CORPS™

7103

BTRC

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VDS 1.0™

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Dedicated to: Cathy

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Intro to the .pdf edition

The **CORPS VDS** is one of the more ambitious hypertext projects **BTRC** has produced. **Slag!** was probably harder, as the entire book had to be reformatted for on-screen viewing, while **VDS** is meant for either large-screen monitors or printing on inkjet or laser printer. But **VDS** required *a lot* more number crunching and research, which we hope was not in vain.

As usual for **BTRC** hypertext documents, text in **red** is usually a hyperlink to someplace. Due to some printing problems, we've left out the blue destination links. Colored text boxes serve the same function as in **CORPS**, **green boxes** for general info, **blue boxes** for alerts and **red boxes** for things you just shouldn't be doing. Items in reversed text are just for visual contrast and have no special function other than a major subject heading.

Printing this

This should print well on normal 8.5“ x 11“ paper, and on the European A4 size as well. For best color printing we suggest a resolution of 360dpi or better, and the use of diffusion dither rather than regular halftones. The color mix is designed to be either a pure CMYK color or a 50-50 mix of two of them. Red is 50% magenta and 50% yellow, for instance. On laser printers, a modern 600dpi printer should do an excellent job. If you can adjust the level of halftone screening, it should be at least 85 lines per inch. Laser printers of 300dpi resolution provide adequate output for all but a few pages, notably the contents, which has both an illustration and small type competing for the same laser dots.

Other hyperlinks

If you noticed the art credits, you would see that every picture in here was taken from some public domain or copyright-free source, like various branches of the US government. Our taxes paid for them, so we might as well use them. For more neat vehicle illustrations and general interest vehicle web pages, try the following:

DefenseLINK
http://www.defenselink.mil/photos/index.html
Lots of Defense Department photographs, many dealing with military exercises, so there are lots of pictures of vehicles in normal operation.

Center for Military History
http://www.army.mil/cmh-pg/nmusa3.htm
Of general interest to military history buffs, and includes links to various US Army museum web pages.

OHA's Page of Defense Related Information
http://www.ifi.uio.no/~oddharry/dsfmc/mill.html
More links than you can shake a stick at, including manufacturers, government links, journals, theory, sensors, computers and a host of other topics appropriate to vehicle or weapon design and use.

Army Vision 2010
http://160.147.68.21/2010/
From the introduction: “Army Vision 2010 is the blueprint for the Army's contributions to the operational concepts identified in Joint Vision 2010. It is the conceptual template for how the United States Army will channel the vitality and innovation of its soldiers and civilians and leverage technological opportunities to achieve new levels of effectiveness as the land component member of the joint warfighting team.” BTRC translation: “The new ways and means with which we will kick people's asses.” No pictures, but gives an idea of doctrine and tactics for high-tech warfare.

NASA Image eXchange
http://nix.nasa.gov/
NIX is a searchable index of NASA photos, including spacecraft, satellites and experimental aircraft.

The Canadian Air Force Photo Archive
http://www.achq.dnd.ca/archive/
An indexed selection of photos from the Canadian Air Force, going back as far as WWI aircraft.

Air Force Link Photos
http://www.af.mil/photos/
A selection of fairly recent publicity or news photos of aircraft and Air Force exercises. Also has links to other Air Force-related art web pages.

MarineLINK Image Library
http://www.usmc.mil/images.nsf
This page has a large selection of Marine Corps and Marine-related illustrations and photos. It has a large selection of subject matter and a searchable index. Definitely worth checking out as it continues to expand.

The Military Network
http://www.military-network.com/default3.html
An extensive collection of military resources, including links for foreign government and military web pages. Good starting point for any search of current weaponry or vehicles.

Sci-Fi Hollywood
http://www.scifihollywood.com/
An on-line gallery of science fiction props, including weapons, spaceships and items for sale. A source for pictures of vehicles that we haven't invented yet.

America OnLine
While I don't think the material is available over the Web, AOL has a large collection of images in the 3D Special Interest Group area (keyword: 3DSIG), including a number of excellent spaceship designs and scenes. Note that these images are copyrighted by the creators and while you can view or print them for your own personal use, putting them in any form of published or commercial work without the creator's permission is not a good idea.

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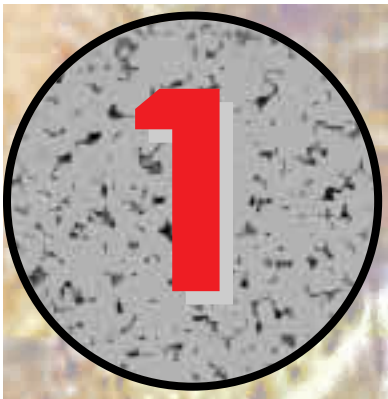

1 INTRO-DUCTION

Basics

The **CORPS Vehicle Design System** (or **VDS**) is not based on strictly historical concepts, since it is for **CORPS**, a universal system. Using the **VDS**, you can create vehicles for *any* Tech Level or background, and know that they will be consistent within that background and within any other background using that system. Like **3G³**, this system lets you design things that never were, and are unlikely to have ever been. This is *your* problem, not ours. If you decide that Leonardo DiVinci got a fat government grant and started cranking out steam-powered tanks, we disavow all responsibility for damage to your continuum or sanity.

To keep vehicles portable within genres and systems, many components are "generic". For instance, you may find terms like "exotic power plant", which is not defined as any particular type. In a modern game, it might be a jet turbine. In a fantasy game it might be a captive elemental, and in a science fiction game it might be antimatter. What matters is the game effects, and you can call it whatever is reasonable for the world the vehicle is created for. Likewise, many other vehicle aspects are given effects, and the implementation is left to the designer. It doesn't matter in the design process if you want sliding doors or gull-wing doors, four large wheels or six smaller ones, or whether you have leaf springs, struts or unequal length A-arms. What matters is how it works in *your* game world when someone stomps on the accelerator.

You *can* design hideously large and complex vehicles with **VDS**, up to and including battleships, but it really isn't designed for that. **VDS** is meant as a *role-playing* aid, *not* the front end of a vehicle combat system. If characters start to get more worried about getting lost inside than in using the vehicle, then you've probably gone too far.

A mundane vehicle is usually very fast to design. It has a power plant, power train, fuel, structure, some degree of streamlining and incidental armor, basic passenger seating and a fuel tank. All other characteristics of the vehicle such as acceleration, handling, cargo capacity, range and such all are functions of these items.

Vehicle components

Almost all vehicles will be based on the following components, each of which has a separate section of rules:

Performance
The details of what you get out of what you put into the vehicle. Oddly enough, vehicle performance is first on your design list. Once you know what it will take to get the top speed, acceleration and other vehicle characteristics, the better you will be prepared to make the decisions on power plant, structure, streamlining and other actual vehicle components. You will probably have to reference this section numerous times during vehicle design as you change its other features. Some of the things you will read here will be duplicated elsewhere for ease of reference. **See pages 6-12**.

Power plant
That which provides energy to make the vehicle go, and/or power other items such as the stereo, headlights or particle cannon. **See pages 13-28**.

Power train
The power train takes the output of the power plant and converts it into the actual method of propulsion, such as wheels, tracks, propeller, etc. **See pages 29-35**.

Structure
The frame of the vehicle, which handles the stresses placed on it by the power plant. It also includes the power train and the interior furnishings for any vehicle that carries passengers. This can be as basic as bench seats, or as complex as scientific laboratories. **See pages 36-47**.

Surface treatment
Some special item added to the basic structure of a vehicle for a particular purpose, like streamlining, armor, wings, waterproofing, etc. A vehicle may often have several surface treatments that work towards a common theme. For instance, a sub needs waterproofing, a pressure hull and streamlining, all of which are surface treatments. **See pages 48-62**.

Accessories
Anything else that is left, like electronic equipment, sensors, spare parts, fuel tanks and so on. **See pages 63-88**.

Weapons
Examples of weapon and sensor systems for various Tech Levels. To design new weapon systems, you should use BTRC's **3G³** weapon design system. **See pages 89-91**.

Combat
What to do with those weapons, including rules to cover situations not in the basic **CORPS** rules. **See pages 92-101**.

Campaigning
And last, how to use vehicles in your game world, and the trials and tribulations they will encounter. **See pages 102-119**.