 1; BD = dice
HESH	×1.5	×1	Spalling
Flare	×1	×1	Illum
Smoke stream	×1	×1	2 cntrs/die
Smoke cloud	×1	×1	1×1 smoke cloud
Chaff cloud	×1	×1	1×1 chaff cloud
Artillery loads	×1.5	×5	Only available for super rockets

Launchers	Cost	Wt.	Spc.	Shots
Super Launcher	\$2,000	800	4	10
Heavy Launcher	\$1,500	400	3	10
Medium Launcher (RL)	\$1,000	200	2	10
Light Launcher (MML)	\$750	100	1	10
Mini Launcher	\$500	50	⅔	10

Rotary Launchers	Cost	Wt.	Spc.	Shots
Mini Rotary Launcher	\$1,000	100	2	30
Lt Rotary Launcher (VFRP)	\$2,000	200	3	30
Med Rotary Launcher	\$3,000	400	6	30
Hvy Rotary Launcher	\$4,500	800	9	30
Sup Rotary Launcher	\$6,000	1,600	12	30



# AADA NEWS

As the new head of the AADA, I have a few items to announce. So please bear with me.

First, lets talk about the World Championships. This year there were many complaints on how the championships were handled. Most of these were understandable and justified.

One of the problems was the scheduling of the At-large qualifier. Many people felt that holding the qualifier on Friday afternoon prevented the people who work from attending. Next year we will hold a four-round, five-event tournament. The At-large qualifier will consist of two events; one Thursday afternoon, and one Friday evening – as late as possible. Competitors in the first event that do not advance will be allowed to compete again in the second event. This is to keep record keeping simple, and is an added bonus to those that spend all four days at the convention. Round two will be held Saturday morning. Round three will be Saturday afternoon, and round four will be held early Sunday morning. Furthur details will be in the AADA Newsletter.

Another problem was with the rules being used. Many people felt the rules were too new. Well, nothing can be done about that now, but we will be using the *Compendium* rules in next year's tournament. All errata and optional rules that will be in effect will be printed in the next issue of *ADQ*. No rules published after *ADQ 7/4* will be used in the next championships. This should give everyone plenty of time to familiarize themselves with the rules.

*Illegal designs.* Only one of these got through (to my knowledge). To prevent this from happening at all, two changes will be made. First – all designs must be turned in to our booth the day before they are to be used. Now, the more intelligent duelists are all saying "How are we going to turn in Thursday's designs on Wednesday?" Easy. All of the vehicles in the At-large qualifier will be one of two stock designs. You will be free to pick which of the two you want to use, but you can make *no* modifications to it. These designs, as well as what arena it will be held in will be published next issue.



Now, for some ideas and new competitions. The winner of this year's World Racing Championships at Gencon will receive a bye to round three of next years Duelling Championships.

Speaking of Gencon, here is an idea for everyone to chew on. The people at Gencon would be very happy if we moved the Duelling Championships to their convention. This would put the Racing Championships at Origins. Any comments on this?

Now for the fun stuff. The next two awards were cryptically mentioned by Stephen Beeman before he left, and I like the ideas enough to try and revive them.

*Winningest Duellist:* This award will go to the duellist with the most tournament victory points. Whenever you compete in a *Car Wars* tournament sponsored by Steve Jackson Games and take one of the top three places, let me know! Points will be awarded in the following manner; first – 5 points, second – 3 points, and third – 2 points. All you have to do is send me a copy of the certificate along with the name of the convention and event number for confirmation. The duellist with the most points at the end of the year (Origins '90) will win an as-yet-undisclosed prize from Steve Jackson Games.

*Winningest Club:* This title will be awarded to the club that has the most points from club to club competition. The rules for this are simple. Each club may only compete for club points *once* per month. For example: If the NOMADS duel the RCADA in September, neither of these clubs would be eligible for club points again until October, no matter who won. Send in the signatures of all the club members that competed, along with the name of the club they belong to to get your points. The club that wins will get 3 points, the losing club gets 1 point.

The newsletter I have been referring to is a (well, now it is) bi-monthly report on the AADA to all the official AADA clubs. It is mostly geared for clubs and tournament duellists. It will also include statistics for the on-going competitions as well as any playtest material I can scrape up. There are a

limited number of extras printed up – if you do not belong to a club and would like a copy send us a legal sized SASE and if extras are available we will send you one.

By the way, we call ahead now when we send out playtest material, so if your club wants to be eligible for playtesting of upcoming *Car Wars* products, mail us your president's phone number so we can reach you quickly. Label the envelope: Attention Playtest Coordinator, and it will get to the right person.

–David N. Searle

# Car Wars Compendium ERRATA

## August 23, 1989

Everyone makes mistakes, including us — but we do our best to fix our errors. This errata sheet has been prepared by Steve Jackson Games for the convenience of its customers. Permission is granted to photocopy this errata listing for non-commercial use, or to post it on privately-operated Bulletin Board Systems or USENET.

Current copies of errata sheets are available from Steve Jackson Games. Send a legal-sized Self-Addressed Stamped Envelope (SASE), along with a list of the specific sheets you would like, to:

Steve Jackson Games Incorporated  
Attn: Errata Sheets  
Box 18957  
Austin, TX 78760-8957

Please note that because we publish a great many games and keep errata sheets on file for all of them (even those that have been out of print for years), we CANNOT honor requests for “all current errata sheets” or anything similar!

If you find an error which is not listed on this sheet, please write and tell us! We will also do our best to answer questions about our games, provided that they are phrased in a manner which will allow for a yes-or-no reply or other brief answer. Questions cannot be answered unless a SASE is included! We cannot answer game questions by telephone.

Thanks for buying our games!

P. 1. David Ladyman should be listed in the credits under “Game Development,” David N. Searle should be listed under “Additional Material,” and Craig Sheeley should be listed under “Playtesters.”

P. 2. The example vehicle diagram should have three hits of damage done to the right front tire.

P. 4. Under *Control Table*, delete the line that says, “A handling class of 4 or better is always safe.”

P. 6. In Figure 5, the N, O, and P designators were left out. N is the lowest car in the diagram, O is the one in the middle, and P is the one at the top.

P. 9. A clarification: When skidding at high speed through multiple-inch moves, the movement part of the skid result is applied to every inch of that phase’s movement. Tire damage and deceleration effects are only applied *once* at the *beginning* of the skid.

P. 11. The page reference under *Conforming Movement* should be to p. 35, not p. 36.

P. 24. Delete the entire paragraph at the end of the second column that starts, “If a helicopter exceeds 200 mph . . .”

P. 27. The fourth paragraph should read, “If a driver performed a maneuver or hazard during a particular phase, he may not fire weapons during that phase. In other words, if a driver intends to fire a weapon, he must move forward without maneuvering during that phase.”

P. 28-29. Mistakes abound here, so bear with us. Where text descriptions conflict with the table, use the text description.

The Vehicular Shotgun’s stats are the old ones; use the new ones on p. 77.

The BC w/HESH ammunition has a to-hit of 7, just like a normal BC.

The Six-Shooter should do 1d (×6) damage.

The Radar-Guided Missile costs \$3,000 and weighs 100 lbs.

The VFRP has 30 shots.

The HDFCE has 10 shots, at \$240 and 20 lbs. each.

Dischargers weigh 5 lbs. each.

The X-Ray Laser and Heavy X-Ray Laser both have a to-hit of 7.

P. 30. Under *Movement* in the Targeting Modifiers Table, add:

Firer is in Target's	Target is in Firer's		
	Front arc	Back arc	Side arc
Front arc	Target Speed	(T Speed F Speed)	Target Speed
Back arc	(T Speed- F Speed)	Target Speed	Target Speed
Side arc	Target Speed	Target Speed	T Speed F Speed

P. 31. A rules addition under *Burst Effect*. When firing burst effect weapons at a particular square on the ground (to catch a pedestrian or exposed cyclist in the burst effect), make a normal to-hit roll, adding in the target’s speed modifier (if any). Use the grenade scatter rules (see p. 35) to determine the exact point of impact.

P. 34. The reference to Grenade rules under *Paint and Smoke* should be p. 48.

P. 44. Under *Combat*, add, “Reloading a hand weapon is a firing action.”

P. 45. Under *Spikes, Oil and Mines*, a crawling pedestrian moves on phases 2 and 4.

P. 46. The phase references in the first paragraph were not updated to match the new Movement Chart. Replace those references with “in Phases 3 and 5” and “in Phases 1, 3, and 5” respectively.

P. 47. Under *Tripod Weapons*, add: A tripod weapon cannot be used by passengers in a vehicle, except from a pickup bed or other large cargo area. Tripod weapons take up two spaces as cargo.

P. 50. These were left off the Alternate Encumbrance lists. Add: No-handed Items: Mini-Mechanic, 10 lbs.

One-handed Items: Gauss Pistol, 2 lbs.; Hand Weapon clips, 20% of weapon’s weight; Extended Ammo clips, 30% of the weapon’s weight; Portable searchlight, 4 lbs.

Two-handed Items: Gauss Rifle, 9 lbs.; Medikit, 50 lbs.; Portable Camera, 8 lbs. (3 if helmet-mounted).

The Folding Stock adds *no* weight for rifle weapons.

Backpack Items: Portable Medikit, 15 lbs.

P. 54. Under *Turbocharger*, the VP Turbo costs \$2,000 + \$1/added power factor, and adds 25% to the engine’s power factors. A car may only mount one turbocharger system.

P. 59. Under *Reversed Trikes*, a normal trike can use a spoiler; a reversed trike can use both a spoiler and airdam.

P. 68. Under *Boat Power Factors*, the “see below” reference should refer to p. 70.

P. 73. The *Hovercraft Power Factors Table* is missing a line. Add: At least 1, but less than 2; 10 mph/turn acceleration, top speed 180.

P. 77. The Recoilless Rifle carries 10 shots (\$35 and 5 lbs. each). The Spike Gun’s loaded magazine costs \$450.

P. 79. The Flame Cloud Ejector creates a ½” × 1” flame cloud when fired.

P. 80. The page reference under *Ice Dropper* should be to p. 8, not p. 7.

P. 82. Pulse lasers cannot laser-guide rockets.

P. 83. The page reference under *Link* should be to p. 34, not p. 27.

P. 91. Under *Rocket Boosters* and *Jump Jets*, add that they must be mounted *in* the body of the vehicle.

P. 92. Under *Kamibombs*, the first range increment is ¼”.

P. 96. The Shogun 250’s top speed is 180 mph.

P. 98. The Liberator minibus: Remove one BC, add two BC magazines, and add 10 pts. CA around crew, and the power plant. 14,370 lbs., \$63,119.

P. 99. The Police Cruiser’s power plant has superconductors.



# Weapon List

Weapon	Abbv.	Effect	To Hit	Dam.	DP	Cost	Wt.	Spc.	Shots	CPS	WPS	L. \$	L. wt.	Mag. \$	Mag. wt.
<b>Small-bore projectile weapons</b>															
Machine Gun	MG	area	7	1d	3	1,000	150	1	20	25	2.5	1,500	200	550	65
(HD ammo)	—	—	—	1d+1	—	—	—	—	20	50	5	2,000	250	1,050	115
(Incendiary)	—	—	—	1d	—	—	—	—	20	37.5	2.5	1,750	200	800	65
(Antipersonnel)	—	—	—	1d	—	—	—	—	20	125	2.5	3,500	200	2,550	65
(Explosive)	—	¼" radius	—	1d	—	—	—	—	20	50	5	2,000	250	1,050	115
Vulcan MG	VMG	area	6	2d	3	2,000	350	2	20	35	5	2,700	450	750	115
(HD ammo)	—	—	—	2d+2	—	—	—	—	20	70	10	3,400	550	1,450	215
(Incendiary)	—	—	—	2d	—	—	—	—	20	52.5	5	3,050	450	1,100	115
(Antipersonnel)	—	—	—	2d	—	—	—	—	20	175	5	5,500	450	3,550	115
(Explosive)	—	¼" radius	—	2d	—	—	—	—	20	70	10	3,400	550	1,450	215
Flechette Gun	FG	area	6	1d+1	2	700	100	1	20	10	2.5	900	150	250	65
Vehicular Shotgun	VSG	area	6	2 hits	2	950	90	1	10	5	1	1,000	100	100	25
Gauss Gun	GG	area	6	3d	3	10,000	300	2	10	50	10	10,500	400	550	115
Recoilless Rifle	RR	2" radius	7	2d	4	1,500	300	2	10	35	5	1,850	350	400	65
(HEAT ammo)	—	—	—	2d+2	—	—	—	—	10	52.5	5	2,025	350	575	65
(HESH ammo)	—	—	—	2d	—	—	—	—	10	52.5	5	2,025	350	575	65
Autocannon	AC	2" radius	6	3d	4	6,500	500	3	10	75	10	7,250	600	800	115
(HD Ammo)	—	area	—	3d+3	—	—	—	—	10	150	20	8,000	700	1,550	215
<b>Large-bore projectile weapons</b>															
Bomb	B	2" radius	9	4d	2	100	100	1	1	—	—	100	100	—	—
Cluster Bomb	CB	3" radius	9	2d	2	200	150	1	1	—	—	200	150	—	—
Starshell Launcher	SL	—	—	—	2	500	100	1	5	50	5	750	125	300	40
Spike Gun	SG	1" × 1"	7	1d	2	750	150	2	10	40	10	1,150	250	450	115
Grenade Launcher	GL	—	7	—	2	1,000	200	2	10	—	4	1,000+	240	50+	55
Anti-Tank Gun	AT	2" radius	8	3d	5	2,000	600	3	10	50	10	2,500	700	550	115
HEAT ammo	—	—	8	3d+3	—	—	—	—	10	75	10	2,750	700	800	115
APFSDS ammo	—	—	8	3d+6	—	—	—	—	10	100	15	3,000	750	1,050	165
HESH ammo	—	—	8	3d	—	—	—	—	10	75	10	2,750	700	800	115
Mine Flinger	MF	½" × ½"	9*	*	3	2,250	275	3	5	regular or napalm loads					
Oil Gun	OG	½"/1" × 1"	9/5	—	3	1,000	250	3	10	25	5	1,250	300	300	65
Paint Gun	PG	½"/1" × 1"	9/5	—	3	1,000	250	3	10	25	5	1,250	300	300	65
Flaming Oil ammo	—	½"/1" × 1"	9/5	1d-2	—	—	—	—	10	90	5	1,900	300	950	65
Ice ammo	—	½"/1" × 1"	9/5	—	—	—	—	—	10	40	5	1,400	300	450	65
Blast Cannon	BC	2" radius	7	4d	5	4,500	500	4	10	100	10	5,500	600	1,050	115
HESH ammo	—	—	8	4d	—	—	—	—	10	150	10	6,000	600	1,550	115
Tank Gun	TG	2" radius	7	8d	10	10,000	1,200	10	10	100	20	11,000	1,400	1,050	215
HEAT ammo	—	—	7	8d+8	—	—	—	—	10	150	20	11,500	1,400	1,550	215
APFSDS ammo	—	—	7	8d+16	—	—	—	—	10	200	30	12,000	1,500	2,050	315
HESH ammo	—	—	7	8d	—	—	—	—	10	150	20	11,500	1,400	1,550	215
<b>Rockets</b>															
Mini Rocket	MNR	½" radius	9	1d-1	1	50	20	⅓	1	—	—	50	20	*	*
Light Rocket	LR	1" radius	9	1d	1	75	25	½	1	—	—	75	25	*	*
Medium Rocket	MR	1" radius	9	2d	2	140	50	1	1	—	—	140	50	*	*
Heavy Rocket	HR	2" radius	9	3d	2	200	100	1	1	—	—	200	100	*	*
Anti-Power-Plant Rocket	APP	1" radius	9	1d-1*	1	500	40	1	1	—	—	500	40	*	*
Surface-to-Air Missile	SAM	2" radius	6/11	4d	3	500	150	1	1	—	—	500	150	*	*
Radar-guided Missile	RGM	2" radius	7	3d	1	4,000	200	1	1	—	—	4,000	200	*	*
Wire-guided Missile	WGM	2" radius	6	3d	2	2,000	100	1	1	—	—	2,000	100	*	*
Rocket Magazine	—	—	—	—	0	50/sp	15/sp	1,2,3	—	—	—	—	—	—	—
Six Shooter	MFR	2" radius	9	1d*	3	450	150	2	1	—	—	450	150	—	—
Incendiary Single-Shot Rockets	—	—	—	+1/die*	—	—	—	—	—	×2	×1.5	—	—	—	—
Micro Missile Launcher	MML	1" radius	8	1	2	750	100	1	10	20	2.5	950	125	250	40
Incendiary (MML)	—	—	—	1d+1*	—	—	—	—	10	35	6	1,100	160	400	75
Rocket Launcher	RL	2" radius	8	2d	2	1,000	200	2	10	35	5	1,350	250	400	65
Incendiary (RL)	—	—	—	2d+2*	—	—	—	—	10	60	11	1,600	310	650	125
Flare Round (RL)	—	—	10	1d-2	—	—	—	—	10	20	5	1,200	250	250	65
Variable Fire Rocket Pod	VFRP	2" radius	9	1d(×6)	5	2,000	200	3	30	35	7.5	3,050	425	1,100	240
Laser Guidance Link	LGL	—	—	—	—	500	—	—	—	+200		—	—	—	—
Armor Piercing	—	—	—	+1/die	—	—	—	—	—	×1.5		—	—	—	—
<i>(all normal rockets)</i>															

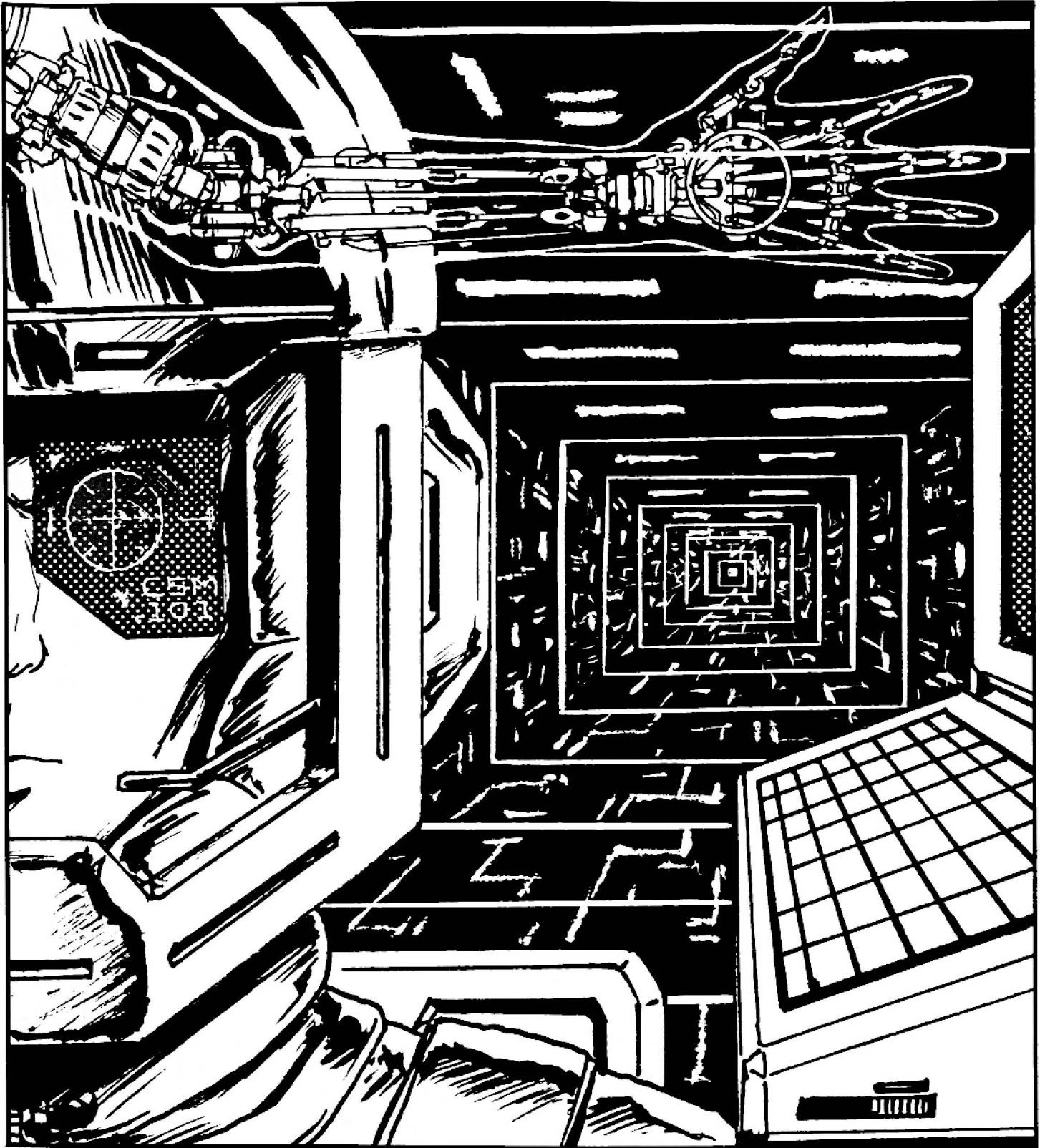
Weapon	Abbv.	Effect	To Hit	Dam.	DP	Cost	Wt.	Spe.	Shots	CPS	WPS	L. \$	L. wtg.	Mag. \$	Mag. wt.
<b>Lasers</b>															
Targeting Laser	TL	—	6	—	1	1,000	50	0	—	—	—	1,000	50	—	—
Light Laser	LL	area	6	1d	2	3,000	200	1	—	—	—	3,000	200	—	—
Laser	L	area	6	3d	2	8,000	500	2	—	—	—	8,000	500	—	—
Medium Laser	ML	area	6	2d	2	5,500	350	2	—	—	—	8,000	500	—	—
Twin Laser	TwL	area	6	2d+6	3	10,000	750	2	—	—	—	10,000	750	—	—
Heavy Laser	HL	area	6	4d	2	12,000	1,000	3	—	—	—	12,000	1,000	—	—
<i>Infrared (all but X-ray)</i>	IR	—	—	*	—	×2									
<i>Pulse (all but X-ray)</i>	—	—	—	+1/die	—	×1.5									
X-Ray Laser	XL	area	7	4d	3	15,000	750	3	—	—	—	15,000	750	—	—
Heavy X-Ray Laser	HXL	area	7	5d	3	20,000	1,500	5	—	—	—	20,000	1,500	—	—
<b>Flamethrowers</b>															
Light Flamethrower	LFT	area; max 5"	6	1d-2	1	350	250	1	10	15	3	500	280	200	45
<i>High-Temperature Fuel</i>	—	—	—	1d	—	—	—	—	10	60	4.5	950	295	500	60
Flamethrower	FT	area; max 10"	6	1d	2	500	450	2	10	25	5	750	500	300	65
<i>High-Temperature Fuel</i>	—	—	—	1d+2	—	—	—	—	10	100	7.5	1,500	525	550	90
HD Flamethrower	HDFT	area; max 15"	6	2d	3	1,250	650	3	10	50	10	1,750	750	550	115
<i>High-Temperature Fuel</i>	—	—	—	2d+4	—	—	—	—	10	200	15	3,250	800	2,050	165
<b>Dropped Gases</b>															
Smokescreen	SS	½" × 1"	—	—	4	250	25	1	10	10	5	350	75	150	65
<i>Tear Gas</i>	—	—	—	*	—	—	—	—	—	20	5	450	75	250	65
Paint Spray	PS	½" × 1"	—	—	2	400	25	1	25	10	2	650	75	300	65
Gas Streamer	GS	½" × 5"	—	—	1	100	50	1	—	—	—	—	—	—	—
<i>Smoke</i>	—	—	—	—	—	—	—	—	2	50	25	200	100	150	65
<i>Paint</i>	—	—	—	*	—	—	—	—	2	50	10	200	70	150	35
<i>Tear Gas</i>	—	—	—	—	—	—	—	—	2	100	25	300	100	250	65
Flame Cloud Streamer	FCGS	½" × 5"	—	1d-1	1	200	100	2	2	300	25	800	150	650	65
HD Smokescreen	HDSS	1" × 2"	—	—	4	500	50	2	10	40	20	900	250	450	215
<i>Tear Gas</i>	—	—	—	*	—	—	—	—	—	80	20	1,300	250	850	215
HD Paint Spray	HDPS	1" × 2"	—	—	3	800	50	2	10	40	8	1,200	130	450	95
Flame Cloud Ejector	FCE	½" × 1"	—	1d-1	1	500	50	2	10	60	5	1,100	100	650	65
HD Flame Cloud Ejector	HDFCE	1" × 2"	—	1d-1	2	1,000	100	3	10	240	20	3,400	300	2,450	215
<b>Dropped Liquids</b>															
Oil Jet	OJ	½" × 1"	—	—	3	250	25	2	25	10	2	500	75	300	65
HD Oil Jet	HDOJ	1" × 2"	—	—	4	500	50	3	10	40	8	900	130	450	95
Flaming Oil Jet	FOJ	½" × 1"	—	1d-2	3	300	30	2	25	35	2	1,175	80	925	65
<i>High-Temperature Fuel</i>	—	—	—	1d	—	—	—	—	25	140	3	3,800	105	3,550	90
HD Flaming Oil Jet	HDFOJ	1" × 2"	—	1d-2	4	550	60	3	10	140	8	1,950	140	1,450	95
<i>High-Temperature Fuel</i>	—	—	—	1d	—	—	—	—	10	560	12	6,150	180	5,650	135
Ice Dropper	ID	½" × 1"	—	—	3	750	50	2	25	20	2	1,250	100	550	65
HD Ice Dropper	HDID	1" × 2"	—	—	4	1,000	100	3	10	100	10	2,000	200	1,050	115
<b>Dropped Solids</b>															
Chaff Dispenser	CD	½" × 1"	—	—	2	300	25	1	10	10	2	400	45	150	35
Spikedropper	SD	½" × ½"	—	1d(½d)	4	100	25	1	10	20	5	300	75	250	65
<i>Explosive Spikes</i>	—	—	—	1d+1(1d-1)	—	—	—	—	10	50	5	600	75	550	65
Drop-Spike Plate	DSP	½" × ½"	—	2d(1d)	4	200	50	1	1	—	—	200	50	—	—
Large DSP	LDSP	½" × 1"	—	2d(1d)	6	350	100	1	1	—	—	350	100	—	—
Junk Dropper	JD	½" × ½"	—	1d-3	4	50	25	1	5	0	25	50	125	50	115
Minedropper	MD	½" × ½"	—	1d/2d	2	500	150	2	10	50	5	1,000	200	1,050	215
<i>Napalm</i>	—	—	—	1d*	—	—	—	—	10	60	5	1,100	200	1,150	215
Spear 1000 MD	SMD	½" × ½"	—	1d-3/2d+3	2	750	150	2	5	100	10	1,250	200	550	65
<i>TDX</i>	—	—	—	1d+3/1d-2	—	—	—	—	5	100	10	1,250	200	550	65
<i>Napalm</i>	—	—	—	1d/2d*	—	—	—	—	5	150	10	1,500	200	800	65
<i>Spider Mine</i>	—	—	—	1d/2d	—	—	—	—	5	150	10	1,500	200	800	65



# The State of the Art, 2039

## Part 2

By Charles Oines





# Computers

## Hardware

Computer equipment ranges from the tiny (fuel injection regulator chips, moneycards, wristcomps and so on) to the massive (orbital SDI tracking computers, university and corporate mainframe systems). A stripped-down computer terminal – little more than a keyboard, screen, 1-megabyte buffer, single datacube slot and communications software – can be had for around \$150 at any department store, and allows the user to link up to large, cooperative mainframes. Most are used to read the daily news, shop, send and receive electronic mail, and many other things. The standard terminal is portable, battery-powered and designed to plug into public datalinks (as common as public phones). More powerful desk systems can run up to \$3,000.

## Interfacing

The most common method of interacting with computers is through keyboard and screen, along with an optical mouse, light pen, touch pad or other simple entry device. Data-intensive applications (word processing, data entry, and the like) require the keyboard; other programs are usually designed so that the keyboard isn't necessary.

Voice recognition is available for higher-level systems. Only the most expensive voice-recognition (VR) units can understand anyone. Common VR units (like those included with computer gunners) are keyed to a single voice at any one time; learning to recognize another voice requires a half hour or so to orient the VR's "ears" to the new voice. Voice patterns (with attendant speech-pattern analyses for the security-minded) can be stored and called up from datacubes.

Microsimulators pump sensory information directly into the cerebral cortex, bypassing the senses. A standard commercial microsim deck includes the microsim player and up to eight bulky, lightweight sensory helmets. This is most useful for entertainment and familiarization and training for complex subjects. A good home computer hooked through a microsim deck can simulate almost anything, real or otherwise. The simulation is less than realistic – the "world" generated by the average microsim deck has a sharp, colorful, distinctly synthetic feel to it. High-quality microsims use interface jacks instead of the usual sensory helmet; the realism attained is a quantum leap above standard micros.

Interface jacks are spliced directly into the user's nervous system, providing high-speed interaction between the computer and the jacked-in user. Microminiature circuitry converts electronic impulses to electrochemical signals in the user's brain and vice versa, allowing direct mental control. The computer system becomes an extension of the user's mind and body – information is relayed directly through the senses, and the user's subconscious mind filters and organizes the incoming data into a form easy to work

with. Data is transmitted via a lightweight fiber-optic cable or a plug-in wireless transceiver. An interesting side development of this is that two interface-equipped people can transmit sensory information to each other – virtual telepathy! The transceiver's range is limited – about 250 yards in the open, much less in buildings – and the transmissions are very sensitive to electromagnetic interference.

Current neural interface technology is risky – there is a slim chance that the monowire contacts in the brain will corrode, altering the neurochemical balance significantly. Radical personality shifts are the first warning signs; various forms of insanity and brain damage may follow. Power surges along the interface can also do quick, usually permanent damage to a user's brain.

## Storage

Holographic datacubes are the standard storage device of the 2030s. These 1" cubes hold 50 gigabytes of information each, and are used in nearly all computer applications, as well as visual and audio recordings. Many publications, maps, and technical databases are commercially available on cubes. Blank cubes generally run about \$50 apiece and weigh in at 1/2 lb.

"Holographic" is misleading – the datacube bears little relation to holograms. A datacube is a solid-state optical memory chip, complete with its own rudimentary operating system, 10-year battery and database protocol. Although storage chips have been built in many different shapes, the datacube's three-dimensional internal architecture allows the fastest possible access to any section of the recorded data.

When used for video recording, a holocube can store up to 6 hours of low-resolution images, or 3 hours of photo-realistic hi-res images. Through delta-compression (storing only the changes from frame-to-frame rather than each entire frame), the high-resolution mode can store up to 24 hours of relatively slow-changing video. Datacubes can store up to 240 hours of digitized sound. Most of this goes unused in commercial releases – pre-recorded music cubes generally have around 2 or 3 hours' worth of read-only storage, and sell for around \$10 each.



## Vehicular Equipment

*Targeting Computer.* This is a hardware upgrade to the basic targeting system that all combat vehicles have, allowing higher accuracy and faster response time for a single crewmember.

*Single-Weapon Computer.* Single-weapon computers carry a much smaller program than the above; this program only works for a single type of weapon in a single location (front MG, turreted laser, etc). SWCs are generally much cheaper than their versatile counterparts.

**Cyberlink.** The cyberlink is a more extensive upgrade, including microsims contacts for faster gunner interaction and upgraded weapon traverse servos for quicker weapon tracking. The microsims interpreter adds substantial hardware to the standard tracking system – so much so that the cyberlink is limited to one weapon or set of linked weapons.

**ANDICE (Advanced Neurological Direct Interface to Combat Electronics).** This is an advanced military version of the cyberlink. ANDICE patches directly into its user's brain via a surgically-implanted interface jack (\$10,000, plus a month's hospital stay), connecting that user directly to all the vehicle's control electronics. The user perceives the vehicle as an extension of his own body. A driver using ANDICE gets +1 to his Driver skill and +1 to his Gunner skill. In addition, the driver may fire every weapon on the vehicle once each turn, at a successive -1 to hit per weapon or set of linked weapons fired after the first. If more than one weapon system is fired at one time, the penalty for firing includes each weapons system used. Thus, if an ANDICEd driver fires his front linked MGs and turreted VMG and rear MG, the total to-hit penalty is -3 for each weapon.

Whenever the power plant of an ANDICE-equipped vehicle takes damage, roll one die. On a 5, every crewman using ANDICE takes a point of damage; on a 6, every crewman using ANDICE takes two points of damage. Body armor does not protect against this damage.

The ANDICE is still experimental, and not available to civilians. The military model costs \$64,000, weighs 100 lbs., and takes one space. If the standard driver controls are left out, the system takes no space (effectively replacing the manual controls).

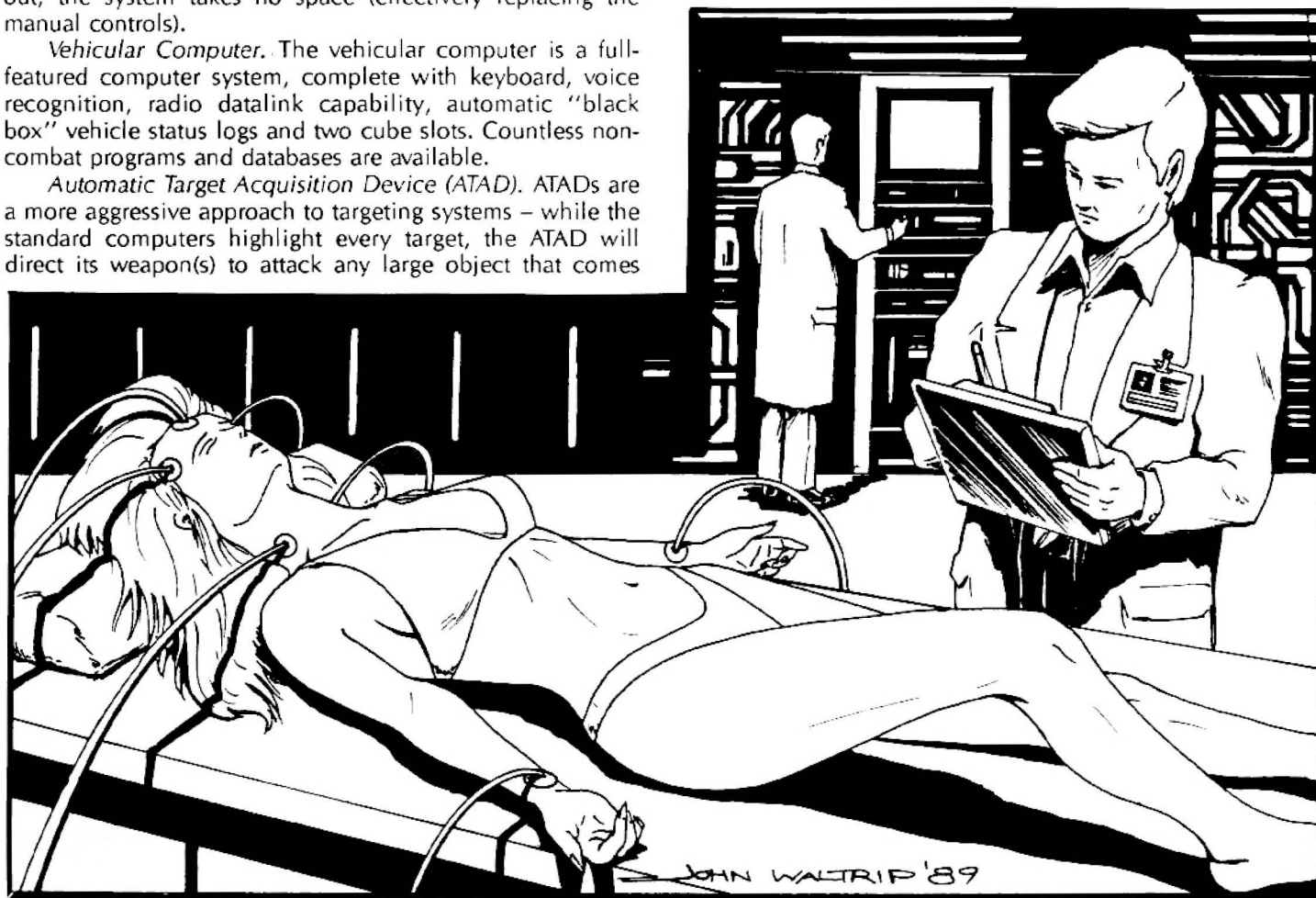
**Vehicular Computer.** The vehicular computer is a full-featured computer system, complete with keyboard, voice recognition, radio datalink capability, automatic "black box" vehicle status logs and two cube slots. Countless non-combat programs and databases are available.

**Automatic Target Acquisition Device (ATAD).** ATADs are a more aggressive approach to targeting systems – while the standard computers highlight every target, the ATAD will direct its weapon(s) to attack any large object that comes

within its "danger zone." The ATAD adds active sensors (radar, sonar or laser) to the targeting system's passive cameras. Its lightning-fast response rate is compromised by its complete lack of target discrimination – the first thing to get close, be it a car, cycle, pedestrian, or wall, gets shot at.

**Autopilot.** Nearly all modern vehicles are drive-by-wire – rather than using direct mechanical linkages to the controls, the controls transmit commands to the proper systems through the vehicle's central processor. An autopilot hooks into the central processor and takes control of the vehicle, watching the terrain with IR or radar. While reasonably safe on long highway drives, autopilots are slow to react to dangerous or crowded situations. The massive amount of computation needed to simply get from its starting location to the destination, obey traffic signs, local laws, and even simple highway courtesy tax the autopilot's parallel CPUs to their limits.

**Computer Gunner.** The computer gunner can track and identify over 40 targets, but will not fire on any of them until given vocal orders to. As the vocal command is given, the computer then narrows down the number of tracked targets to one (hopefully), and fires on that target. If more than one target matches the spoken criterion (i.e., two blue cars in range when asked to fire at "the blue car"), the computer gunner will usually figure out which one is intended. The discrimination criterion used are not entirely predictable, however; the CG may ask for clarification, or take its own initiative.



# And, Of Course, It Was Black

By Joel Mullins

I could sit and bore you with talk about what I call the old days, but I won't. If you are able to look at things and say, "Okay, that's fine," when nothing is, then you won't want to hear this.

If you own a Division 80 subcompact with a turreted anti-tank gun on the *side* loaded with HDDS rounds with the whole works sittin' on metal off-road solid steelbelted radial fireproof racing slicks wrapped in tire chains, then you won't want to hear this.

In other words, if you're someone who says, "It'll work, screw the structural limitations, it'll work," then you don't want to hear this.

But you'd better hear it. Life's too short, especially when someone places a couple of well-aimed shots into your funky hero-tires and sends them to Goodyear Hell with you out of control before the last chunk of rubber hits the ground.

Not liking what you hear? Sorry, but I don't cater to the likes or dislikes of fools intent on killing themselves with cars contrapted out of a madman's nightmare. C'mon, really, no one has a chip that big up their . . . on their shoulder, do they? You can lose your ego long enough to hear a story, can't you? I got one, and it needs tellin'.

It's about a young man I knew once named Billy Joe Rob Junior. His last name is unimportant, so I'll keep that to myself.

His mother was a chicken-lipped, horse-hipped bebop truck-stop queen with grease behind her ears and fatback under her fingernails. She only had four toes on her right foot from her days as a leg-in-the-road hitchhikin' highway squeeze. She named Billy Joe Rob Junior after his dads. Don't ask.

She used to beat him while he was growin' up into a pale, skinny young man, and he sorta seemed to be a person meant to be beat on. It never fazed him, except for a look of total resignation on his face. You could tell his mama blamed him for her havin' to sling hash, charge power plants and sometimes run the grill when Sako, the Korean short order cook, would pass out from snortin' Armadillo Gold imported beer up his right nostril. His idea of a coffee break, I suppose.

However, I digress.

Billy Joe Rob always wanted his very own duelcar and livin' next to one of the biggest truck stops and auto garages in the state of Virginia just made him itch for the most formidable piece of vehicle any desperate mind could conceive of. Of course, it had to be black. Guys like him always get 'em black. Freakin' always.

So what does he do to acquire his coveted duelling machine? Starts runnin' with these guys from Alabama who own an old van. You can tell it used to be an ambulance 'cause the lights are still on it, but they had painted it (you guessed it) black.

From what I heard, these jokers had put (I hate this. Someone might get ideas and die quick) an old surplus tank gun in it, runnin' the barrel through the cargo area, between the driver and gunner and out the damned windshield. Lovely. Not like the act of suicide is really easy without all that trouble.

And if there is such a thing as karma, well, they must have had the market on it back then, for a little while anyway, when you consider how much they fired that sucker. They'd be zippin' down the road, takin' hits of HD ammo from some courier's turret-mounted Vulcan, then BLAMM!!! The van would rise up on its rear wheels, tilt some, hang onto the asphalt by its side wheels and somehow Jordy (the driver) would hold that rolling death box on and in the road. By the time it was under control, the smoke would be gone (that old 105 would get hot. Billy told me once that they had heated coffee on the breach after firin' three rounds from it) and so would most of the delivery vehicle's rear armor. Couriers are not stupid, and all it took after that was one of the guys to radio said courier and instruct him to pull over, ditch his weapons, and lie face down on the pavement. 80% of your rear armor being blown off in one nice, tidy chunk is a heck of a convincer.

So they pirated private couriers. Great way to pick up some spare cash. Not to mention a sizeable price on your head. When you leave witnesses (They were decent that way. Foolish, but decent), witnesses talk.

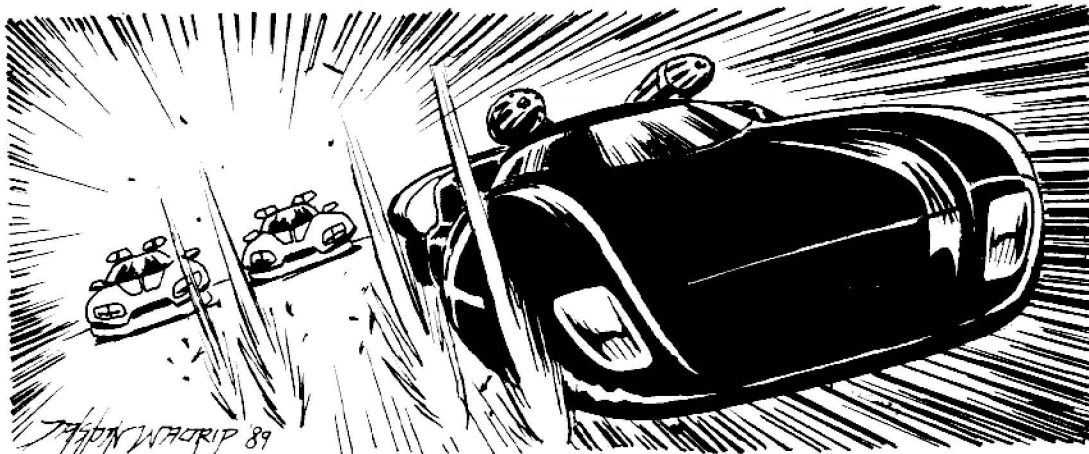
And describe things.

Like faces.

So pretty soon, Billy Joe Rob Junior had "acquired" for







himself enough money to purchase his own duellin' machine, but it was clear that he'd need it and any other kind of help to fight off the bounty huntin' boys and the thirty-dollar pistol heroes.

He had gotten two old guys to build it for him. They claimed to have been on the pit crew for Salvatore Ingram at the last non-combat running of the Indy 500 back in 1998. I think they made it from an old can-am body with the engine of a wrecked dragster. Whatever it was, it was fast. That car would hit sixty mph in four seconds and after that it was just plain gone. And, of course, it was black.

Now don't get me wrong. I think we all like to play dark and mysterious every once in a while, but Billy Joe was going silly with it. Black car, black clothes, black sweat-socks, black motorcycle boots, black leather jacket, black bandana. Black sunglasses. Jeez! Give a guy a break! My eyes were going black-blind around him.

And the attitude that boy copped, cripes! Lots of folks think I'm not all there myself, but that's from their perceptions with surface stuff. Most people judge me on the sole fact that I drive a '35 Ford pickup painted metalflake purple with green flames on the front and a picture of Daify Duck in a straightjacket on the hood scoop (I run a gasburner myself, but I don't think my old granny-gear transmission will ever let me get to sixty mph in four seconds).

Again, I digress.

I should have known that the breakneck madness of riding in that van with the tank gun going off and the frame bendin' and the tires squealin' and the smoke and . . . and yes, the sheer insane fun of it would be bad for Billy Joe. That's why I wasn't one bit surprised when he pulled up into the truck stop one morning I saw three autocannon bolted to an old rocket platform on his roof.

He came in, his skinny body cloaked in his usual aforementioned garments, looking like a sinister scarecrow animated by frustration.

He spoke his usual cutting words to his mother (not kind was Time's unforgiving touch to her features or her disposition), then came over and sat down at my table.

Just like that. Like there wasn't a thing in the world he should be worried about, as if by his own willpower, the business of his being a hunted criminal had ceased.

"Randall, what's up?" He asked jovially.

"Not much," I replied. "What are you doing these days, Billy Joe?"

"Oh, the usual." He said, obviously meaning that he was doing things that didn't need doin'.

"I was thinkin'," he continued, "that we should talk."

"About what?" I hated the conversation already.

"Let's just take a ride, Randall."

"Sure." I said, resigning myself to whatever fate the gods of lunacy had bestowed upon me that day.

Silence ruled the diner as truckers and regular customers watched us over their breakfasts as we left.

In his car, I barely had room to sit, even though he'd put an old bucket seat in it for a passenger. Still, there wasn't a lot of room because the car was not meant to accommodate persons other than the driver.

He started the engine, which could have been mistaken for a small war under the hood. I thought it was loud before, but inside, I had a full-fledged taste of it. When he popped the clutch and let the engine rip us out of the parking lot, all the noise seemed a small price for the punch that car had.

"Where we goin'?" I asked, letting the car's acceleration push me back into the seat.

"Randall, did you really used to be in the AADA?"

"Now who told you that one?" I asked. I had quit the association six years ago, after Brian Arthur, a close friend of mine, was hit with three linked Vulcans from a luxury, nullifying any chance of his brain being read for cloning. He took all of his hits to his face behind the wheel of his Division 20 convertible sedan. I cried about it, then cursed him for being stylishly stupid enough to duel topless. Eventually, I opted out for my present occupation as a painter, doing mostly customized murals or graphic striping for local hot rods, whackos and bike jockeys. Custom-painted motorcycle gas tanks are making a comeback since the Free Oil States started making their own modern-day benign OPEC and began exporting to the United States.

"Word gets around." Billy Joe said, slyly.

"Well, the word is true. But that was all a million years ago."

"You don't miss it? Not even a little?"

"Billy, I miss every day of my life that's behind me. Not just the duelling, but my whole life."

"Would you do any of it any different?"

"Probably not." I paused, thinking of Brian. "Most folks compensate themselves enough when they look back to justify any mistakes they've made. I'm as guilty of it as anyone."

"But the duelling . . ."

"Skip it, Billy Joe."

He sulked at me for a few minutes, then told me how

"Well, the word is true. But that was all a million years ago."

"You don't miss it? Not even a little?"

"Billy, I miss every day of my life that's behind me. Not just the duelling, but my whole life."

"Would you do any of it any different?"

"Probably not." I paused, thinking of Brian. "Most folks compensate themselves enough when they look back to justify any mistakes they've made. I'm as guilty of it as anyone."

"But the duelling . . ."

"Skip it, Billy Joe."

He sulked at me for a few minutes, then told me how his friends in their van got caught. I'd heard vague rumors about it, nothing more. Billy filled me in.

After Billy Joe Rob got his car, he didn't run with them very much, except for an occasional hijacking. They pulled a job without Billy and that was his saving grace. They pulled up behind an Appalachian Courier Service minibus and fired the tank gun point-blank into the rear. It seems the minibus was wearin' a thin layer of plastic armor over a lot of metal and the shot had little effect, save trashin' the plastic. Jordy wrestled the steering wheel, but hadn't quite gotten the van under control from the recoil of the initial shot when Larry (the gunner) fired again.

To shorten the story, the van flipped sideways, then end over end. After a stay in the hospital, Jordy and Larry went to jail and were awaiting trial on seven hijacking charges.

"So what do you think, Randall?"

"Bad scene. Could be your scene if you're not more careful."

"Oh, I'll be careful, I'll be Texas careful."

"Huh?"

"Texas. *Tay-hahs* my friend. I'm headin' there tonight."

"Where'd you get the gas to cruise out west? And even if you got the juice, you'll not get across the border. They keep an eye out for folks who are wanted for felony charges."

"I'll make it across the border. There's always ways around that, and gas is no problem. Me, Larry and Jordy have a stash. I guess it's all mine, now. 200 gallons of high-octane racing fuel. Got it off of an Allied Courier van. It was our second job. His cargo, our booty. That was what we said at the time. I got this covered trailer to haul it in."

"Jesus. You're nuts, Billy Joe. Even if you don't have trouble with the law, there're bike gangs out there who can smell gas 30 miles away.

"Motorcycles make good hood ornaments. Especially for metal armor."

I gave up. I asked him if he had anything more specific

REHNQUIST COMMUNICATIONS presents:

## PIPELINE Tight Beam Communications!

Tired of having your opponents listening in on your communications? Rehnquist has the answer, The Pipeline series of communications devices! Pipeline uses a *focused* microwave beam to direct your message where you want it to go *and nowhere else!* Great for point-to-point communications and anywhere you need to transmit data safely and reliably!

Get Pipeline and stay in touch!

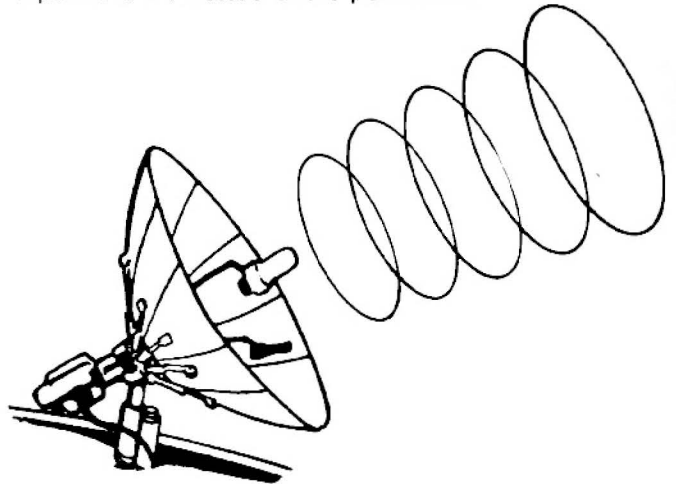
Pipeline point-to-point radios: \$750, 3 spaces, 4 DP. Similar to regular radios, except: (1) The antennas ("horns") must be in line-of-sight with each other. (2) Transmissions are on a tight beam 1/4" (game scale) wide, rather than generally broadcast. (3) Anything opaque to visible light and in the direct path of the beam will stop the signal, making communication impossible. Human beings and animals in the signal path take no damage (in *Car Wars* scale, they're not exposed to it long enough to matter). The signal cannot otherwise be jammed, and smoke does *not* affect it.

Pipeline mobile radios: \$750, 1 space, 1 DP. These are not as effective as point-to-point systems, simply because the mobile antenna must be reoriented for broadcast every time the vehicle moves. Treat the radio as a laser for targeting and to-hit purposes, including sustained-fire bonus, but Pipeline radios *do not* drain a car's battery the way a laser does. The receiving antenna is large enough to not require a to-hit penalty. The antenna must be top-mounted, and can be mounted in a turret.

Mobile-to-mobile communications are possible, at a -4 penalty to target the receiving car's Pipeline antenna.

Pipeline pedestrian communications: \$750, 3 grenade equivalents, 1 DP. These backpack-mounted Pipeline radios allow a pedestrian to stay in touch with a fixed base, for instance. They contain a battery with enough power for four hours of operation. A pedestrian-carried antenna is -5 to hit; larger antennas are available, but they require setup on a tripod (1 minute minimum).

The Pedestrian Pipeline is worn like a backpack and cannot be worn with any other backpack. If carried, it counts as 5 GEs. If a pedestrian wearing a Pedestrian Pipeline is hit by weapon fire, roll one die; on a 1, the Pipeline is hit instead of the pedestrian.



to talk about and he said why no, he had always liked me and just wanted to say goodbye all proper and right. He took me to the truck stop and those right and proper goodbyes were said.

Inside the diner, I ordered a cup of coffee before the dust from his gravel-spitting, tire-spinning takeoff had settled.

Billy Joe Rob Junior's mother served the java to me and asked in a reserved tone, "Leavin', ain't he?"

"Looks that way." I said, not wanting to engage her too deeply in conversation.

"Just as well," she continued. "He's a hot item with the law 'round here."

"Yeah." I agreed.

She shrugged and went back to her duties elsewhere.

It was all on the evening news (now there's a strange cliché), in starting detail and living color.

Billy Joe Rob Junior had made it to Knoxville, Tennessee when the police caught up with him on a straight, two-lane highway. The news copter brought back excellent zoom-in shots of the whole messy affair.

They had him in a sandwich. A four-car interlocked roadblock to defeat ramming it, and two police cruisers closing in behind him from out of nowhere.

He did as well as he could, given the situation. Hell, he did pretty outstanding, considering.

When the two cruisers opened up on the back of his trailer, he triggered the explosive hitch, ditching it, and the tongue dug deep into the pavement, causing the trailer to nose-dive and flip over into the path of one of the police cars. The cruiser hit it at about 60 mph and then there was one of the most firey explosions I've seen in a good many years. The burning car rolled sideways into the tree line next to the road and something volatile inside it caused another big eruption of fire and fragmentation.

The second cruiser avoided most of the fireworks but still caught fire on the side near them. He began to hammer away at Billy Joe's back armor just as Billy Joe started plugging away with his rooftop autocannon.

His first volley tore a chunk out of the side armor of one of the roadblock vehicles. The news camera zoom-in also showed Billy's maniacal grin and that all his windows had cracked from his autocannon recoil.

The burning cruiser decided that Billy's armor was too tough, so he opted for his tires. Cowards' tactics, on national television yet.

Billy Joe, in the meantime, kept firing the sitting ducks up. His second three-cannon burst breached the side armor of the wounded roadblock car and made meat chunks out of the blue boy inside. This time the recoil caused the rest of the glass to shatter completely and disintegrate.

Just as the policeman behind him took out what of left of Billy's left-rear solid radial, Billy opened up on another parked police car. Two of the shots missed and it was then that I realized I should have advised him against mounting

powerful weapons. His car couldn't take any more. The roof ripped off and he completely lost control.

No roof, one tire missing and 85 mph are three bad things when they're together. Billy Joe spun out. His roof was flung into the windshield of the tire-shootin' smokey, causing him to go into a slide. All that tire screeching coming across my quadrasonic TV speakers was hellish.

When Billy Joe Rob Junior hit the roadblock spinning, his car exploded like an H-bomb. The flaming cruiser behind him slid into the inferno and added to the ferocity of the blast. Obviously, the Knoxville police pack napalm mines or flamethrowers or some such incendiary goodies because I'm sure they were driving electric vehicles, which usually don't have the habit of blowing up like a forty-dollar firecracker.

When the flames and smoke cleared, only one of the six officers remained alive and kickin'. The news boys focussed in close on Billy Joe's body. Just a kid from the sticks with whacko glory dreams in his head and no clone, thrown clear by the blast but dead as dead gets. His hair was burned off and his old black leather jacket was still smoking from the heat of his erupting car.

Looking at him like that on my average-sized TV screen brought a kind of gut-rupturing sadness but no tears to me. He wouldn't have wanted me to cry over him, and yeah, I know, it sounds like a load of macho crap, but it also seemed right. Dreadfully right.

I shut the set off and got up and went to my bedroom.

On the wall in there is a picture of a younger me, one that seems to have never existed, dressed in black body armor, black helmet leaning on a black Division 20 luxury with three linked Vulcans on the front and a ridiculously low amount of armor on it. In the picture with me is Brian Arthur, the friend I killed.

At one time in my silly life, I wouldn't have said that these things such as Brian and Billy Joe wouldn't bother me. Wouldn't dig into my mind and play funky little games with my emotions. At one time, I would've called it Fate or the way of the world or even laid it all on the doorstep of Bad Luck.

At one time.

I'm a little older now.

## Gaming Notes

There are none, save that anyone attempting to use any of the vehicles in this story should be strung up by their intestines and painted black. Except for the metalflake purple, lime-green flamed '35 Fnord pickup. Using it should qualify the person for serious in-depth psychiatric evaluation.

By the way, there's no such thing as HDDS ammo, and, Fangio help us, there never will be, so don't even ask.





# The Pedestrians Strike Back

## Infantry Tactics in *Car Wars*

A Lecture by Col. Jeff Stevens,  
Commanding Officer of the  
1st M.A.D.D.

(as reported by Craig Sheeley)

The lecture took place in Hill Hall of the Southwest Missouri Military Academy, given to a class of cadets. It was a familiarization lecture for the Tactics II course, Modern Tactics and Combat. Colonel Stevens stood at the front of the lecture amphitheatre behind several tables laden with weapons. I sat in the audience with the cadets recording the class, as attentive as any of the youths around me.

The Colonel began the lecture simply. "You are here to learn the rudiments of directing men in modern combat. Your education begins with knowing the elements of today's infantry environment. It really hasn't changed much since the first fight in the dawn of pre-history; we just have better tools for the job."

### The Soldier

"The most important part of any infantry combat unit is, of course, the individual soldier. This soldier can be poorly or excellently trained, green or veteran, man or woman, young or old, any race, creed or color – soldiers come in an infinite variety, each one an individual human being. To be a good soldier requires only two things: Knowledge of your weapons and a willingness to use them. That's all.

"That's right. If a soldier knows how to use his weapons and is willing to do so, you've got a good soldier. And this has been constant throughout all warfare.

"A soldier who doesn't know how to use his weapons is useless. So is a soldier unwilling to use them – a soldier doesn't necessarily have to be a hero, just brave enough to do the job. As a matter of fact, heroes seldom make good soldiers for very long. They tend to have short careers – and lifespans. To paraphrase General Patton, the object is not to become a hero by dying for your side. The idea is to make the *other* guy become a hero by dying for *his* side!



"Most of the soldiers you'll be working with are trained to use their weapons and taught the obedience and team spirit to have the will to use them. There are always times where troops lack this training, but self-confidence and personal training will show – those lacking one of these qualities either flee or die quickly."

## Personal Weapons

He gestured to the tables in front of him. "Assuming that your soldiers know and will use their weapons, let's go on to the weapons themselves." He proceeded to pick up each weapon in turn as he spoke about them. "First, we have the assault rifle with underslung one-shot grenade launcher: The single most versatile and useful weapon combination available to the foot soldier today. It combines the features of anti-infantry firepower with the multiple-damage capabilities of the launched grenade. Furthermore, with the addition of high-penetration anti-vehicular ammunition, an assault rifle like this 5mm can poke a hole in plastic compound armor. This ammunition is expensive but too useful to ignore if you're going up against hard targets.

"Assault rifles range anywhere from 4.5mm to 6mm in caliber, and are usually made of fiber-plastic composites and steel. Generally the steel is encased in the plastic. I'll explain why later. The under-barrel grenade launcher is the standard 30mm bore accepted world-wide.

"The next most commonly used weapon is the submachine gun, a pistol-caliber weapon shooting large slugs. It lacks the damage of the assault rifle and the grenade launcher, but can be silenced and is less expensive. SMGs are 7.65mm to 11mm in caliber and come in

many styles. Some are as plastic-oriented as assault rifles, some are pure metal fabrications and some are ornate art pieces of metal and wood.

"A lot of civilians prefer to use pistols and machine pistols, but the fact remains that such weapons have short ranges and low penetration ability. Pistols are meant for use within ten meters of the target, despite actual maximum ranges. They're light and handy and that's all the good they are. You won't see very many soldiers of any type using pistols as main weapons. Plenty of heavy-weapons men use them as back-up weapons, though.

"Pistols come in a bewildering array of calibers from 5mm to 11mm. They come in as varied a number of shapes and appearances.

"Shotguns are popular, but they lack penetration ability. Sure, they're devastating against unarmored targets, but forget them if your targets have body armor.

"Rifles can be found everywhere, and often with anti-vehicle ammo. They have larger rounds than the assault rifle and are just as deadly. Don't underestimate the rifle-armed foe.

"Rifles and shotguns look alike, save for give-aways like the thicker barrel and different feed mechanism of the shotgun. A lot of these guns are classic wood-and-metal constructions.

"The new Gauss guns show promise, but at present they're almost heavy weapons rather than regular guns – you

have to hump a thirty-pound power-pack with it, and that's an extra fourteen kilos. They look like science-fiction zap-guns, made of plastics and metal, 4mm blunderbusses with ribbed barrels to let the air out of the barrel each time they shoot.

"Depending on your situation, an assault rifle/grenade-launcher combo is often the best bet for combat."

## Heavy Weapons

"Next we have the soldier's friend, the heavy weapons. These toys are designed to enhance a soldier's offensive capability – or in simple terms, help him destroy more things more swiftly.

"In the past, the most common was the machine gun – infantry squads have been using machine guns to increase their firepower for the last century. Rifle-caliber 5mm-to-8mm guns, they've been superceded by the assault rifle. Nowadays the squad heavy weapon is the five-shot 30mm grenade launcher. It's lighter and capable of doing more

kinds of damage. Still, a well-placed MG can do wonders, but they've been relegated to the rear lines.

"The grenade launcher is the squad heavy weapon of today. It can launch shrapnel, incendiary, smoke, paint, high explosive, thermite, and gas

rounds at the target and affect an area. A well-trained gunner can even fire at a target behind cover, indirectly. With such a variety of rounds it's useful in any combat.

"When armored targets started appearing on the battlefield, weapons were made to defeat them. The first was the anti-tank rifle. For a long time they were outmoded – outstripped by the armor carried by vehicles – but now they've had a resurgence with the advent of light-armor vehicles such as motorcycles and cars. We have two kinds: The smaller high-velocity anti-vehicle rifle and the larger heavy rifle. These guns have limited use as over-grown sniping weapons, since they are slow-firing and not really powerful enough to take on a really heavy target. Still, they can do a real number on infantry and cycles.

"Anti-vehicle rifles are generally 6mm-8mm in the small version, shading up from 12mm to a whopping 15mm – the same shell as an autocannon, that's right – in the big monsters. You can't miss an AVR on the battlefield – no other rifle is *that* big, over a meter long.

"The next weapon to come along for anti-tank use was the man-launched rocket. The ones we have today are essentially the same weapon invented almost a century ago: A rocket motor tipped with a shaped-charge warhead and fired from an aiming tube. Our modern ones are a little different in that they're expelled from the tube to a safe distance before the motor ignites, extending the range and eliminating backblast.



"There are a lot of different ways of doing this: Compressed gas, high-low pressure systems, low-powered powder charges, even springs. The British PIAT rocket-launcher line is still spring-loaded. Bear in mind that these systems are not recoilless – just blast-less.

"The most common is the VLAW, a throw-away derivative of the old 66mm M-72 system. As armor got better the M-72 was discontinued. When armor got lighter a lighter, cheaper version resurfaced on the market. Carrying the same warhead made for the anti-armor grenade, the VLAW is a cheap 25mm alternative to the anti-vehicular rifles.

"The next most common rocket weapon is the 40mm LAW. Actually, it's not a classic LAW at all, but it has the designation. Our LAW is the AT-7, the latest in the progression of anti-tank weapons that replaced the old M-72 LAW.

"Like the VLAW, the LAW is practically universal. The design has been copied by nearly everyone, with enough differences in the other designs to escape patent violations. Learning to use one teaches you to use them all.

"The biggest rocket weapon was a goner, just like the anti-tank rifles. The bazooka was obsolete up to a few years ago, outstripped by LAWs and their ilk. Thanks to thinner armor and a demand for reloadable rocket-launchers, the bazooka is back.

"It's 67mm, just like the old WW II model. And it is lethal to vehicles and anyone else in the way. The big difference between our bazooka and the D-Day version is in the no-backblast design of ours.

"There are other reloadable rocket-launchers – the M-204 four-shot 40mm MPRL and the eight-shot 25mm M-208 are examples, products of a battlefield where heavy firepower is needed.

"A new rocket weapon has hit the battlefield. The Gyroslugger is an over-muscled 30mm rocket fired from a smoothbore gun – like a rocket shotgun. It's more accurate than most, but has a nasty recoil and costs more than other systems overall. It does, however, have a wide variety of specialized ammunition available, making it as versatile as the hand-held grenade launcher.

"The great advantage to the gyroslugger, the multi-rocket launchers and the bazooka is an equally recent development, the laser-guidance link for their rounds. Linked to a laser-targeting scope, rocket launchers are now as accurate as any laser. While expensive, the modification is very popular because of its lethality.

"Off the subject of anti-armor weapons, we come to the heat weapons. The oldest and most dangerous is the flamethrower. Heavy, hazardous and short on ammunition supply, the weapon is still accurate enough to put a stream of flame through a pillbox weapons-slit

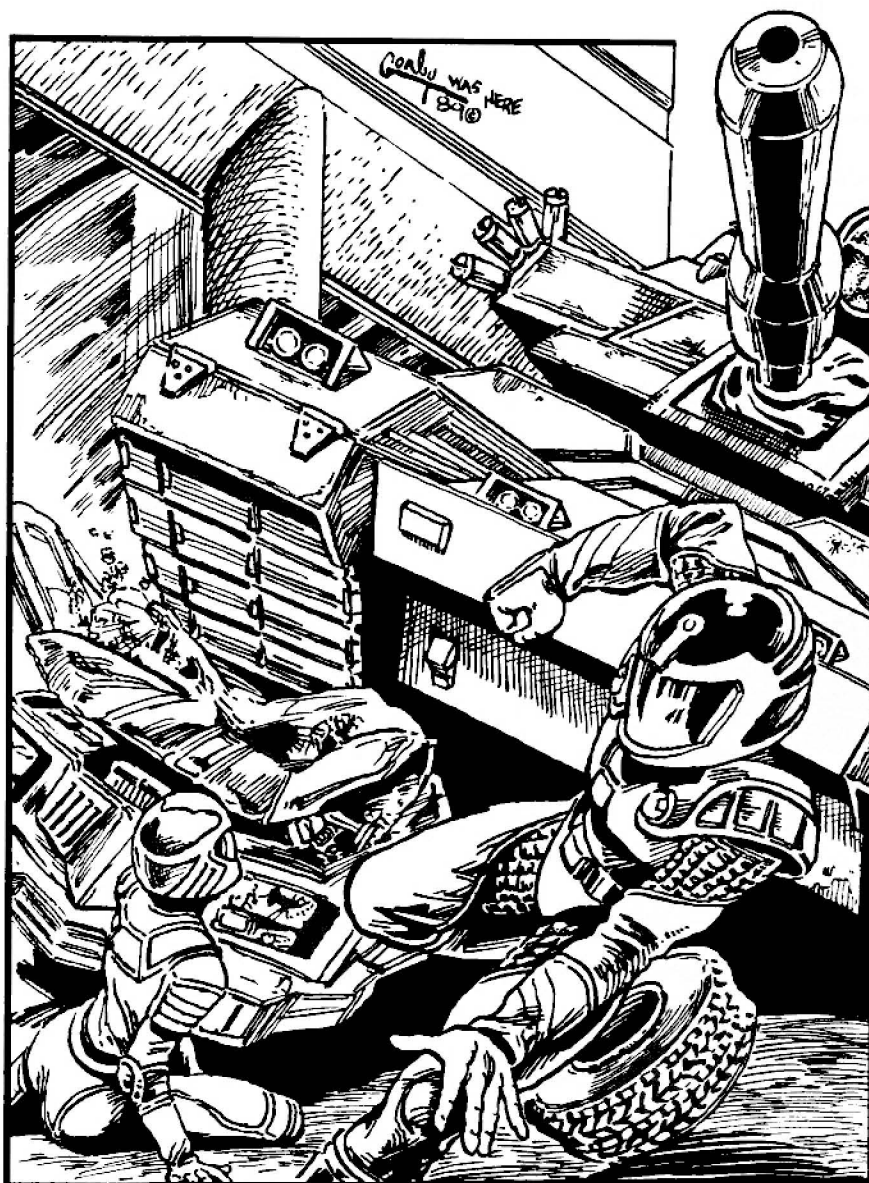
without trouble, effectively eliminating any opposition still inside. It works fine against open vehicles as well, and can set cars on fire. There is the added advantage of the smokescreen generated with each shot, although this is a side-effect. The biggest problem with the flamethrower is timeless: If the fuel tanks are pierced the gunner will probably be covered with the burning fuel that explodes from the tanks. Handle with care.

"The man-pack laser and the laser LAWs are interesting developments. The man-pack laser rifle is the forerunner of useful man-portable lasers, not much use by itself. A group of laser rifles could set a car aflame, but a single flamethrower would do a better job.

"The laser LAWs are a different story. Dangerous, uncannily accurate, lethal; they're even rechargeable. Their big down-side is cost – a single laser LAW costs as much as two bazookas."

## Crew-Served Weapons

"Enough of the man-portable weapons. Crew-served





weapons are the next step up, for those weapons too large to carry. These are mounted on tripods or wheeled carriages and usually operate from fixed positions. These weapons range from wire and radar-guided missiles to machine guns, recoilless rifles and cannons of all sorts. As a matter of fact, they're pretty much vehicular weapons on different mounts."

## Tactics

"The general tactics of infantry combat are pretty simple: cover, teamwork and support. Use of available cover is the most important element – infantry are too frail to stand in the open. Hide behind whatever you can to fight, because exposure is deadly.

"Teamwork is next. The infantryman doesn't fight alone, he has the rest of his squad or fire-team with him. No one infantryman can carry all the equipment he needs to handle every situation. Instead he carries equipment to deal with one situation while his squadmates carry gear for other situations – for instance, one might carry a LAW while another carries a GL and others carry VLAWs and mines.

"Support is a part of teamwork. No infantry unit moves as a single unit when in contact with the enemy. They use the leapfrog maneuver instead: Half of the unit fires at the enemy to keep them down while the other half moves.

"There are two basic environments in which infantry fights: urban and wooded. No infantry fights in an open situation where there is no cover – this is a good way of getting mowed down. If you find yourself in this situation, go prone and take cover immediately. The best way to avoid being hit is to not be seen. Try and retreat to arrange another encounter more to your advantage.

"Defensive combat is virtually the same in urban and wooded environments. The object is to protect a piece of ground. This is accomplished by defense in depth. Have scouts guarding outlying areas, waiting for anyone to pass. The scouts inform command of enemy forces incoming and stay behind the enemy to snipe. The next part is infantry screens, mobile harassing forces that attack the enemy and run to the next ambush point. Finally you have interlocking layers of heavy-weapons points to defend the ground. If you don't have armored strong-points then don't stick around to slug it out. Fire and move on to the next engagement, using all available cover. Fight from *your advantage, not the enemy's*.

"Offensive combat is more costly, since you're advancing into the enemy's fire. Remember the leapfrog maneuver: Have half of your forces fire from braced positions to support your advancing elements. Heavy weapons are useful here in that they can engage the enemy at range. Smoke grenades are essential – lay a barrier of smoke between your people and the enemy any time you can. Grenade launchers are best for this, although advancing men can throw smoke grenades ahead of them. Men going into offensive combat should be fast runners, though, so don't issue too much equipment or they'll be sitting ducks.

"Urban combat is an infantry playground. Lots of cover, buildings for height and protection, narrow choke-points to funnel vehicles into kill-zones. Use whatever you can to confuse the enemy and stay out of sight. Sewers are wonderful, since they allow you invisible, safe movement. Stay away

from open areas like parking lots and yards; these are killing grounds for vehicles.

"Wooded combat is fun, too. Trees make excellent sniping points for men with flash-hidden rifles – although when they're spotted they're in trouble, because there's only one fast way to get out of a tree . . . There's lots of cover and mines can be easily hidden beneath leaves and other surface debris. Foxholes can be dug to give men cover; bunkers can even be constructed from foxholes and logs, to dig in the heavy weapons. Use the woods to your advantage; cut down trees to form road-blocks and funnel the enemy into your fire zones. Hide anti-vehicle teams behind ridges and in draws to engage vehicles from the sides or rear. And always use the cover to retreat if you need to."

## Imagination

"One thing no machine has been able to duplicate is imagination and inventiveness, two qualities that are useful in combat. Keeping the enemy off-balance is always beneficial. You can even fool the enemy with fakes – just over a hundred years ago, infantrymen in the Spanish Civil War fooled tankers with ruses. A clothesline and several sheets strung across a road held up a tank advance for an hour; the tanks didn't have infantry support to find out what was on the other side of the sheets and didn't move until a support tank knocked out the line. In another instance, a tank advance was held up by three dinner plates laid face-down on the road – the tank crews thought that they might indicate a minefield and had to call in sappers to check it out.

"Today we have all sorts of playthings like fake mines and so on, as well as resources not available to the average partisan. And jury-rigged traps like the Trench-Foot Opening, the Kamikaze Oops and the Barbed-Wire Howdy have proven most effective in the past. Encourage inventiveness among your troops – just make sure you know what they're up to so you don't fall prey to their tricks!

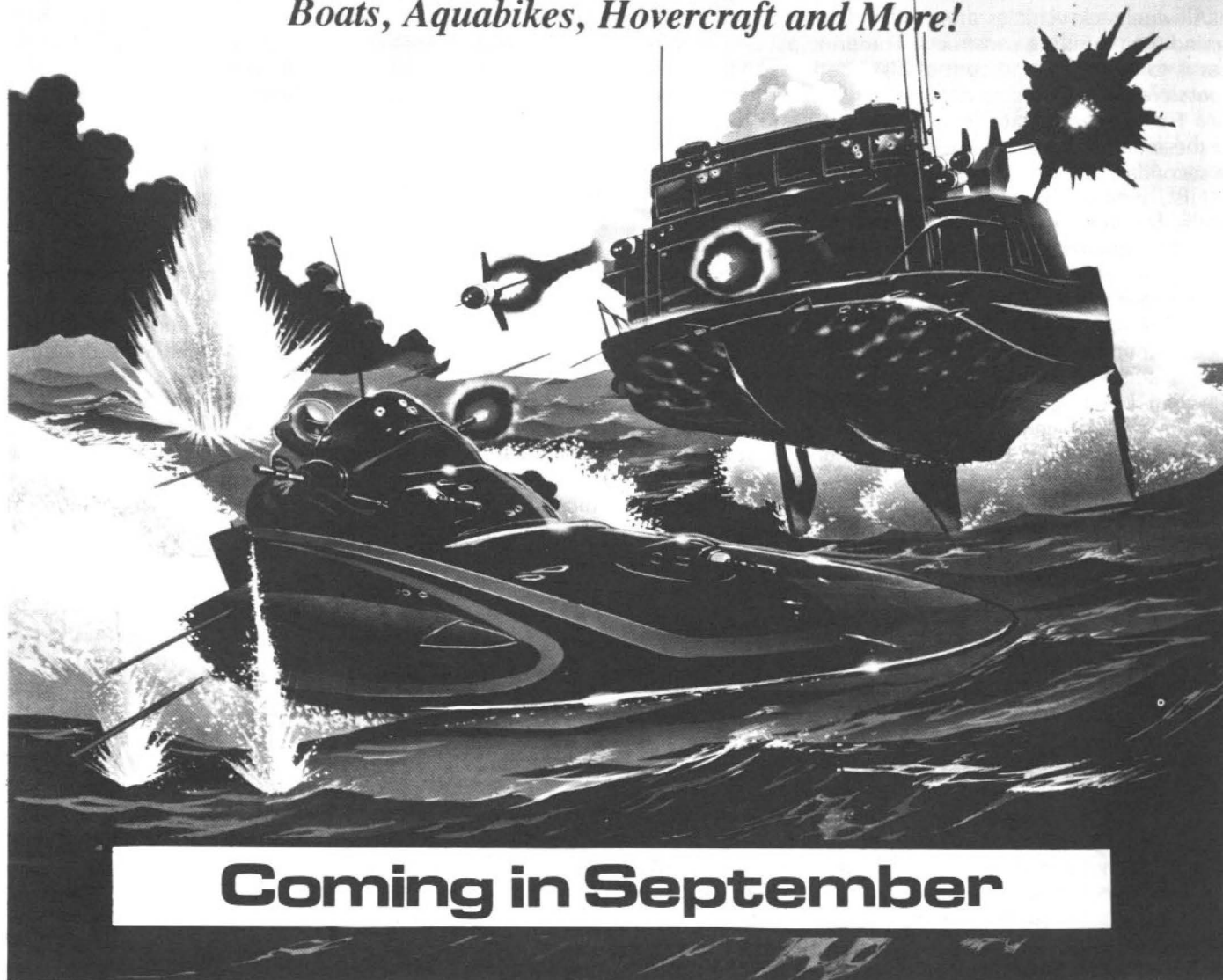
"Today's infantryman is tougher and better-armed than the soldiers of any previous era. Unfortunately so are his enemies. The difference between victory and defeat is decided by the intelligence and resourcefulness of the soldier and his commander."

*Field Carriages* – \$500 and 100 lbs. per space of weapon mounted, weapon weighs 1/2 listed weight. Enables mounting of any 2+ space weapon on a man-movable wheeled platform (1-space weapons are tripod-mounted). The weapon has an F arc of fire (from a 1/2" by 1/2" counter). A 20-point Gunshield may be added to protect the crew from fire from the front and sides at \$15 and 6 lbs. per point of shield. The carriage must have two car tires bought for it (any type, but they must be a matched pair). Moving the carriage requires a tow vehicle – the carriage is towed like a trailer – or men. Each man adds 300 points of moving power. Movement points equal to the field weapon's total weight (weapon plus carriage, gunshield and tire weights) are required to move the weapon 1 square (1/4") per turn. Points equal to 2× or greater the weapon's total weight move the weapon at 2 squares (1/2") per turn. 1/4" of movement may be used to pivot the weapon, altering its facing.

a **CAR WARS**® supplement

# **BOAT WARS**®

*Boats, Aquabikes, Hovercraft and More!*



**Coming in September**

# Racing Tips

by Craig Sheeley

No, not hot tips on whom to bet on . . . Although someone who uses these suggestions would have better odds than duellists fresh from the arena.

The racetrack is a very different environment from the duelling arena. In the arena firepower and staying power are often more important than speed and handling – the vehicles are firing platforms rather than true motor vehicles, built only to carry weapons and stand up to weapons fire. On the racetrack the vehicles are sprinters with horsepower rather than firepower. There's an old saying that you can't outrun a bullet. However, you can sure outrange it with a fast car. With such blinding speed and high acceleration, racetrack duelling has different tactics and construction strategies. This article contains some of the things I've noted about dueltrack winners and their designs.

## Construction

All dueltrack vehicles are designed with different goals in mind than duelling constructs. The principal aim of most races is to cover a set amount of distance in as short a time as possible (as opposed to destroying whatever gets in your way). This demands excellent acceleration and top speed, and these are the main priorities of a racing vehicle. Armor is a secondary priority and weapons almost an afterthought.

First, pick the largest engine you can cram into your vehicle, leaving some space for weapons, driver and accessories. This assures high acceleration and a good top speed. Gas engines are good if you can afford them, for they weigh less and have more power than corresponding electric power plants. For racing 10 mph per second acceleration is the rock-bottom minimum for acceleration. 15 mph is better and 20 mph is about standard.

When building your vehicle, it might be worth your while to consider carbon-aluminum frames, although they are fragile and make good handling and body modifications hideously expensive. If you don't want to pay the price of a CA frame, consider streamlining your vehicle. It's relatively inexpensive and improves your top speed. If you've got the money, go for a real racing vehicle body with streamlining, combining excellent handling with top speed enhancements.

Racing slicks are the *only* kind of tires that should ever be seriously considered for racing vehicles. The extra +2 HC is a necessity. Of course, if you don't intend to ever exceed 100-120 mph, then the extra DP of regular radial tires (with their +1 HC) should be enough.

Heavy armor is not the essential component that it is in duelling vehicles. 30 points of armor on a side is heavy armor on a racer; most of them tend to stay with 15-25 points on their sides and 20-30 points on front and back. Top and underbody have very little armor, perhaps 2-10 points. Racing vehicles cannot afford to be weighed down by heavy armor, needing the speed instead.

The same cautions apply to weapons. Racing weapons usually exclude such heavy guns as twin-lasers, ATGs, ACs, BCs and so on. Any weapon over 400 lbs. is a risky proposi-

tion on a racing vehicle. High-accuracy weapons, such as MGs, RLs, laser-guided rockets and Light or Medium lasers are favored.

Weapons placement is simple: Front and Back, with some mounting one-shot rockets to one or both sides. Most racing combat is ahead or behind, not sideways. Those mounting heavier weapons such as lasers or Gauss guns tend to turret-mount them for all-round traverse, since that is usually the only weapon mounted on the vehicle.

Dropped weapons and grenade launchers are rare in racing vehicles due to the fact that few dueltracks allow them. They're considered unsporting (and, more importantly, damage the expensively-maintained track).

As far as accessories, HD shocks and armored wheel hubs are almost standard options. Thanks to the new rules on spoilers and airdams these weighty items are no longer as necessary as in the past, since all they do is reduce crash penalties. Still, they can be handy if you have the weight for them. Antilock and heavy-duty braking systems are highly recommended, seeing as racing vehicles do a lot of hard decelerating (see below). And when you reach top speed having an overdrive may be helpful for an extra 20 mph of speed.

Internal combustion vehicles can benefit from the accessories mentioned and have a few special items of their own. Variable-speed turbochargers are almost standard options, while tubular headers and nitrous boosters rank second in popularity.

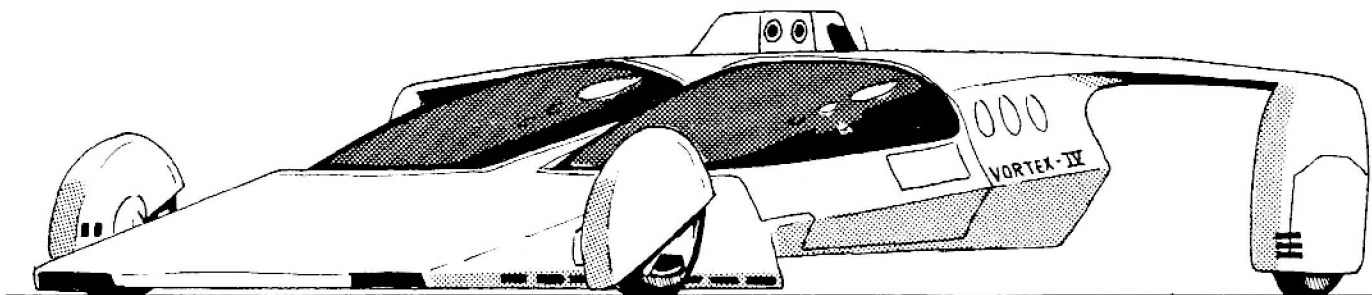
For the absolutely desperate (or the desperately flashy), rocket boosters and nitrous oxide might be the way to gain those precious foot-seconds of acceleration when they're really needed. Rocket boosters are most often used in sprints and drag races – in a multi-lap endurance race, the early lead you gain with solid-fuel boosters may be lost to someone who filled that extra space with cubic inches. Jump jets are not common, but can occasionally be useful; if the track narrows to a one-lane choke point and another racer is blocking your path, you can pass over your opponent. This is also a perfect opportunity to send a rocket through his light top armor . . .

For the safety-conscious racer, a roll cage, safety seat and impact body armor all dramatically increase the chances of your driver surviving a catastrophic loss of control.

## Maneuvering

The second that the starting light goes green, hit the accelerator. The idea with racing is to remain at the highest average speed as possible. Average, because racing vehicles have to slow their speed when turning – if they don't, they're in big trouble. The average racing car (HC 5) can take a tight turn at 130 mph with safety. Going faster risks loss of handling control, with attendant penalties. On the straight-aways the vehicle should be at close to maximum speed, making a race a series of accelerations and decelerations, with very few opportunities to coast at high speed unless the track has very long straight-aways.





When making turns there are two schools of thought: The gradual turn and the sharp turn. Gradual turners scoot around turns a D1 turn at a phase while the tight turners prefer to tuck all the direction change into a couple of D3 bends in crucial phases. Both schools have merit, with the gradual turns allowing more control and the tight turns allowing the straight-movement phase required for weapons fire.

Weapons-fire causes most of its damage in races through the associated hazards, not through brute direct damage. HD shocks reduce these hazards and are widely used. A well-applied fire hazard during a turn can transform a smooth maneuver into a bloody, fiery mess. Spoilers and airdams can reduce the danger of these crashes – the average car and driver (Driver-2) making a turn at 130 mph rolls on the Crash Table at -1 if kitted out with these items.

## Tactics

Racing tactics are simple. Get on the inside track if at all possible when going into a curve, for the turn angle can be made less steep and there's room to recover if you skid. When you're not braking, floor the accelerator pedal. Do not maneuver unless necessary; maneuvers kill at speed.

Combat tactics are equally simple. Shoot for your opponent's tires if allowed, for they're the single most vulnerable part of enemy vehicles. Loss of a tire almost always puts the enemy out of the race (and generally sticks him into the nearest wall). Use smoke projectors and screens to keep

your pursuers from shooting you. And pack weapons with lots of ammunition – race duels tend to be drawn-out affairs. The average arena duel may last up to 20 seconds; races can go on for *minutes* on larger tracks.

Special note: Watch for collisions. T-bone and head-on collisions are messy forms of suicide on any track. A side-swipe may only produce a D1, but even a D1 at racing speeds can be deadly. And watch for heavily-armored vehicles (those that lie close to the ground) for they are the ones most likely to hit you.

If you have the heavily-armored vehicle and are moving at an easily-handled speed, consider the side-swipe as an attack any time it becomes possible. Metal armor is excellent for this purpose, for it absorbs ram damage so well and stays around afterwards. If you are closing with your target (as sometimes happens on four-way crossings in many tracks, such as the Hammons Dueltrack, the Stardust Memorial Racetrack, the Pocano, the Evansville Four-Way and the Muskogee Fairground) the amount of damage done to lightly-armored CA-framed vehicles can reduce them to instant confetti – a fact graphically demonstrated at the 2039 Midwest Regionals when the first kill was made with a 300 mph closing-speed sideswipe . . . The debris didn't even reach the crowd. However, do *not* try this attack unless your HC is currently high and your speed relatively low.

The best way to win a race is to avoid being hit. The way to do this is to outdistance your opponents and get so far away they can't hit you. Remember, speed kills only if mismanaged. If properly used, speed wins.

**AUTODUEL AMERICA**  
The CAR WARS® World of 2039

*Autoduel America* is right at your fingertips. Two beautiful 23" × 35", full-color maps detail the North American continent. Details include road conditions, nuclear zones, truck stops, interstate, U.S. and state highways, cities, fortress towns, military bases, national forests and parks, state and national capitals, non-duelling zones and lawless areas. Use them as posters or game aids for either *Car Wars* or *GURPS Autoduel*. The map set is available for \$8.95 at your favorite game and hobby stores.

**STEVE JACKSON GAMES**

Car Wars, AADA and Autoduel are registered trademarks and the AADA logo is a trademark of Steve Jackson Games Incorporated.



# AADA 2039 World Championship Report

## Qualifiers

Division 5 in a small arena like the Double Drum makes for two things – intensely bloody combat, and ingenious design strategies. The most notable winning design was a ram cycle, complete with roll cage. Micromissile-tossing trikes, AT Guns w/AFPSDS ammo, rocket-boosted ram cars and other devious nickel designs moved violently through the field, each one trying to be the first to score two kills. Out of 32 entrants, seven went on to . . .

## Eliminations

The Eliminations round was a Division 25 event. American club champions, previous world champion finalists and the winners of the at-large qualifiers pushed their duelling skills to the limit at the Dumbarton Slalom in Orange County, California. The twelve players were divided into two six-player arenas. All participants started out at the same end of the arena, and the first three to loop around the two concrete blocks at the far end and return to the starting line won.

There were three restrictions on this event: No vehicle may fire, ram or be fired upon until it has passed the pylons after the first choke point; no gas engines or gas tanks may be used; no dropped weapons may be used.

Rocket boosters and confetti were the major themes of this event – more people died at the hands of excessive speed than firepower. The far end of each field was literally coated with scrap metal and plastic by game's end, making the return for more cautious drivers just as dangerous as it was for the speed demons. The six who continued on to the semi-finals did so almost by default – everyone else was dead or disabled.

## Semi-Finals

The Gladiator Arena in Chicago, Illinois hosted the Division 10 semi-

final round. Regional champions, overseas club champions and previous world champions joined the six survivors of the eliminations round to compete for a place in the final event. Again, rocket-assisted speed was the norm as cycles and small cars spun around (and occasionally off) the triple-loop racetrack, racking up kills and completing laps. Out of the seventeen who went in, only seven moved on.

## The Final Round

The remaining seven competitors (Mike Arnold, Mike Montgomery, Tim Ray, Joe Rudynski, Mike Smith, Matthew Smith, and Jason Wallace) met with defending champion Jeff Boe in the Stardust Memorial Racetrack – a double figure-eight sunken racetrack located near St. Paul, Minnesota. The event was a modified Four-On-the-Floor, with all racers starting in the center intersection, facing outward, at 40 mph. Points during the event were awarded as follows:

Firepower kill.....2 points  
Mobility kill.....2 points  
Losing firepower or mobility...-1 point  
Completing a short loop.....3 points  
Completing a long loop.....5 points  
Crewmember death.....-1 point

The race was over the instant any competitor reached 15 points or, failing that, after 30 game seconds had passed. Second- and third-place finishers were computed based on points earned up to that time. No weapons fire was allowed until at least one vehicle completed a loop and crossed the center intersection.

The first few seconds passed uneventfully, as the competitors spread out over the track.

*Six seconds.* Jeff Boe takes an early lead, topping out at 180 mph in six seconds in his nitrous-burning trike, the *Inferno*, and being the first to complete a long loop, netting him 5 points. NOMAD Joe Rudynski and RDADA

President Tim Ray trade light fire as both race around the opposite loop.

*Eight seconds.* Mike Montgomery pushes *Karla's Kompanion* up to 180 mph, following close behind Jeff Boe and tying him for first place.

*Nine seconds.* All hell breaks loose: Jason Wallace, Mike Smith, Mike Arnold, and Matt Smith all complete short laps for 3 points each. Mike Smith swerves into Jeff Boe's path for a head-on sideswipe at a total speed of 280 mph. Boe's trike loses its grip on the pavement, fishtails and rolls. Boe manages to trigger a drag chute, slowing him considerably, so that he's only lightly killed when his trike slams into the wall at the end of the straightaway . . . earning Mike Smith a 4-point kill.

*Ten seconds.* Joe Rudynski earns first blood, laying into Tim Ray's trike with a VMG burst for the first weapon hit of the race.

*Eleven seconds.* Tim Ray completes a long loop for 5 points, with Joe Rudynski and Matt Smith following close behind. Too close, it turns out, as Rudynski and Smith suffer a light sideswipe and skid away from each other.

*Twelve seconds.* Mike Arnold takes out Mike Smith, immediately reducing the level of name confusion by a third.

*Thirteen seconds.* Tim Ray and Mike Montgomery both hit 150 mph simultaneously while tearing around opposite ends of the track.

*Fourteen seconds.* Montgomery crosses the center intersection for his second 5-point loop, putting him in the lead.

*Fifteen seconds.* Tim Ray completes a short loop, putting him in second place with 8 points.

*Sixteen seconds.* Mike Arnold completes a short loop, tying him for first with Mike Montgomery at 10 points each.

*Seventeen seconds.* Jason Wallace completes a long lap, tying him for second with Tim Ray at 8 points.

*Eighteen seconds.* Following close behind, Joe Rudynski also completes a long loop, giving him 5 points.

*Nineteen seconds.* Tim Ray, at

blinding speeds, completes another short loop, bringing him into the lead with 11 points. Jason Wallace and Joe Rudynski barrel into Mike Montgomery's path. Joe fires his VMG at Mike, who shrugs off the hit.

*Twenty seconds.* Joe Rudynski retires from duelling in a blaze of auto parts after a head-on collision with Mike Montgomery.

*Twenty-one seconds.* Mike M. spins out after losing his rear tire, and ditches his trike (-2 points) to attempt a running finish of his final lap.

*Twenty-two seconds.* Tim Ray pulls alongside Mike Arnold, turns hard and rams him for a complete kill, bringing his total to 15 points and the World Champion title for 2039. Mike Montgomery takes second place with 12 points, and Jason Wallace and Matt Smith tie for third with 8 points each.

The final standings were: Tim Ray: 15 points, Mike Montgomery: 12 points, Jason Wallace: 8 points, Matt Smith: 8 points, Mike Arnold: 7 points, Mike Smith: 4 points, Jeff Boe: 2 points, Joe Rudynski: 2 points.

Tim Ray's winning design, the Yellow Rose Express, is a high-performance racing trike powered by an electric plant, featuring impressive road-holding ability, a metal ramplate front and a recoilless rifle to the right. Here are the stats:

*Yellow Rose Express – Hvy. reversed trike, hvy. chassis, hvy. suspension, super trike plant w/platinum catalysts and superconductors, 3 cycle slicks, driver, RR w/HEAT ammo right, improved supercharger capacitor, streamlining, HD shocks, overdrive. Metal/plastic armor: F10/0 (ramplate), R0/10, L0/12, B10/0, T0, U0. Acceleration 10, top speed 150, HC 5; 2,760 lbs., \$14,865.*

## AADA World Racing Championship

The first AADA World Racing Championship was held at Gencon. David Ladyman hosted the two-round event, and drew in 42 competitors from around the country.

The first round featured Division 15 Sprint cars on a small banked oval track with a single objective – pass

other cars. Out of the original 42 entries, eight survived the carnage to go on to the second round.

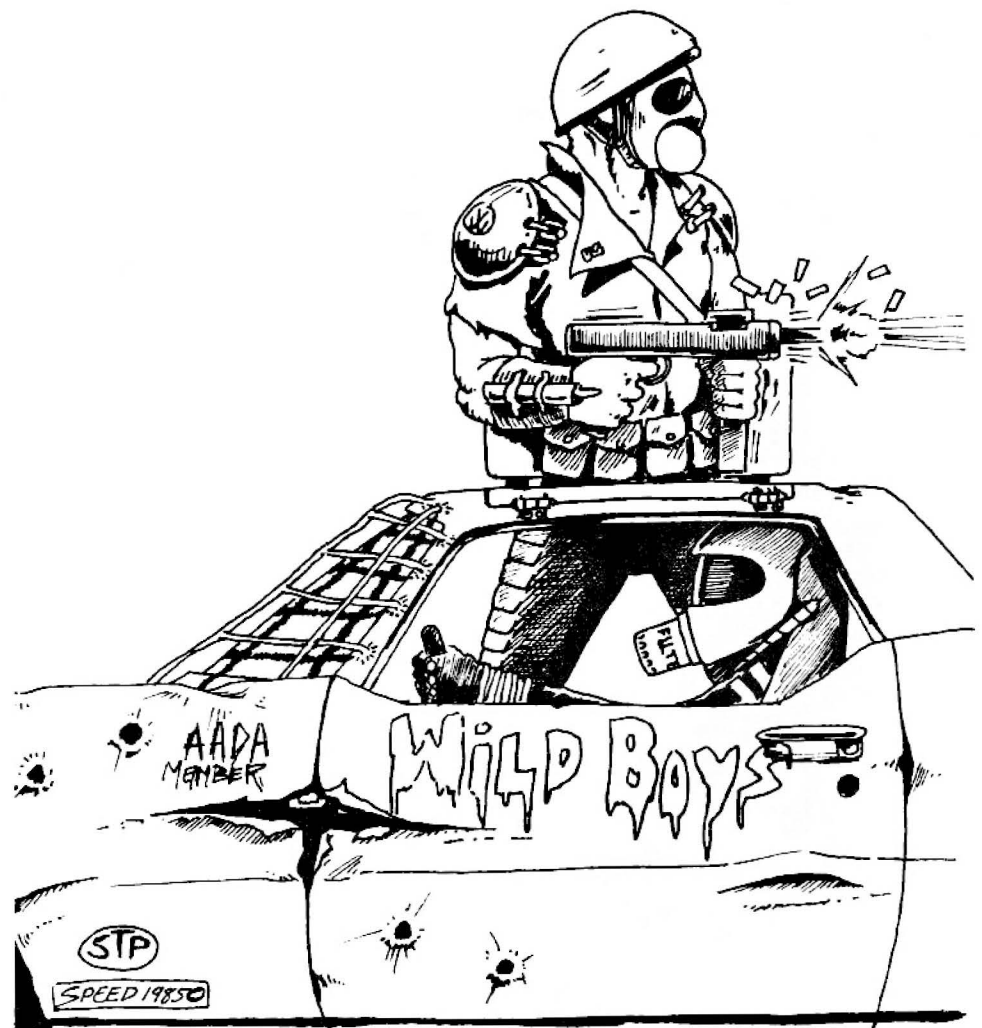
The second round used Division 25 Indy cars on a 72" diameter circular arena, with a 4" circular pressure plate in the center and eight gates spread evenly around the outer edge. The eight finalists started evenly spaced around the arena's outer edge (between gates), at 0 mph. The contest's objective was to 1) cross the center plate, 2) pass through any gate, 3) cross the plate again, 4) pass through the partner of the original gate (Gate 4A and 4B, for example), 5) enter the center circle.

The emphasis of the whole event was definitely on speed.

Early casualties: Jacob Abrams (of the Beer Town Boys, Milwaukee, WI) and Glen Murie (of Appleton, WI) began shooting at each other's tires as they passed through the center, side by side. Murie blew off Abrams' near front

tire – Abrams, spinning out, collided with the outer wall at 70 mph. Abrams' tire, now an obstacle, took out Murie's near front tire. Murie momentarily maintained control, but as he attempted the turn between the gate and Abrams' wreck, he lost control and hit Abrams and the wall at 130 mph.

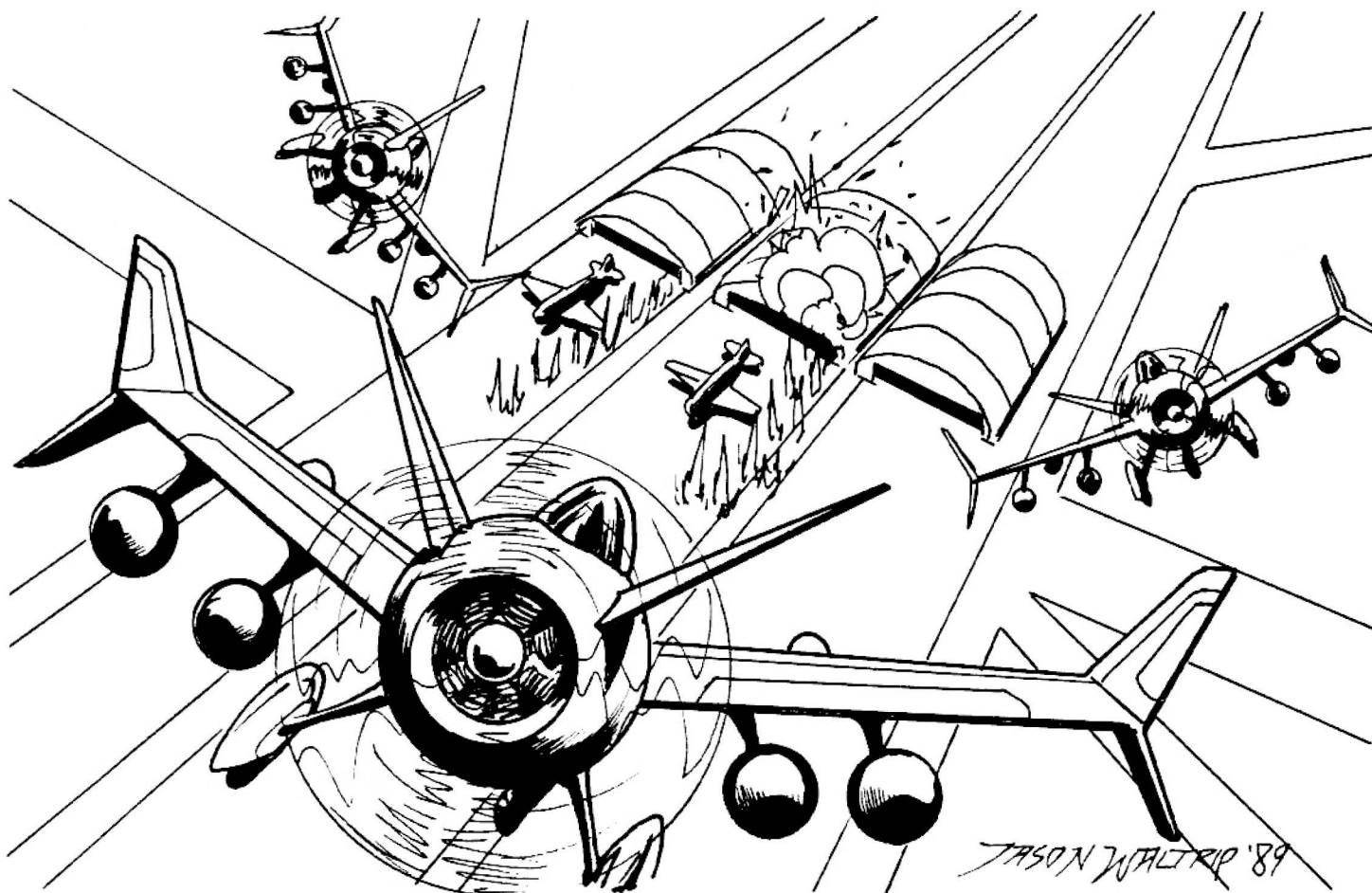
Everyone else learned from this example of weaponfire at high speed. Jeff Wilder (Louisville, KY) and Jeff Rakow (Aurora, IL) ran side-by-side throughout the event, Wilder with an electric plant, Rakow with gas. After narrowly passing each other through opposite ends of the same gate, they sprinted for the finish. Wilder pushed his plant repeatedly to keep pace with Rakow, and they passed into the final circle in the same inch of same phase, both at 190 mph, absolutely side by side – the first absolute tie in AADA World Championship history.



# Air Raiders II

## A Mini-Scenario for Microplanes

by Craig Sheeley



When the Air Raiders of Nebraska successfully plundered an Air Express airship of a ton of gold, Air Express couldn't take the loss of prestige and government contracts – not to mention to penalty payment of 10 million dollars to the government of Texas, the intended recipient of the gold shipment. They had to get it back. So they bought information about the Air Raiders and obtained an SDI tracking record of their flight – “not one aircraft that flies American skies escapes our eyes” is the tracking service motto – to pinpoint the Raiders' location and mounted an attack to take the gold back!

The Microplane rules in *ADQ 7/1* are necessary to play this scenario. New equipment from *Air Raiders: The Great Airship Robbery* in *ADQ 7/2* may also be used.

### Fire From the Sky

Air Express fighters and troop-carriers found the Air Raiders' base in northern Nebraska and attacked with speed, trying to recover the ton of bullion before the Raiders moved it away from the base.

### Setup

The battle can use any large map grid or not bother to have a map at all. The only features of the battlefield are the Air Raiders' runway (four standard straight road sections laid out end-to-end) and their makeshift hangars (three 6" by 6" buildings spaced next to the runway. The hangars are DP 2(10)). The battlefield is an austere airfield consisting of three hangars next to an unused section of highway.

The Air Raiders have \$150,000 to construct their microplanes and/or helicopters. They must build at least one tilt-rotor microplane capable of carrying 5 spaces and 2,000 lbs. of cargo with a Cargo Door in the roof (no top turrets) and one tilt-rotor or helicopter capable of carrying 6 passengers (these functions may be incorporated into the same tilt-rotor microplane). They may use the aircraft remaining from the end of *The Great Airship Robbery* if the players have played that scenario first. No damage has been repaired. The Air Raiders also have \$100,000 to construct mobile AA carriers – all AA guns must be mobile, as this is not a permanent base. Finally, the Air Raiders have \$20,000

to arm the crews of the aircraft and the ground techs – 15 men in all.

The Air Express force has \$150,000 to construct a force of microplanes and/or helicopters to attack the base. Tilt-rotor planes or helicopters must be constructed to haul the 10-man assault team (who get an extra \$30,000 for equipment only) and 2,000 lbs. of cargo for the gold. One aircraft may satisfy both requirements if it can.

The Air Express forces enter from any direction at any speed and altitude, although they may not be above 900 feet (60"). All Air Raiders aircraft are in the hangars, turned off. Air Raiders vehicles may be anywhere within 20" of the hangars, which are built anywhere within 10" of the airstrip. Air Raiders pedestrians must be inside the hangars – the Air Raiders player secretly notes which pedestrians are in each hangar. In addition one hangar must be secretly designated as holding the gold.

Pedestrians have 20 skill points for ground skills and an additional 40 points for aircraft skills. The Air Express assault team members are all Handgunner-2, Running-1. Air Raider vehicle crews and Air Express aircraft crews have 40 skill points (no more than 30 in any one skill).

### Victory Conditions

The Air Express forces must land their assault team, locate the gold and defeat or drive off all Air Raiders present to win. The Air Raiders win by avoiding these conditions.

## New Equipment

**AA Mounts** – Although any vehicle with a universal turret can be considered an anti-aircraft vehicle, true AA mounts are not turrets but open multi-gun universal mounts allowing large weapons to be installed in open cargo areas (like flatbeds, pickup beds and open-topped cargo vehicles). They are large and slow but can have the weaponry to destroy microplanes in a single salvo. Each mount holds a gunner, like a cupola – the gunner's space is already figured into the mount's spaces, although the gunner's 150 lbs. of weight are not. The gunner does not receive the +1 to hit that cupola gunners do.

The mounts come in four sizes:

Four-space mount – \$2,000, 400 lbs., 8 spaces.

Six-space mount – \$3,000, 600 lbs., 10 spaces.

Eight-space mount – \$4,500, 1,000 lbs., 12 spaces.

Twelve-space mount – \$7,000, 1,500 lbs., 18 spaces.

AA mounts may be armored (\$20 and 8 lbs. per point of armor) to 10 points of armor.

AA mounts are automatically universal. They work like universal turrets mounting linked weapons but can only rotate 90 degrees during one turn – they cannot turn completely around, they can only rotate by one facing per turn. For example, an AA mount pointing to the Left could rotate to fire at a target in the Front, Left or Back arcs during that turn. If it rotated to the Back arc then next turn it could cover Left, Back and Right arcs.

Links for the weapons mounted on the AA mount must be purchased separately. The weapons must be mounted in multiples of two for balance purposes, each weapon of each type mounted on the side of the AA mount. Example: A twelve-space mount could have four autocannon or four

MGs and two blast cannons or four rocket-launchers and two VMGs, etc. AA mounts work best mounting the same kind of linked weapons so they can be fired together for maximum accuracy.

Turrets mounted on AA carriers cannot fire to the Back arc – this is in order to avoid shooting the AA mount. AA mounts on carrier vehicles with cabs (pickups or any truck) can't shoot ground targets to the Front arc – this avoids shooting the cab.

## Sample Anti-Aircraft Vehicles

**Gun Rancher** – Pickup, x-hvy. chassis, super power plant, OR suspension, 6 OR solid tires, driver, VMG front, four-space AA mount with 2 linked VMGs and gunner, SWC for AA mount and front VMG. Cargo capacity: 120 lbs., 1 space. Sloped Armor: F30, L30, R30, B30, T30, U20. 10 points of armor on the AA mount. Acceleration 5, HC 2 (3 off-road); 7,800 lbs., \$28,464.

**Gun Truck** – Cabover truck with 15' flatbed, std. chassis, small oversized power plant, 6 solid truck tires, driver, universal-turreted RR with magazine, twelve-space AA mount with 4 linked ACNs and gunner, fire ext., SWHRC for RR and AA mount. Cab Armor: F40, L25, R25, B20, T40, U20. Flatbed Armor: U20. Six 10-point wheelguards, 10 points of armor on the AA mount. Cargo capacity: 55 lbs., 2 spaces. 15,000 lbs., \$78,200.





# BACKFIRE

Cyborgs, mutants, giant scorpions, ob-racing, football with hovercraft . . . and I thought you would keep to that promise of decreasing weird articles. I loved issue 7/2. Keep the strangeness coming. Rubber armor has proved very useful in the Supercollider event at New Boston. How about Combat Football and Private Wars rules? Is *Car Wars Tanks* ever coming?

Keep it up,  
–“Howlin’ Mad” Matt Sullins  
Fredericksburg, Virginia

*Decreasing weird articles? Us? Me? Ha. I’d sooner be an accountant.*  
–CAO

With some trepidation, I turned to the *State of the Art, 2039*. Knowing that *Car Wars* is set in the present (future?) I was expecting a bland futuristic description of the cars and their weaponry that wouldn’t explain how the things worked. Instead, we were treated to an informative article that cleared up a few ambiguities I had. For instance, if a RL has ten 2d damage rockets and only takes up two spaces, why does a one-shot MR, which is a 2d weapon, take up a whole space by itself? The answer the article told us indirectly was the loading, traverse and cooling gear. Ten MRs would have ten traverse and cooling systems, whereas the RL only has one. If I’d written a question like that to ADQ&A, I would probably get an answer along the lines of “it’s only a game.” The best part of the article was the application of it to past (current?) technology to the *Car Wars* world. With the *Mutant Zone* Chassis & Crossbow modifications, this is making the job even easier. Soon I’ll be fighting battles between Land-Rovers, MUTTs, armored cars and military personnel, all set in the 1980s and 1990s.

From the above, you probably think I’m looking forward to the TANKS supplement. Yes and no. Tracked, half-tracked vehicles, M113 APCs, FAVs, Scorpions, Marder MICV, LAV, FAV, would be useful especially for

Chassis & Crossbow scenarios as in *Mutant Zone* and maybe of some use for off-road scenarios in 2039. Actual tanks, well . . . The M1 Abrams of fifty years ago had a 120mm gun which was capable of knocking out a heavy NATO tank at 2,405 yards (481 game inches). It weighed 117,724 lbs., had a top road speed of 45 mph, and accelerated from 0 to 20 mph in six seconds. It had the British-designed Chobham armor which was (claimed at the time, anyway) invulnerable to both missiles and tank guns. An M1 counter in *Car Wars* would be 1¾” long and just under an inch wide.

With the current state of technology, I imagine a tank of 2039 to be similar to the M1 but smaller, with laser-resistant Chobham armor, track-guards, and sophisticated electronics to stop anything or anyone and insure a high kill ratio with high survivability. The cost would be phenomenal, \$10,000,000 minimum. All this would keep them out of the arena, and why would the army have them on the road, apart from protecting military convoys, and wouldn’t they use an airship protected by aircraft?

Concluding the TANKS issue, yes I would like to see the supplement, but *no* I don’t see too much use for the actual tanks themselves. Fighting with tanks reminds me of the 33rd-level fighter in D&D – invincible.

Lastly, I’ve been working on upgrading *Car Wars* to a miniatures game. Games Workshop has released a futuristic car combat game called *Dark Future*, which uses 1/2 scale miniatures. Using these and other 1/2 kits, I now have *Car Wars* miniatures at triple scale. The 3D effect is pleasing to the eye and, as I enjoy making and painting models, I find it rewarding as well. My current project is a 1/2 battle/duel that will be fought in a harbor with boats, cars, hovercraft, helicopters, oversized vehicles, bikes and an airship. The battleground will be complete with scenery, buildings and a ship. Hopefully (when it’s finished) I’ll

be able to take it to a convention in the UK.

Talking of the UK, would ADQ accept articles on Great Britain of 2039, the pier arena of Weston-Super-Mare or the pedal-cycle wars they have in the University town of Cambridge? What is Britain like in 2039?

–James “Felix the Cat” Clay  
Avon, Great Britain

RE Ob-racing: A suggested rule for pedestrian combat is the Dodge roll. A pedestrian takes his reflex bonus (+1 or +2) and adds in his Martial Arts or Acrobatics skill level (whichever is higher) – if a character has both skills, add in the highest skill, plus 1/2 the lower skill (rounded down). Now add three to that number and you have a pedestrian’s Dodge roll. It is not nearly so complicated as it may sound.

*Example:* Ob-Racer #1 has Martial Arts-2 and Acrobatics-3, and he rolls a 5 for his reflex bonus (giving him a +1). He would have a Dodge of 8; 3 (Acrobatics skill level) + 1 (half of his Martial Arts skill level) + 1 (reflex bonus) + 3 (base Dodge) = 8. Now, when ob-racer #2 shoots at him, ob-racer #1 has to roll an 8 or less on three dice to dodge the shot and take no damage. Blasts from burst-effect weapons cannot be dodged.

A braced character will lose his bonus if he dodges. Dodging is a free action; a pedestrian may dodge as many times as he likes.

You also answered Phil Radley’s question wrong in ADQ 7/1. An IR targeting scope would work if the pedestrian was wearing IR goggles. The guys at LEADA went to great pains to point this out to me.

–David N. Searle  
Across the office

*Well, if Phil had mentioned using IR goggles with the IR laser targeting scope, I probably would have said yes. And why are you writing letters to me when you work in the same office?*

–CAO

Ob-racing? Sounds like miniature golf with body armor.

–Creede Lambard  
Also across the office

*Oh, shut up.*

–CAO

# ADQ&A

1. When you have a surge protector, are *all* components (if some, which ones) that say "destroyed when the power plant is destroyed" still intact and able to function if a new power plant or power source is hooked up to those components?

2. Can an impact fuse be put on hand grenades?

3. In *ADQ 7/1*, you said that an IR laser targeting scope is useless through smoke. Is an IR targeting laser useless too?

4. How many points do characters start with? It says 30 in *DCW*, but with all the different vehicle types there is no room to get what you want. Plus, we now have all new skills in *ADQ 7/1*. 30 points for skills? Sigh. I'd set a number, but I'd also like an official ruling.

—Charlie Bolton  
Evergreen, Colorado

1. Yes.

2. Sure.

3. What I actually said was, "An IR laser targeting scope is worthless — you can't see where the beam falls." If you are wearing IR Goggles, this isn't true anymore . . . but it still isn't powerful enough to penetrate smoke.

4. The average amateur starts at 30 points (with either skill set). 50-point characters were used at the Worlds, and is a useful level for an experienced roadfighter. With the new skills introduced in *ADQ 7/1*, a 100-point character (with some limit to how many points can be put into one skill; we recommend a 30- or 40-point ceiling) is perfectly reasonable.

—DNS and CAO

1. If extra magazines need not be in turrets, could you voluntarily place one in a turret?

2. If the Velvet Glove trimmings in *ADQ 5/1* were not official, why were they used on certain vehicle designs? Are those other accessories now official?

3. What are the effects of a searchlight through smoke?

—Dominic Cecava  
Bedford, Texas

1. Sure, if you really want to.

2. The Velvet Glove trim has been around ever since *ADQ 1/1*, where it was included on the Rothschild Morningstar. They're as official as a no-effect-on-game-play-whatsoever gadget needs to be.

3. The searchlight target may look at the board, and only suffers a -3 to hit.

—DNS

Can extra magazines be attached directly to a dual-weapon magazine instead of the weapons themselves?

—Sean Wade  
Lakewood, California

No, but extra dual-weapon magazines can be hooked up to the same pair of weapons.

—CAO.

Does the cost and weight of bumper spikes pay for both a front and back set, or just one location?

—Dave Wildermuth  
Columbia, Missouri

Just one location.

—DNS

1. How are kamibombs used?  
2. Does radarproof armor increase the cost of all the armor, or just one point?

—Sam Young,  
Vienna, Virginia

1. Get real close to your victim and explode at him.

2. It increases the cost of all the armor.

—DNS

1. Is Stealth usable on IC engines?

2. Can the improved supercharger capacitors be used on oversized vehicles?

3. Can you use a supercharger capacitor to boost the rotors of a helicopter so as to shorten the time needed to warm up?

4. How long does it take to get into or out of a racing vehicle?

5. Can a grasshopper take off or land if it is still moving? If yes, what are the hazards?

6. Can oversized vehicles using IC engines use nitrous oxide?

7. Can you reload a junk dropper by finding trash and debris on the road?

8. If a portable flamethrower has no more shots, does it still explode if it is hit?

9. Can you corner-mount a weapon in a flatbed trailer's weapons box?

10. Does the cost modifier of sloped armor affect the cost of spoilers and airdams?

11. Are internal combustion engines usable on helicopters?

12. Can helicopters have assault ramps?

13. Can a gunner use more than one cyberlink?

14. What happens when a car with racing slicks goes off-road? Does the HC bonus apply or not? Any penalties?

—Colin Willeford  
Newark, Delaware

1, 2, 7, 8. Yes.

3, 6, 9, 10. No.

4. Same as for any car.

5. Sure. No hazard to take off, D2 upon landing.

11. Not yet.

12. Yes.

13. No.

14. Usually the tires get shredded (double damage from the off-road tire damage rules). The HC bonus no longer applies. No other penalties.

—DNS

Can EWP's be streamlined at +50% to cost and the loss of one space?

—David Rogers  
Albuquerque, New Mexico

Sure.

—DNS

# ADQ CLASSIFIED

LEADA: It's like a big, fat, sexy pizza. Write to: Phil Radley, 12 Wordsworth Close, Romford, Essex, RM3 7PD, England.

WANTED: BACK ISSUES OF ADQ: 1/1, 1/3, 2/1, 2/3, 4/2-4/4, 5/2 in good condition. Will pay reasonably. Contact: Mike Thomas, 609 Cascade, Richland, WA 99352.

FOR SALE: ADQ 1/1-6/2, *Uncle Al Catalogs and Calendar*, *GURPS Autoduel*, *Road Atlases 1-4*, *Dueltrack* and *Deluxe Edition* rulebooks, road sections, maps and counters. Send requests to: Kevin Kozak, 261 E. Ridge St., Coaldale, PA 18218.

ATTENTION! Fort Hood, Killeen, Copperas Cove, Harker Heights area duellists. Band together, unite under a common banner! I am a transplanted duellist wishing for a chapter in this area. For more contact RadarRider at 1611 Alamo Ave., Killeen, TX 76542.

FOR SALE: *Deluxe Car Wars*, *Dueltrack*, *Car Wars*, *Truck Stop* and *Sunday Drivers* pocket boxes, *Best of ADQ Vol. 1*, *Uncle Albert's 2035*, *2036* and *2038 Catalogs*, ADQ's 1/3 to 5/4 and 6/2, Vehicle Guides 1 and 2, Expansion sets 1, 3 and 4, *Convoy*, *Autoduel Champions*, and *Combat Showcase*. Best offer. Contact: Jeff McHowen, 1304 Richardson St., Port Huron, MI 48060.

NEEDED: WEAPONS AND GADGETS, send a SASE and I'll send the same. Wanted: Duelling teenage Australian pen pal. Contact: Brad Caldwell, Rt. 4, Box 277A-1, Pickens, SC 29671.

DUELLISTS looking to join a club in the York area. Will join AADA if one is found. Please contact: Leonardo Smith, 415 Hill St., York, PA 17403-5703.

URGENT NEWS UPDATE! Hello Colorado! It's me again, and due to

technical difficulties beyond my control, I'm not opening an AADA chapter in Vail. But now that I'm here, I am opening a chapter in the Denver area. Contact: Charlie Bolton, 4611 S. Independence Trail, Evergreen, CO 80439.

WANTED: MIKE ROBOHN. Information on this duellist's present whereabouts will earn you a friend in the west Texas wastelands. Send information to: Peter "Barnstormer" Barnes, 4689 Pamela Dr., Abilene, TX 79606.

ALL SAN DIEGO AUTODUELLISTS who want to join SCRAM (Southern California Racing and Autoduelling Membership), San Diego's newest and best chapter, please contact: Robert "Alpha Complex" Eikel at (619) 454-2359 or write: 1405 La Jolla Knoll, La Jolla, CA 92037.

THE UNBALANCED PEOPLE at the Unbalanced Force need more unbalanced duellists to join the most unbalanced autoduelling team in the country. Contact: Peter "The Unbalanced" Schauer, RR2, Box 266, Boonville, MO 65233.

LOOKING FOR DUELLISTS in Wyoming to form chapter. Also want to trade ideas with others from outside the states and in the states. Write to: Gordon Wright, 1306 W. Leisher, Cheyenne, WY 82007.

TACNUKES FOR SALE!! Just kidding. In any event, San Diego's newest (and best) chapter wants members. Contact SCRAM at (619) 454-2381.

HOOD ARMAMENTS, INC. is now offering customized three-dimensional scale model cars for *Car Wars* play. We take "Micro Machines" model cars and add weapons and battle damage. These models are in the same scale as *Car Wars* counters and can be used with *Car Wars* maps. We do almost *anything!* Cars cost \$3.00,

rigs and helicopters \$5.00. Price includes shipping, handling and decontamination. For more information or to order, call (619) 454-2381. Order today!

DUELLIST SEEKING TO JOIN or form an autoduelling club in the St. Augustine area. Also seeking opponents in the same area (mine are currently rocket and laser dependent) and pen pals of about high-school age. Contact: Steve Grohowski, 7 Lydia Ln., St. Augustine, FL 32084.

FNORD! SOUTH WANTS YOU! If you live in the Austin area and want to duel and argue with the guys responsible for this game, contact FNORD! South, c/o Steve Jackson Games, Box 18957, Austin, TX 78760-8957.

FNORD! NORTH WANTS YOU! If you live in the northern Illinois/southern Wisconsin area, join FNORD! North! Interested duellists contact: Alan "Wildman" Young, 709 Water's Edge Dr. #207, Lake Villa, IL 60046.

ANYONE WISHING TO form a club in the Rancho Palos Verdes area contact Trevor Perrin at (213) 548-7363.

WANTED: DUELLISTS IN central Pennsylvania to form an AADA chapter or just to play. Contact: Andrew Sharp, 653 Devonshire Drive, Carlisle, PA 17013.

ALL DUELLISTS IN THE New Castle PA area unite! Slaughter scumgangs and destroy the EDSEL menace. Write CINCPEN, 456 East Maitland Lane, New Castle, PA 16105.

WANTED: DUELLISTS IN the Monmouth County area to play and perhaps form a club. If you've got the guts, contact the Kamikaze Ghurkas c/o Paul Quirk, HHC 202 Box 144, Ft. Monmouth, NJ 07703.



# CAR WARS® COMPENDIUM

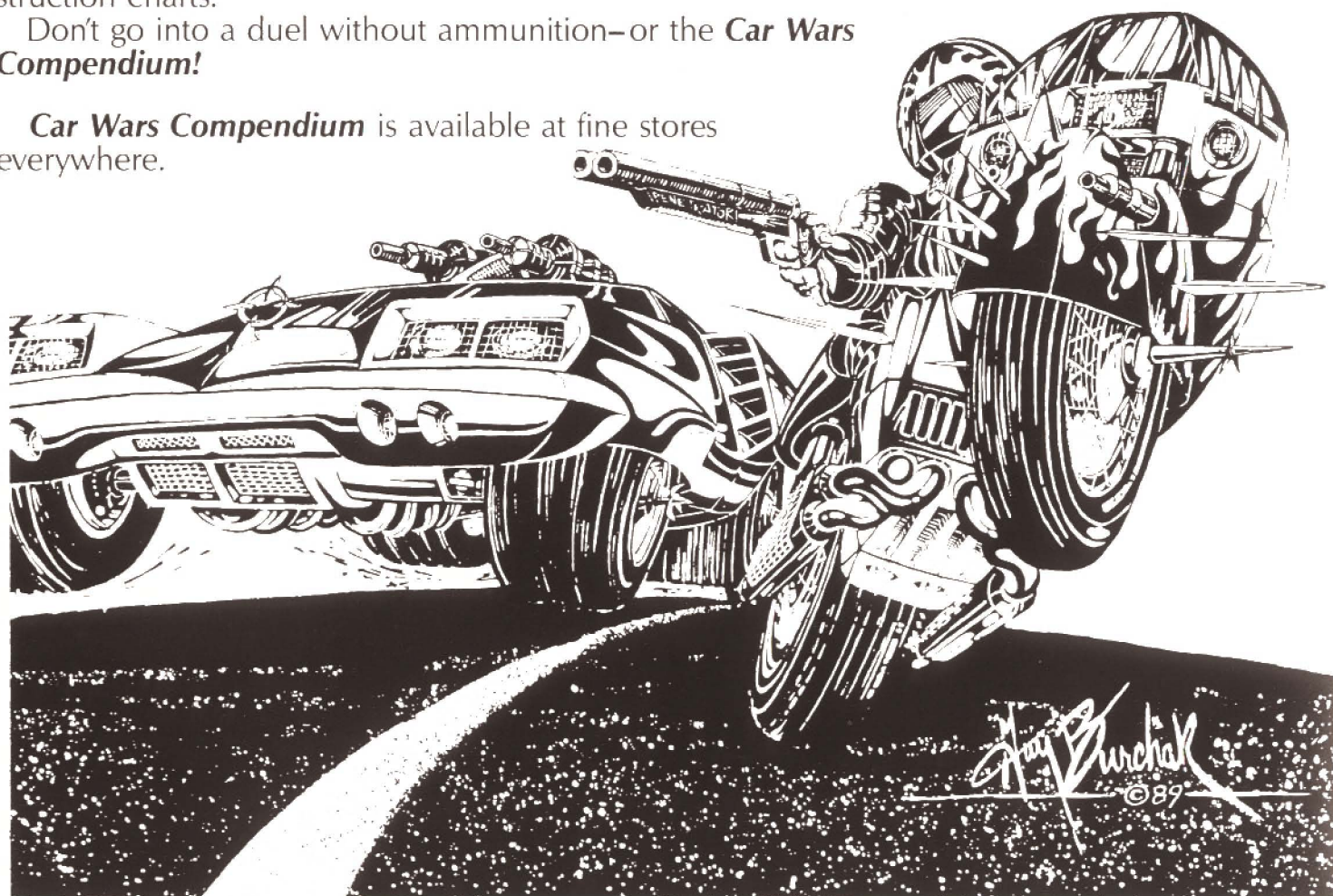
## The Most Valuable Weapon You Can Buy

Now, all your *Car Wars* can be found in one book—the *Car Wars Compendium*. We've included the rules from *Car Wars Deluxe Edition*, *Boat Wars*, the *Uncle Albert's Catalogs* and *Dueltrack* as well as clarifications and improvements from the pages of *Autoduel Quarterly*.

This new organization will make it easier to learn the game or to find important rules quickly. We've also included a detailed index. This 112-page booklet also includes an 8-page insert with combat and construction charts.

Don't go into a duel without ammunition—or the *Car Wars Compendium*!

*Car Wars Compendium* is available at fine stores everywhere.



# STEVE JACKSON GAMES

*Car Wars*, *Dueltrack*, *Uncle Albert's*, *AADA* and *Autoduel* are registered trademarks of Steve Jackson Games Incorporated.

8727