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Autoduel Quarterly

The CAR WARS® Magazine

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State of the Art 3
Uncle Schmal Returns
New Jumping and
Falling Rules

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Spring 2042

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THE DRIVER'S SEAT

This issue marks my second anniversary as editor of *ADQ*. Huzzah, huzzah.

For those of you who may be keeping score, that means I've lasted at least twice as long as any other editor, except Scott Haring, who racked up an incredible 17 issues. I'm still in the race, though.

(Speaking of Scott Haring, I'd probably get in trouble if I mentioned his name in this, his former magazine, without also mentioning his *new* magazine, *The Gamer*, which covers the whole gaming hobby. The first issue is on the stands as I write this.)

Where's Al?

You may notice that there's no Uncle Al's ad page this issue. Don't panic, Uncle Al's just taking a few weeks vacation to celebrate the publication of the *Catalog From Hell*. He'll be back in an issue or two.

Also missing this issue is "Blasts From the Past." Why? Well, partly because space was kind of tight this issue. But also because I don't *have* many, and the ones that are left are mostly really old.

People, "Blasts From the Past" will die if you don't clip articles and (especially!) create timelines and send them to me.

Designers Wanted!

No, not people to design new gadgets (well, them too), but people who may have, in the remote past, designed some of the now-standard gadgets that made it into *Uncle Albert's Catalog From Hell*. We want the addresses of the designers listed below, so they can receive the complimentary contributor's copy of *UACFH* they have coming.

If you're on the list below, you can collect your copy by sending us a photocopy of your driver's license (or equivalent ID), along with a card or note with your current address, and the name of at least one published *Car Wars* gadget you created and where it first appeared. (The reason for the ID check and the gadget identification are to make it harder for some unscrupulous character to wrongfully claim the *UACFH* that's rightfully yours.) Mail it to SJ Games, Box 18957, Austin, TX 78760, attn. Uncle Al's Contributor. If you know anyone listed below, let them know we're looking for them.

Chris Allen, Jeff Baker, Jim Berry, Clark Breslin, Guy Burchak, Andrew Buttery, Douglas Carey, Nicholas A. Carter, Doug Chin, Mark Cook, Scot Cook, Robert Critelli, Jim Davie, Chris Davis, Reed Decker, Dirck DeLint, Peter Dosik, Andy Egan, Shawn Evans, Lonnie Foster, Jim Gould, Pete Hallenberg, Paul Harralson, Randy Harrington, Robert Hayden, Kenneth Heilfron, Russel Heller, Trent Hill, Benjamin Hollister, Max Hutchinson, Garrett L. Ide, Piper Jackson, Robert Jellinghaus, Ken R. Jessup, Steve Katz, Richard Kipp, Ken Koop, Tom Krymkowski, Dave Lange, William Lewis Jr., Michael A. Lichon, Mark Limburg, Lee Lytle, Chip Martin, Joe Mauloni, Robert A. Mican, Scott Miller, Ray Morriss, Charles S. Mote Jr., John Nowak, J. Nunes, Mike O'Shea, David Plunkett, Luke Porter, Phil Radley, Alan Raisanen, Shane Ralston, Peter Reed, Timothy J. Reiss, Jeff Roberts, Pat Rogers, John H. Romero Jr., Joe Rudynski, Norman Ruge, Ronnie Ruggiero, Norman Rule, Peter Schauer, Paul A. Schriber, Neal Singletary, Nicholas Spratt, Garrett Stanfield, Kevin Stein, Kent Suarez, Chris Tucker, Kohta Ueno, Jeff Wilder, David A. Wilson, Thomas A. Wright.

— Chris W. McCubbin



What's New

By the time you read this, the colossal, lavishly-illustrated *Uncle Albert's Catalog From Hell* has been on the shelves for a couple months. In addition to *every* gadget from the *Compendium*, *Aeroduel*, *Car Wars Tanks* and recent issues of *ADQ*, *UACFH* now includes complete design rules for every vehicle type in the *Car Wars* system, from *Boat Wars* dinghies to mobile artillery from *Car Wars Tanks*. This material makes *The Catalog From Hell* your complete, one-stop vehicle design sourcebook.

And while we're on the subject of Uncle Al, see p. 25 for a special offer *exclusive* to *ADQ* readers!

Get the lead out! Official *Car Wars* miniatures will return to your game store's shelves late this year. SJ Games has made a deal with Ral Partha — probably the best-

established, most-respected name in the miniatures business, as if you didn't know — to produce lead miniatures for *Car Wars*. In addition to the *Car Wars* line, Ral Partha will also be producing miniatures for Steve Jackson's classic wargame *Ogre*, and an *all new* miniatures system to begin development in the very near future. *Ogre* miniatures will be out in time for Origins/Gen Con this year, with the first releases in the *Car Wars* line to follow shortly thereafter. (The *Car Wars* miniatures will be in standard *Car Wars* scale, of course.)

Craig Sheeley's next project will be a *Military Vehicle Guide*, containing a plethora of pregenerated planes and AFVs for your heavy-armored duelling pleasure. We're also talking about doing *Vehicle Guide 4* in the near future (no, we're not soliciting freelance vehicle submissions for *VG4* — not yet, anyway). And yes, *VG4* will be *meticulously* checked and play-tested to avoid those pesky design glitches that marred *VG3*.

That's all the new stuff, but everything else I mentioned last issue is still in the pipe. Craig will start work on *Chassis and Crossbow* as soon as he's finished with the *MilVehGuide*. Plans for *Golden Spike* are no more or less concrete than they were last issue.

David Drake's *Car Warriors* novel is called *The Square Deal*, and it should be out in August from Tor Books.

GURPS Vehicles and its follow-up volume, *GURPS Autoduel* Second Edition, have been pushed back a bit. Even though the playtesters love David Pulver's comprehensive vehicle-design system for *GURPS*, we decided not to hurry the book onto the market. We consider this book a very important part of *GURPS*, and we want to make sure and get it right the *first* time. Look for *GURPS Vehicles* towards the end of the year, with *GURPS Autoduel* to follow after a reasonable interval.

AADA NEWS

OK, gang, we've got a lot of stuff to get through this issue and not a whole lot of space to do it in, so let's get to it.

First of all, we have some club champions listed below, and some regional championships have been scheduled, but there are still a lot of clubs and regions we haven't heard from. If you haven't scheduled your club championship yet, do it *now*. All club championships should really be over by the time you read this, but we can give you a couple weeks latitude. We still need your champion reported to *ADQ* by May 1.

This is Important! Except for the regionals already scheduled below, *all* regional championships need to be held between June 27 and Aug. 2. There is *no* room for negotiation on this point – don't even ask.

All tournament arenas should be run according to the official AADA tournament rules published in *ADQ* 9/1. If you don't have a copy of that issue, include an SASE when you let *ADQ* know about your tournament and request a copy of the rules.



Club Champions

The following 2042 club champions have been reported to the AADA.

GHOST: Reigning world champion Todd MacDermid has taken his club championship for the second year in a row, in a Div. 30 bout in a custom arena co-designed by MacDermid and chapter president Brian Morrison.

GBAH: Club president Thorsten Haude took the GBAH championship in another Div. 30 contest, this one held in Hammer Downs (oil and ice were *verboden* on the ramps). Haude won on strategy, taking out former club champ Stefan Boerries with a tire shot in the early seconds, and then laying low for the rest of the bout while he collected enough points for the win.

NOVA: Tim Jacques successfully defended his crown as NOVA club champion in a decisive Div. 40 victory against an experienced field of six. Shea Montgomery and Jay Chladek took second and third respectively. Tim won driving a stock Thumper with an SWC from the *Compendium*.

Regional Championships: The following regional championships have been scheduled. Remember, any AADA member (*ADQ* subscriber) can participate in his regional – not just local chapter members.

Canadian: MASTERS, the new chapter from Winnipeg, will host the Canadian Regional during Keycon, held May 15-17. The first round will be Friday the 15th at 7 p.m. Keycon will be held at the Best Western International Inn, 1808 Wellington Ave, Winnipeg, Manitoba. For more information contact Michael Hughes, 169 Timberwood Trail, Winnipeg, Manitoba R2V 3X9 CANADA, or call (204) 338-6232.

European: Plans are still tentative, but GBAH has offered to coordinate the European regionals, possibly at the Stard con in Hamberg. For more information as it develops, contact Thorsten Haude, Ginsterweg 3, 3014 Laatzen, 0511/8 79 14 52.

Central: The Central Regional will once again be hosted by NOVA. It will be held at the Impact 1.6 mini-con, on April 4th at the Holiday Inn Convention Center at 1-80 and 72nd St., Omaha, NE. For more, contact Norman McMullen at 701 S. 22nd St. #73, Omaha, NE 68102.

Northeast: GHOST, the club of the top three finishers in the 2041 worlds, will be hosting the Northeast regional on Sat., June 13, from 1 p.m. until approximately 5, at the GHOST Clubhouse in West Hartford, CT. For information, directions and a copy of the arena map, send an SASE to Brian Morrison, 57 Pheasant Hill Dr., West Hartford, CT 06107, or contact the Cutting Edge BBS at (203) 233-8993.

Southeast: GODS will host the Southeast Regional in the game room of their sponsoring store, Enterprise 1701, in Orlando, FL on April 4. Organizer John M. Hurtt is offering a really stunning array of incentives and prizes to at-large competitors, so you owe it to yourself to contact GODS at 2401 N. Hastings St., Orlando, FL 32808.

Free Oil States: SJ Games will host the FOS regionals on May 16 at 2600A Metcalfe Rd., Austin, TX 78741. Please RSVP *in writing* to this address if you're thinking of attending. Enclose an SASE for directions and rules. Pizza, soda and door prizes will be provided. Vehicle checking will commence at 11:30 A.M., and the duel will begin after lunch.

Active AADA Chapters

These are all the currently active AADA chapters, for the reference of tournament organizers.

AVRO
President: Bruce Lam
1270 W. 51st Ave.
Vancouver, BC
CANADA

**BLAAST
President: Mitchell Burton
2202 Farnswood Circle
Austin, TX 78704

CONFETTI-RAH
President: Eric S. Goodman
3208 Windy Hill Dr.
Greensboro, NC 27401

DICE
President: Greg Pratt
14004 Silver Firs Dr.
Everett, WA 98208

**Driving Tigers/Road Wolves
President: Christopher Burke
127 Bay 23 St.
Brooklyn, NY 11214

GBAH
President: Thorsten Haude
Ginsterweg 3
3014 Laatzen
GERMANY

GHOST
President: Brian Morrison
57 Pheasant Hill Dr.
West Hartford, CT 06107

**GODS
President: John M. Hurtt
2410 N. Hastings St.
Orlando, FL 32808

GONADS

President: Pat Barrett
3807 N. Monroe Ave.
Peoria Heights, IL 61614

JADE

President: Christian J. Alipounarian
727 Chestnut St.
New Milford, NJ 07646

MADD

President: Craig Sheeley
1619 South Broadway
Springfield, MO 65807

MASTERS

President: Michael Hughes
169 Timberwood Trail
Winnipeg, MB R2V 3X9
CANADA

**NOVA

President: Norman McMullen
701 S. 22nd St. #73
Omaha, NE 68102

**STOMP

President: Kurt J. Aldinger
201 Wagner Dr.
Northlake, IL 60164

WASTED

President: Kirk Leppo
2817 Hampstead-Mexico Rd.
Hampstead, MD 21074

Clubs marked with an (**) need to renew their charter before the world championships.

The following clubs have allowed their charter to lapse without renewal since the last list was published in *ADQ*: CHAOS, GEARS, ILL, MOOTANTS, Road Kill Cafe, SCCAR, SEARCH-AND-DESTROY, SPADE, TRAACS, Those Dam Fish, Vindication.

NOVA Wars

NOVA has answered its multiple challengers. Without further ado . . .

"We at NOVA are more than happy to take you all on. One at a time, please. Contact us to set up the match schedule (see above - *CWM*). The first spot is reserved for the ex-RCADAers. All matches, except for the one with Zebra, will be held at

GenCon/Origins. We will be contacting Zebra personally to set up their match.

"The rules for all the matches are simple: Div. 30 cars in a free-for-all duel at Hammer Downs. An equal number of members from each chapter will participate in the duel, with no teamwork. Bring your best designs and we'll duel.

"Please have the courtesy to write us directly about the match schedule."

— Norman McMullen
NOVA President,

Norm adds a special challenge for one particular old foe:

"Wibble! We have a member willing to meet the Black Asp to destroy his beloved Adder-2 Tank with our Ogre Mk. III. Wibble, see you in the funny papers.

"Whatever happened to MADD anyway? And how did ASP hear about the matches and the Ogre Mk. III? Do we have rogue chapters now? ASP, BLUD, ARFs and who knows what?"

GODS president John M. Hurtt checks in with his club's official position on the contretemps - outraged neutrality.

"The Greater Orlando Duellist Society would like to officially commend the members of NOVA for weathering the storm of insults, remarks and innuendo heaped upon them by the other chapters of the AADA. Tim Ray and the RCADA in general had *some* justification in verbally lashing out at NOVA, since NOVA threw a challenge at them along with some accusations. But as for the rest of you guys . . .

"I am strongly reminded of elementary school-day memories, where one obnoxious kid threw insults at another kid and all the other kids joined in in belittling the one kid - not because they had any actual beef with the kid, it was just suddenly "popular" to insult him.

"Now, before the poison pens go to work, stop. I, and the members of GODS are not interested in trading insults, so don't bother, we'll never respond to verbal attacks. But if you feel the need to "discuss" our opinion face-to-face . . . well, we just happen to be running the Southeast Regional this year (see further above - *CWM*), and we're even offering special incentives to make it easier for you to get here.

"So if you *really* want to prove any points to us, and to anyone else for that matter, come on down here to Florida and settle this like *real* duellists.

"After all, money and large-bore projectile weapons talk . . .

" . . . And we all know what walks."

Finally, this from member-at-large Sean Motylinski:

"Dear NOVA and ex-club members of the RCADA:

"I've had it up to here with your petty bickering. This game was designed for people to spend some good quality time blasting cars into confetti. I've listened to you guys from RCADA issue your challenges and you guys from NOVA brag about how bad you are, and I'm sick of it. I mean come on, it's 2042 and you guys are in your 70s; act your age."



New Official Rules

Below are the two important rules changes from *Uncle Albert's Catalog From Hell* – the changes to the ramplate, and the new jumping and falling rules. These rules are now official for all AADA-sponsored events.

While there are no other rules changes of this magnitude in *UACFH*, there are numerous clarifications and minor additions. Co-editor Ken Scott recommends that if you own *Catalog From Hell*, don't just use it, *read* it.



Ramplates

Ramplate – Cost and weight are in addition to the front armor of a car, truck, boat or reversed trike. Cost is $1\frac{1}{2} \times$ the cost of all the front armor, including any special armor types and sloping. Weight is 50% of all the front armor weight. A ramplate can only be mounted on the front of a vehicle. When in a collision involving the ramplate, roll the appropriate number of damage dice, adding 2 points per die to the rammed target and subtracting 1 point per die (minimum damage 1 point per damage die) from the rammer's collision damage. Two ramplate-equipped vehicles meeting in a head-on collision will each take +1 per die of collision damage.

Jumping and Falling Rules – Car Wars in the 3rd Dimension

Original Rules by Ben Ellinger

Developed by Ken Scott
and Steve Jackson

Falling

Whenever a vehicle has half of its wheel positions off the edge of a precipice, it will begin to fall. If its speed is only 2.5 mph when the wheels go off, there is a 50% chance that it will stop, stuck on the edge; otherwise it will fall. When a vehicle is stuck on the edge of a precipice, any collision will knock it over; other situations are resolved by “roll 2 dice and pray.”

A vehicle which is moving at 5 mph or greater will start falling on the phase that half its wheels go over the edge.

If a vehicle has more than two wheels, it will suffer an immediate D6 hazard as soon as one wheel goes off the edge. Every additional wheel that goes off the edge will mean another D6 hazard, until the vehicle gets more than half of its wheels off the edge and falls.

Wheel Positions

A four-wheeled or six-wheeled vehicle is considered to have its wheels on the corners of the counter. A six-wheeled vehicle has one wheel position at each rear corner,

and if a rear corner goes off the edge, this counts as only one D6 hazard, not two.

A cycle has its wheels located at the midpoints of the front and the back of its counter.

A trike has its wheels located at the midpoint of the front of the counter and at the rear corners of the counter (a reversed trike, of course, reverses this).

A full trailer has wheels on all four corners, and a semi-trailer has wheel only on its rear corners.

Car trailers, 10 feet or smaller, are considered to have wheels at the midpoints of the sides of their counters; larger trailers have wheels at all corners.

A hovercraft is treated as a car, with one “wheel position” at each corner.

If a boat or aquabike goes over a waterfall, treat a boat like a 4-wheeled vehicle, and an aquabike like a cycle.

If a grounded plane or copter is in danger of falling, check its record sheet to see how many wheels it has. Since plane designs vary so widely, players or the referee will simply have to determine where the wheel positions should be, *before* the difference becomes critical. Yes, an aircraft can take off by driving over a precipice.

Altitude Loss

When a vehicle drives off a precipice, intentionally or otherwise, it will lose alti-

tude *each phase*, whether it moves forward on the speed chart or not. (This also applies to any falling object, be it an out of control aircraft, a bomb, or a person.) The altitude change is made after forward movement (if any).

For the first three phases, it falls at $\frac{1}{4}$ ” per phase. After every three phases of falling, its rate-of-descent is increased by $\frac{1}{4}$ ” per phase.

Example: a car going at 50 mph begins falling on phase 1. It will move 1” in its direction of travel, and then drop $\frac{1}{4}$ ”. This is repeated on the second and third phases for a total of 3” of forward movement and $\frac{3}{4}$ ” of fall. On the 4th phase, the vehicle will travel 1” forward, and drop $\frac{1}{2}$ ”, since it gains an additional $\frac{1}{4}$ ” of downward velocity after the 3rd phase of falling. This is repeated for the 5th and 6th phases of the fall, for a total of 6” of forward movement and $2\frac{1}{4}$ ” of fall. On the 7th phase, the vehicle gains another $\frac{1}{4}$ ” of downward velocity and falls $\frac{3}{4}$ ” at the end of the phase after moving forward its one inch. This continues until the vehicle reaches a surface.

A vehicle in the air may not maneuver. It may change speed only by accelerating with rocket boosters, or decelerating with a drag chute or parachute. If the vehicle and driver survive the landing, maneuvering and/or speed changes may take place on the phase *after* the phase in which it lands.

For simplicity's sake, assume that the height of a vehicle is the height above the ground of its lowest wheels.

Rotation in Flight

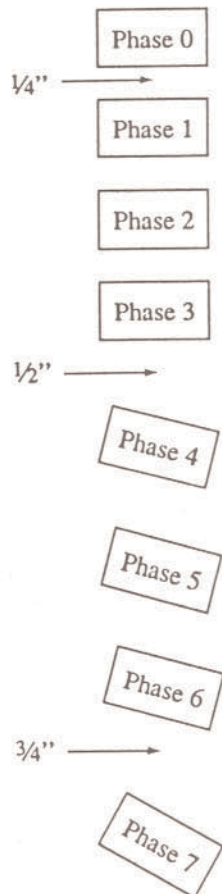
A vehicle in flight will start at the angle of its takeoff ramp; if it drove off a flat or down-slanted surface, it will start with that angle.

A vehicle which is moving at 10 mph or less will go leading-end-down by 15 degrees immediately; if it was on a ramp, it will still lose 15 degrees of the angle that the ramp gave it. Faster vehicles will lose no angle until the third phase.

After every third phase, at the same time that its downward speed increases, a vehicle's leading end or edge will drop by 15 degrees. In most cases, a vehicle will be going nose-first, so its nose will drop by 15 degrees after every third phase. See diagram (next page).

Falling. No horizontal motion is shown. The vehicle increases its downward speed by 1/4" every 3 phases. At the end of every 3rd phase, it rotates nose-downward by 15 degrees if it had forward motion. (A car hanging from a cable would not rotate if the cable broke.)

Each box shows the car's position at the end of the phase.



Motorcycles, snowmobiles and aquabikes rotate in the opposite direction as cars, boats, etc. Their bottom wheel will drop during a jump, causing the vehicle to spin backwards.

Jump jets are gyro-controlled, so firing jump jets will stop a vehicle's rotation – see *Jump Jets*, p. 7.

Effects of Landing

Collision Damage

When a falling vehicle hits a surface, it takes collision damage of 5 mph per 1/8" of downward velocity. If a vehicle lands

on its wheels (or a hovercraft lands on its skirts), subtract 10 mph from the collision speed. If a vehicle also has HD shocks, subtract an additional 10 mph from the collision speed.

If the vehicle lands in water, ignore the collision speed reduction for wheels-down or HD shocks. Instead, halve the original collision speed. A boat landing ramp counts as water for a boat or aquabike, but not for other vehicles.

If a vehicle lands on its wheels, roll the damage normally and divide the damage total among all the wheel positions (wheelguards or hubs will not protect). Roll randomly for any odd points. Damage to any wheel position that has lost all of its wheels goes directly to the underbody armor.

A hovercraft divides this damage between its skirts in the same fashion. Skirtguards do not protect, and any damage that should be applied to a destroyed skirt goes to underbody armor.

Boats and aquabikes landing on a hard surface take the full collision damage to the underbody armor and get no collision speed reduction for landing on their underbody.

Landing Hazard

The hazard for the landing is D1 for every 1/4" (or fraction thereof) of downward velocity, HD shocks will subtract 1 from the total. A vehicle may recover handling class normally while airborne, but all Ds incurred while the vehicle is airborne are added to the landing D, for a single hazard. This combined hazard is used to modify any crash table results. If a vehicle lands at an odd angle (e.g., the counter is not pointed in the same direction that the vehicle is traveling) then D3 is added to the landing difficulty. If the vehicle maintains control it will now be moving in the same direction the counter was pointed (hovercraft will not straighten out or suffer the additional hazard penalty). A vehicle which is towing a trailer will suffer an additional D6 penalty on landing.

For every 15-degree difference between the slope of the landing surface and

the pitch of the vehicle, add D1 to the landing hazard. If the difference is greater than 45 degrees then the vehicle will take the landing damage to the leading side of the vehicle before it falls to its wheels. If the difference is greater than 60 degrees the vehicle will take damage on its leading side, fall to its top, taking sideswipe damage at the vehicle's speed, and roll immediately on Crash Table 1 modified by the landing hazard.

Jumping

All ramps in *Car Wars* should be defined as either 15, 30, or 45-degree ramps. A 15-degree ramp will rise 1/4" for every inch it covers on the map, a 30-degree ramp will rise 1/2" for every inch it covers on the map, and a 45-degree ramp will rise 1" for every inch it covers on the map. Ramps of a greater pitch can be constructed by combining 15, 30 and 45-degree ramps. Hitting an angle of greater than 45 degrees, all at once, counts as a wall!

Jumping uses the same game mechanics as falling, except that the vehicle starts with an upward velocity, which gravity then steals back for its own nefarious purposes. To determine how much vertical velocity a vehicle starts with, see the chart at the bottom of this page.

As a vehicle leaves the top of a ramp it gains a rate-of-climb as per the chart above, and is pitched up at the angle of the ramp it left. Its speed will decrease by a fraction shown in the *Speed Decrease* column. (In reality, this speed decrease begins when the vehicle drives onto the ramp, but it is more playable to assess the decrease on takeoff.)

Example: A car moving 120 miles an hour, leaving a 15-degree ramp, will have an initial rate of climb of 1/4" + 1/2" (120/30=4, x1/8" = 1/2") or 3/4". It will also slow down 10 mph (2.5 mph for each full 30 mph, as shown by the *Speed Decrease* column). It will be nose-up by 15 degrees, since the ramp was 15 degrees.

After the initial rate of climb has been calculated, and the speed of the vehicle

Ramp Angle	Initial Rate of Climb	Speed Decrease	Accel
15 degrees	1/4" + 1/8" per 30 mph	-2.5 mph per 30 mph	+/-5 mph
30 degrees	1/4" + 1/8" per 15 mph	-2.5 mph per 15 mph	+/-10 mph
45 degrees	1/4" + 1/8" per 10 mph	-2.5 mph per 10 mph	+/-15 mph
60 degrees	1/4" + 1/8" per 7.5 mph	-2.5 mph per 5 mph	+/-20 mph
75 degrees	1/4" + 1/8" per 5 mph	-2.5 mph per 3 mph	+/-22.5 mph
90 degrees	1/4" + 1/8" per 5 mph	Vehicle stops	Falls!

decreased, the vehicle begins falling as described above.

Example of Jumping and Falling

A vehicle traveling at 60 mph leaves the top of a 30-degree ramp. Its initial rate of climb, as given by the chart above, is $\frac{1}{4}'' + \frac{1}{2}''$ or $\frac{3}{4}''$ ($60/15=4$, $\times\frac{1}{8} = \frac{1}{2}''$). The vehicle also slows down by 10 mph, so it will fly through the air at 50 mph. The ramp pitches it up by 30 degrees. Now, as per the falling rules, the vehicle immediately starts falling at $\frac{1}{4}''$ per phase. This is subtracted from the initial rate-of-climb, giving a rate of climb of $\frac{1}{2}''$. This is repeated for the second and third phases of the jump.

On the 4th phase the vehicle falls $\frac{1}{4}''$ faster. Again, this is subtracted from the rate of climb, so it travels 1'' forward, but only climbs $\frac{1}{4}''$. The pitch of the vehicle is also decreased by 15 degrees, so it is only 15 degrees nose-up. Climbing speed remains the same for the 5th and 6th phases.

On the 7th phase subtract one more $\frac{1}{4}''$ from the rate of climb, giving a rate of climb of 0. Subtract another 15 degrees from the pitch. So, for the 7th, 8th, and 9th phases, the car will travel forward a inch each phase, keep the same altitude, and have a pitch of 0 degrees (level).

On the 10th phase, subtract $\frac{1}{4}''$ from the rate of climb (currently 0) to yield a rate of climb of $-\frac{1}{4}''$ (you're falling). Also subtract 15 degrees from the pitch (you're nose down by 15 degrees). On the 10th, 11th, and 12th phases, the vehicle will move forward 1 inch per phase and *drop* $\frac{1}{4}''$ each phase.

On the 13th phase you again subtract $\frac{1}{4}''$ from the rate of climb, and 15 degrees from the pitch, so for the 13th, 14th, and 15th phases you're moving ahead 1'' and dropping $\frac{1}{2}''$ per phase, with a 30-degree downward pitch. At the end of the 15th phase, you're back to the same altitude you were at when you left the ramp initially. If there is a landing ramp there, you would land immediately, using the landing procedure detailed above.

If you are landing in phase 15, on a 30-degree landing ramp, you will have a downward velocity of $\frac{1}{2}$ inches for a D2 hazard. Your pitch will be 30 degrees, but since your landing ramp is also 30 degrees, there is no difference and no extra hazard. HD shocks will reduce this to a D1. Landing damage will be at 20 mph. but, since you land on your wheels, the

speed is reduced to 10 mph; if you had HD shocks it would be reduced to zero.

If there is no landing ramp there, continue with the falling process until you find something to land on.

Partial or Uneven Landings

If a vehicle lands at a slant, or if its leading wheels reach a landing ramp but its trailing wheels do not, assume that the vehicle lands on the first phase when any wheel touches the ground.

If a vehicle lands in such a way that it is unstable (for instance, with its right wheels on the ground but its left wheels over a precipice), treat this as a normal landing, followed immediately on the next phase by the beginning of another fall.

If a vehicle is aiming for a landing ramp, but it fails to reach the ramp until it is below the vertical level of that ramp, then it crashes into the face of the ramp, and then falls.



Boat and Aquabike Jumping

A boat or aquabike attempting a jump from a ramp will decelerate by 15 mph as soon as it hits the upward ramp. This reduced speed is used to figure the initial vertical velocity and speed decrease on the chart above. If the takeoff ramp is not specifically designed for boat and aquabike jumping, roll one die. On a roll of 1, the boat takes sideswipe damage to its underbody armor, *and* the appropriate hazard, based on its speed before it hit the ramp. If the underbody armor takes damage, roll a second die; on a 1 to 3 the propeller(s) also take damage. Roll the same number of

damage dice again and apply that damage to the propeller(s); jet drives are immune to this damage.

Acceleration On Long Ramps

A vehicle which stays on a ramp for more than 5 phases will gain or lose a significant amount of speed, as shown by the Accel column on the chart. At the beginning of its 6th phase on the ramp, it will speed up by the amount shown if it is going down, or slow down by that amount if it is going up. If it stays on the ramp for another 5 phases, it will speed up or slow down again, and so on.

Jump Jets

Jump Jets are simply top-or bottom-mounted Rocket Boosters. When fired they will instantly change the vehicle's rate of climb by $\frac{1}{4}''$ for every 10mph of acceleration which would normally be given by the booster. If a vehicle fires a booster while it has a 0'' rate of climb on a flat surface, the first 20 mph of acceleration do not give any climb; this acceleration is lost countering the pull of gravity.

When jump jets are fired while a vehicle is in flight, the vehicle will quit rotating.

If a vehicle has a pitch of more than 45 degrees, then its jump jets will act as rocket boosters, and vice versa.

Vehicle Heights

Motorcycles, trikes, sub-compacts and compacts are considered to be $\frac{1}{4}''$ tall. Mid-size, sedans, luxuries and station wagons are $\frac{3}{8}''$ tall. Pickups, campers and vans are $\frac{1}{2}''$ tall. Pickups, campers and vans are $\frac{1}{2}''$ tall. Ten wheelers are $\frac{3}{4}''$ tall, and 18-wheelers are a full inch tall.

Ramplates on all cars (i.e., vehicles found on p. 50-55 of the *Compendium*) and reversed trikes are considered to be $\frac{1}{4}''$ tall. Ramplates on all oversized vehicles are considered to be $\frac{1}{2}''$ tall. Note that in some cases it will be possible for a ramplate equipped vehicle to collide with an airborne vehicle and not gain the benefits of the ramplate, because the airborne vehicle, while not high enough to clear the vehicle, is high enough to clear the ramplate.

If a taller vehicle wishes to shoot over a shorter vehicle, it may do so only with turreted weapons at a target that is also taller than the intermediate target. The firing vehicle is at -2 to hit.

CAR WARS[®] in the Third Dimension

By Ken Scott

Two years ago, a competitor in the third round of the World Championships ignited his jump jets to avoid a ram by hopping up into the air and letting the would-be ram car drive under him. The discussion that followed didn't end with the tournament and, more than any single event that I can recall, led to the realization that the Jumping and Falling rules in *Car Wars* had serious shortcomings and needed a total rewrite. The rules published in this issue and in *Uncle Albert's Catalog From Hell* are the product of that incident at the World Championships in Atlanta.

The old rules were simple – too simple. To figure how far you'd jump, you'd plug your speed into a simple formula which told you how far you'd jump. Then, if you hadn't reached a landing place when you'd covered that distance, you began to fall till you found a surface to land on. This is easy – but it gives no indication of how high a vehicle is at any given point in the jump, nor does it simulate what really happens to a jumping vehicle. As far as the old rules were concerned, a vehicle that left a ramp was at the height of the top of the ramp, until it began to fall when it had traveled the distance it was going to jump. This is clearly wrong and is in no way related to the way things actually work.

What was needed was a mechanic that would mimic what actually happens to a jumping vehicle, and make it easy to keep track of the altitude of that vehicle. Jump ramps and jump jets take the cars out of the confines of the two-dimensional surface of the map, and open the possibility of mid-air collisions, or collision avoidance in the third dimension (which was what happened in Atlanta to trigger all of this).

What happens when a car, or anything else, is unsupported by a surface is that it falls. Galileo proved centuries ago that any object, no matter what its weight, falls at the same rate. Given that fact, and the knowledge of how fast things actually accelerate when falling on earth, it was fairly

simple to figure out the falling rules. That is, any object falling in *Car Wars* will drop 1/4" per phase, every phase, and that every third phase the rate it falls increases by 1/4". This is fairly close to the real acceleration experienced by things falling on Earth, and works well for the game because it allows you to know how high you are at any given phase.

But what about jumping? Isn't jumping different from falling? No . . . it isn't. Whenever an object is unsupported, it falls at a predictable rate. The only difference between Jumping and Falling is that when you jump off a ramp you're already traveling up when you start to fall. Gravity has to cancel out this upward velocity before you actually start to lose altitude. What was needed was a way to figure out how fast you were traveling up when you left the end of the ramp and started to fall. What you need to figure this out is the angle of the ramp, and the speed that you left the ramp. We could have just published a nasty, complex formula that would let you figure everything out for any given ramp angle and speed. But speed is already incremental in *Car Wars*, and limiting the different ramp angles the rules allow made the math simple enough to do in your head, and for the chart published with the rules. So, when you leave a ramp, you figure out how fast you're going up, and then just fall. It's as simple as that.

This method isn't without its drawbacks, however. The first complaint I got about the system was that it was difficult to figure out how far you were going to jump before you actually go and do it. This is true, but go build a couple of ramps in the street in front of your house and figure out how fast you'll have to go to clear the distance between them in your Toyota . . . It ain't easy. The other problem with the system is an unavoidable consequence of trying to simulate an analog process digitally. Falling is a continuous process; *Car Wars* isn't. *Car Wars* has phases, and you don't always move the same distance on

every phase. The result of this is that the distance you'll end up covering on the map can vary as much as a full inch depending on which phase you begin your jump. This doesn't bother me, I like a little gray area, a little margin. Look at it this way; that guy across the arena with the oil gun is going to have a harder time messing up your landing area if he doesn't know exactly where you're coming down. Once you know that the problem exists, it's fairly easy to work around it so it doesn't really become a problem in an arena.

I figured out this table mainly as an aid to people designing arenas with jumps in them. The table covers all speeds between 50 and 200 miles per hour, and the 15, 30 and 45-degree ramp angles, giving the minimum and maximum jump distances that you can cover. What an arena designer should do is set the ramps the minimum distance apart, and make all ramps cover at least 2 inches on the map. He should also print the speed needed to complete the jump on the mapsheet so no one has to try and figure it out for themselves. Doing these three things will insure that no one complains because Fred the math whiz had an advantage because he could figure out how fast he needed to go in his head, or that Ralph had the chart and wouldn't show it to anybody, and also that no one will overshoot the landing ramp if they were going the indicated speed at the beginning.

Of course, if you're out and about in your off-road trike, and you want to jump that creek using that mound of dirt on the bank as a ramp, then hit that accelerator and go for it . . . it is hard to figure out in advance how far you'll go for any given speed, but remember, too fast is probably better than too slow. There are other nifty things that can be done in arenas with these new jumping rules, like using a ramp to jump up to a higher level of the arena, but I'll leave those possibilities to the imaginations of the readers.

SPEED (MPH)	15° RAMPS		30° RAMPS		45° RAMPS		SPEED (MPH)	15° RAMPS		30° RAMPS		45° RAMPS	
	MIN	MAX	MIN	MAX	MIN	MAX		MIN	MAX	MIN	MAX	MIN	MAX
50.00	5.50	5.75	9.75	10.50	13.00	14.00	122.50	33.75	33.75	55.25	55.50	72.00	72.75
52.50	6.00	6.00	10.50	11.00	14.00	15.00	125.00	34.50	34.50	56.50	57.00	74.00	74.50
55.00	6.25	6.50	11.25	11.50	15.00	15.75	127.50	35.25	35.25	57.75	58.50	76.00	76.25
57.50	6.50	7.00	12.00	12.00	16.00	16.50	130.00	36.00	36.00	59.00	60.00	81.75	82.00
60.00	9.50	10.00	15.00	15.00	18.50	19.00	132.50	36.75	36.75	60.25	61.25	84.00	84.00
62.50	9.75	10.50	15.75	15.75	19.75	20.00	135.00	37.50	37.50	67.50	67.50	86.00	86.25
65.00	10.00	11.00	16.50	16.50	21.00	21.00	137.50	38.25	38.25	69.00	69.00	88.00	88.50
67.50	10.50	11.50	17.25	17.25	22.00	22.25	140.00	39.00	39.00	70.50	70.50	94.50	94.50
70.00	11.00	12.00	18.00	18.00	25.00	25.25	142.50	39.75	39.75	72.00	72.00	96.75	96.75
72.50	11.50	12.50	18.75	18.75	26.00	26.50	145.00	40.50	40.50	73.50	73.50	99.00	99.00
75.00	12.00	13.00	22.00	23.00	27.00	27.75	147.50	41.25	41.25	75.00	75.00	101.25	101.25
77.50	12.50	13.50	23.00	24.00	28.00	29.00	150.00	49.00	50.00	82.00	83.00	107.50	108.50
80.00	13.00	14.00	24.00	25.00	32.00	33.00	152.50	50.00	51.00	83.50	84.50	110.00	111.00
82.50	13.50	14.50	25.00	26.00	33.25	34.25	155.00	51.00	51.75	85.00	86.00	112.50	113.50
85.00	14.00	15.00	25.75	26.75	34.50	35.50	157.50	52.00	52.50	86.75	87.75	115.00	116.00
87.50	14.50	15.50	26.50	27.50	35.75	36.75	160.00	53.00	53.25	88.50	89.50	122.00	123.00
90.00	19.50	20.50	31.00	32.00	40.50	40.50	162.50	54.00	54.00	90.25	91.25	124.50	125.50
92.50	20.00	21.00	32.00	33.00	42.00	42.00	165.00	54.75	55.00	98.25	99.25	127.00	128.00
95.00	20.50	21.50	33.00	34.00	43.50	43.50	167.50	55.50	56.00	100.00	101.00	129.50	130.50
97.50	21.00	22.00	34.00	35.00	45.00	45.00	170.00	56.25	57.00	102.00	102.75	137.25	138.25
100.00	21.75	22.50	35.00	36.00	49.00	50.00	172.50	57.00	58.00	104.00	104.50	140.00	141.00
102.50	22.50	23.00	36.00	37.00	50.50	51.50	175.00	58.00	59.00	106.00	106.25	142.75	143.75
105.00	23.25	23.50	41.75	42.75	52.00	53.00	177.50	59.00	60.00	108.00	108.00	145.50	146.50
107.50	24.00	24.00	43.00	44.00	53.75	54.75	180.00	69.00	70.00	117.00	117.00	153.50	154.50
110.00	24.50	24.75	44.25	45.00	58.75	59.75	182.50	70.00	71.00	118.75	119.00	156.25	157.25
112.50	25.00	25.50	45.50	46.00	60.50	61.50	185.00	71.00	72.00	120.50	121.00	159.00	160.00
115.00	25.50	26.25	46.75	47.00	62.25	63.25	187.50	72.00	73.00	122.25	123.00	162.00	162.75
117.50	26.00	27.00	48.00	48.00	64.00	65.00	190.00	73.00	74.00	124.00	125.00	171.00	171.00
120.00	33.00	33.00	54.00	54.00	70.00	71.00	192.50	74.00	75.00	126.00	127.00	174.00	174.00
							195.00	75.00	76.00	136.00	137.00	177.00	177.00
							197.50	76.00	77.00	138.00	139.00	180.00	180.00
							200.00	77.00	78.00	140.00	141.00	189.00	189.00



State of the Art, Part 3

By Craig Sheeley

This is the third in a series of articles outlining the technological assumptions behind the vehicles and armaments of Car Wars.

Aircraft

Construction

Aircraft in the 21st century are no longer constructed of scarce metals. Materials like titanium, chromium and aluminum – so rare that they were at one time referred to as “strategic metals” – have been replaced with carbon-fiber plastic composites. The modern materials at once make the aircraft cheaper, lighter and even somewhat stronger! Light-metal alloy frames form the skeleton of larger aircraft, while smaller aircraft (e.g., microplanes) have carbon-fiber frames. Entire wings are cast as one composite unit for added strength and flexibility.

Composite construction has the advantages of low cost, improved strength at lower weight and ease of construction (since the parts can be molded in shape and modified during assembly), but carries one minor disadvantage: the non-conductive material makes the aircraft somewhat more vulnerable to lightning strikes, since the composite does not channel the power and bleed it off into the air like the old conductive metal constructs did.

Control Systems

All aircraft are now fly-by-wire; direct manual wire connections from controls to maneuvering surfaces exist only on the smallest ultra-lights (essentially hang-gliders with small engines and propellers – hobby planes, not combat models). Moving a control sends a message to the maneuvering computer, which then activates the electric motors that actually move the maneuvering surfaces. This is faster and easier than the old power-assisted systems, which have not been seen since the year 2000.

Weapon tracking and aiming systems work almost exactly like those described for ground vehicles in *State of the Art, Part 1* (ADQ 7/2). In fact, tracking aerial targets is often a little easier, due to the lack of obstacles.

Navigation systems add special readouts to those found on the ground. Artificial horizon indicators, full global visual scans, head-up displays and pitch/yaw trim indicators are the minimum additions. Other than that, a car driver could climb in and identify the readouts and controls. Using them is another matter.

Aircraft Engines

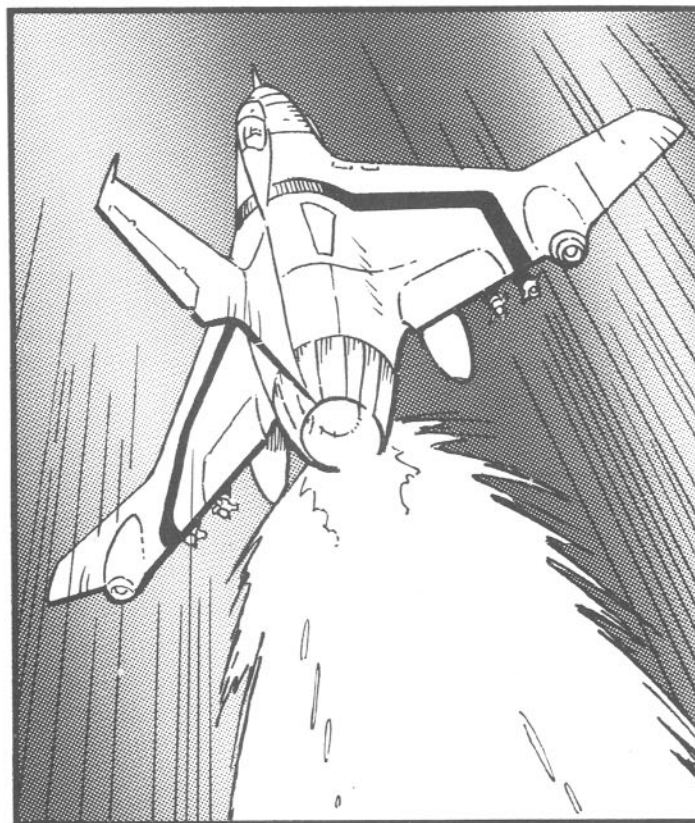
Aircraft engines also take advantage of the new construction techniques, using central fuel-cell or internal-combustion power plants to provide electricity to drive remote propeller units. In essence, 21st-century prop craft are propelled by large versions of the household electrical fan. These fans are lightweight electric motors (often the same models used to turn ground vehicle wheels), spinning the expensive part of the prop unit, the propeller itself.

Aircraft propellers are the real state of aircraft-construction art. They are multi-blade composite fans, designed and manufactured for stresses surpassing 20th-century propellers. These blades are stressed to endure revolutions surpassing supersonic speeds – the

blade tips often approach Mach 2, particularly on the faster aircraft. This is possible thanks to the multi-blade technology pioneered last century.

Additional power and protection is achieved through the use of ducts, sheathing the prop in a protective cover that channels the airflow for compression and higher efficiency. The cover also helps protect the prop from hostile fire.

The small size of propellers means that they can be placed anywhere in the airflow, not just at the end of an engine's drive shaft. Because of this, “pushme-pullyu” aircraft sporting props at front and rear of the aircraft are easy and popular to build.



Jet Engines

There are still some aircraft that use fuel-gobbling, inefficient but highly powerful (and fast) jet engines. Self-contained, prop-less units, the jets of the 21st century are all computer-monitored turbofan designs, incorporating higher fuel-efficiency than the gas-hogs of the last century. For instance, the Aerospace Force's air superiority F-25 fighter has a cruising range of 1,000 miles on internal fuel. The old but comparable FA-18 Hornet fighter had only 60% of that range on 70% more fuel.

Designer's Note: These massive ranges are almost beyond the purview of Aeroduel. Fuel storage rules in Car Wars are less than efficient – a more accurate measure of fuel storage would be 20-30 gallons per space of fuel tankage! After all, few automobiles (even large automobiles, like the archaic tank this author drives) have fuel tanks larger than a person (two spaces), and such tanks hold anywhere from 20-30 gallons. Thus, bound by the 10-gallons-per-space rule, jet fighters with realistic ranges cannot be constructed.

There are two kinds of jet engine. The standard jet engine consumes less fuel (thus the 5 mpg rate), carefully keeping the mixture as lean as possible to minimize fuel consumption. The high-power jet burns fuel much faster, to achieve greater power. The high-power, military jets are true high-tech thoroughbreds, trimmed and tuned for the highest power output.

Afterburners are much the same as they were nearly 100 years ago. There's not much that can be improved on a device that throws raw fuel into a combustion chamber for ignition, as long as it uses the same fuel that the jet uses.

If the afterburner concept is used with different, higher-yield fuel, it ceases to be an afterburner and becomes a rocket. This produces higher energy but is enormously fuel-hungry, so the Strategic Space Command scramjets use a combination of engines – high-efficiency jets for atmospheric flight, and liquid-fueled rockets for actual space flight and high-altitude boost.

These jets are behemoths; an FS-4 Phantom Cruiser resting next to an F-25 dwarfs the smaller plane. There are no rules in *Aeroduel* that can even begin to deal with the size and function of orbital scramjets.

Missiles

Aeroduel brought homing and guided missiles to the fore of the combat arena – in the air, missiles are the most efficient way to strike an enemy before he can close to gun range. Accurate, powerful and long-ranged, missiles are the weapon of choice for air-to-air combat.

Surface-to-Air Missiles (SAMs) are the primary short-ranged combat weapon for aircraft. Weighing in at 150 lbs. and costing a mere \$500 apiece, they pack a heavy punch and have enough accuracy for a short-range killing shot. To maximize hit potential, the most common tactic is to fire SAM salvos at wings – a few good armor-piercing SAM hits will rip the wing off of the largest airplane, an improvement on the unguided AA rockets originally designed for the Luftwaffe over a century ago.

Yes, SAMs can be mounted on and launched from aerial platforms. The term “Surface-to-Air Missile” is now largely generic, like calling any single-shot hand-fired disposable rocket a LAW. At any rate, those protesting the mounting of SAMs on aerial platforms should be aware that Stinger SAMs were standard fittings on recon helicopters in the 1990s, as well as on larger helicopters. When you can't carry a full-sized air-to-air missile, a SAM does the job.

State of the Art, Part 1 said that SAMs track via ultrasonics, like homing torpedoes. That was wrong; there are far too many problems with such a tracking system to make it a viable air-to-air weapon. Since SAMs are affected by smoke, darkness and other impediments to line-of-sight, it is obvious that they track their targets with a fire-and-forget visual identification system – the gunner designates the target, the vehicle computer relays this data to the weapon computer (in the case of hand-held SAMs, the gunner is using the weapon computer directly for lock-on), and the weapon tracks the target via a robotic visual sensor (that's a long description for a TV camera). The high speed of the missile and the low resolution of the visual sensor account for the difficulty in tracking ground targets; ground clutter confuses the simple computer brain.

Radar-guided missiles have active radar homing – they put out a radar signal from a miniature radar transmitter and track the target by the echo. The high cost of the missile is due to the extremely sophisticated discrimination tracking ability – the mis-

sile homes only on the target as long as there's a target signal bounce to follow, without worrying about ground clutter and background noise – a technical achievement that would have been worth billions 50 years ago!

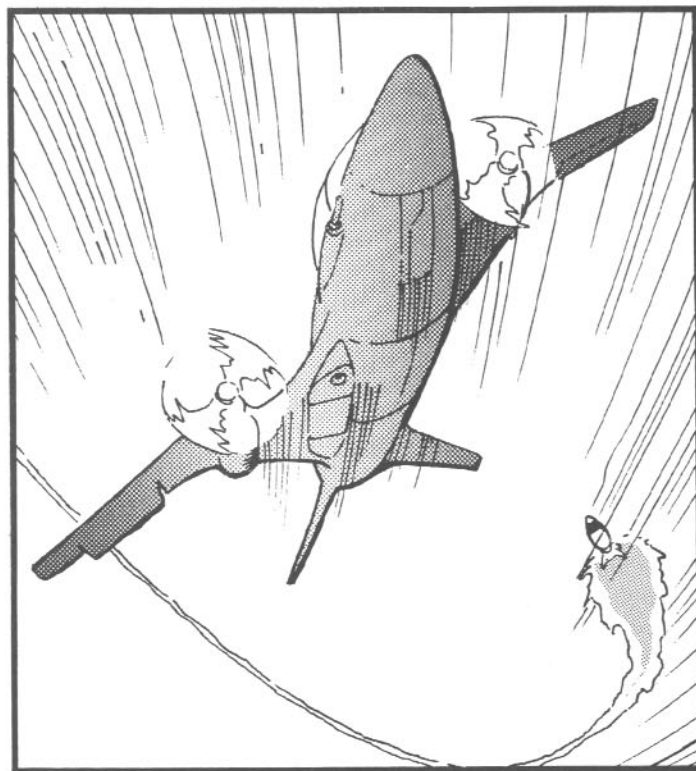
AAMs are high-speed, more powerful and larger cousins to the RGMs. They use the same method of operation, and are actually older than the RGM, tracing their lineage back to the legendary Phoenix AIM-54 missile.

Most new aeroduellists are shocked at the damage done by RGMs and AAMs. Used to the solidity of ground vehicles, the impact of 100-200 lbs. of high-speed rocket tipped with explosive on aircraft is alien to them. Any aeroduellist must realize that RGMs and AAMs are, in essence, small vehicles or large projectiles. When one hits an airplane, it's just like being rammed by a person in full armor – traveling at 200-1,600 mph . . . Historically, most aircraft shot down by missiles were not destroyed by the explosive charge. Instead, they were torn apart by the impact. Numerous live-fire test video records are available to demonstrate this effect.

Infrared homing missiles, long the mainstay of short-range (1-3 miles) aerial dogfights, have been rendered less useful by the proliferation of prop-driven aircraft. A power-cell prop plane has a heat signature that's so low it can't be tracked with any certainty by IR-homing missiles. To date, the only forces using IR-homers are government military aircraft, who can expect to run into jets on a routine basis.

Why Carry Guns?

One would think that aerial travel would be clear of the necessity to use weapons. This is not the case. The availability of armed aircraft to civilians dictates that peaceful aircraft must carry defense armament to deal with hostiles. When ground transport



became too risky, high-value cargoes began air-shipping. These same high-value cargoes attracted individuals with aircraft; a single air heist could net an aspiring pirate great wealth in easily-sold form – gold bullion, jewels, information, captives for ransom, etc. Air piracy became a lucrative profession – all an air pirate needed was a good combat plane, a recovery plane (a VTOL) and a mobile operations base, loaded onto trucks or other vehicles. Between attacks, the location of the ground base would change to avoid traces by SDI satellites.

More information on the aerial traffic situation over North America will be provided in the projected supplement *Golden Spike*, including data on the Air Raiders of Nebraska and Carnage's Corsairs of California.

Tanks and Armored Fighting Vehicles

Construction

The methods behind the construction of heavy military fighting vehicles are almost completely different than those used in the construction of civilian vehicles. Instead of constructing a heavy metal frame and fastening outer panels and fittings to it, AFVs are constructed as a sort of armored box. To be sure, there's a frame, but the panels applied to it are welded or molded on so that they become part of the frame, not to be easily removed (this is the reason so many AFVs sport access panels and hatches in profusion). This method of assembly gives the AFV the strength it needs to handle a life of off-road travel with minimal chance of chassis failure. This also gives it the ability to carry the heavy armor without bending structural supports, and confers a limited immunity to rams!

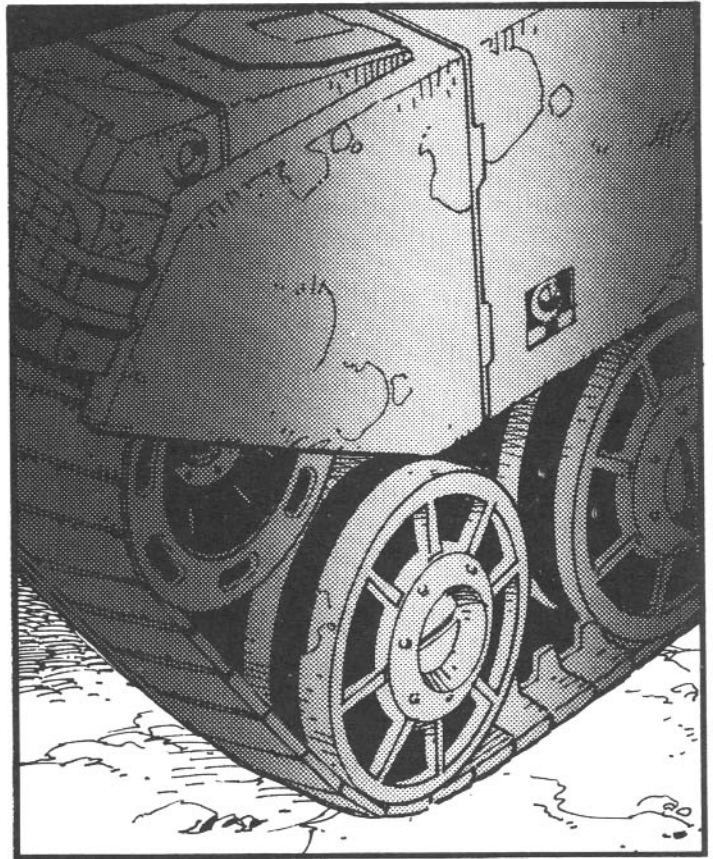
Of course, there's nothing to stop an AFV from being built with a light-weight frame, similar to the Carbon-Aluminum frames used in other vehicles. This is often done to reduce mass, to make the vehicle amphibious or air-transportable.

Caterpillar Tracks

Tracked motive systems, while not new, have been improved somewhat since the famous "hot rod" M1 tank of the 1980s. Thanks to active suspension systems with computer control, tracked AFVs are now capable of sustaining speeds of 70-80 mph (40-50 mph cross-country) without shaking the crew up too much – the old tanks had the power to zoom cross-country at speed, but their suspension systems weren't up to keeping the crew from being shaken and thrown like clothes in a washing machine. Even when strapped down, the crew was still impeded by the vibration of high speeds on rough terrain.

Of course, some problems with tracked motive systems will never be overcome. The very nature of the caterpillar tread means that it will always be composed of a series of separate links, with some slack in the tread to allow give for terrain conditions. These links and the slack are the weaknesses of treads; if the tread moves too swiftly, there is a chance that it will slip loose from its sprocket wheel(s) (which limits tracked motive systems to reasonable top speeds around 100 mph). If a tread hits terrain too tough or is damaged, there is the chance that links will snap or the tread runner will slip loose from one of the road wheels. In any case, this means that tanks still lose treads. Normally, this is an annoyance –

a tank losing a tread suffers little stability loss (at least as compared to a car losing a wheel) since the crew has to repair and remount the heavy tread. Under fire, this usually means that the immobilized AFV is dead, because stationary AFVs are prime artillery targets.



Power Plants

AFV power systems are little more than heavy-duty, expensive versions of the power cells and internal combustion engines that power the world's trucks. Few AFVs have ever used power plants and engines that weren't developed from other applications.

One new development is the claim of nuclear tank engines, for truly titanic tanks. The Department of Defense denies this categorically, stating flatly that they have no intention of spending time, money or effort attempting to build "cybertanks." (This refusal is targeted by certain government watchdog groups as proof positive that the DOD is beating its brains out trying to do just that.)

Nevertheless, nuclear power plants are the future of super-tank development. At present, in order to achieve enough power to be more efficient than a power cell or internal combustion power plant, a nuclear plant would have to be at least the size of a comparable fuel cell/gas engine, and cost much more. Current power designs call for a minimum plant size massing 6,000 lbs. and taking up 18 spaces, while providing a maximum weight-hauling capability of 50,000 lbs. Since a Large truck power cell provides 60,000 lbs. of weight-hauling capacity for 13 spaces, 3,500 lbs. and \$20,000 (the triple-redundancy military version costs \$40,000), the nuclear plant is no steal at \$1,000,000. Larger versions provide cheaper power – a nuke plant providing 200,000 lbs. of weight-hauling would weigh 11,000 lbs., take up 19 spaces and cost \$1,500,000. Nuclear-power advocates are certain that techno-

logical and design advances will shrink the volume and the price tag of future plants.

Tank Turrets

AFV turrets are less turrets than huge armored boxes fitted to the hull. Like regular turrets, their traverse mechanisms are mounted in the hull. Since they are the size of normal cars, they can mount small weapons turrets (regular *Car Wars* turrets) without problem.

The main difference (besides the size difference) is that AFV turrets are heavy and traverse more slowly than the small weapons turrets. Even so, modern AFV turrets take advantage of development in computer-controlled hydraulics to traverse more swiftly than 20th-century turrets – the famed M1 tank would be dead meat with its slow turret traverse.

AFV Armor

AFV armor comes in two forms: Regular and laminate. Regular armor is made of the same material used in automobiles and civilian vehicles – either the kydex/kevlar plastic mix or the steel/plastic sandwich that is heavier, but provides superior protection. Laminate AFV armor is of similar construction, actually – the “plastic” armor is a lamination of heavy plastics and composites, formed as small pieces and then melted together into a single, fiber-stiffened unit. The laminate metal is more expensive, formed as a single plate and stacked in layers of steel, titanium mesh, ceramics and composite plastics, then sheathed in composite plastics for strength.

Normally, the metals used in laminate armor are steel, titanium, sometimes aluminum and magnesium alloys. Laminate metal armor can be made up with depleted uranium plates as the primary metal. The denseness of these plates makes the armor more effective and actually lighter for the relative hardness. However, depleted uranium is produced only at nuclear reactors, and there are very few nuclear reactors remaining in the world. Thus, DPU armor has a hideous cash value attached to it.

All laminate armor contains a high proportion of impact and heat-absorbing ceramics and plasticceramics. Not only is this material an effective addition to armor protection, but its heat-dispersing qualities make laminate armor effectively laserproof. The ceramics disperse the heat of a laser strike throughout the entire plate, diffusing the attack and robbing the laser beam of its penetrating capabilities.

Weapons

Direct-Fire Systems

Light Machine Gun – A development of Uncle Albert Industries, beefing up the light 4mm combat rifle to handle the rigors of sustained automatic fire. Not a military weapon, but a popular new civilian weapon. The U.S. Army is looking into a hand-held model for light-weight squad support.

Heavy Machine Gun – The “Ma Deuce.” Military organizations around the world have been using this monster for more than 100 years – it is the latest incarnation of the famous M2HB .50 cal machine gun.

Gatling Cannon – The classic 20mm Vulcan cannon, stripped down and fitted with more efficient recoil and ammo feed mechanisms.

Rapid-Fire Tank Gun – Also known as the heavy autocannon, this is a 35-40mm anti-tank gun with automatic feed and rate-of-fire (about 180 rpm).

Heavy Recoilless Rifle – An auto-feeding version of the long-used 106mm recoilless. This is becoming a popular main gun for light AFVs and scout tanks. Not to mention a number of crazy pickup drivers who have taken to mounting stolen HRRs in their pickup beds!

Tank Guns – They come in all sizes, ranging from the 75mm to the massive 140mm. There has been speculation about larger guns in development, but this is less likely due to the prohibitive size of ammunition larger than 150mm. Even tanks with 120mm guns have trouble carrying enough ammo.

Super Rocket – A 100mm rocket, closely resembling the 67mm Heavy Rocket. Duellists marvel at the destructive capability of the Super Rocket compared to the Heavy Rocket. The reason the super rocket can do three times the damage of its closest relative lies in the 50 extra pounds of mass – of that 50 lbs., 10 is extra rocket propulsion. The rest is warhead.

The Super Rocket is nothing more than an artillery 5” rocket fitted with better stabilization and launch tracking systems (which, added to the fact that its demand has outstripped its supply, accounts for its 2,000% greater price and lower mass than the artillery rocket it’s based on).

Missile Launchers – The ML and HML are larger military forefathers of the WGM. They work the same way, but can be fitted with all sorts of modifications such as pop-up terminal guidance, teleguidance, etc. (of course, WGMs can also be fitted with these options, but they’re not normally commercially available).

Military Targeting Laser – A more expensive, higher-collimation targeting laser that literally reaches to the horizon (maximum range 7 kilometers/4.34 miles).

Heavy Minedropper – This minedropper uses large, heavy mines, twice the size and four times the mass of autoduelling mines. It cannot use mines meant for the smaller minedropper (and vice versa), but its mines can be modified like those used in the smaller MD.

New Offensive Accessories

Several old ideas are now applicable to the autoduellist’s weapons. A great portion of the technical wizardry applied to the normal autoduellist weapon goes into the target acquisition and tracking systems, improving the weapon’s response time to under a second and allowing for exceptionally swift traverses, necessary for a battle situation where short range and rapid movement can change the target’s relative position instantaneously.

Unfortunately, to cope with the rapid evolution of an autoduelling situation, and to keep weight down, most autoduelling weapons are terribly inaccurate and short-ranged, and suffer from reduced stabilization. Military weapons have gone the other way, retaining and refining stabilization and long range, while adopting beneficial developments from the world of autoduelling technology. This military tech is available to the autoduellist on the street, thanks to popular demand. It’s often expensive and heavy, but the benefits can outweigh the costs.

The first and easiest way to extend the range of a weapon is to fit it with a longer barrel, thus stabilizing the round. The barrel may be smoothbore or rifled – many Tank Gun barrels are smoothbore, while smaller weapons use rifled barrels. Lasers, rail guns (gauss guns, magnetic cannon, etc.) and rocket-propelled weapons

don't use "barrels" at all; a laser extends its range through greater collimation, rail guns merely make the magnet race longer, and rocket weapons either add extra propellant to each round or use a "primary booster" charge to give the rocket an initial thrust, saving fuel for the actual flight.

There has been some argument about which is better, smoothbore or rifled. The smoothbore enthusiasts argue that a smoothbore is less expensive to make and takes less maintenance in the field; rifling aficionados point out that rifled guns can dispense with expensive ammunition (all smoothbore rounds must be fitted with stabilization fins). In the end, both types work well.

One of the problems with "long-barrel" guns is that part of the weapon is exposed from protective armor in order to allow the weapon to traverse. With the pinpoint accuracy of 21st-century targeting systems, any weapon of large size becomes vulnerable to having its unprotected "barrel" damaged by hostile fire. This is another reason why AFVs prefer to keep their front to the enemy – a side shot endangers the big gun, which can be taken out by a single large-caliber hit.

Weapon stabilization is another popular method of making shots go farther – it's a simple improvement on existing systems, utilizing larger and more carefully-controlled counterweights and recoil systems to steady the weapon at the point of firing. Furthermore, computer-controlled gyro systems can compensate for the motion of the firing vehicle, extending range while damping the pitch of the firing platform.

Rangefinders are the last option, an old idea and a good one. A rangefinder allows the firer to compensate for distance by defining the exact range and setting the weapon accordingly. It saves time and ammunition.

Artillery Systems

Artillery weapons haven't really changed that much over the last century. The advent of laser-guided rounds and micro-accurate rangefinders helped in the task of hitting single targets, but most artillery technology gains are merely refinements of century-old techniques.

Efficient autoloaders are the most important artillery gain of the century, since a working autoloader trims the gun crew and improves rate-of-fire. Now a large gun needs only a few crew members to work it; supplied with enough ammunition, an artillery piece can fire without pause until parts begin to melt down – which is a long time.

Artillery is something the average autoduellist will seldom see – hopefully, no closer than the old cannon which fires every time the duellist's favorite combat football team scores a touchdown. And then the cannon will be loaded with blanks or other harmless ammo. (The ammo had *better* be harmless! After the University of Colorado canister incident of '39, with its 23 spectator casualties, the National Collegiate Combat Athletics Association has threatened to suspend any team using live ammo!)

Grenade launchers are now the true "cattillery." Capable of indirect fire, they are small enough to mount in a standard car or trike, and have enough range (500 yards) to cause trouble. There have been rumors of some Q-trucks mounting true artillery pieces (usually A7 howitzers) on the western roads, where the open terrain favors such "equalizers," but these rumors have not been proven.

Best advice is to stay away from anything firing indirect. And keep moving; a stationary target is a dead target.

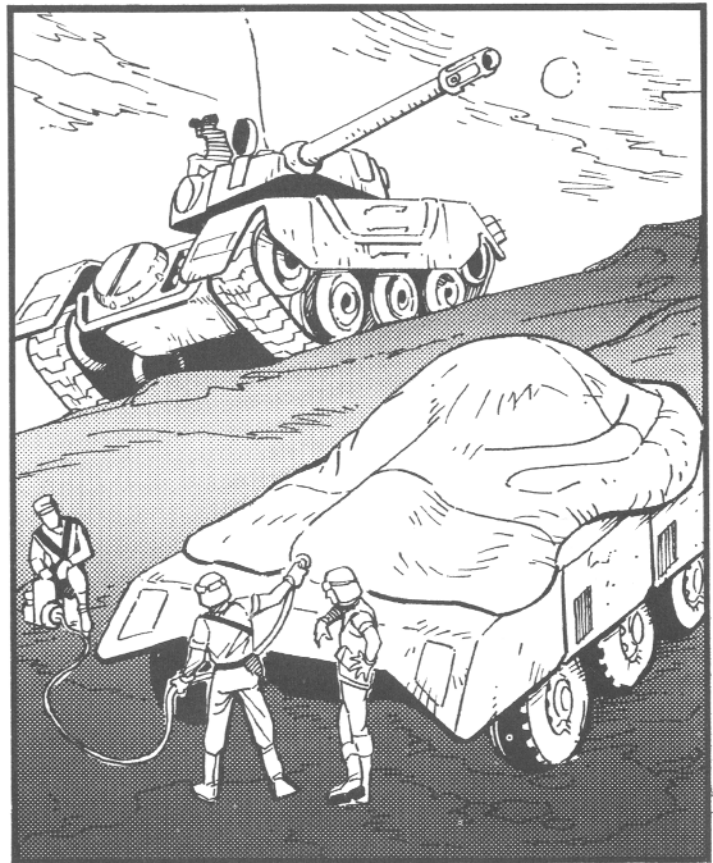
Battlefield Detection

Most battlefield detection devices are old: radar, infrared, computer enhancement. Passive countermeasures have been popular for some time now – witness the sales of Stealth-Kote™. Active countermeasures are beginning to appear on the roads, though, and every autoduellist must be prepared for them.

The most common active countermeasure is the remote decoy. This inflated-foil lookalike mimics the mother vehicle and is very difficult to tell from the original. The way to deflate this threat is either shoot one or the other – the decoy has no resistance to live ammo – or watch to see which one shoots, since decoys have no weapons.

Certain high-tech operators are beginning to use sophisticated Electronic Counter-Measures, fooling and confusing radar readouts. The only way to fight it is to turn off your radars, or use HARM missiles to take out the enemy jammer.

Sonic detection is one method of information that can only be "jammed" with some difficulty. Be warned: sonic detectors are now for sale to civilians, and a clever operator with a battery of grenade launchers and a pair of widely-spaced sonics can triangulate on and bombard targets that are completely obscured.



New Equipment

AFV CA Frames – Lessens body weight to 75 lbs. per space, costs \$8,000 per space, max wt./spc. = 900 lbs. The AFV suffers full damage from rams and collisions.

Depleted Uranium AFV Armor – \$10,000 and 50 lbs. per point, counts as laminate metal armor. DPU armor must be used as part of composite armor, with an outer sheathing of either plastic or metal armor, or both.

Uncle Schmalbert's 2044 Catalog!

Uncle Schmal Speaks!

(An excerpt from a rare interview with Uncle Schmal, Nov. 12, 2038.)

ADQ: *You're a tough man to get ahold of.*

Uncle Schmal: Yeah, but so was the guy who invented Vaseline.

ADQ: *Good point.*

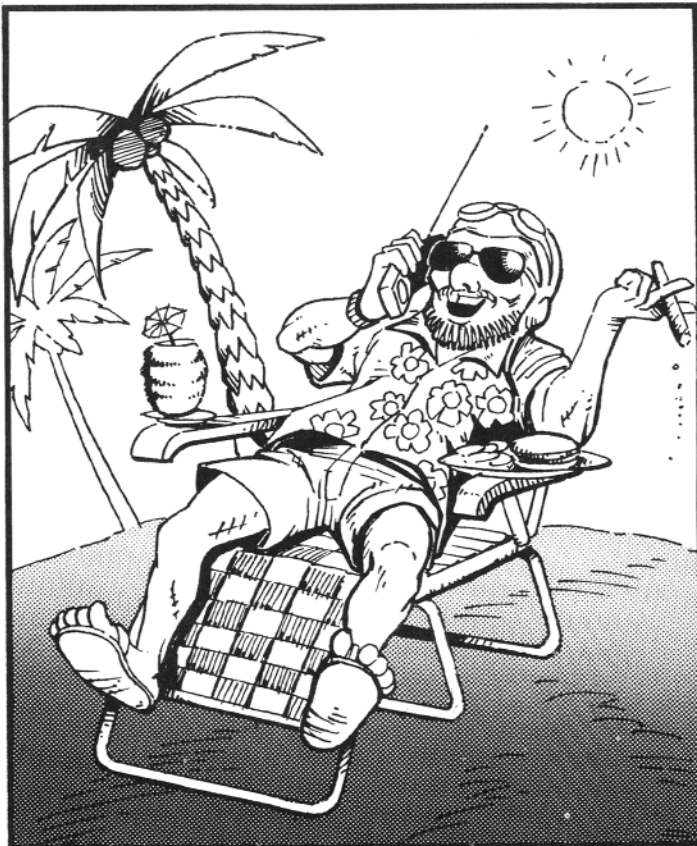
Uncle Schmal: Yeah, but really, I do get busy. So much stuff from the Auto Shop and Gunnery Stop is really amazingly new and far beyond what ordinary and less visionary autoduelling engineers than my humble self even think about the possibility of conceiving that I have to spend much of my time staring at the sea in Malibu.

ADQ: *Malibu?*

Uncle Schmal: Or Hawaii. Or Jamaica. Really a great place to get a tan and think of some really rad duelling gadgets.

ADQ: *Such as?*

Uncle Schmal: Uncle Schmal's Hangover Helper. Just the thing to clear your mind from the previous night's activities before the big battle! Here, have some.



ADQ: *Gee, thanks, Uncle Schmalbert.*

Uncle Schmal: Anytime. You can call me Uncle Schmal.

ADQ: *Thanks, Uncle Schmal. I think that the duelling public would really like to know how to use a grilled cheese sandwich.*

Uncle Schmal: Oh, that's easy! Here, just hold it like this and twist the top piece of bread with your knuckle. No, bend your hips first. Now gently lift it off the plate and throw it like this . . . **(BOOM)** OK, good, just remember to keep your weight on your elbows next time.

ADQ: *Oh, that was easy! Thanks!*

Uncle Schmal: No problemo.

ADQ: *Uncle Schmal, every autoduelling engineer has memories of some failed project that never made it to the consumer market. Has this ever happened to you?*

Uncle Schmal: Yeah. A few years ago some rich fellow came to us with a motorcycle. He really enjoyed riding but wanted to see if we could make it safer. I was pretty desperate for money in the early years, so I took the cycle, but it was so weak that twin Vulcans ripped it up like a gerbil in a blender. Then we tried this holographic projector thing that made the cycle look like a semi.

ADQ: *An attractive prospect.*

Uncle Schmal: Yeah, until we found out that it took a semi plant or a really long extension cord to power it.

ADQ: *A slight drawback.*

Uncle Schmal: Yup, but we don't give up that easily. We went back to the armor idea and eventually had a model with an acceptable amount of armor. Acceptable to me, at least. It didn't have any weapons at that point, so we added some armaments so it would have a reasonable chance against anything that might attack. Reasonable to me, at least. By this time it was quite an odd design and we were forced to make our own custom power plant. Around this time we figured out that the cycle was far too big and heavy to be carried by two or even four wheels. When we were finally done with it the guy wasn't too happy. He said it wasn't a cycle anymore.

ADQ: *Anything with more than two wheels isn't a cycle. Apart from sidecars, of course.*

Uncle Schmal: Perhaps, but it's the only cycle you're ever likely to survive more than one combat on. Later we sold the

design to the Army. You may have seen it around. I think they call it the "Ogre Mark I" or something.

ADQ: *Wow, I had no idea! Lots of duellists have heard of it. Pretty expensive.*

Uncle Schmal: Yeah, it was, but I bet you'd see a lot more people riding cycles if they were built like ours.

ADQ: *Many people would like to know why you build monstrosities like that instead of normal things like machine guns and ram plates?*

Uncle Schmal: Normal?!? How dare you call today's auto-duelling normal when you can go out and buy a multiple-shot hand weapon that does as much damage as two linked machine guns? This is a very sick world, mister.

ADQ: *Many people claim you have no sense of reality because you sell some very dangerous equipment. Equipment that's even dangerous to the person using it. For example, the Electric Turbo Charger works by setting the power plant on fire. Isn't that insane?*

Uncle Schmal: Insane? You bet! Hey, the reality of the situation is that the average duelling consumer needs to kill the other guy regardless of the dangers to himself. Sure, there's a chance that you could get radiation poisoning or that your car could explode while using some of my stuff, but so what? If it gives you that extra edge to knock off the other guy, it's worth it.

Surveys show that gas engines are the power plants of choice for most duellists and it's a True Fact of Nature that they're much more likely to explode or catch fire. Hell, if you're out in a car it doesn't matter whether it's 50 caliber shell or a backlogged Phlegm Gun, dead is dead. I believe in freedom of choice. So what if you give up a little safety with my equipment? Why should duellists have to listen to those old grandmothers? I believe in "Kill How You Like." It's what keeps me in business.

ADQ: *So, why did you get into the autoduelling business?*

Uncle Schmal: For the money.

ADQ: *Really?*

Uncle Schmal: Oh, yeah. That's the only reason.

ADQ: *The only reason?*

Uncle Schmal: Well, no. I guess I also got into it for the fame. Hey, have you seen my new Uncle Schmal Action Figures? Even the mutants are anatomically correct!

ADQ: *Yes, my kids have the whole collection. I still find it hard to believe that a hard-working perfectionist like yourself would only be in a cutthroat business like this for the fame and money.*

Uncle Schmal: Well, to tell the truth I was really, really sick of selling used toasters for a living.

ADQ: *Must have been tough.*

Uncle Schmal: You'd better believe it! Those were the days when people used to shoot first, use the questions part to reload, then keep on shooting. Actually, the whole business was sort of thrust upon me by fate. I mean, what else is there to do after you've just killed someone with a grilled cheese sandwich?

ADQ: *One last thing. If you were a tree, what kind would you be?*

Uncle Schmal: Ahhh, cardboard. I'd also like to take this time to state clearly that I have not now or ever have been a member of the House Un-American Activities Committee.

ADQ: *Thank you for the interview, Uncle Schmal. I hope that your business continues to be good.*

Uncle Schmal: Thank you, my lad, and I assure you, it will. Watch out for the Linoleum Anti-Pedestrian Mines on your way out!

Uncle Schmalbert's Auto Shop and Gunnery Stop 2044 Catalog

For seven years now, Uncle Schmal has brought his special brand of autoduelling excellence to the world. Now with his 2044 catalog Uncle Schmal can truly be said to be ahead of his time! Check out Uncle Schmal's colossal volume discounts for major world powers. That's right! Just show us your United Nations Secret Handshake and Decoder Ring and Uncle Schmal will slash 0.52435% off the total cost of your entire, yes, *entire* order! Remember, with every other order over \$39,652.11, Uncle Schmal will throw in a free Official Uncle Schmalbert's Auto Shop and Gunnery Stop Armored Sun Visor! Protect your forehead in style with Uncle Schmal! All the items in this catalog are new, improved, low sodium and caffeine free!

Credits

Uncle Schmalbert's 2041 Catalog is a creation of Steve Peters, freelance maniac from Allentown, PA, who believes that rules were made to be broken. All the gadgets in this catalog are his twisted ideas with the exception of the Acid Dropper, which is from Jed Pitera. I get by with a little help from my friends, in this case: Jed Pitera, John Fiala, Bruce Moyer, Mark Kadas, Erik Lauer, and Biff Spindexter. If your name is "Toula," or you would like to know more about Grilled Cheese Sandwiches, please write Mark Kadas, 1151 Bryant St., Allentown, PA 18104. Live Wrong and Improper . . .

Voodoo Power Plants

They're spooky, they're eerie, they've got evil heathen death symbols on them, but they've got guts! With the power of Voodoo behind you, you'll never have to worry about running out of power factors on long journeys again! Tap that accelerator and feel the force of ancient Haitian priests and thousands of dead souls flinging you down the highway at just short of hyper-spastic speeds.

Warning: the Surgeon General has determined that owners of a VDPP may be terminally grossed out when it comes time to refill the power plant with fresh blood.

VDPP - Any electric power plant can be made to run on voodoo. 2x normal cost, 1.5x normal power factors, normal wt. and spc. A VDPP runs on black magic. Anytime someone rolls a natural 2 on a to-hit roll, everyone with a VDPP must roll 1d. If the number is even, then roll again on the curse table below:

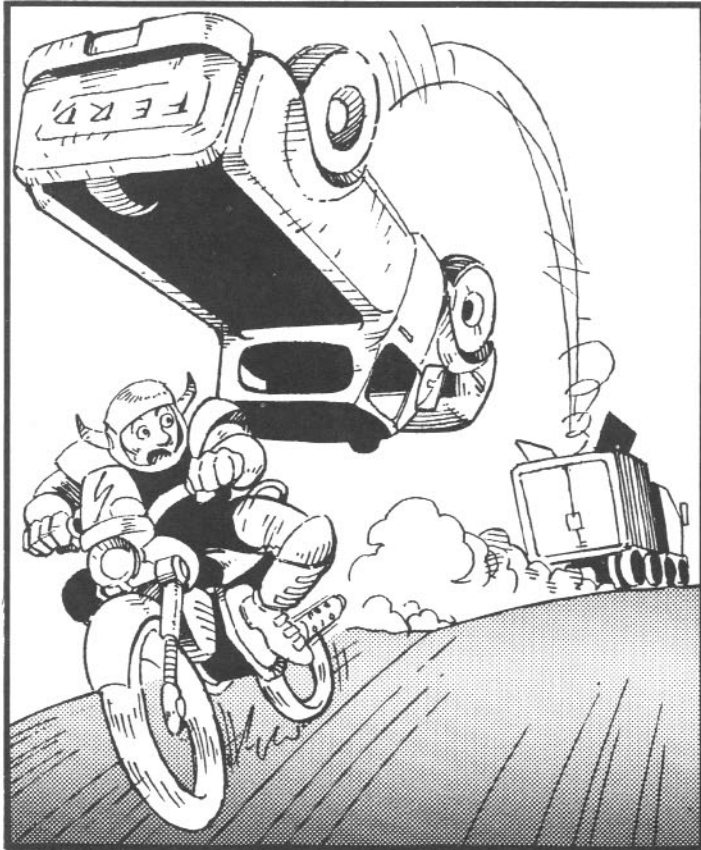
- 2 - A random crew member goes blind.
- 3 - The power plant ceases to function.
- 4 - All weapons jam.
- 5 - The crew suffers from ingrown toenails/fingernails -1 to hit/HC.
- 6 - No acceleration.
- 7 - Sulfur smell in car: -2 to hit.
- 8 - One crew member polymorphed into Ernie, the muppet from *Sesame Street*.
- 9 - No brakes.
- 10 - The power plant begins to heat up. Six seconds to implosion, th-th-th-that's all folks!
- 11 - Steering wheel jammed.
- 12 - An evil spirit steals the crew's souls - instant death.
- 13 - Nixon is elected Dogcatcher.

The only way to remove a curse is with a sacrifice (a firing action for two turns for the entire crew). There is a 50% chance of the curse lifting. Your referee may modify this depending on the value of your sacrifice. A VDPP has unlimited power factors. However, any vehicle with a VDPP must be painted black with white skulls for the power plant to function. Special Ceremonial Sacrificial Car Blades useful for sacrificing random peds are available for \$200.

Anti-Vehicular Potato Chips

Grilled cheese sandwiches were good, but they're much better with chips! Add these pan-fried babies to your regular GCS and get an extra point of damage on each die! And only \$10 per use, too!

AVPC - What else is there to say?



Pickup Thrower

Every Brother knows that when you're truckin' down the highway it takes more than just any pop gun to discourage the local scum. Nowadays, sometimes even linked tank guns just aren't enough. Uncle Schmal says, give 'em a surprise! Just when they thought they had you where they wanted you, *spprrooiinnng!!* - a pickup flies through their window! Smash them to pieces the size of Algae McNuggets with the biggest burst effect in town! Only Uncle Schmal gives you this kind of power.

Note: Pickups can be custom built to fit your every need.

Coming soon! The Variable Fire Motorcycle Launcher!

PUT - \$50,000, 1,000 lbs. 9 spcs, 10 DP, cost and weight per shot dependent on ammo, space per shot 15, can hold as many shots as you have cargo space for. Standard ammo costs \$10,000, weighs 4,001 lbs., carries 7 dice worth of plastic explosive bumper triggered in the front, and has 40 points of armor and a ramplate front with 20 points of armor on every other side.

It is also totally unusable as a transportation device, especially after impact. If you create your own pickup, it costs an extra \$4,000 and 300 lbs. to create a design that can be used. A flying pickup with a crew can attempt to land as per the off-road jumping rules. In flight the only weapons fire allowed is on automatic. The pickup leaves the thrower at 200 mph (the gunner can choose to lower this speed), slowing down 10 mph each turn thereafter. Like a RGM, the pickup will home in on its target with D1 and D2 maneuvers. The pickup can be hit with only the penalty of normal speed to-hit modifiers. The PUT can only be fired every third turn.

Blitz Fire Extinguisher

Let's face it. Even the most expensive fire extinguishers on the market are *wimpy!* There's no reason why you should have to chance losing your car or truck to some bozo and his smartass flaming oil jet. At the slightest hint of fire, Uncle Schmal's Blitz Fire Extinguisher floods your entire vehicle with the sheer flame-squelching power of liquid nitrogen! Warning! Uncle Schmal suggests that all wear Uncle Schmal's Winter Combat Long Undies (\$100 no GE or DP) before activating this device.

BFE - \$1,000; 200 lbs.; 1 spc; 20 shots at 5 cps & 1 wps. Can be set on manual or automatic. On manual the BFE only fires when a crew member triggers it (a firing action), on automatic it fires whenever a burn modifier is sensed in the vehicle. Switching between modes is a firing action. One shot from a BFE eliminates all burn modifiers and durations from the vehicle and reduces any BMs and BDs obtained in the next two turns by 1. On the turn the BFE is used, all subsequent fire from the vehicle is at -1. Each time the BFE is used, crew members must roll 1d: on a 5 or 6 they take 1 point of damage, which bypasses any body armor (if Winter Combat Long Undies are worn, the crew only takes damage on a 6). The BFE is also good for keeping vegetables fresh, storing cattle embryos, or cryonically freezing slain crew members.

Spontaneous Combustion Gun

For years the tabloids have been telling us that sometimes people burn up and explode for no reason at all. But now your enemies can burn up and explode for a very good reason - you've just zapped them with your spontaneous combustion gun! Hit 'em again, Sam; and watch those burn modifiers build up! Unlimited shots too! Wow! Uncle Schmal does it again!

SCG - To-hit 7, damage as below, 3 DP, \$4,513, 300 lbs., 2 spcs, drains two PFs per shot. Every time the SCG hits, it does a burn modifier of 2 and a burn duration of 2 to the target vehicle. Fireproof armor does *not* block this effect.

Ultimate Smoke Screen

Don't you hate those bozos who drive around your HDSS? Wouldn't it be much better to just fill the entire arena with smoke? You bet! 95% of duellists polled spoke right up and asked for Uncle Schmal's Ultimate Smoke Screen! At the push of a button the entire playing field is doused with half-strength (only -1 per full 1/2") smoke for 3 whole turns!

USS - \$2,500, 100 lbs., 2 spc, 3 DP, 3 shots, CPS 300, WPS 10. The Ultimate in protection.

Black and Blue Cross

When you're on the road, you need the best protection you can get. And protection *is* what you get when you sign up for Uncle Schmal's Black and Blue Cross insurance policy. They'll know when they see that Black and Blue Cross sticker on your car that if they mess with you, Uncle Schmal and his "friends" will be pay-

ing them a little "visit." Get Uncle Schmal's Black and Blue Cross insurance today, and make those bozos an offer they can't refuse!

B&BC – Rates vary depending on the reputation and prestige of the person who buys the insurance, but are always high. -10% cost for Sicilian ancestry. In case of your death, B&BS agents track down your killer and take care of him, with a 100% success rate so far. A B&BC sticker on a car will deter all but the most desperate or near-sighted antagonists. Deaths due to previously arranged duels, such as AADA-sanctioned dueling events, are not covered by B&BC.

Electric Turbo Chargers

Acceleration, ya gotta have it. Used'ta be ya had ta have a gas plant ta have acceleration, until now. Uncle Schmal's high-tech technicians have adapted the traditional turbo to have the same effect as a gas plant! They're so great, you'll wish you'd bought it yesterday! Warning: Some power plant damage will result from the use of this item.

ETC – \$3,000, no wt., no spc., same effect as a VP turbo. ETCs only work with electric power plants. Unfortunately, the turbo still needs some burning fuel to take effect . . . and gets it from setting your power plant on fire! Every 2 turns the effects of the turbo are used (extra acceleration and/or top speed – this is not a firing action) cause 1 point of damage to the power plant. ETCs also work with Voodoo power plants. This fire does *not* do damage to anything else, and will not cause the car to explode (Uncle Schmal may be nuts, but he's not stupid!).

Acid Dropper

Rumors of the Acid Dropper have been in the duelling media for years. Some critics said that an acid dropper was too dangerous. Others said it was too expensive and unpredictable. All wondered what Nancy Reagan would think.

Wonder no longer, and wander on over and purchase Uncle Schmalbert's Acid Dropper today and tune in, turn on, and *drop out* with your Uncle Schmal!

AD – \$2,000 per combat (see below), 150 lbs., 2 spc, 3 DP (unless wearing body armor), unlimited shots. Roll on the following table with 3 dice on the first turn of combat and every third turn thereafter.

3 – Bad Trip! The Acid Dropper curls up into a ball. He's outta the game.

4 – The AD thinks he is a super duellist (see #10, below) and grabs either the gunner or driver controls, but he isn't. He drives or fires randomly. (This is especially bad if he doesn't have driver or gunner skill!) He won't do anything suicidal.

5 – Strange but immaterial hallucinations fill the map. However, they are very real to the AD and he will go far out of his way to react in the way that seems proper, i.e., if he sees a brick wall, he will assault the driver to keep the car from crashing into it. (See the hallucinations table on p. 45 of *Murphy's Rules* for more information.)

6 – Magic is real! The Acid Dropper suddenly gains the ability to cast spells. (If you have *ADQ 6/2*, the AD has 8 spell points – otherwise, wing it.)

7 – Wow! Suddenly he has X-Ray vision and on a roll of a 6 or better on 2d each turn, he can look at the record sheet of any one car in sight.

8 – Good Trip. He sits still and hums old Grateful Dead songs to himself and occasionally spouts meaningless bits of cosmic wisdom such as, "The flame is the soul of the flamethrower; it's all so clear now!"

9 – Same as the last roll, or roll again if this is the first roll.

10 – Super duellist! The Acid Dropper suddenly becomes +4 in every available skill.

11 – The heavy drugs unlock his latent powers of teleportation! (Do this only once per roll!) Drop the vehicle counter from 1' above the map. Turn it right side up and keep the same speed as you were moving before.

12 – The AD can summon The Force once (see p. 19).

13 – The AD has "found god" and spends the rest of the combat writing philosophy books.

14 – The Acid Dropper speaks to god and is given a small wish! (Repeat, a *small* wish.) Some examples of wishes that work are: I wish I had more ammo, I wish my (any skill) would improve (no improvements beyond +2), I wish my gunner was still alive, I wish our right armor wasn't damaged. Some examples of wishes that won't work: I wish we were invulnerable, I wish we could fly, I wish all the other cars would blow up, I wish we could hit automatically.

15 – This calls for hyperspeed! Everyone in the car gets two firing actions instead of one.

16 – Super-Mechanic! Can fix any one system per turn.

17 – Claustrophobia! The AD totally loses his marbles and tries to (roll 1d):

1) Jump out.

2) Spaz in place.

3) Strangle driver. D2 hazard each turn.

4) Scream – all fire at -2 to hit.

5) Strangle self – passes out for 6 seconds.

6) Curl up and whimper quietly – car continues straight and decelerates at 10 mph per turn until it stops.

18 – I can fly! The AD attempts to jump out and fly away. However, he can't fly and will suffer the consequences of falling out of a moving car unless someone restrains him.



Combat-quality acid costs \$50, although a single hit can be obtained on the streets for as little as \$2 and is of variable quality. The Acid Dropper's Union usually requires a flat fee for higher dosages. Acid Droppers can have skills like everybody else, but except for the situations described above, the Union doesn't allow them to participate further. If at any time the Acid Dropper needs to be restrained, a crew member who isn't driving can spend a firing action each turn to keep him in line. If this isn't done, the AD has a 50% chance per turn of grabbing whatever controls he's reaching for. It's common practice to have extra driver controls for those inspired duelling moments. You may wish to have the

referee roll for the AD so that the players will be in the dark about what he is really doing. Kids, get your parents' permission before using this weapon!

Pothole Dropper

Tailgaters are a real pain. Why not get rid of them – permanently! Drop Pennsylvania's finest potholes under their tires and see if they don't have second thoughts about you! Potholes don't have to roll to hit, either!

PHD – \$400, 100 lbs., 1 spc, 20 shots, CPS 10 WPS 5. The PHD leaves a 1" by ½" pothole in the road (treat as debris).

HDPHD – \$1,000, 200 lbs., 2 spc, 10 shots, CPS 40, WPS 15. The HDPHD leaves a pothole counter four times the size of a regular one (treat as obstacle). Pothole Droppers may be placed on automatic and continuous modes like other dropped weapons. This device may be illegal in some areas.

Beer Bomb

Beer, the true opiate of the masses. Cluster bombs, the delight of helicopter pilots. What happens when you combine the two? A hangover no one can remember in the morning! Not only does it do damage to your target, but hundreds of tiny beer cans explode, filling the air with alcohol mist and intoxicating the few survivors. Uncle Schmal's Beer Bomb, they'll die with a smile! Also great for parties!

BB – \$750, 150 lbs., 1 spc, to hit 9, 2 DP, damage as per bomb, plus it leaves a 3" by 3" area filled with strong alcohol fumes that will cause anyone (wearing armor or not) inside the cloud for longer than two phases to become partially intoxicated and lose one level from all skills. Skills cannot drop below 0. The cloud lasts for 2 seconds. When mounted on a bomb rack the BB resembles a keg. Must be 21 or older to purchase.

Radar Jammer Jammer

Don't those smug jerks and their radar jammers get on your nerves when they turn on their \$1.95 machines and divert your expensive radar-guided weapons? Suffer the humiliation no longer!

Coming Soon! Uncle Schmal's Radar Jammer Jammer Jammer!

RJJ – same stats as the RJ, only they work the exact opposite of RJs. An RJJ will benefit any radar-guided device launched from the vehicle with the RJJ.

Gamma Ray Laser

Your first laser was fun, good for toasting cycles and small cars, but it lacked that certain special "ummph." Your first heavy laser was an improvement, but still, something was lacking. In order to stay safe from those dangerous helicopters and trucks you bought the truly mondo X-Ray Laser. That was nice for a while, but soon that just wasn't good enough either. Leave it to Uncle Schmal to solve your mind-mashingly difficult duelling problems! Introducing the Gamma Ray Laser! Good for knocking out large buildings or small mountains! Overthrow a government or vaporize a country today with Uncle Schmal's Gamma Ray Laser!

GRL – \$100,000, 1,500 lbs., 6 spc, to hit 7, 9 dice damage, 6 DP, drains 10 PFs per shot. Can only be fired every other turn, to give the laser's capacitors time to charge. If a 2 is rolled when firing, roll a D6. If a 1 or a 2 is rolled, the GRL has misfired and one occupant of the car is bathed in a massive dose of gamma rays! In a flash he is turned into The Incredible Bulk! He now has 12 DP (but can't wear body armor), can pick up *anything* and throw it 6" (scale), does 2d with each fist with a 6 to hit, and he's *mad!* The Incredible Bulk will try to trash anything moving in his

immediate vicinity, including the vehicle he's traveling in! The Bulk also takes ½ damage from everything and regenerates 1 DP per turn, unless reduced below -10 DP.

The Force

"Use The Force!" Good advice. But up 'til now, The Force has been unavailable to most duellists. Once again, Uncle Schmal takes it upon himself to get over those tough and complex technical and metaphysical difficulties. The Force is just the thing when you're in a jam. Apply this and you're home free!

The Force – First you must have meditation skill of at least base level (available from Uncle Schmal via correspondence course – \$5,000 per level). If you meet that minimum requirement you can try to summon The Force once every 5 turns in combat. The base "to hit" to get The Force is 9. For every extra level above the base skill level you receive a +1. Summoning The Force is a firing action and gives the following benefits for three seconds, when it works . . . +4 to hit, +4 handling class, +10 acceleration/deceleration and the vehicle is surrounded by a psychic field that will not allow damaged equipment to cease operation. The Force also acts as 10 points of metal armor in all locations. When you summon The Force, roll 2d. On a 10 or 11 you succumb to the Dark Side. If you are affected by the Dark Side, you receive the regular benefits of The Force, but you suffer an irresistible urge to put a paper bag over your head and pick up people you don't like by the throat. If you roll a 12 you have succumbed to the Chocolate Side of The Force. The other players should pelt you with Hershey bars. You don't get the effects of The Force, but you *do* get the chocolate.

Combat Umbrella

Into every life a little rain must fall. If your rain has a little higher lead content than most, you'd better get Uncle Schmalbert's guaranteed umbrellas! Shed shells like water off a duck's back.

CU – When unfolded it can repel attacks like a riot shield, or water like an umbrella. When folded, it can be used to poke people you don't particularly like (no damage, but it sure bugs 'em).

Hazard Off!

Avoid messy hazard buildup with Uncle Schmalbert's new Hazard Off! Just spray Hazard Off! liberally all over your duelling machine and watch those sticky hazards slide off your car! Hazard Off! is another fine product of Deathwish Labs.

HO! – \$250/discharger. Hazard Off! comes in a one-shot discharger. For a vehicle to receive HO! benefits, it must have linked HO! dischargers mounted on every available position. When the dischargers are triggered (all of them must be discharged at once for it to work) the vehicle is surrounded by a cloud of Hazard Off! for one phase during which the HO! takes effect. HO! divides all hazards by 3, round down. HO! wears off in 7 seconds.

No Armor

Uncle Schmal's new No Armor is like nothing ever used in the entire history of armed combat! Not only is it invisible, but No Armor can be applied to any, yes that's right, *any* type of vehicle and over any type of armor for the same low, low price. But wait, there's more! Uncle Schmal's amazing No Armor even weighs nothing! That's right! Astound your enemies; confuse your pets! When you drive down the street with Uncle Schmal's new No Armor, no one will know – until it's too late!

No Armor – \$1,000 for a complete shield over any vehicle. 0 DP. No Armor is compatible with all types of armor and can be freely layered over LR, FP and metal armor.

HERO For Hire

By Christopher Burke

When a car skids off a slick road, it usually ends up careening into a clump of bushes or sidling up against a tree. If a driver finds himself face-down in a ditch, that's no big deal. Radio a tow truck, and you're out of there.

Unfortunately, when you're driving through the Hudson River Valley into the Adirondacks, a momentary lapse in attention could find you sliding halfway down the side of a mountain. Not an easy spot to climb out of.

That's where Harrison Fletcher comes in. Or down, rather, hanging on the end of a cable, while his partner, Wilson Brundle, holds the helicopter steady over the crash site.

Fletcher and Brundle are just one of the crack teams working for HERO, the Helicopter Emergency Rescue Organization. I recently spent the day patrolling the roads with them and can attest that these guys really put in a day's work.

Fletcher admits "most of the work is mundane. Usually highway collisions. We just have to land, pick up the casualties, and radio HQ to send a tow. We're faster than ground vehicles, and sometimes those few minutes make all the difference."

"But, at least once a week," Brundle adds, "we find somebody in some out of the way spot where they can't be easily reached, even by chopper. That's when I tell Harry to buckle up 'cause he's going down."

As Brundle laughs, he releases the winch so that it swings freely by the door on Fletcher's side. Even though there's no one below us, Fletcher grabs the hook and hauls it into the cabin.

"Hey," Fletcher tells me as he waves the hook in my direction, "if you want the full experience, why don't you try it yourself. You have to remember to hold on tight, though, because Willy doesn't really know how to fly this thing. He has trouble holding her steady when she's on the ground!"

Needless to say, I hastily decline.

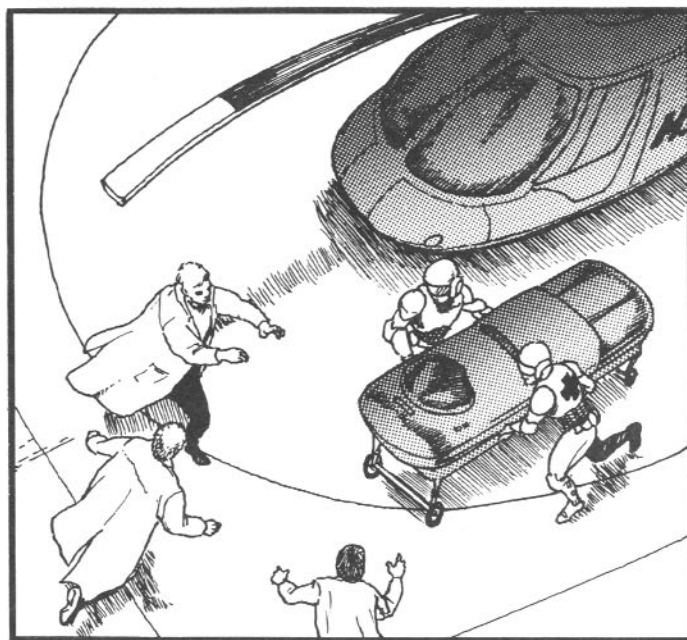
HERO started with a shoestring budget and only four "HERO-Copters." The organization has been so successful that they were able to expand the fleet to 12 teams very quickly. And although they started patrolling New York's highways only six months ago, the organization is already a household name.

The company plans to branch out to points north and west within the next year, but currently focuses its operations over Long Island and Westchester County. Curiously enough, they don't operate within New York City.

Fletcher explains: "The city has an abundance of emergency facilities. Ground vehicles are on the scene immediately, and they'll have you in a hospital within minutes. We're not really needed there."

"Besides, there's too much air traffic over the city already," Brundle adds. "If I went full throttle, we'd hit something for sure."

The rural areas are their domain – near small towns that don't have the needed facilities, on the open road, where help is just too far away, at any accident or ambush site – they're usually on the scene before the local authorities.



"In the case of ambushes," says Brundle, "we've been on the scene too soon a couple of times. Cycle packs see us swooping down, and they decide that it just ain't worth it. Which is fine with us."

Actually, although all HERO-Copters have offensive weapons installed, they are hesitant to use them. HEROs are trained to save lives and, therefore, try to avoid conflict as much as possible. This is carefully balanced by considerations for the welfare of any client on board. But they are trained to use their weapons, and in a pinch have no qualms about letting the slugs fly.

"Hell, if we weren't allowed to ever fire our guns, we'd be open to every duck hunter with an ego problem," says Brundle. "I'd rather drop a slick than shoot, but at high altitude the oil scatters in the wind, making it useless. The standard procedure is identification, evasion, direct fire. If they don't care who we are, we try to get away instead of engaging. If there's a problem with that, we give them the big guns. We don't like creating a demand for our services, but if we find our customers and ourselves in danger, we take corrective action."

Fletcher adds that even if forced to fight, "we use only as much force as necessary. Partly because we're not into overkill, and partly because of the company's tendency to tack the cost of the ammunition onto the customer's bill. Or take it out of our paychecks if they think we're shooting at clouds."

For all the flying they do, Brundle and Fletcher aren't just air jockeys with stethoscopes. In fact, many different skills come into play during some of the more dramatic rescues.

Says Fletcher, "Sure, you have to know how to fly and how to slap on a bandage, but there's a lot more to it. There's a lot of nerve involved, like when you're dangling from a 50-foot cable and suddenly some clown decides to take a potshot at you. Try doing that five days a week."

"It's not unusual for a HERO to have a lot of unexpected skills. Some hobbies come in handy on the job. For instance, knowing how to pilot a boat is a major plus for mishaps at sea. My pal Simon once called in for backup when he was a mile or so off the South Shore. The boat's owner got sick, and nobody else on board

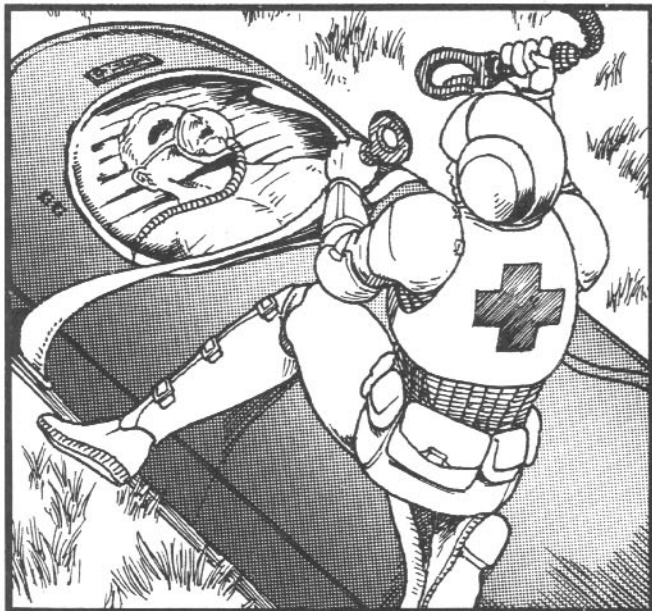
knew how to sail it. Now, if we had gotten there first, we wouldn't have been able to stop it from drifting away. When Fletch and I got there though, Simon was doing his darnedest to sail the boat back, fighting the current that was pushing the boat out into the Atlantic. He held her steady until the Coast Guard got there to take over."

Any others, I ask, other than the obvious ones like mountain climbing and skeet shooting?

"Yeah, like Fletch's girlfriend, Ricki. ("She's not my girlfriend," Fletcher interrupts.) She and her partner found a cycle gang victim up on the Thruway. When she got out to check the wreckage, a wounded biker jumped out of the bushes with a machine pistol. The guy went to grab her, and Ricki sent him flying 30 feet. She's been taking karate lessons since she was six!"

By mid-morning, the team has made a couple of stops. One only required a bandage and a tow truck, having turned down the offer of a quick flight into a nearby town. The other wasn't very lucky at all, except that he might not have survived if the HEROs had found him 15 minutes later.

"Hero One, this is Hero Base. Acknowledge." A call comes in. Bad luck on a mountain road. No problem, our HEROs say. They've done this before.



At the moment, Fletcher is on the stick, but he yields control to Brundle whom he admits is the better flyer. Within minutes, we're over the crash site, and Fletcher's dangling from the hook. With him, a medical bag, a stretcher, a walkie-talkie, and some tools to pry open the car doors, if necessary.

Brundle lowers him slowly; there's a strong breeze blowing. It carries Fletcher off target slightly, but Brundle corrects his position without slamming Fletcher into the side of the mountain.

"Piece of cake," Fletcher announces over the radio. "The driver's out cold. The door's open a crack." For the next minute, the only sound from the radio is a determined growl, and the release of breath of a very tensed diaphragm. "She's open." Within minutes, Fletcher is back in the cabin, his patient is secured on the stretcher, and we're headed for the hospital.

By the time their shift comes to a close, Brundle and Fletcher have made four pickups, including the mountain rescue. No cycle gang activity. No shots fired or returned. A slow day, they call it.

Before formally closing my interview, I asked the two HEROs how they would sum up their responsibilities.

"Do whatever you have to do to get your man."

"Go in. Get out. Bring him home. Go back for more. It's all in a day's work."

Gaming Notes

Wilson Brundle – Pilot +3, Paramedic +2, Mechanic, Gunner, Handgunner, Running +1, Driver.

Harrison Fletcher – Pilot +1, Paramedic +3, Mechanic, Gunner +1, Running +2, Driver.

All employees of HERO are expected to be above base level in both Pilot and Paramedic. If they aren't, they're put through a rigorous training program until they have at least +1 in both skills.

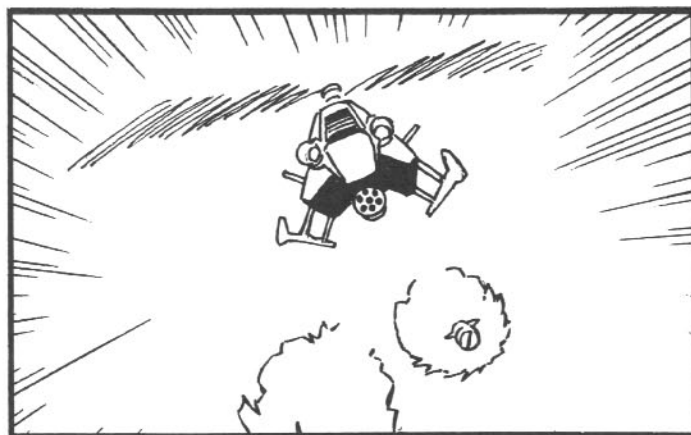
The next most important skill is Mechanic. Should something go wrong with the helicopter, one member of the team would be able to temporarily fix the problem until the copter can be flown back into base. This is not a required skill, but there is a pay bonus for it, even if it's never needed (see below).

Any other skill may come in handy, particularly Gunner and Handgunner for self-defense.

HEROs are paid a monthly base salary of \$400 times the sum of their Pilot and Paramedic skill levels, plus an extra \$200 for any Mechanic skill. For example, Fletcher, who has 2 levels of Pilot, 4 of Paramedic, plus Mechanic, makes \$2,600 a month, before bonuses and incentives. Brundle makes \$2,200. HEROs, on occasion, receive monetary compensation for particularly courageous rescues, avoiding combat in difficult situations, etc.

HERO-Copter One™ – Standard helicopter, standard power plant, pilot, gunner, 4 passengers (2 in cargo, 2 on stretchers), AC in universal turret under, single weapon computer, IR sighting system, winch, medical equipment, portable shop, pontoons, skid stretchers, 2x10 pt FP stretcher armor (see below). FP Armor F85, L80, R80, B80, T70, U85. Accel 5, HC 2, \$101,050, 14,000 lbs.

Stretcher armor: Up to 10 points of plastic armor (or the equivalent in metal) can be added to protect any patient on a skid stretcher. Cost and weight is \$10 and 4 lbs. per point and does not have to match the helicopter armor. Armor does *not* protect the skid or pontoon, which can still be targeted normally.



Comeback

By Daveed Gartenstein-Ross

The crowd was silent, examining the six of us in anticipation, trying to size us up and get an edge in the betting. They knew the duellists, they knew our careers, they knew our skills, but they didn't know what to expect.

As the announcer's voice blared out a duellist's name, car, and past accomplishments, all eyes would focus on that competitor. "Out of Los Angeles, California; the defending Division-20 World Champion, John Sebastian Delsby, driving his custom-made Chameleon." John leaned up against his cherry-red vehicle, smiling. He didn't care that the crowd wasn't cheering for him: Georgians were notoriously partial to their own stars, and wary of outsiders.

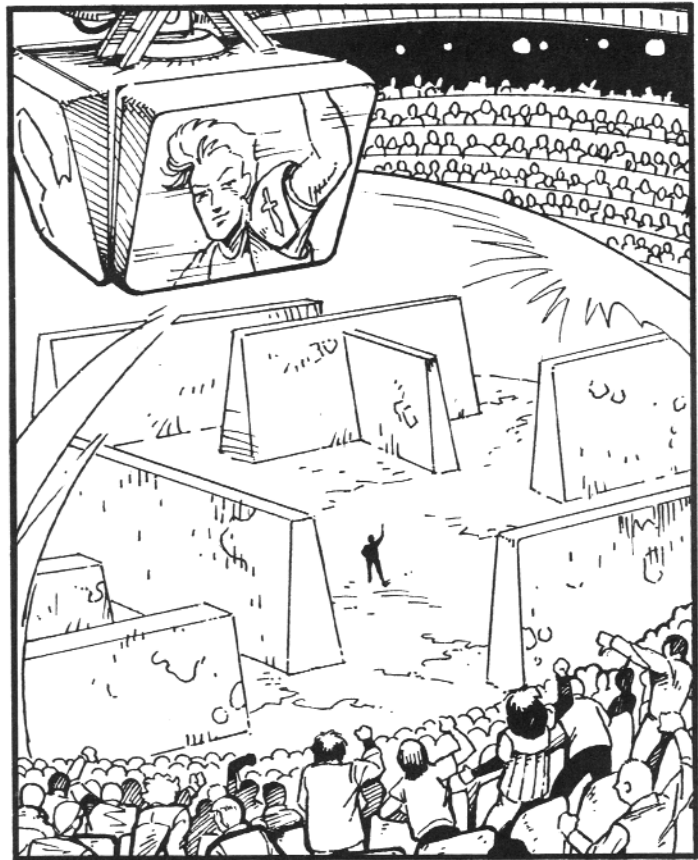
"From Arlington, Texas; the premier driver of the Free Oil States, Texas champion for three years running, Billy Joe Johnson, driving a modified Texan Six-Shooter." The crowd came to its feet again, this time booing. They were harassing the poor fellow like it was his fault that he was Texan. Last year at the Worlds in Missouri, the sanctioning body had trouble with fans throwing debris at his car; the Duel Extravaganza's management had been smart to install armorplast between the crowd and the arena. They claimed that it was to protect fans from the inevitable stray shot, but I think that I knew different. Billy Joe just smiled at the crowd's hatred, all the while whacking away at his nauseating Skoal chewing tobacco.

"Detroit, Michigan's Division-20 star, a man who's been duelling for ten years and is one of the best in the country; Robert Elias Parkinson, driving the Factor One, manufactured by Detroit's General Motors." The crowd must have been exhausted from their last two shows of emotion, as they looked at him with a mere dull roar.

"All the way from Sydney, Australia; the 2039 Division-20 World Champ, he's back and out for revenge, David Lennon Sabris, driving a Blightskip import." There were screams from the crowd of "Aussie go home" and several other racial slurs. David looked over at me and I shook my head. I knew how he felt. Back when I took the crown in Texas – it seemed so long ago – everybody was on my tail because they knew I was a threat to their local boy.

"Last but definitely not least, the 2033 Division-5 champ, 2034 Division-15, and 2036 Division-20 world champion, with one of the most successful career records in history, our own Angus Joshua King! He's been out of duelling since that '36 triumph, but he just tore through the Dixie Duel Circuit this season, amassing a record of 116 points. He is driving his own Kingsman design." The fans from my hometown, Macon, still remembered me, obviously. The applause they gave me was just electric, like none I had heard before. Call it selective memory on my part, if you will, but I think that their admiration of my past accomplishments just grew in my absence. I took off my AlgaeBud cap and waved it at the crowd. They could power me to a win tonight, instill me with my needed spirits.

With my lips still etched into a smile, I slipped the Trosky crash helmet over my sweaty face and fastened the chin strap. The announcer was telling the crowd about the history of the Division-20 championships, and giving a small recap of the season thus far. It



had been so long since I'd been this far that I had forgotten what it's like; I'd regained that old rookie enthusiasm.

I noticed my opponents climbing into their death machines and I did the same, slipping through the window into a hard bucket seat, after waving to the crowd one final time.

This was my home, the arena. I knew now that I was the most comfortable here. After I retired following my '36 championship, I tried my hand at several other professions, but none of them had the right feel. Being a stockholder just wasn't lively enough, and it made me feel like one of those rich snobs. An autoduel commentator . . . well, a lot of people just found my "Suthun" accent to be annoying. I started lifting weights and using Micro simulators in '40 so I could be back in shape for the '41 season.

And now I was in the 2041 Division-20 World Championships. Why did I retire in the first place? I missed some prime years of my duelling life – ages 28 to 31 – to that silly restriction which I placed upon myself. Of course, I was partly complying with Martha Jane's wishes for my safety, but after our marriage fell apart, shouldn't that have given me a clue? I could have been an all-time great: as it is I stand at 14th place in career victories with 63, but if I could have just averaged seven victories a year – only seven when my career average is 10.5 – if only I had hung around for those four years and gotten 28 wins then, I would have 91. That would be sixth place all-time, and the record is only 129. I could be in reach of being The Greatest. Autoduel Hall of Fame material. If only . . .

I slammed my hand down on the dashboard. I knew that I could have been the best, and that was all that mattered. I told myself to just savor the present. You can't change the past, but the future is yours. I concentrated on my strategy. I would be starting from

Gate Six, on the south wall. Billy Joe Johnson would be coming out of the southeast corner, the Aussie Sabris from the southwest. I knew to steer east because of what I'd seen his car do in the past. It was a nitrous-powered car with a metal ramplate. On the other hand, Johnson would gladly sacrifice his car to take me out – he's held a grudge since the '36 tournament.

He was the local boy then, favored to take the top. He drove a ram car, and I was the last driver to stand between him and a niche in the record books. My car was immobilized, and my turreted flamethrower had just one more round of ammo. Billy Joe barreled towards me at a full 80 miles per hour, and (lucky for me) smacked into my right. It was the only side of my car that had full armor, so the collision merely sent my tireless car spinning 90 degrees to a stop. Billy Joe, who was already at out-of-control speeds, also spun out – after his car flipped onto its top.

I was still in a bit of a predicament, however. I remembered that Billy Joe had a .357 magnum stashed away in his glove compartment . . . And then I realized that the gods were on my side.

I heard coughing over my car's radio. Coughing and then the very loud sound of someone throwing up. When I investigated Billy Joe's car, I found him passed out. He had swallowed his chewing tobacco and, well, rid himself of it. The results weren't pretty, but they did make me a World Champ.

The next day in the papers, Billy announced that he would "show no mercy" when next we did battle. That scared Martha Jane, and contributed to my retirement.

So I would drive towards Billy Joe and try to outmaneuver him, get some other driver in between me and this vengeful Texan. Maybe I could get to fight Walt Salther, as the young duellists are usually the most inexperienced and would fall for something like

...
"Um, Mr. King?" A curvaceous young lady wearing the fire-proof EXTRAVAGANZA suit of a race official was standing at my window. "Yes, Elaine?"

She looked astounded that I could actually read her name-tag, but soon regained her composure. "Um . . . are you ready to begin?"

"Yeah, I'm always ready."

She smiled. My comment wasn't particularly witty, incisive, or funny. She was smiling for her own reasons, and it wasn't my business to wonder about them. She began, "You drive to the gate, and then back along the red line to the section marked. . ."

"Yeah, I know the procedure. At least I should. Thanks a bundle, babe." I eased the engine forward along the red line that she spoke of. I finally found the starting lights and turned my car to face them.

I switched my radio to the arena station, always wanting to be informed of my opponents' status. Announcer Harvey Amberg said, "The 2041 World Championships will be under way in just a second." Sure enough, the lights switched from red to yellow. I tapped the accelerator nervously. There were butterflies in my stomach. I was jittery for the first time in so many years, and I loved it.

As the lights turned to green I floored it, hoping to make it to the corner which headed northeast before Billy Joe could. That was one advantage to my Kingsman, it had a great acceleration.

By the time I was out of the gate I was already doing 35, and I just accelerated into the first right-hand turn. One odd thing about the Duel Extravaganza's turns was that they were all constructed to go between two "buildings," each one made of 4-foot cinderblock walls. I cracked a vertical grin when I didn't see Billy Joe's

ugly gray pickup. I must have been going 40 when I jerked the steering wheel left into the second turn.

This turn was just as tight as the last one, with just as much room for error, but at the higher speeds it seems so packed, so narrow! I felt the tires beginning to slip under me, and I panicked. The rest of what I did was pure instinct, and I would have handled it much better when I was one of the world's top drivers.

I know that you're supposed to accelerate when you start to skid, so you can pull out of it and get back on course. The thing that you want to do least of all is put on the brakes, but that's what I did. If I was on the freeway, it would have been a correctable mistake; I could have just cussed and straightened out. But in the arena, the littlest misjudgment can be fatal.

When I braked, it sent the back of my Kingsman fishtailing to the right. Slam! into the cinderblock building. It sent my car spinning left to stop in the middle of a four-way intersection.



Damn! My power plant stalled! I twisted the key vigorously, eventually hearing it whine to life. My damage sensor readout said RIGHT SIDE: SEVERE DAMAGE. I pivoted my car to head north, placing my right side against the wall so none of the other drivers could get a shot at it. I was up to 20 mph when I glimpsed, in my rear-view mirror, Billy Joe's gray pickup barrel around the corner in back of me. His targeting laser instantly locked onto my car and a volley of six deadly rockets shot out of his front towards the laser's endpoint – me.

They collided with the Kingsman in a loud, hollow explosion that ripped a hole in my car's back. Their burst hit my rear tires. I could feel the car slide right, meaning that he probably either destroyed or heavily damaged my left tire.

The Texan pickup then started to slide right. I could hear his tires squealing protest as he hit the brakes. I'd seen this maneuver, the bootlegger reverse, performed many times in my career, but I had always considered it a stupid, senseless risk. But I could see Billy Joe's reasoning, and I didn't like that.

His multi-fire rocket pod had used up its single volley, but I remembered looking over his vehicle on Saturday afternoon, and noticing a dropped weapon on the back. From its straight-out tube and large opening I could tell that it emitted some sort of gas. I don't think that anybody would be stupid enough to pull off such a hazardous move to douse me in smoke, so I concluded that he must have either a paint spray or flame cloud ejector, probably the latter. I was glad that I installed a fire extinguisher to an otherwise explosion-prone design.

I saw Billy Joe's gray pickup pull perpendicular to me in my rear-view. In front I saw a different car pull around the corner. It was the unmistakable neon-pink of Dave Sabris's Blightskip. The metal ramplate was pretty conspicuous itself. He wasn't moving very fast, but I still closed my eyes and braced myself for the collision.

Then over the CB I heard, "I have no quarrel with you." I knew that Sabris was speaking to me, since it was common knowledge that I was the only driver to use channel 6. Made sense – all the duellists in this championship wanted revenge on one another for different reasons, and Sabris wanted Billy Joe, maybe because of all the times that Billy told his Aussie jokes and harassed Sabris for no apparent reason.

I pulled my car into a left U-turn, as fast as a vehicle that was missing a tire could go. As I got to the side I could see a bright flame, and my plastic windows melted just a bit. I felt my right scrape the cinderblock as the white foam of my extinguisher blocked my view.

I could hear the high-pitched whine of a well-tuned internal combustion engine mixed with the erratic popping of nitrous, and a faint crash as the two cars hit.

After a second or two, my wipers restored sight. Billy Joe's pickup lay in front of me – both halves of it. Sabris was not to be seen, and with his speed, he could be anywhere. I swung the Kingsman around slowly, taking care now that my control was handicapped. As I was about to make a right turn to get back into the action, I heard an explosion and felt my car rock with the force of a shot to my back. Looking in my rear-view, I could see Billy Joe kneeling down, smiling, with a smoking LAW on his shoulder. I laughed at his foolishness and swiveled my turret, obliterating him with a couple seconds of high-temp.

Then I heard the monotonous alarm-clock beeping of my damage sensor. It flashed a crimson FOJ DAMAGE CRITICAL. Oh man, I realized that my back had been breached before the late Billy Joe Johnson shot it with his LAW. I was seriously in danger of an explosion! I pressed down on the accelerator violently, at the same time flipping my flaming oil jet to auto. I got up to 35 along the 200-foot straightaway. Somehow I made it around the next right-hand turn, spewing the oily fire, my left side barely swiping the wall. My car skidded left into a T-stop, and I came to a smoking halt facing east.

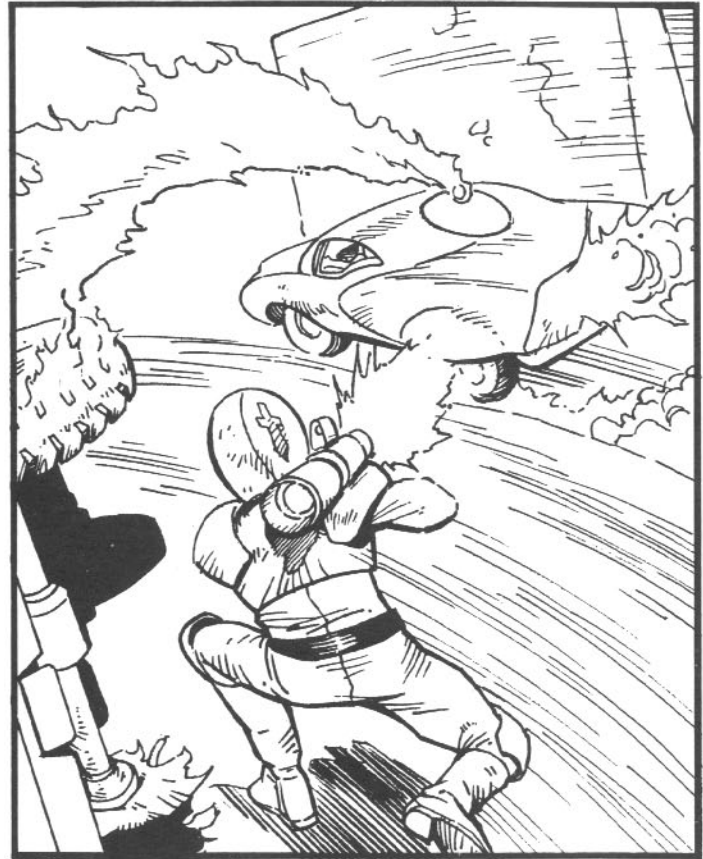
My status console read FOJ EMPTY. I smiled; it wasn't often that someone avoided an explosion like I just did. Good driving, Angus!

I heard Harvey Arnberg say over the radio, "And defending World Champion John Delsby scores the second V.K. of the event, over Detroit's finest, Robert Parkinson. However, Delsby doesn't

look the better for it." Where the hell were all the others? There was no sign of any competitors . . . for some reason I felt like there were foes lying in wait around all of the nearby corners.

I had stopped in a wide-open expanse. There was an open cinderblock formation to my right: it made a 15-foot escape corridor that led between four of the buildings, while past that the main route headed south. In front of me stood the vast center of the Macon Duel Extravaganza.

I scanned the area suspiciously, not wanting to move and betray my location. There were four duellists left, and I was one of them. I smiled with a sense of accomplishment. At the start of the season, not many people were predicting me to even win my circuit. King-bashing became popular among autoduelling magazines and fans. Now I was one of the final four drivers in the World Championship! However, if I didn't win here, a lot of people would think that I flopped. You can never satisfy unless you're the best.



Then death drew near. Walt Salther's jet black Piranha flew around a corner to the east. His front rocket launcher began to let off volleys. He was about 200 feet away, however, and at that range you can't hit a blimp with a rocket. They scattered all around, hitting the wall behind me, the floor in front of me, the cinderblock building to my left. I wasn't too worried about the rockets; the ram plate was what made my heart stop. It wasn't metal like Sabris's, and he couldn't get up as much speed as Sabris, but a collision is a collision. And if that collision happens to be with a ram-machine, then in my condition that's it. There was only one way out now, and I didn't particularly care for it.

Back in my star days, I never took tire shots. I would laugh at people who did, saying, "If they can't win the honest way, they don't deserve the victory." That's how good I was, so skillful that

I developed a code of honor which I would always follow. I expected others to do the same, and got very mad when they didn't. And my old self would hate me for what I was about to do.

I aimed my turret, using my En-Hance targeting computer to fire at the ground just a couple feet in front of Salther. I triggered the weapon and saw a jet of flame shoot out, hitting its mark precisely. It was nice to know that I had retained at least my aim through my old age. The Piranha slid right, its front tires ablaze. I could see Salther jerking his steering wheel side-to-side, trying to use movement to blow out the fire. I smiled; young guys are just too dumb to get extinguishers. I wanted to give Salther a lesson that he would remember, so I turned the turret's attention to his rear tires. There was a satisfying hiss as another shot slithered out, setting the other pair on fire. The fire shot up and engulfed his whole vehicle. I thought back to my recent unfortunate experience with flammables, and realized that his front facing rocket launcher was just as volatile as my FOJ. I really pitied the fellow, and hoped that he had Gold Cross. After all, he was a pretty nice guy.

He must have realized the same thing that I did. He bailed a split-second before the car went sky-high. The explosion rocked the arena, blinding me momentarily with its bright flash. When my eyes refocused, I saw Salther writhing on the arena floor, burning. Back when I was so hot, I never saved an opponent. That was because I hated all of them – the more drivers that lived, the more they stood in my way. But something about my past, something about Salther's future, made me change my ways.

I'd brought two foam grenades before the event – I'd had 60 bucks to spare and figured, what the hell, they look interesting. I rolled down my window and heaved one of them towards Salther.

Amazingly, it landed right on top of him. On impact it burst, dousing Salther in its synthetic white foam. After three seconds the liquid cleared and I could see a smoking body. It was anybody's guess if he was alive.

"And that's King's second V.K. of the event!" I could hear Arnsberg screaming enthusiastically through my radio.

Just as I sat back in the satisfaction of having possibly saved a life, my car was shaking again. The damage sensor flashed **TURRET ARMOR: MAJOR DAMAGE**. Through the rear-views I could see the vibrating autocannon of John Delsby's cherry-red Chameleon, which was south of me. Two more of his shots and it would be all over for my turret.

The gods were on my side, as they sent me a savior. Dave Sabris, who I now realized was on my side (or at least had nothing against me) rammed into Delsby's right, doing at least 70. Delsby's frame bent in half, and Sabris just bounced back about 10 feet, braking with authority. He stopped with his front facing me.

Delsby announced his surrender over the CB and hopped out of the Chameleon, running to the safety of a nearby gate.

I didn't want to let Sabris get the upper hand on me, so I started to blast away at his front. He seemed surprised, but quickly retaliated with his front weapons. You know, I had really been curious as to what he was packing up there, and I was unfortunate enough to find out. There's no way his car could have so much stuff, but somehow it did. He had twin Vulcans as his main armament! They turned out to be incendiary too, as I could see smoke rising from my turret.

"The rest of this I don't recall, but I've watched the videotapes numerous times. It was basically a one-in-a-million chance that the turret should explode, as it's hard enough to set it on fire with something as plain as two VMGs, but the guy got lucky. Once it

was on fire, I had an extinguisher that should have put it out – after all, why else would I buy one?

"But for whatever reason, it didn't spray its foam immediately. You know, malfunctions happen.

"So the turret exploded, and Angus Joshua King was pronounced dead on Thursday, October 24, 2041. That is why I am choosing now to retire from duelling: the memories of my own death are hard enough to cope with, and I don't care to repeat the experience. It's been a great career, and all you Georgia fans are the greatest! Thanks for all the memories!"

The first clone of three-time World Champion Angus Joshua King left the podium with the wild cheers of a Macon audience ringing in his ears.

Remember the Good Old Days?

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Send \$10.00 plus \$2.00 shipping and handling (\$5.00 overseas) to: Uncle Al Collector's Pack, Steve Jackson Games Incorporated, PO Box 18957, Austin, TX 78760.

By John M. Hurtt

Orlando is located in Central Florida along Interstate 4 and Highway 50. It is uncomfortably close to Los Disneys, whose animosity towards the "upstart town" is clearly demonstrated by their frequent harassment raids on convoys and the expressway fortifications. Orlando currently has only 4,800 permanent residents, but this number is growing at the impressive rate of nearly 300 new citizens every two months. This is due primarily to the "Greater Orlando Reclamation Project" (jokingly referred to as "The Great GORP" at Los Disneys), attracting large amounts of trades people willing to relocate to a hostile environment for the chance at steady income, future security and cheap land for homes/homesteading. Another factor is the Corrine Autoduelling Arena and Proving Grounds, located in the area formerly occupied by the Orlando Naval Training Center.

Orlando is a rarity in the South, a totally destroyed city come back to life . . . even if its population is currently only that of a small town.

History

Orlando was hit particularly hard by the oil crisis in the late '90s. It had a service-oriented economy based on tourism, and when the oil disappeared, so did the tourists. Staggered by the loss of out-of-state revenue, Orlando, along with most of Central Florida (with the notable exception of Los Disneys – still simply called "Disney World" back in those days), barely survived the economic turmoil of the next ten years. They *didn't* survive the one-two punch of hurricanes Annette and Barbara in 2011 and 2012, respectively. With all of the East Coast in ruins and the state's climate seemingly permanently changed for the worse, Orlando, Gainesville and many other Central Florida areas were soon swamped with refugees. The strain was too much for these already overloaded cities, and within a few years the combination of triple-digit temperatures, lack of food (even before the full effects of the blight were being felt), and outbreaks of malaria and typhoid caused much of Orlando to collapse in anarchy and sporadic looting before being abandoned.

It is ironic that Orlando was one of the few cities to escape the ravages of the Food Riots – mainly because it was already largely deserted by 2016.

In 2036, the son of a wealthy Cincinnati industrialist convinced his father that Florida was an ideal place to build an extension of their custom car plant industry, complete with proving grounds and a combat arena to attract attention to the area. With the backing of his father and several other industrialists, Raymond Mathews began buying land in and around the abandoned city of Orlando. The Reclamation Project ran into a snag when then-Governor Bart Lesion abruptly decided this new tax source could eventually become a threat to Los Disneys and canceled all of the original land deals. With too much already invested to pull out,

Orlando, Florida

Mathews prepared to fight – only to be handed a golden opportunity when members of the Florida Front (a political/commando gang) staged a daring abduction of the governor, dismantled his connections to the political power base, and forced a series of free elections in 2037. Raymond exploited the temporary confusion to reclaim the land-deal certificates and solidify his hold on Orlando.

Orlando Today

The last three years have seen explosive growth and reconstruction (centered mainly in the area bordered by Interstate 4, Highway 50, and State Road 436). In 2038, Mathews Industries completed the first phases of its project and, with a population of 1,200, Orlando was reclassified from its original status as a deserted/ruined city to a small (non-fortified) town, and shown as such in the AADA's *Road Atlas and Survival Guide*, 2038 edition. As of 2040, Orlando has applied for status as a "fortress town." They will most likely get it.

"Corrine Custom Autoworks," with the accompanying autoduel arena and proving grounds, was Orlando's first industry in 2038, and is still the core of the Greater Orlando Reclamation Project. Nearly 3,600 people have been attracted to Orlando in the last two years and a variety of businesses and other small industries are moving into the area.

Although Bart Lesion is out of the picture – and the state government is more-or-less running democratically – Los Disneys itself has returned to its normal dictatorial corporate policies under the former lieutenants of the ex-governor. Los Disneys greatly resents Orlando's semi-autonomous status, and only hefty taxes Orlando pays to the state government keeps park executives from launching punitive raids. Even so, "incidents" between the Los Disneys Security Service and the Orlando City Patrol are frequent and violent. Motorists are advised to avoid such confrontations at all costs.

Climate

Florida is slowly recovering from the ecological scars of the last 50 years. Temperatures are still extreme in the summer (110+ degrees), and typhoid and malaria are still dangers. But overall the greenhouse effect in Florida seems to be abating year to year. Environmentalists credit the regrowth of trees and marshes along the east coast and central region for the softening of Florida's brutal temperatures. Motorists are still advised to avoid traveling between 1100 and 1600 hours during the summertime, however.

Government

Not surprisingly, Orlando is a corporate-run town, but the present government is very democratic. All registered residents who have lived in Orlando for two years or longer are eligible to vote.

Note: the two-year restriction is waived if you are employed by one of the five major corporations in Orlando. All candidates for

office, with the exception of City Patrol Chief, must be employed by one of the corporations for at least two years before they can run for any of the dozen elected administrative posts, including the mayorship.

Points of Interest

1) **University of Orlando:** Once known as Orlando College, a learning center for the well-to-do kids of Winter Park, U of O is still in the process of being renovated – though it is already busy educating the newly arrived young adults of Orlando. Wall fortifications are not complete yet, but a series of well-armed reinforced bunkers cover all lines of approach. There is also a 120mm tank cannon in an AFV turret atop the main administration building. The cannon, known affectionately as “Bam-Bam,” is manned at all times (typically by at least a Gunner +2 w/HRSWC) and can cover most approaches to the university. Primary courses at OU include electronics, farming (particularly hostile conditions farming), vehicle design, aero engineering (including helicopter and airship design courses), medicine, and law (including special paramilitary training for law enforcement). The current faculty is small in number, but is expanding as the population does.

2) **Abandoned suburbs:** These areas are completely overgrown by grasses and, in many places, are being reclaimed by the marshes that once dominated the region. Most houses and buildings are gutted (those that can be seen from the cracked and/or partially submerged backroads), and the remainder are host to hermits, loonies and, in the southwest, scum gangs. If you *must* travel in these areas, off-road tires and suspension are a must, due to the deteriorating condition of the roads.

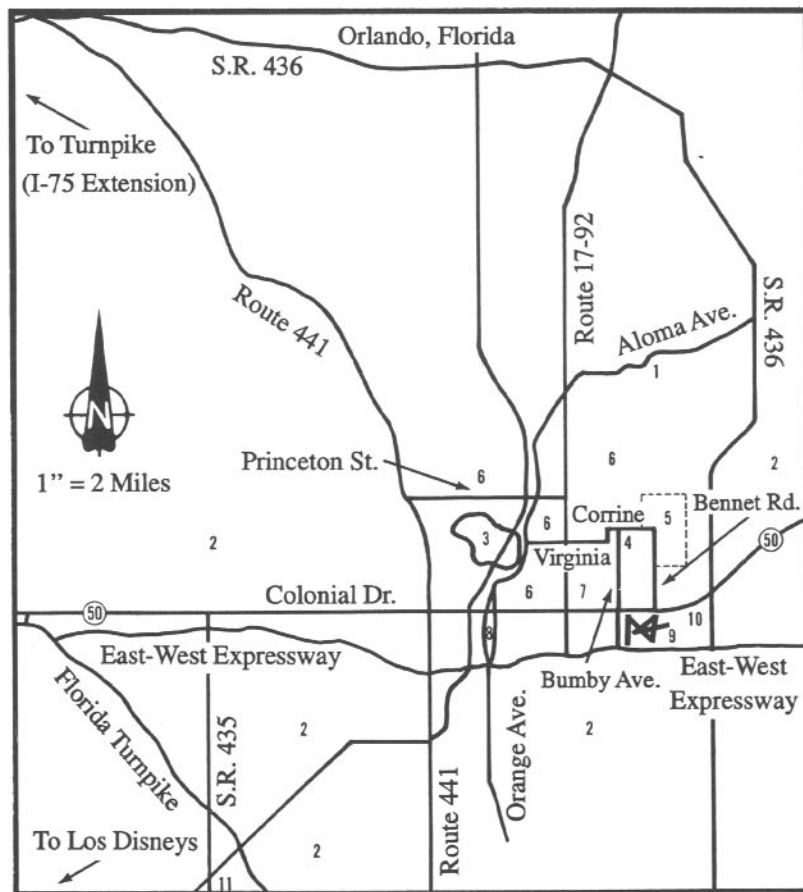
Warning: Travel anywhere east of Orlando, except along Highway 50, is strongly discouraged because of the dangers of encountering hidden marshes and huge sinkholes unexpectedly.

3) **Lake Ivanhoe Marina:** Lake Ivanhoe expanded considerably after Annette and Barbara roared through the area. Today, Fargon Watercraft has an assembly plant and marina on the north shore of the lake. Lake Ivanhoe sees considerable duelling between boats and hovercraft – and cars, as I-4 passes directly over the lake at a relatively low level. The overpass has been heavily armored and reinforced to prevent stray rounds from damaging it. Fargon Watercraft is working on a deal with Corrine Autoworks to hold official events involving boats and cars on the lake, to be televised along with events at “The Pit.”

4) **Uncle Albert’s of Corrine:** Albert Stoliczynski saw an opportunity in the Orlando Project and decided it was worth investing several million dollars. Financial observers have pointed out that Albert could never come to a satisfactory arrangement with Los Disneys, and this may have prompted him to try Orlando. This Uncle Albert’s is a full-sized store and service facility, rivaling Boston’s main showroom in size – apparently in anticipation of major growth to come.

5) **Corrine Custom Autoworks, Duelling Arena and Proving Grounds:** This sprawling complex occupies the land on which the Orlando Naval Training Center once stood. Most of the grounds have been restored to pristine condition.

The south part of the compound (where the recruit barracks and motor pool used to be) is where the main assembly buildings are located. The west end of the dog leg has an oval track (the recruit review way refurbished) as well as a quarter mile straightaway and an obstacle test-course. Test buildings and observation block-houses complete the proving grounds. Located between these two areas is the Corrine Autoduel Arena, also known as “The Pit.” The arena consists of several blocks of the navy base’s original buildings enclosed by walls, with a series of ramps leading up to a balcony level that partially rings the arena and, at one point, cuts across it – with a 112-foot ramp jump in the middle! The arena also has lasers mounted in turrets throughout the arena to make life interesting for duellists in some events. The arena measures fully 400 yards by 300 yards, making it one of the largest walled arenas in North America.



6) **Reclaimed/Rebuilt Suburbs:** These are the areas reclaimed by the project. In most cases the original homes or buildings were salvageable. After all, Florida has always been a prime target for hurricanes, and construction, in most cases, was carried out with this in mind. Therefore, more houses and other structures survived when they might not have elsewhere. Most areas are being walled and fortified as they are completed. The OCP patrols heavily in these areas – Orlando’s few citizens are precious.

7) **New downtown and merchant area:** Bounded on four sides by 17-92, Corrine Drive, S.R. 436, and the expressway fortifications to the south, the new downtown of Orlando is the gem of the Reclamation Project. Along Hwy. 50 are dozens of office buildings and high-rises (with several more under construction). Just

north of 50 is a series of malls and plazas of sufficient size to impress even visitors from Schaumburg, IL. Numerous small businesses are also scattered throughout this area. At present, many of the office spaces, and even entire buildings are empty. They are being built on the anticipation of the explosive growth to come.

8) **Old downtown:** There are plans to absorb this area into the project as well. But at present there are just too many other areas that need attention, and the downtown area still has scum gangs. They are few and have no organization – they don't even have a name – but they're slipperier than rats, and disappear the moment the OCP rolls in. Vehicle traffic through the area is difficult due to the wreckage in the streets, but travelers are safe from the street gangs as long as they stay in their vehicle. No street gang member has been spotted with anything more threatening than a baseball bat in the old downtown area. Under no circumstances, however, should you consider walking through this area. If you should find yourself stranded in old downtown, the OCP maintains a secondary station house at the old downtown library building (a massive, well-fortified building) – get there as quickly as you can.

9) **Orlando Airport and Airship Field:** Formerly Herndon Executive Airport, it is the main landing field for airships and helicopters, now that Orlando International Airport to the far south is just a marsh-covered, sinkhole-riddled memory. The airfield is well-defended, with anti-aircraft mounts (mostly 75s) and high-speed radar and wire-guided missiles. LDSS choppers have learned the hard way to avoid this area.

10) **Orlando City Patrol Headquarters:** The OCP has its main base and motor pool here. With the exception of two helipads, most of the patrol's choppers (and two combat microplanes!), are located at the airfield. The patrol currently has 80 officers who work in rotating full-day shifts of three days on duty and four days off. When on duty, a shift – which is composed of 25 to 35 officers – is broken up into three days of eight-hour shifts which have 8-15 of the officers actually out on patrol, while the remainder standby at the bunkhouse section of the station house, taking meals and sleeping, ready to scramble at a moment's notice.

Duellists should not even consider starting trouble near here. OCP officers are well-trained, competent, polite and cannot be bribed. If you are caught on some minor infraction (speeding slightly over the limit), be respectful, admit your mistake (officers will always give you the benefit of the doubt, the first time), pay your fine and move along. If you commit, or are suspected of a major transgression, and are caught, surrender immediately. OCP officers will not hesitate to use deadly force to stop suspects. Cars and helicopters, including the patrol's two microplanes, are painted dark green and white and have red and blue flashers.

Warning: The Los Disneys Security Service uses a flat black paint scheme on their cars, which are often unmarked. If you drive a black vehicle, and are pulled over by the OCP, be extremely polite. Expect a close grilling – the officers will be suspicious of you until they see identification.

11) **The Outzone:** The northeastern most tip of the outzone slums surrounding Los Disneys (see the *AADA Road Atlas and Survival Guide, Vol. Three: The South* for more info). Scum gangs abound here; travel at your own risk. Curiously, the primary street gang here is a group called the Orlando Lice, despite the fact that they have never laired in Orlando, or anywhere north of the turnpike. There is a persistent rumor that the Orlando Lice were working in cooperation with the Florida Front political gang during the 2037 upheaval at Los Disneys.

Facilities

There are three full-service truck stops in Orlando. Two of them are fortified and are located at Interstate 4 and Princeton and at S.R. 436 and Hwy 50, respectively. The third is located on the grounds of the Corrine Custom Autoworks Complex, and therefore does not require separate fortifications. There are seven recharge stations located around the area, two of which have full garage facilities for all (non-oversized) vehicles. U of O has its own power and service station (which does have limited services for trucks).

There is a TV station in Orlando, with an international satellite uplink, which exists primarily to cover events at the Corrine Autoduel Arena. UBN, of which the station is an affiliate, is backing big promotional events at "The Pit," and there is talk of an AADA regional being held there.

There is also a well-equipped hospital with full Gold Cross facilities and two emergency clinics.

Note: Members of any of the five major corporations get huge discounts on medical treatment (effectively equivalent to a major medical plan), and receive free health checkups.

Organizations

The five major corporations – AirCo, Fargon Watercraft, Herts Construction, Mathey Industries and Uncle Albert's – together form the Greater Orlando Reclamation Project, which is, for all intents and purposes, the government of Orlando.

The Orlando City Patrol patrols the greater Orlando area and mans the fortifications of the East-West Expressway in times of trouble, of which there has been little, with the notable exception of encounters with the LDSS. The fortifications of the expressway are monitored remotely with incredibly sophisticated equipment (rumored to be military surplus – legally but covertly obtained). Nothing bigger than a rat can get close to the walls without the OCP knowing about it.

There are two autoduelling clubs in Orlando: The Greater Orlando Duelling Society (GODS), and Corrine's AutoDuelling Institute of LACkeys (CADILAC).

Duelling

The Corrine Autoduel Arena, also called "The Pit," holds events Tuesday through Saturday. This unusual arena is quickly gaining a reputation in the South, and many name drivers are coming down to try it out.

For boat and hovercraft fans, Lake Ivanhoe is open to anyone who wants to try out his latest equipment and designs.

Duelling is prohibited within the city except on the lake or in The Pit. Normally, however, the OCP will be very tolerant of the use of "self-removing" dropped weapons (smokescreens, flame cloud ejectors, paintsprays, flaming oil jets) used in a defensive manner. The OCP will also ignore the use of weaponry by truckers to fight off attackers, provided the trucker reports the location of any spikes, oilslicks or unexploded mines. As a result, Orlando has a good reputation with the Brotherhood, and Brothers will usually intercede on behalf of the OCP if they spot trouble between them and the LDSS (yet another reason for Los Disneys' animosity).

The AADA has recently opened a full-service office in one of the new office buildings downtown. They can be reached at 1202 Hwy 50, or Elmay: AADA32802.

ARENA WATCH

Mons Olympus Dallas, TX

By Tim Ray

The Mons Olympus duelling arena is one of the newest arenas in the country. Named after the largest volcano in the solar system, and located in the huge urban sprawl of the Dallas metroplex in Texas, Olympus is quickly becoming one of the most popular arenas in the Free Oil States.

The most striking feature of the arena is the great central crater. The bottom of the pit is filled to a depth of four feet with liquid plastic, colored and cleverly lit from underneath to resemble a seething, rolling pool of molten lava. Four ramps allow jumps over the central crater. Four smaller craters (the vents) surround the large one. The outer edges of these are sloped up to facilitate jumps. Olympus' popularity stems from the high speed of the duels there and from the crowd-pleasing hostile environment of the arena.

Arena Notes

Walls: The arena walls have 50 DP.

The Lava: Even though the "lava" is only plastic, it is still hot and very sticky. Any vehicle that puts so much as a tire in the gunk will be stuck for the rest of the game. Pedestrians will take one point of damage per phase in contact with the lava; body armor protects. (Peds can wade out at a move of $\frac{1}{4}$ " per turn.)

The Crater: This is steeply banked. Mines used on the slope will roll down into the goo the phase after they are dropped; remove the counter. Note that if you go off the edge of the crater at any angle within 30 degrees of perpendicular to the edge, you will be airborne, unless your speed is 20 mph or less. Landing from such a jump is at +D1 to the normal jumping hazard because of the sloped landing surface. A car more than 3" inside the crater may only be targeted by weapons fired from the rim of the crater.

Gates: The gates are shown on the map; they are the small white rectangles in the central crater. The gates are 15 feet by 7.5 feet – just wide enough to admit a car or cycle. They fold back into the crater wall, allowing the vehicle to enter. The vehicles traditionally enter so that they face away from their closest neighbors. A vehicle or occupant may not fire upon or willfully collide with another vehicle until it has all wheels over the rim of the crater.

Ramps: Line of sight for weapons fire may not be traced through the second inch of the ramps. Firers on the last 4" of the ramps and within an inch of the edge may target the top armor of vehicles in the arena below if their target is between 2"

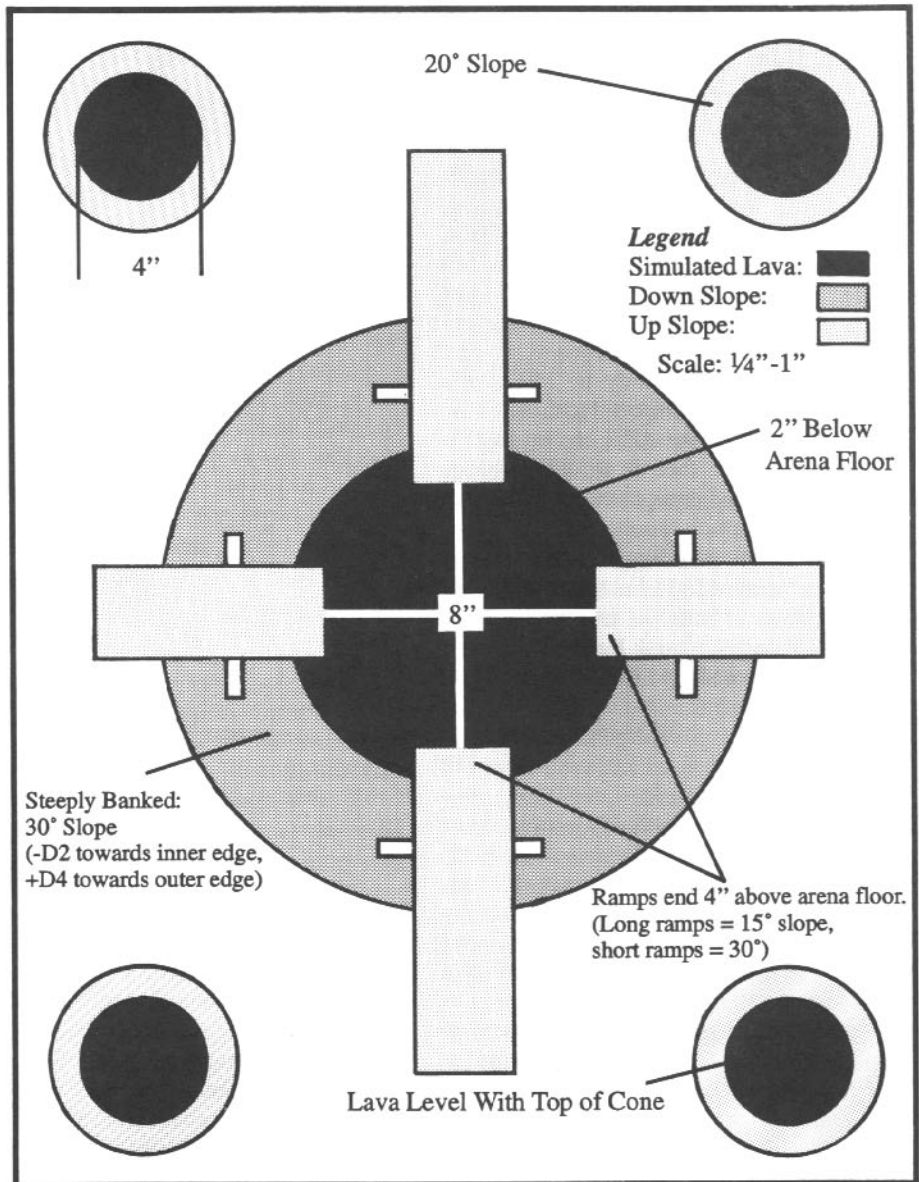
and 8" away. Turreted weapons may fire across the vents, but no other weapons may do so.

Grandstands: The stands are located around the edges of the arena, protected by 20 DP armorplast windows.

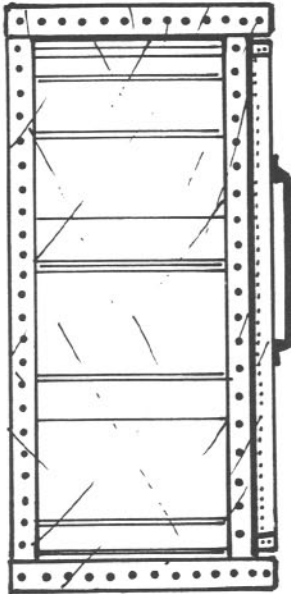
Arena Events

The events held at Olympus are primarily vehicular kills arenas; races are rarely run around the outer cones. Gasoline is allowed here, as it encourages high speeds and exciting, colorful explosions.

Pompeii – In this event, the lava level in all the craters begins to rise, at the rate of $\frac{1}{2}$ " per turn. The contestants must contend with each other as well as the advancing magma. Note that since the lava is level with the top of the smaller cones, they will overflow completely in two turns. The lava will flow outward at a rate of $\frac{1}{4}$ " per turn until the duel is over, or all the cars become stuck. This event is usually run as the main attraction on Saturday night, so that the arena management can use the Sunday after to clean up.



BACKFIRE



Armored Beer Refrigerators: no practical uses in duelling, won't help you win, it's not worth the price. I love it! What a great idea, and one great idea deserves another. Can you stuff a body in one? (Not good for the beer, but could give it an interesting taste.) No, seriously, if you could, wouldn't the body be effectively preserved, say to transport it to Gold Cross at a later date? If the ABR can be used to preserve bodies, then it would probably become standard equipment on Samaritan vehicles.

How about printing counters on the back cover of *ADQ*? Featuring different vehicles every issue.

May your Armored Beer refrigerator never be breached, and your flaming oil jet never run dry.

Dusty "Mud" DiFuria
Selma, OR

Well, you could probably get an object of the mass of a human body into an ABR, but you couldn't get it in if it was still configured like a human body, if you get my drift. In short, if you cram a stiff into your ABR, the result would be less "effective preservation" and more "ungodly mess."

We'd love to put counters or some other kind of neat stuff on the inside covers, but at the moment it's just not economically feasible.

- CWM

I read with interest your editorial in the Fall 2041 issue of *ADQ*. You made quite a few observations that accurately portray the view many non-gamers have towards the gaming industry. I personally know the frustration of having five years of gaming magazines thrown out by misinformed parents. It is sad when someone forms an opinion on something based on hearsay rather than an educated and intelligent personal analysis. However, that is what many people do and it is extremely hard to break them of that habit.

As you stated in your article, *Car Wars* has avoided attention due to its lack of sex or magic. That is why I was surprised to see an ad for *Uncle Albert's Catalog From Hell*. I do not know if this is the actual title, but if it is I would think twice about using it. All these knee-jerk idiots need to see is that one hot word (no pun

make a fine companion to the *Car Wars Compendium*.

I want to state that this is only my personal suggestion to avoid confrontation I believe that a company should do what it feels is best and not bow to pressures from the uninformed.

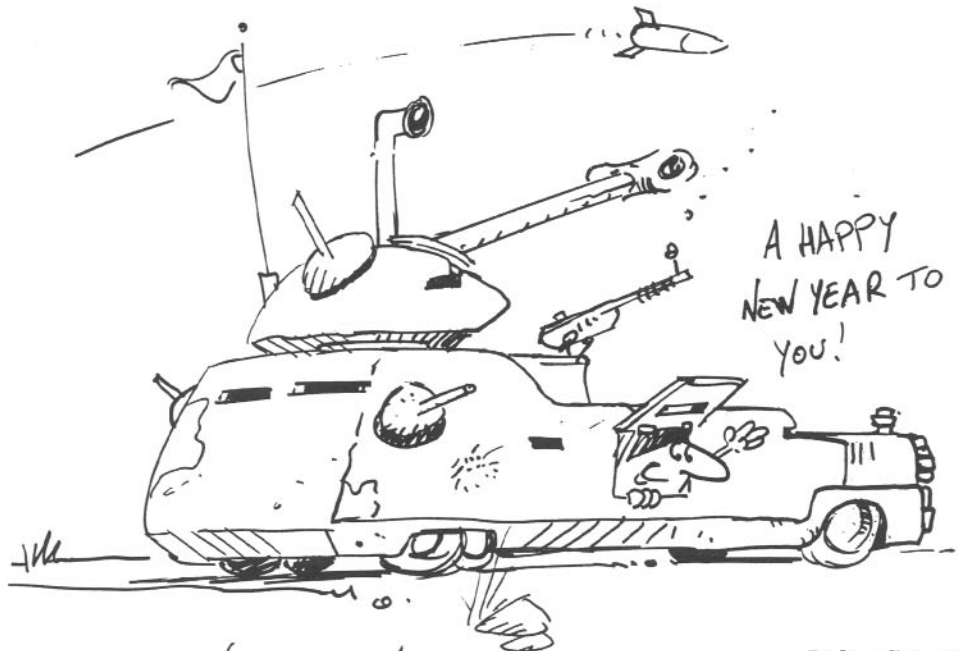
P.S. - I'm going to buy it no matter what you call it.

Kurt J. Aldinger
Northlake, IL

Well, we went and did it anyway, Kurt. I guess that sometimes you just gotta raise a little hell. Nobody seems offended, either. Not yet anyway - we'll keep you posted.

Anyway, thanks for the thoughtful letter.

- CWM



- Didier Guiserix
Paris, FRANCE

intended) and they will be convinced that *Car Wars* is some Satanic-influenced game that will turn kids into homicidal maniacs bent on destroying their hometown with the family car.

My personal recommendation is "The Uncle Albert's Compendium." This would

Didier Guiserix, in addition to being a hilarious cartoonist, is editor of the French gaming magazine *Casus Belli*. He included the cartoon above in his Christmas card to SJ Games, and we thought you'd get a kick out of it.

- CWM

1. Can gunners be placed in car trailers?
2. Can you mount two EWPs on a semi or bus? Can you also mount side weapons?
3. On the sinking rules for *Boat Wars*, if a boat is filled to the brim with no spaces left, and the hull is breached, does it sink?
4. Do the encumbrance rules for crew mean that equipment weight counts against vehicle weight?
5. If there's a D1 hazard for firing an ATG to the side, is there a hazard for firing a BC to the side?
6. Is there a limit to character skill points? Does a character with skill +12 automatically make all rolls?
7. Can a laser be set on automatic in order to cut large doorways through walls?
8. Can direct-fire artillery weapons use HEAT, HESH, APFSDS?
9. If DPU ammo cannot be used in AADA-sanctioned events, can it be used on the open road?

— Chris Herrera
Pico Rivera, CA

1. Yes. You can place a gunner in anything that has room for a crew position and a gun.
2. Yes and yes, on any oversized vehicles, but the front EWP has to face forward, and the other has to face back.
3. It doesn't matter if the space is already occupied or not — you have to take on a number of spaces of water equal to the boat's total spaces before it sinks.
4. Yes and no. If you're using alternate encumbrance rules (and all AADA tournaments do), the answer is yes. Otherwise no, as long as you stay under the 6 GE limit.
5. First, you can't mount or fire ATGs to the side on non-oversized vehicles — the D1 is for firing from the front or rear (oversized vehicles can fire an ATG from any position without penalty). Now, to answer your question, a BC has no firing penalty wherever it's mounted — it's recoilless.
6. No, there's no limit. But remember that in *Car Wars*, a natural 2 is always an automatic failure on any 2d roll.
7. No. You could set a laser on auto and punch small, random holes in things, but that's about it.
8. No.
9. It's illegal in many areas, and might make you a target for bounty hunters. It's also unavailable on the open market, and very hard to find on the black market.

— KS

1. What happened to AV ammo?
2. Are tires of any type considered vehicular components for purposes of weapons that do no or half damage to vehicular components?
3. Do HP and AP ammo do more damage to tires?
4. Since you cannot component-armor empty cargo space, can you CA a space with something useful like a portable fire extinguisher?
5. Can extra magazines in the body for turret-mounted weapons be destroyed by damage coming through the side?
6. Can body-mounted extra magazines for a turret be component armored separately from the turret?

— M.J. Brysch
Spreckles, CA

1. It's been taken off the market. The one plant that manufactured it was destroyed, and every round in existence mysteriously exploded simultaneously at 9:38 PM on May 17, 2041. The authorities have not ruled out foul play.
2. Yes, a tire is a vehicular component.
3. No.
4. No. Any AADA official will rule this a damage sink and disallow it. For all practical purposes, in an AADA event you cannot CA cargo space unless it holds fuel tanks. (Remember, though, this is an AADA rule, not a *Car Wars* rule — you can CA cargo spaces freely in any car you don't expect to take into the arena.)
5. No. Magazines for turret-mounted weapons are considered to be part of a top-mounted weapon for damage allocation purposes.
6. No.

— KS

1. What are the stats for metal tires?
2. What are the stats for tow trucks?
3. How can I tell the first edition *Car Wars Compendium* from second?
4. Can platinum catalysts, superconductors and extra power cells be used with or on a laser battery?

— James H. Watson Jr.
Cicero, IL

1. Strangely enough, every metal tire on the planet rusted away to flakes, on the same day the AV ammo exploded. ASP takes credit for this action.
2. While we have published optional rules for tow trucks in the past, there are

not any current official rules for this vehicle type.

3. Look for the words "Second Edition" written in red in the lower left-hand corner of the front cover.

4. No.

— KS

1. Why aren't dynamite and nitroglycerine in the rulebook?
2. Could a proximity radar be attached to a rocket so that it always travels a fixed distance above the ground? How about a rocket with a mass detector? How about a heat-seeking rocket?
3. Can you target a windshield?
4. What are the penalties for a crewman firing a hand weapon?

— Troy Teske

1. Wait for *Chassis and Crossbow*.
2. There are no rules for this at the moment, but they might make good modifications or future *Uncle Al's* products.
3. Yeah, but so what? According to the rules there is no difference between penetrating windshield armor and penetrating front armor anywhere else.
4. None if you're stationary. If you're moving there's a -1 penalty (driver gets a -3) in addition to all other normal targeting modifiers.

1. Do linked weapons count as one combined attack or two separate attacks vs. metal armor?
2. Do the rockets of the VFRP or MFR count as six separate attacks vs. metal armor, or one big attack?
3. If a metal armored car can have plastic spoilers and airdams, does the spoiler and airdam on a plastic-armored car have to match the armor type exactly?
4. How do I determine the damage modifier for a solid object in a collision? Will a bottom-mounted ice discharger affect the firing vehicle if it is moving at least one inch on the next phase?

— John M. Hurtt
Orlando, FL

1. Two separate attacks.
2. Six separate attacks.
3. Yes. If there's any plastic whatsoever on the car, the spoiler and airdam must match exactly.
4. Solid objects all have a DM of 1.
5. Yes.

— KS

ADQ CLASSIFIED

EH BRAH, you live in Hawaii. You like broke da adda guys ca' wit one gun. Eh, we lookin' fo' you. Try call Lee "Da Haole" Ayres at (808) 422-6296. O' if can write, my address is 31 Halawa Dr., Honolulu, HI 96818. I tryin form one chaptah. (For the Pidgin impaired: Hello, guy. Do you live in Hawaii? Do you enjoy Auto-duelling? We want you. Call or write Lee "The Caucasian" Ayres at the above address or number. I want to form a chapter.)

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OPERATION: NO SHOULDERS: The news of my demise has been greatly exaggerated! The Mongoose is alive and well. It's ASP that's in sorry shape. Operation: No Shoulders is about to commence. The hunt continues. The Mongoose.

I'VE RECENTLY QUIT *Car Wars* and want to sell my *Car Wars* products. My collection includes *Tanks*, *Aeroduel*, *Boat Wars*, *Car Wars Deluxe Edition*, *Compendium* Second Edition, many *ADQs*, and other supplements. Write to Joshua J. Eide, at 1533 6th St., S. Fargo, ND 58103, or call (701) 232-2321.

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ATTENTION DUELLISTS in the Pottsville and Kutztown areas; I'm looking to form a chapter. Write to: Roger L.

Harris, Jr., R.D. #2 Box 1274, Schuylkill Haven, PA 17972. P.S.: Jaguar . . . where are you?

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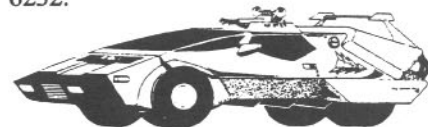
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