Vehicle Collection

for

GURPS

Fourth Edition

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Ground Vehicles

Horseless Carriages

Early automobiles had a variety of strange shapes as inventors struggled to perfect a useful design. Some of them resembled horse-drawn vehicles and even ones which looked very different were often named after the more familiar carriages.

Benz Patent-Motorwagen (Germany, 1886-1893)

One of the first vehicles built to be driven by an internal combustion engine was a three wheeled contraption which looked more like a large bicycle than a modern car. It had a single large seat and a simple handle for steering and ran on ether which was stored by soaking it into a basin of fibre.

Morris & Salom Electrobat (USA, 1895-1896)

Powered by heavy lead-acid batteries, this slow but quiet vehicle was used as a taxi in Philadelphia, Boston and New York. The passenger sat in a large open seat at the front covered by a small awning while the driver stood behind on a raised platform.

Nesselsdorfer Wagenbau Präsident (Austria-Hungary, 1897)

Nesselsdorfer Wagenbau was known for making luxury horse carriages and they built their first motor car in the same style. It looks very similar to a cabriolet or cab phaeton, except for the simple handlebar controls and the obvious lack of horses.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Electrobat	37	0/3	11	1/8*	0.6	0.2	+2	1+1	4	25	$25K	O4W
6	Patent-Motorwagen	37	-1/3	9f	1/5*	0.6	0.2	+2	1+1	4	30	$20K	O3W
6	NW Präsident	53	-1/3	10f	1/9*	1.5	0.3	+3	1+2	4	100	$50K	O4W

Economy Cars

Some of the most innovative designs of the twentieth century came from the demand for cheap but reliable cars. The most successful models sold in vast numbers, transforming society by allowing ordinary people to travel further for both work and leisure.

I will build a car for the great multitude... it will be so low in price that no man making a good salary will be unable to own one – and enjoy with his family the blessing of hours of pleasure in God's great open spaces.

- Henry Ford

Ford Model T (USA, 1908-1927)

Henry Ford didn't invent the concept of building

cars on an assembly line, but he did create one which was far quicker than his competitors. Even the colour of the paint was chosen based on the time it took to dry (leading to Ford's famous quip that it was available in any colour 'so long as it is black'). With more than 15 million sold the Model T was by far the most successful car of it's time, outnumbering all it's competitors combined.

The 'Tin Lizzie' was a simple and rugged design, capable of running on ethanol, kerosene or gasoline and handling the rough dirt roads which were common in America at the time. It was often used as a working vehicle, with conversion kits to turn it into a tractor selling well. With one wheel removed to drive a belt, it served as a mobile power generator for agricultural machinery. Some were even made into railcars or fitted with tracks and skis.

Volkswagen Type 1 'Beetle' (Germany, 1938-1974)

Initially designed as a family car for Nazi Germany, only a small number of civilian Volkswagens were actually produced before the end of World War II since the factory building them also had to provide military variants such as the Kübelwagen.

After the Nazis were defeated, the factory was handed over to the British who considered dismantling the facility and shipping it to Britain but eventually decided not to after an official report concluded 'to build the car commercially would be a completely uneconomic enterprise'. Instead, the factory was given a contract to produce cars for the British army and eventually started commercial sales.

The Type 1 had an air-cooled engine which was both simple to maintain and capable of producing relatively good power for a small car. This, combined with it's distinctive appearance and low cost made it increasingly popular throughout the fifties and sixties when it gained it's enduring associations with surf and hippy culture. The Beetle remains one of the most recognisable cars in the world, with numerous nicknames and even a children's game based around spotting them.

Citroën 2CV (France, 1948-1990)

Designed to replace the horse-drawn carts still used by most French farmers in the forties, the Deux Chevaux was a minimalist but practical vehicle. Nicknamed the 'umbrella on wheels' due to it's canvas roof, which could be pulled back to accommodate large loads, the 2CV was widely mocked but sold in large numbers. At one point demand was so high that there was a five year waiting list for new vehicles.

Early versions of the 2CV were notoriously slow (reduce Move to 1/20*) but this was soon improved and by the mid seventies versions with vaguely respectable engines (Move 2/35*) were available.

Sachsenring Trabant 601 (East Germany, 1963-1991)

Like the 2CV, the Trabant had a lengthy waiting list. However, in this case it was less that demand was high and more that there were few alternatives available under Soviet rule. The 601 had a dirty and inefficient two-stroke engine and many parts of it were made of Duroplast (a plastic made from recycled materials which was sometimes compared unfavourably to cardboard).

After the fall of the Berlin Wall, many Trabant owners used their vehicles to move to West Germany and promptly sold them at low prices or simply abandoned them. It remains a symbol of the soviet era and the butt of many German jokes. However, it is popular with a small number of enthusiasts who tune or replace the engines to produce surprisingly fast rally cars.

Renault 5 (France, 1972-1985)

One of the first modern hatchback 'supermini' cars, the Renault 5 (also known as the R5) was designed by engineer Michel Boué in his spare time. When his superiors saw the plans, they authorised development immediately. Boué died of cancer just months before the car was launched, never knowing how successful it would be.

The low price, fuel economy and space-efficient

layout made the R5 a huge hit in Europe, but in America (where it was sold as the Renault Le Car) low-fuel costs and a preference for larger vehicles meant it didn't have the same appeal.

The Renault 5 Turbo had a similar name and appearance, but was a very different machine. A bigger engine was mounted in the middle of the car, replacing the back seat and powering the rear wheels rather than the front as in the R5 (ST/HP 50, Move 4/62, Lwt. 1.4, Load 0.3, Occ 1+1).

Kia Rio (South Korea, 2011-)

Although it is larger than most cars in it's price range, the Rio has impressive fuel efficiency thanks to it's clean turbo-diesel engine.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Ford Model T	43	0/4	11f	2/22*	1	0.4	+3	1+3	5	180	$5K	O4W
6	Volkswagen Type 1	49	0/4	11f	2/36*	1.3	0.4	+3	1+3	4	330	$10K	G4W
6	2CV	43	0/4	11f	1/25*	1.1	0.45	+3	1+3	4	410	$5K	G4W
7	Trabant 601	41	0/4	11f	2/31*	1	0.45	+3	1+3	3	210	$7K	G4W
7	Renault 5	46	0/4	11f	2/36*	1.3	0.45	+3	1+3	4	350	$9K	G4W
8	Kia Rio	54	0/4	10	2/50*	1.8	0.55	+3	1+4	4	600	$10K	G4W

City Cars and Subcompacts

In built-up areas there is often great demand for small vehicles suitable for short journeys. These cars are usually agile enough to manoeuvre through heavy traffic and fit into cramped parking spaces.

BMC Mini Mark 1(UK, 1959-1967)

Following the 1956 Suez Crisis, Britain suffered a fuel shortage, driving up demand for small, efficient cars. The British Motor Corporation responded by designing an exceptionally compact vehicle. The Mini was hugely popular in Britain, but failed to sell well in America.

Numerous variants of the Mini were produced, including the powerful Mini Cooper (seen in *The Italian Job*) which was intended for rally competition, the Mini Moke all-terrain vehicle and even a pick-up truck. Vehicles based on the original design were produced by a variety of companies until 2000 with a total of over five million sold worldwide.

Smart Fortwo W450 (Germany, 1998-2007)

Just over eight feet long, this tiny car is actually shorter than the width of some other road vehicles, meaning that two of them can be packed sideways into a normal parking space.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	Mini Mark 1	44	0/4	11f	2/36*	1.1	0.4	+3	1+3	4	260	$9K	G4W
8	Smart Fortwo W450	46	0/4	10f	2/45*	1.0	0.2	+2	1+1	4	310	$11K	G4W

Scooters

Many people are unable to afford a car, but still need some form of transport. Scooters offer a low-cost, convenient method of getting one or two people from place to place. Unlike many larger motorcycles they need little maintenance and allow the rider to keep their clothes clean with their enclosed engines and lightweight fairings.

Piaggio Vespa 150 GS (Italy, 1955-1961)

Piaggio created the first successful scooter in 1946, naming it the Vespa ('Wasp') because of it's narrow waist. Over the years dozens of Vespa variants have been sold, most of them fairly similar. The 150 GS was one of the more popular, thanks to coming onto the market at the start of the 'mod' scene in Britain where Italian scooters were seen as an essential fashion accessory.

Honda Super Cub 110 (Japan, 2009-)

Since it's introduction in 1958 the Super Cub line has become so popular that it is the most common motor vehicle worldwide by a substantial margin. Used as both a personal transport and a commercial delivery vehicle by millions of people, it's efficiency and reliability are legendary. In some places it is so popular as a motorcycle taxi that 'Honda' has become a generic term for such vehicles. The 110 has a cleaner engine than previous versions, but is still essentially the same machine.

DRIVING (MOTORCYCLE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	Vespa 150 GS	23	+1/2	11f	3/32*	0.2	0.1	0	1	3	140	$2K	E2W
8	Super Cub 110	23	+1/2	12f	3/23*	0.2	0.1	0	1	3	150	$2.4K	E2W

Sports Bikes

If you want an agile, exciting and, above-all, fast ride then these 'crotch rockets' are pretty much the best thing on wheels. They are ideally suited to high-speed chases… so long as you are able to stick to good roads and don't value your life.

Honda CB750 (Japan, 1969-2003)

The first 'superbike' had a powerful engine, good brakes, comfortable suspension and reasonable price. It sold over 400,000 copies and inspired many imitators, which came to be collectively known as 'Universal Japanese Motorcycles'.

Kawazaki GPZ900R Ninja (Japan, 1984-2003)

The Ninja had a revolutionary design; using it's cutting-edge, liquid-cooled, 16 valve engine as part of the frame to save weight it was the fastest production bike in the world at the time of it's release. In the 1983 Isle of Man TT race both first and second place were taken by Ninja riders.

The Ninja was so popular that the name became a generic term for similar sports bikes with aerodynamic fairings. Tom Cruise rides one in *Top Gun*.

DRIVING (MOTORCYCLE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	Honda CB750	31	+1/2	11f	8/60*	0.36	0.2	0	1+1	4	170	$8K	E2W
8	GPZ900R Ninja	32	+2/2	11f	10/75*	0.38	0.1	0	1	4	180	$9K	E2W

Cruising and Touring Motorcycles

These bikes are general purpose road transport. They aren't especially fast, don't cope well in rough terrain and give little protection from the elements. On the other hand, they are usually more affordable and manoeuvrable than a car while being more powerful than a scooter and they look cool.

Harley-Davidson FXST Softail Standard (USA, 1984-)

Like most recent Harley-Davidson machines, this heavy bike has a deliberately old-fashioned appearance. But concealed under it's seat is a modern suspension system which gives a far more comfortable ride than the classic bikes it mimics.

Honda Gold Wing GL1500 (Japan, 1987-2000)

A shamelessly luxurious tourer, the Gold Wing is a huge bike with a rear-seat backrest, a big faring to protect the riders from the wind and integrated storage (almost 5 cubic feet total) in the form of hard panniers and a trunk. Options include a sound system and foot heaters.

DRIVING (MOTORCYCLE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
8	FXST Softail	34	+1/2	11f	5/54*	0.53	0.2	0	1+1	4	220	$15K	E2W
8	Gold Wing GL1500	37	+1/2	11f	6/48*	0.67	0.25	0	1+1	4	190	$17K	E2W

Military Motorcycles

Motorcycles are easy to transport, fast and generally able to deal with rough terrain. In the first half of the twentieth century, many military forces used them for scouting and to carry vital messages. Many early civilian bikes were also used by the military and most military bikes were available in civilian versions, often only distinguished by the paint job.

Triumph Model H (UK, 1915-1923)

The British Army bought thousands of these bikes to replace horses for their despatch riders. The troops nicknamed it the 'Trusty' and generally considered it to be a good, reliable machine – at least once they had reinforced the weak front suspension springs with leather belts.

Birmingham Small Arms M20 (UK, 1937-1955)

The most common motorcycle used by the British Army in the second world war was criticised for being heavy, slow and fuel-thirsty. However it was at least moderately reliable and very easy to repair, so the military used it extensively and ended up buying around 126,000 of them.

After the war, many surplus M20s were purchased by the Automobile Association who attached distinctive yellow sidecars and used them as transports for their mechanics.

BMW R75 (Germany, 1941-1946)

A motorcycle-sidecar combination with a powered wheel on the permanently attached sidecar. The R75 could tow a trailer or light artillery piece, as well as having numerous racks and brackets for carrying equipment on the vehicle. The most notable feature however was the *Rheinmetall MG34* machine gun (GURPS High-Tech, p.132) which was usually mounted on the front of the sidecar.

DRIVING (MOTORCYCLE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Triumph Model H	23	+1/2	11f	3/24	0.2	0.1	0	1	4	300	$5K	E2W
6	BSA M20	29	+1/2	11f	3/25	0.3	0.1	0	1	4	150	$5K	E2W
6	BMW R75	39	0/3	11f	2/28	0.8	0.3	+2	1+2	4	210	$10K	EO3WX

TRIKES

Half-way between a bike and a car, these awkward machines are often seen as offering the worst features of both. Many of them are custom builds made by combining two existing vehicles, but a few companies have mass produced them with some success.

Harley-Davidson Servi-Car (USA, 1932-1973)

The Servi-Car was built for the car service industry as a vehicle for deliveries. It could be towed behind a car which was being driven to the customer, then unhitched and ridden back to the garage. It also proved popular with small businesses who used it to make deliveries (a box at rear could hold about 3 cubic feet of cargo) and police departments who found it ideal for collecting cash from parking meters and issuing tickets.

Honda Gyro UP (Japan, 1985-2008)

This tiny cargo transporter looks like a cross between a scooter and a pick-up truck. The driver steers with handlebars while sitting in an open-sided cab and the cargo rests in a box at the back (which holds about 5 cubic feet and is sized to fit standard Japanese 20-bottle beer crates).

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	Servi-Car	34	0/3	11f	2/25*	0.48	0.15	+1	1	4	280	$6K	E3W
8	Honda Gyro UP	25	+1/3	11f	2/15*	0.3	0.2	+1	1	4	220	$1K	O3W

FAMILY CARS

These mid-sized cars have enough space to carry children, pets and large quantities of shopping. They usually compromise between affordability, comfort and performance to give an average, safe vehicle.

AMC Rambler Six (USA, 1956-1960)

The first of the American 'compact cars' (which were still large compared to many European vehicles) the Rambler spawned many imitators. It's advertising emphasised the safety of it's welded unit body, offering a personal injury insurance policy at no extra cost to demonstrate the manufacturer's confidence in their product.

Toyota Corolla E30 (Japan, 1974-1981)

Like many best-sellers the Corolla name has been used for a variety of different cars over the years with over 40 million sales between them. The E30 was one of the most popular, dominating the market in the late seventies as fuel prices made larger cars less desirable.

Volvo 245 (Sweden, 1974-1993)

The 200 series was Volvo's most successful line and this slab-sided station wagon is probably the most iconic model. With over 40 cubic feet of cargo space and a reputation for solid build quality, it was seen as a practical car for well-off families.

Ford Focus Mk 1 (USA, 1998-2004)

One of the few Ford models sold successfully in both America and Europe, the Focus is a typical modern compact car. Some versions have dual fuel engines which can run on either gasoline or ethanol.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	AMC Rambler Six	57	0/4	11f	2/48*	2.1	0.6	+4	1+4	5	320	$16K	G4W
7	Toyota Corolla E30	49	0/4	11f	2/43*	1.6	0.6	+3	1+4	4	380	$10K	G4W
7	Volvo 245	57	0/4	11f	2/50*	2.4	0.9	+4	1+4	6	300	$20K	G4W
8	Ford Focus Mk 1	53	0/4	11f	2/53*	1.7	0.5	+3	1+4	4	530	$16K	G4W

Executive and Luxury Cars

These high-status vehicles have spacious, comfortable interiors and good performance, but at a high price. For many manufacturers these are their 'flagship' products, bringing positive associations to the entire brand by their reputation.

Mercedes-Benz S-Class 450SEL 6.9 (Germany, 1975-1981)

The Mercedes-Benz S-Class (*Sonderklasse* or 'Special Class') is one of the world's most popular luxury car lines, notable for the emphasis on passenger safety (it was one of the first cars to feature airbags and comes with a built-in first aid kit) and engines optimised for high-speed cruising.

The 450SEL 6.9 was the most powerful version (a more typical S-Class of the time would have Move 3/60*). It closely resembled the other S-Class models, with the interior detail being rather restrained and lacking in features compared to other cars in it's price range. What it did offer was impressive speed, with performance more like a sports car than a large sedan. It features prominently in *Lost Highway* and *Ronin*.

BMW E36 (Germany, 1990-1998)

The third generation of BMW's popular 3 Series is relatively small for a luxury car, but fast and well suited for commuting into busy cities.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	S-Class 450SEL 6.9	65	0/4	11f	4/70*	2.9	0.7	+4	1+4	5	260	$115K	G4W
8	BMW E36	56	0/4	11f	4/73*	2.0	0.5	+3	1+4	4	440	$37K	G4W

Light Trucks and Sport Utility Vehicles

With the ability to handle large amounts of cargo and off-road capability, these sturdy vehicles were originally intended for agricultural work. However, they soon became popular as lifestyle accessories; a light truck can imply that you are wealthy enough to own a country retreat, or that you are an adventurous, outdoor person. This image, combined with favourable regulations for trucks compared to cars made these vehicles massively popular in the United States and elsewhere.

Toyota Hilux N50 (Japan, 1983-1988)

This famously tough pick-up has been described as the truck equivalent of the Kalashnikov rifle thanks to it's widespread use by African and Middle-Eastern militia. Numerous versions of the Hilux have been built since it's introduction in 1968, with the N50 being a fairly typical and widespread example.

Land Rover Defender 110 (UK, 1990-)

The truck of choice for British farmers, these crudely built workhorses can transport cargo or labourers through muddy fields and navigate narrow country roads.

The Defender is also used by the British Army, where it is known as the Land Rover Wolf or Truck, Utility, Medium (TUM).

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
8	Toyota Hilux N50	56	0/4	12	2/45	2.3	0.9	+4	1+1	6	400	$20K	G4W
8	Land Rover Defender	60	0/4	11	2/38	2.9	1.2	+4	1+7	5	380	$25K	G4W

Medium Trucks and Vans

These modest cargo haulers are the most common form of commercial vehicle. Many of them are available with a variety of different body types, such as flatbeds, panel vans and box trucks.

They also serve as the base for several specialist vehicles: ambulances, police riot vans, small buses and garbage trucks are generally built on medium truck frames. The military finds plenty of uses for trucks like this too, transporting soldiers and supplies in situations which don't require armoured vehicles or aircraft.

Mercedes-Benz Unimog 404 (Germany, 1955-1980)

This incarnation of the Universal-Motor-Gerät is an off-road transporter which was used by the armed forces of many countries as a logistics vehicle. They are popular civilian vehicles too, especially with foresters or others who need to travel into rough terrain.

Like many military trucks Unimogs usually have power take-off connections, allowing them to be used as a power source for machinery (often connected to a heavy duty winch). Many of them

also have an air compressor which usually powers their auxiliary brake system but which can be used to inflate tyres or power other devices.

Ford Transit Mark 1 (USA, 1965-1978)

In many ways the 'Tranny Van' is the iconic European panel van. Although owned by an American company, the first transit was designed and built in England (with help from Ford's German engineering department) and never marketed in America. Plain white Transit vans soon became a common sight throughout Europe as it found favour with tradesmen of all kinds. The Transit was also popular with criminals, thanks to good handling characteristics and the ability to blend in on city streets.

GAZ-66B (Russia, 1966-1999)

Russian airborne forces somehow manage to cram an entire platoon under the flimsy canvas roof of this little truck. It is nicknamed the *Shishiga* (a type of nature spirit from Russian folklore) and still a common sight in Ex-Soviet countries.

Variants with closed cabs (Occ 1+1) have a range of options to mount on the rear of the vehicle. The military often fit them with standardised sealed shelters called KUNG, while civilian versions are sometimes converted into buses (Occ 1+20). Tyre inflation systems and winches are standard for most military models and many have a power take-off unit for agricultural use.

Ural 4320 (Russia, 1977-)

Developed as a more fuel-efficient alternative to older Soviet trucks, the 4320 otherwise conforms to most stereotypes about Russian engineering; it's crude, heavy, slow and uncomfortable to ride in, but reliable and simple to repair.

Like most other trucks, there are a wide variety of variants. The military have the standard KUNG shelter version of course, but there are also buses, ambulances, fire engines, dump trucks, fuel tankers (with 1,700 gallons capacity) and specialised logging vehicles. One version even mounts the BM-21 multiple rocket system, turning it into a self-propelled artillery piece.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	Unimog 404	74	-1/4	11f	1/30	4.9	1.6	+4	1+1	6	200	$30K	G4W
7	Ford Transit Mk. 1	64	0/4	11f	1/28*	3.8	1.8	+4	1+1	4	400	$9K	G4W

DRIVING (HEAVY WHEELED)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	GAZ-66B	78	-1/4	11f	2/29	6	2.2	+4	1+22	4	200	$25K	O4W
7	Ural 4320	108	-1/4	11	1/26	16.9	6.9	+5	1+26	6	600	$50K	g6W

Heavy Trucks

Being responsible for a vehicle this big is serious business, usually the job of a professional truck driver who needs a special licence. Despite the extra cost of paying someone qualified to handle such a machine, the sheer tonnage they transport makes it economical.

BelAZ 75710 (Belarus, 2013-)

An ultra-class haul truck looks a lot like a regular dump truck, only bigger. Much bigger. Lesser trucks, buses and probably houses could be crushed beneath it's wheels.

The cab of this monstrous mining vehicle is accessed with either a ladder or the stairs running across the front of it's hood. A CTIS and Fire-

Suppression System (GURPS High-Tech, p. 229) keep it running when the going gets tough and it's massive bucket can tip up (taking 26 seconds) to drop a small hill in one go.

DRIVING (HEAVY WHEELED)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
8	BelAZ 75710	370	-3/5	11	1/20	891	495	+8	1+1	10	270	$5M	g4W

Protected Patrol Vehicles

Military forces use a lot of trucks, but trucks tend to do poorly when attacked with explosives and firearms. So military trucks often get upgraded with armour in an effort to increase their survivability. Many such vehicles are improvised by soldiers in the field adding sandbags and scavenged metal plates to their trucks, but factory-made upgrade kits and purpose-built machines tend to work better. Unfortunately it is difficult to make them as tough as armoured fighting vehicles without affecting their performance as trucks, so these vehicles tend to be a compromise between protection and mobility.

Truck, Utility, Medium with VPK (UK, 1992-)

A military version of the Land Rover Defender upgraded with an improved suspension and chassis to handle the weight of the Vehicle Protection Kit armour. More commonly known by it's nickname of 'Snatch' after it's use by 'snatch squads' in Northern Ireland, who would arrest protesters and carry them away in their Land Rovers.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
8	TUM with VPK	75	-1/4	10	2/33	4.5	1.2	+4	1+7	20	320	$115K	G4W

Buses and Motor-Coaches

The modern 'omnibus' concept was pioneered in the early nineteenth century with large horse-drawn carriages. They soon became an important form of mass transit for the Victorian working class.

As transport technology developed, buses were designed to use steam, electric and eventually internal combustion engines. Specialist vehicles developed for long-distance travel, carrying school children and even military use. Bus stops became a common feature of modern cities (and a common plot element in fiction which required scenes of people waiting or meeting strangers).

Buses have also proven popular with private citizens who spend a lot of time on the road: bands use tour buses to travel between venues and politicians seeking election work from campaign buses fitted out as mobile offices.

AEC Routemaster (UK, 1954-1968)

The bright red double-decker bus is an iconic part of modern London and the Routemaster was the most famous and successful of them. It was the first bus to have power steering, an automatic gearbox and hydraulic braking. It's bodywork was also

cutting-edge, making extensive use of aluminum and construction techniques developed for aircraft to save weight.

The Routemaster had an open platform at the back, which allowed passengers to board it more quickly. However this design had two flaws: it required a conductor to collect fares and passengers occasionally fell off the bus while it was moving!

Neoplan Skyliner (Germany, 1964-)

A large double-deck luxury coach intended for long journeys. The Skyliner has a toilet, galley and sleeping area on it's lower deck and a large luggage compartment (over 270 cubic feet).

He screams and he cusses,
He rams other buses,
Hail to the bus driver!

- Traditional American Children's Song

General Motors New Look 5303 (USA, 1968-1971)

The New Look was one of the most popular North American city buses with over 44,000 being produced in various models from 1959 to 1986. They were notable for the excellent visibility offered by their rounded windshields, earning them the nickname of 'fishbowl'.

The 5303 model (featured prominently in the movie *Speed*) was a typical example. It was available with a powerful V8 engine (in table) or a somewhat less impressive V6 (Move 1/28*).

Plaxton Pointer (UK, 1988-2006)

The Pointer was a small bus (sometimes called 'midibus') built on the popular Dennis Dart frame. Extremely similar buses were manufactured under a variety of names: Plaxton sold theirs as 'Super Pointer Darts' and 'Mini Pointer Darts' and the same chassis and engine were used for the Alexander Dash, Northern Counties Paladin, East Lancs Spryte, Wright Crusader and several others. Plaxton eventually merged with Dennis when both were bought out by the Mayflower group (who also owned Alexander) forming the short-lived TransBus International.

Despite the confusing mass of brands and names, it was a popular vehicle, especially among British bus companies. More than 11,000 Dart variants were built.

DRIVING (HEAVY WHEELED)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	AEC Routemaster	101	-1/3	11f	1/24*	14.7	6.5	+5	1+64	4	230	$110K	G4W
7	Neoplan Skyliner	116	-2/4	11f	1/28*	28.6	15	+6	1+78	4	430	$170K	G4W
7	GM New Look 5303	105	-2/4	11f	2/31*	15	5.4	+6	1+53	4	700	$120K	G4W
8	Plaxton Pointer	100	-1/4	10f	1/26*	11.6	2.7	+5	1+26	4	400	$55K	G4W

CROSSOVERS AND LIGHT UTILITY VEHICLES

Essentially a light-truck or SUV reduced to the size of a medium car and popular with the same people for similar reasons as their larger cousins.

In many areas they are simply known as 'Jeeps' after the American military trucks (GURPS High-Tech, p. 236).

Volkswagen Type 82 Kübelwagen (Germany, 1940-1945)

The military version of the Volkswagen Beetle, the 'Bucket Car' had a more angular appearance than it's civilian counterpart and only a folding canvas roof. Despite being a two-wheel drive vehicle with a relatively weak engine, it's light weight and smooth underside allowed it to handle soft surfaces surprisingly well (terrain is never considered worse than Bad due to mud, snow or sand).

UAZ487 (Russia, 1971-)

This soviet army vehicle has a detachable canvas roof which does little to protect it's passengers from harsh weather. Civilian and police version are also available with a metal or fibreglass roof which makes it slightly more bearable.

AvtoVAZ 2121 (Russia, 1977-)

Described by it's designers as 'a Renault 5 on a Land Rover chassis' this off-road car had a luke-warm reception from Soviet customers but proved popular in Europe. It's design anticipated many later trends in compact SUVs.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Kubelwagen	46	0/4	11f	2/24*	1.3	0.5	+3	1+3	4	270	$13K	O4W
7	UAZ487	59	0/4	11f	2/30	2.5	0.8	+3	1+4	4	350	$8K	G4W
7	AvtoVAZ 2121	53	0/4	11f	3/39	1.7	0.5	+3	1+3	4	240	$10K	G4W

ALL-TERRAIN VEHICLES

'All-Terrain Vehicle' is often used as a term for anything that can travel off-road, but here it describes vehicles even smaller than LUVs, just big enough to transport two or three people or haul a small trailer.

SdKtz 2 Kettenkrad (Germany, 1938-1948)

This strange vehicle is essentially a half-track motorcycle. When it's handlebars were turned slightly only the front wheel moved, but as they were rotated further the track brakes were engaged allowing sharp turns.

Chenowth Racing Products Desert Patrol Vehicle (USA, 1991-)

Dune Buggies are often made from stripped down Volkswagen Beetles, fitted with open framework bodies and wide tires and raced across sandy terrain. This armed version was built to military specification for special forces. It features in the Chuck Norris movie *Delta Force*.

The front passenger operates a pair of light or medium machine guns (usually the *Saco M60*, GURPS High-Tech pp. 134, 137) while the gunner at the rear of the vehicle uses a heavy machine gun (*Browning M2HB*, GURPS High-Tech pp. 133, 137), automatic grenade launcher (*Sako MK 19 MOD 3*, GURPS High-Tech pp. 143, 145) or guided missile (*BGM-70F TOW 2B*, GURPS High-Tech p. 151). Weight and price does not include weapons or ammunition.

Yamaha Grizzly 450 (Japan, 2008-)

Resembling a four-wheeled motorcycle, the Grizzly is typical of the 'quad bikes' used for farm work and recreational riding. The British Army also uses it as a light logistics vehicle and casualty transport.

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
8	Desert Patrol Vehicle	41	+1/2	11f	4/30	1.3	0.7	+3	3	4	200	$15K	O4W

8	Yamaha Grizzly 450	34	+1/2	11f	2/21	0.5	0.2	+1	1	4	80	$6K	E4W

DRIVING (HALFTRACK)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	SdKfz 2 Kettenkrad	55	+1/3	11f	2/22	1.6	0.3	+2	1+2	4	160	$11K	E2CW

Tractors

These powerful machines can drag a plough through hard earth or haul massive loads across muddy fields. Farmers and soldiers alike use them to replace the draught horses which did their work at the start of the twentieth century.

Caterpillar Holt 75 (USA, 1913-1924)

The Holt 75 was little more than a sturdy chassis, a large engine, two tracks and a wheel, with all it's working parts exposed to view. The driver sat on the right of the machine where he could turn it either with the front 'tiller wheel' or by disengaging one of the tracks. A flimsy canvas awning provided minimal protection from bad weather.

Originally intended as an agricultural machine, the Holt 75 proved popular as an artillery tractor in the first world war. Altogether well over 4,000 of them were built, with around half being used for military service.

Fordson Model F (USA, 1917-1928)

Henry Ford produced this small agricultural vehicle with the same philosophy that created his Model T, building them quickly and selling them cheaply. It has a similar appearance to most modern farm tractors with two big wheels at the back and two smaller ones in front. The main difference is that it doesn't have tires.

The Model F had a bad habit of flipping over if whatever it was dragging got caught. With no cab to protect the driver when this happened, this was frequently fatal.

John Deere 4020 (USA, 1963-1972)

An extremely popular farm tractor, the 4020 was usually fitted with a spacious cab which included a roll-over protection system to protect the driver. Like most modern tractors, it has a power take-off connector to drive attached machinery.

DRIVING (CONSTRUCTION EQUIPMENT)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Fordson Model F	56	-1/3	10f	1/3	1.5	0.1	+2	1	4	50	$6K	O4W
6	Caterpillar Holt 75	114	-3/4	11f	1/8	11.5	0.1	+5	1	6	100	$80K	O2CW
7	John Deere 4020	81	-1/4	11f	1/9	4.5	0.1	+3	1	5	90	$48K	G4W

Armoured Personnel Carriers

These 'battle taxis' aren't built serious combat, but they give the troops inside protection from bullets and shrapnel while they get to the front lines.

Hanomag Sd.Kfz 251 (Germany, 1939-1945)

One of the first APCs, the Hanomag (as it was usually called) was a half-track with a long hood,

sharply sloped armour and an open top. Small windows and firing slits allowed troops to shoot from it without exposing themselves but the lack of roof made it a death trap if anyone got close enough to throw a grenade.

The Hanomag had two machine gun mounts, typically armed with either M34 (GURPS High-Tech, p. 132) or MG 42 (GURPS High-Tech, p. 134) machine guns with 2,100 rounds between them. The rear gun mount was able to function as an anti-air weapon, but had to be crewed by one of the passengers as the vehicle only had one gunner.

Many variants were built. Anti-aircraft (Occ 4) versions had either a KwK38 (a variant of the KwK30) or three Mauser MG151 autocannons (GURPS High-Tech, p. 133) on a rotating mount (5 seconds to change facing) protected by a gun shield (DR 25, front and sides only). Fire support vehicles (Occ 4) used a similar set-up but with a Rheinmetall 3.7cm PaK (GURPS High-Tech, p. 140) or KwK40 (GURPS High-Tech, p. 141). The standard troop carrier could be easily transformed into a mobile artillery piece by attaching Wurfrahmen 40 rocket frames to the sides of the hull.

DRIVING (HALFTRACK)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Sd.Kfz 251	103	-3/5	11f	1/16	10.1	1.5	+4	2+10	40/20	200	$120K	2CgO2W2X

LIGHT TANKS

Although lacking in armor and firepower, these nimble fighting machines are generally able to move quickly enough to exploit weak points in enemy defences and avoid more powerful vehicles. For many forces they are the only tanks available, either because they lack the capacity to transport anything heavier or simply can't afford better.

Panzer II Ausf. C (Germany, 1937-1940)

The most common tank in German service at the start of the second world war, these weakly armoured vehicles were just about good enough to fight against contemporary opponents under favourable circumstances. Fortunately for the Nazis, their Blitzkreig tactics meant that they were usually fighting on their terms and the Panzer II managed to perform well by engaging only when they had a decisive advantage.

The tank is armed with a 2cm *KwK 30* Autocannon and a *Rheinmetall MG34* (GURPS High-Tech, p. 132). It carries 180 2cm rounds (mostly SAPHE) and 2,250 machine gun rounds. The Panzer II's turret holds the commander and gunner, who operates both weapons and the turret rotation mechanism, which takes 12 seconds to change facing.

M-24 'Chafee' (USA, 1944-1945)

With a relatively powerful main gun and good off-road capabilities, the Chafee (named after an American general, but only by the British) was considered to be a great improvement over other light tanks of the time. It didn't see much action in WWII, but was widely exported. American M-24s fought in the Korean War, the South Vietnamese used them during the Vietnam War and Pakistani forces used them in combat in the Indo-Pakistani War of 1971.

The M24 is armed with a M6 75mm cannon (a lightened version of the Schneider Mle 1897, GURPS High-Tech p. 138), one Browning M2HB machine gun (GURPS High-Tech, p.133) on a pintle mount and two Browning M1919A4 machine guns (GURPS High-Tech, p. 132), one co-axial with the main gun and the other in a hull mount. It carries 48 rounds for the M6, 440 .50 rounds and 3,750 rounds of .30-06. The driver and radio operator sit in the hull, while the gunner, loader and commander man the turret, which has a hydraulic rotation mechanism that can change facing in three seconds.

DRIVING (TRACKED)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Panzer II Ausf. C	106	-3/5	11f	1/16	9.8	0.5	+3	3	60/40	240	$150K	2CT
7	M-24 Chafee	133	-3/5	11f	1/16	20	1.4	+4	5	165/85	270	$400K	2CTX

Amphibious Vehicles

Amphibious Automobiles

Cars that turn into boats seem like they should only be found in cinematic spy stories, but many people have actually tried to make them. Some of them even managed to produce functional vehicles.

Volkswagen Type 166 Schwimmwagen (Germany, 1942-1944)

An amphibious version of the Kübelwagen with a screw propeller which could be deployed from a hatch in the rear and a proper four-wheel drive to give it serious off-road capabilities. The vehicle's wheels act as rudders when floating so steering is done with the same controls as on land. For fine manoeuvring (the wheels didn't make especially good rudders and the motor could only go forward) a wooden paddle was provided in the equipment rack.

Amphicar Model 770 (Germany, 1961-1968)

The first mass-produced amphibious car to be sold to the public was designed and built in Germany, but marketed to Americans. It looked mostly like a typical American convertible of the time, except for it's high ground clearance, smooth underside and two small propellers under the rear bumper.

One of the cars was owned by president Lyndon Johnson, who liked to alarm passengers unfamiliar with the vehicle by screaming that the brakes had failed and driving into a lake!

> ***We like to think of it as the fastest car on the water and fastest boat on the road.***
>
> ***- John Hein, Amphicar Owner***

Watercar Panther (USA, 2013-)

This modern car-boat uses a water jet and semi-retractable wheels to achieve high speeds on water. Switching from land to water modes takes fifteen seconds as the vehicle tucks it's wheels into the hull.

On land, it resembles a Jeep, but with a single rear passenger seat in a central position.

BOATING (MOTORBOAT)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Schwimmwagen	50	-2/2	11f	1/3	1.5	0.5	+3	1+3	4	45	$13K	O4W
7	Amphicar 770	52	-2/2	11f	1/4	1.7	0.5	+3	1+4	4	45	$19K	O4W
8	Watercar Panther	57	-1/3	11f	1/22	1.8	0.3	+3	1+2	4	90	$120K	O4W

DRIVING (AUTOMOBILE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*

6	Schwimmwagen	50	0/4	11f	2/25	1.5	0.5	+3	1+3	4	400	$13K	O4W
7	Amphicar 770	52	-1/4	11f	2/35*	1.7	0.5	+3	1+4	4	450	$19K	O4W
8	Watercar Panther	57	0/4	11f	1/40	1.8	0.3	+3	1+2	4	160	$120K	O4W

HOVERCRAFT

These vehicles float on a cushion of high-pressure air contained inside a flexible skirt, effectively flying just above the surface. This means that they can move over land or water, exerting relatively gentle pressure on the area below them.

Saunders-Roe Nautical 4 Mountbatten Class Mk. III (UK, 1978-1979)

These massive passenger craft ferried cars and people across the English Channel in as little as 22 minutes. The two Mk. III hovercraft were conversions of the earlier Mk. I vessels (first built a decade earlier) to enlarge their carrying capacity and were the largest hovercraft in the world at the time. The last of the Mountbatten hovercraft was withdrawn from service in 2000.

They had a large central bay which could hold up to 60 cars, accessed by ramps at the front and rear of the vessel, and two long passenger cabins running along the sides. Four engines each powered one large propeller on the top of the vehicle and one fan to maintain pressure in the cushion. A cockpit in a small superstructure at the front held a flight crew of three; the captain who steered the craft, a first officer who was responsible for navigation and a flight engineer. A further fifteen crew worked as stewards and managed the loading of the vehicle bay.

Hov Pod SPX (UK, 2005-)

A small hovercraft suitable for private owners who want a flexible personal transport. The driver controls it with a pair of handlebars from the front of the vehicle. The propulsion system is a ducted fan with some sound reducing properties, making it a little quieter than most ACVs.

DRIVING (HOVERCRAFT)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	SRN4 Mountbatten	287	-3/5	11f	1/38	325	112	+10	3+439	4	440	$57M	gs
8	Hov Pod SPX	38	0/3	11f	2/20	0.8	0.35	+3	1+2	4	50	$20K	O

WATERCRAFT

OCEAN LINERS

Steam-powered ships allowed passenger services to cross the Atlantic ocean on a regular schedule and with minimal risk, unlike sailing ships which could be easily delayed by poor winds. Reliable service meant that travelling between Europe and America was now far more convenient and many more people made the journey. It was only when passenger jets made it possible to cross oceans in hours rather than days that ocean liners disappeared.

Olympic Class (UK,1910-1914)

Built for the White Star line, these three huge vessels were the largest ships in the world at the time. They were intended to take passengers across the Atlantic in style and comfort with gymnasiums, restaurants, turkish baths and other luxuries. They could carry up to 64 wooden lifeboats, although only 20 were actually carried at first.

The most famous of the Olympic class liners was the *Titanic*, which sank on it's maiden voyage in 1912 after striking an iceberg. It's sister ship *Britannic* sank in 1916 when it hit a naval mine while acting as a hospital ship. The final vessel, the *Olympic*, served in the first world war as a troop carrier and later returned to service as a commercial liner before being decommissioned in 1935.

At any given time around one hundred crew would be working to keep the ship running, most of them moving coal from the bunkers to the furnaces for the steam engines. The crew numbers listed on the table only cover the essential functions of the vessel. Several hundred more people were employed to serve the passengers, with professions ranging from bath attendants to butchers.

SHIPHANDLING (SHIP)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Olympic Class	1,760	-5/5	10	0.4/13	58,600	1,900	+13	390+3,800	50	5,500	$155M	gS

LIFEBOATS

When a ship is damaged it's passengers and crew often have no choice but to abandon it and take to the sea in small boats. Unless they are fortunate enough to have been wrecked close to land or are within range of another vessel the odds of survival can be slim, but at least they are better than being on a sinking ship!

Harland & Wolff 30' Lifeboat (UK, 1910-1914)

Most of the lifeboats on the Olympic class liners were of this type. They had clinker-built wooden hulls reinforced with steel beams and copper buoyancy tanks, making them very resistant to sinking. In theory they were capable of carrying 65 people, although there was only enough seating for 40. Standard equipment (often not stored in the boat itself) was ten oars, a mast and sail, 50 yards of rope, a sea anchor, two buckets for bailing, two boat hooks, a compass, a lantern and provisions for about 70 meals (including 12 gallons of water).

Similar craft were used on many ships from the

early nineteenth century until at least the middle of the twentieth. In the British Merchant Navy they were sometimes known as 'Board of Trade boats' after the body which issued rules for their construction and equipment.

BOATING (UNPOWERED)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Harland & Wolff 30'	82	0/3	12c	0.4/2	11	6.5	+5	10+30	4	F	$12K	MO

AIRCRAFT

SMALL PASSENGER PLANES

These planes allow airlines to provide service on routes with small numbers of passengers or give large businesses and wealthy individuals the fastest possible personal transport.

Blériot-SPAD S.33 (France, 1920-1921)

One of the world's first successful passenger planes, the S.33 was a biplane with a small enclosed cabin in the fuselage, forward of the open cockpit. It had four passenger seats in the cabin and another next to the pilot. It could be seen throughout the 1920s serving the London-Paris and Paris-Bucharest routes.

A S.33 requires a 150 yard runway, can reach an altitude of 12,000 feet and has a stall speed of 18 yards per second.

Antanov An-2 (Russia, 1948-1971)

Despite its dated looks, this single-motor biplane is an efficient, easy to maintain aircraft that played an important role in bringing civilization to the most remote corners of Russia. More then 17,000 were built. While it was discontinued in USSR in 1971, Poland kept producing them until 2002 and China makes them even today. Russians call them *Annushka* or *Kukuruznik* ('Cropduster').

One of the main design goals was to make controls as easy and forgiving as possible. It is almost impossible to stall (with a strong headwind it can hover or even fly backwards) or put it into uncontrollable spin and it is intended to work from unprepared airfields (it carries it's own fuel pump). Unfortunately, it is also notorious for causing motion sickness in even the toughest of passengers.

The An-2 has been used in numerous roles in addition to simply carrying passengers. It is commonly used as a crop duster, for dropping water to stop forest fires, for scientific surveys and as an air ambulance. The wheels can be replaced with skis during winter and floatplane versions (known as the An-2N or An-4) are available (Location g2R2Wi, Load 1.2). It was even used as a combat aircraft for attacking observation balloons, for which it was fitted with a small turret armed with either two heavy machine guns or an autocannon (the Gsh-23L from Pyramid issue 57, p. 19).

An An-2 requires a 235 yard runway, can reach an altitude of feet and has a stall speed of 18 yards per second.

Beechcraft Baron B55 (USA, 1964-1982)

One of the larger light aircraft using piston-driven propellers, the B55 is a popular small passenger plane which is also used as a military trainer and utility aircraft, often with several seats removed to save weight.

A Baron requires an 800 yard runway, can reach and altitude of 19,000 feet and has a stall speed of 41 yards per second.

Cessna Citation Mustang Model 510 (USA 2005-)

A small personal jet with about as much space inside as a limousine. It has a two-man cockpit, four passenger seats in the rear and an emergency toilet between them. Baggage is stored in unpressurised compartments in the nose and tail.

A Mustang requires a 1,000 yard runway, can reach an altitude of 41,000 feet and has a stall speed of 41 yards per second.

PILOTING (LIGHT AIRPLANE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Blériot-SPAD S.33	53	0/3	11f	1/56	2.3	0.9	+5	1+5	4	670	$90K	Og3W2Wi
7	Antonov An-2	78	0/4	12f	2/143	5.8	1.4	+5	2+12	4	1,200	$100K	g3W2Wi
7	Beechcraft Baron	59	0/3	11f	3/118	2.5	0.7	+5	1+5	4	1,100	$370K	G3WrWi
8	Cessna Mustang 510	70	0/3	11f	3/240	4.3	0.6	+5	1+5	5	1,300	$2.8M	G3WrWi

Large Passenger Planes

Douglas DC-3A (USA, 1936-1942)

The first airliner cheap enough to operate at a profit without government assistance, the DC3 was built in dozens of versions. The most popular was the C-47 'Skytrain' used by the American military who used it to transport troops and supplies in World War II. After the war surplus 'Goony Birds' were converted into civilian planes and used by most major airlines.

A DC-3A requires a 300 yard runway, can reach an altitude of 23,000 feet and has a stall speed of 34 yards per second.

Aérospatiale-BAC Concorde (UK & France, 1975-1979)

This dart-shaped jet was one of the few passenger planes capable of supersonic flight, allowing long distance journeys to be completed in less than half the time taken by other airliners. Only twenty were built and six of those were development craft which were never used for commercial flights.

Concorde requires a 4,000 yard runway, can reach an altitude of 60,000 feet and has a stall speed of 71 yards per second.

Boeing 747-400 (USA, 1989-2009)

The 'Jumbo Jet' is a large, wide-bodied plane with four turbofan engines. It has two decks, with the shorter upper deck giving it a distinctive hump-backed appearance.

A 747-400 requires a 3,500 yard runway, can reach an altitude of 45,000 feet and has a stall speed of 55 yards per second.

PILOTING (HEAVY AIRPLANE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Douglas DC-3A	103	-2/3	12f	2/115	12.6	2.3	+7	2+21	4	1,700	$1.1M	g3WrWi

PILOTING (HIGH-PERFORMANCE AIRPLANE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	Concorde	223	-3/3	10f	4/662	206	13.8	+9	3+92	10	4,500	$130M	g3WrWi
8	Boeing 747-400	293	-3/3	11f	3/300	438	54.3	+10	2+416	8	8,300	$250M	g4WrWi

Fighter Planes

These small, fast planes are designed to hunt other aircraft. They are often called upon to act as scouts or attack ground targets too, but they are defined by their ability to knock other fliers out of the sky.

Sopwith F.1 'Camel' (UK, 1917-1918)

The first British aircraft to have guns synchronised to fire through it's propeller, the 'Camel' got it's nickname from the hump where it's weapons joined the fuselage, intended to stop them

freezing at high altitude. Like many biplanes of the time, it was mostly made from wood and cloth.

It had a reputation for being agile but difficult to handle. It wasn't as fast as other fighters and the torque from it's engine was so strong that the plane had difficulty turning left. Many pilots simply turned 270° to the right rather than 90° to the left!

A F.1 is armed with two Vickers Mk II Machine Guns (GURPS High-Tech, p. 131) each with 250 rounds of ammunition. It requires a 150 yard runway, can reach an altitude of 19,000 feet and has a stall speed of 24 yards per second.

PILOTING (LIGHT AIRPLANE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Sopwith F.1 'Camel'	39	+2/2	10f	2/55	0.73	0.1	+4	1	2	300	$130K	O3w2Wi

ATTACK PLANES

These planes are intended to carry out airstrikes with greater precision than conventional bombers. Flying low, they can hit small targets or deliver close air support with less risk to friendly troops in the area.

Ilyushin Il-2 M3 Sturmovik (Russia, 1942-1945)

This formidable plane was built to make direct attacks against enemy tanks, with guns easily able to punch through inch-thick steel plating. It was also made to survive anti-aircraft fire at low altitudes, with the underside being made of relatively thick steel which provided both protection and great structural strength. Soviet soldiers called the Il-2 'the flying tank' due to it's toughness and firepower.

The Il2 M3 had two VYa-23 autocannons with 250 rounds for each and two ShKAS machine guns with 750 rounds each in it's wings. The gunner was armed with a rear-facing UBT machine gun with around 300 rounds. It could also carry an additional 1,400 lbs. of ordnance in it's two bomb bays or attached to wing hardpoints. The higher DR in the table applies to attacks to the body from below and the pilot (but not the gunner) has an additional DR 50/25.

An Il2 M3 requires a 280 yard runway, can reach an altitude of 18,000 feet and has a stall speed of 40 yards per second.

Our Red Army now needs Il-2 aircraft like the air it breathes, like the bread it eats… I demand that you manufacture more. This is my final warning.

Stalin

Douglas AD-6 Skyraider (USA, 1953-1957)

The first versions of the Skyraider came into service with the US Navy shortly after the second world war. They were single propeller monoplanes with folding wings to allow them to operate from aircraft carriers.

The popular AD-6 variant (later renamed A-1H) was introduced near the end of the Korean War. It had a better engine, could carry larger bombs and added additional armour to protect the cockpit and important systems (the higher DR only applies to the pilot and vitals and doesn't protect against attacks from above). They were widely exported and used by both the Americans and the South Vietnamese during the Vietnam War. In combat against the more advanced MiG-17 they still managed to claim several kills.

The AD-6 had four M3 autocannons with 200 rounds for each in it's wings and numerous hardpoints allowing it to carry up to three tons of ordnance, fuel tanks (500 miles added to range for every half-ton droppable tank) or specialist

equipment. A radar detector and IFF transponder were standard equipment but radar was only available if carried in an external pod.

Early versions of the Skyraider had less armour (DR 20/5, higher DR only applies to the pilot), could only carry half as much ordnance and only had two guns. The AD-4 had four guns and could carry as much as the AD-6. The AD-5 added an extra seat, plus enough internal space to carry passengers (four seats or two litters for casualties) or cargo.

A Skyraider requires a 290 yard runway, can reach an altitude of 23,000 feet and has a stall speed 44 yards per second.

PILOTING (LIGHT AIRPLANE)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
6	Il-2 M3 Sturmovik	78	+1/3	11f	3/128	7	0.9	+6	2	25/10	450	$500K	g3WrWi
7	AD-6 Skyraider	91	+1/3	11f	3/161	10.7	3.1	+6	1	35/5	1,000	$4.5M	g3WrWi

HELICOPTER GUNSHIPS

Helicopters are generally better than planes at flying low and (relatively) slow, so they make ideal platforms for close air support.

Bell AH-1G Cobra (USA, 1967-1973)

Although helicopters had been armed and used as attack vehicles before, the Cobra was the first true, purpose-built helicopter gunship. Based on the UH-1 Iroquois (GURPS SEALs in Vietnam, p. 39), it often flew alongside the 'Hueys' during the Vietnam war.

The two crew sit in a tandem-arrangement with the gunner in front controlling the nose turret which has 220° rotation and can change facing in one second. The turret mounts two weapons, either M134 Miniguns (GURPS High-Tech, p. 135) with 4,000 rounds each or M129 Grenade Launchers with 300 rounds each (it was possible to mount one of each weapon). Later versions replaced the two weapon mounts with a single M197 Vulcan cannon (GURPS High-Tech, p. 135) and added a telescopic sight (+3 Acc) and laser rangefinder (+3 Acc).

Additional weapons can be carried on four hardpoints mounted under the stub wings. Typically around half a ton of ordnance is carried, but twice this can be managed if the fuel tank is left half-empty to save weight.

The higher value for DR in the table only applies to the crew (and not if shot through the window from above or the side) and rotors. An AH-1G Cobra can reach an altitude of 11,000 feet.

Boeing AH-64D Apache Longbow (USA, 1995-)

Following the collapse of the AH-56 Cheyenne's development, the U.S. Army started the Advanced Attack Helicopter program to develop a replacement for the AH-1 Cobra. The final result was the Apache, a well-protected, heavily-armed attack aircraft packed with (at the time) cutting-edge electronics. During Operation Desert Storm they devastated Iraqi air defences and armoured units, although by the time of Operation Iraqi Freedom the Iraqi tank crews has learned to fight back, shooting down one Apache and damaging dozens more in a single engagement.

The 64D Longbow upgrade improved on the original design in many areas, including more powerful motors (Apaches built before 1990 would have Move 2/85) and the addition of the Longbow radar system (a low-probability intercept tactical radar with 5-mile range which can 'lock-on' to 16 targets at once and gives 360° coverage) mounted above the main rotor. The pilot has a thermal-imaging sensor with 180° vision, while the gunner has his own thermal-imaging sensor as well as an optical camera (×127 zoom), telescopic sight (×16 magnification, +4 Acc) and a laser rangefinder (which also functions as a target designator, 12-mile

range) all with 240° vision.

Weaponry consists of a M230 chain gun in a turret under the Apache's nose with 1,200 rounds (included in vehicle weight) and additional ordnance attached to the stub wings (typically about one ton of weaponry, often four Hellfire missiles or 19 Hydra rockets on each of it's four hardpoints). The Apache can also carry extra fuel tanks on it's hardpoints (1,600 lbs. +180 Range per tank) or in it's magazine (reduces the chain gun to 100 rounds, +100 Range).

Apaches have the Redundant Systems construction option. The higher value for DR in the table only applies to the crew, vitals and rotor. An Apache can reach an altitude of 20,000 feet.

PILOTING (HELICOPTER)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	AH-1G Cobra	72	+1/2	11fx	3/84	4.7	0.7	+6	2	20/5	360	$15K	gH2RtWi
8	AH-64D Apache	90	+1/2	11fx	3/89	8.9	1.3	+6	2	30/15	300	$30K	gHt3WWi

HEAVY HELICOPTERS

When you need to lift something big into (or out of) a place without roads or airfields, a heavy helicopter is often the only way to do it. Most of them are built for the military, but they have also proven useful for disaster relief, forestry work and construction.

Boeing CH-47C Chinook (USA, 1968-)

Instantly recognisable due to it's twin-rotor layout, the Chinook is a big, ugly machine that is capable of a surprising turn of speed. When first introduced in 1965, it was able to outpace attack and scout helicopters. During the Vietnam War, American forces used Chinooks to carry artillery pieces into mountainous terrain, deliver supplies to units which couldn't be reached by road, evacuate mass casualties and even recover entire aircraft which had been shot down.

The helicopter is controlled by two pilots in the cockpit. It usually also needs a crew chief to supervise the cargo bay and has mounting points for up to three machine guns (at the rear and both sides, although usually only the side positions actually had guns, most commonly M60s).

The early CH-47A had weaker engines (Move 2/73, Lwt. 18, Load 4.2) while more modern versions like the CH-47F are significantly more powerful (Move 2/96, Lwt. 25, Load 7.1, Occ 2+45, Range 450).

The higher DR in the table only applies to the rotors. A CH-47C can reach an altitude of 10,000 feet.

Mil Mi-23 (Russia, 1980-)

The largest mass-produced helicopter in the world, the Mi-23 has a single huge main rotor with eight 50' long blades. It's 4,000 cubic foot cargo bay can hold several trucks or even armoured vehicles. When the U.S. Army stranded a Chinook on a mountainside in Afghanistan a Mi-23 was used to lift the other helicopter and carry it back to base!

Crew consists of two pilots, a navigator and two technicians. Several variants of the Mi-23 exist, including a fuel tanker (capable of holding 3,700 gallons) and an air ambulance (which has it's own operating theatre and lab).

The higher DR in the table only applies to the rotors. A Mi-23 can reach an altitude of 15,000 feet.

PILOTING (HELICOPTER)

TL	*Vehicle*	*ST/HP*	*Hnd/SR*	*HT*	*Move*	*Lwt.*	*Load*	*SM*	*Occ*	*DR*	*Range*	*Cost*	*Locations*
7	CH-47C Chinook	111	-1/3	11f	2/87	19.2	5.3	+7	2+34	20/5	225	$33M	gH4W
8	Mil Mi-23	158	0/2	11f	2/90	61.7	21.1	+8	5+85	20/5	400	$22M	gH3W

EQUIPMENT

VEHICLE COMPONENTS

Aircraft Transponder

From 1960 most civilian aircraft are required to carry radar transponders (transmitter-responders) which make them easy to identify by air-traffic controllers. These are essentially civilian versions of military IFF systems (GURPS High-Tech, p. 229).

Buoyancy Tanks

A vehicle with buoyancy tanks is 'unsinkable' in that it will always float so long as the tanks are intact, regardless of whether the rest of the vessel is flooded. It can still capsize, spilling passengers and cargo into the water, but it doesn't sink. Impaling or Piercing damage doing more than HP/3 injury to the vehicle will render the tanks useless.

Power Take-Off

Early motor vehicles were often used to power other machines by simply removing a wheel and running a belt from the axle. A more convenient method is the Power Take-Off connection, which fits a separate drive shaft to the vehicle specifically for powering attached equipment. This allows the devices to be used while the vehicle is in motion and saves the effort of removing wheels!

Radio and Telegraph

Wireless Telegraphy allows communication between military ships from around 1900, but it didn't become standard equipment for civilian vessels until a decade later. By the 1920s civilian ships and some military air and land vehicles had compact radios which were capable of transmitting speech and by 1930 they were common civilian aircraft too.

Civilian land vehicles rarely have two-way radios, but from the 1930s they were often fitted with simple receivers so that people could listen to radio broadcasts while driving. Early radios were expensive enough that they were usually considered an optional extra until the 1960s.

Redundant Systems

By using multiple versions of important components, carefully isolated from each other a vehicle can be made to keep operating despite damage which would usually stop it. A vehicle with this option treats damage to the Vitals hit location as having only a ×2 wounding modifier rather than ×3.

Sea Anchor

Essentially, this is just a waterproof bag attached to a length of rope. Trailed in the water from the stern of a boat, it provides stability in rough seas. A sea anchor gives -1 Handling, +2 SR and halves Move when in use. A typical sea anchor for a 30' boat is 40 lbs. (half weight at TL 7+).

Weapons

Autocannon and Machine Guns

ShKAS, 7.62×54mmR (Russia, 1933-1945)

The revolving feed mechanism of Shpitalny and Komaritski's rapid fire aircraft weapon allowed it to eat through ammunition at a formidable rate. However, it was a complex design which required considerable resources to build and was difficult to maintain. Nevertheless, the Soviet Union made tens of thousands of them and fitted them to most of their fighter planes.

Because of the strain placed on the cartridges and the need for reliability in aircraft guns, the ShKAS used special ammunition (usually APHCI-T) made to narrower tolerances (double ammunition cost, normal 7.62×54mmR rounds give -1 Malf. if loaded into a ShKAS). The ShKAS rounds can be fired from rifles without problems; in fact ShKAS ammunition which had been rejected by the quality control process was sometimes used by snipers (and would still be considered Match-Grade).

The ShKAS could have it's rate of fire reduced by adjusting the gas pressure regulator. Some versions were even capable of shooting faster (the rare 'UltraShKAS' had a RoF of 50!) although at the cost of reliability (Malf 16).

Rheinmetall-Borsig 2-cm-KwK 30 L/55, 20×138mmB Solothurn (Germany, 1935-1945)

This small autocannon was used mainly as the primary weapon for the Panzer II. It fired the same high-velocity round as the *Steyr-Solothurn S18-100* anti-tank rifle (GURPS High-Tech, p. 113).

The KwK 30 was developed from the Flugabwehrkanone FlaK 30 anti aircraft gun (RoF 2) which was usually mounted on an 825 lbs. carriage. A slightly improved version, the FlaK 38 (RoF 4) only needed a 760 lbs. carriage. Both the KwK 30 and the FlaK 30 were also manufactured by Mauser who made their own improved version, the Gebirgsflak 38 (RoF 7!) which mounted on a 445 lbs. tripod.

Hispano-Suiza HS.404, 20×110mm Hispano (France, 1938-1940)

After a falling-out with Oerlikon over the rights to their autocannon (GURPS High-Tech, p. 132) Hispano-Suiza developed their own weapon. It used a gas-operated mechanism, allowing it to be lighter and shoot faster than the Oerlikon gun. Licensed versions were manufactured in Britain and America, who continued to produce them after Hispano-Suiza had been shut down by the German invasion of 1940.

The American versions (known as the M1, M2, M3 and M24) used belted ammuniton and were prone to stoppages (Malf. 16). Later models fitted in aircraft had electric cocking mechanisms to clear them if they misfired. A lighter variant with a slightly different round (20×110mm USN) was made by Colt as the Mk 12 cannon (Ewt. 101 lbs. RoF 13!).

In addition to SAPHE (in table) the HS.404 and it's derivatives were often loaded with APHC-T (6d×3(2) Pi++ inc).

Berezen UB, 12.7×108mm (Russia, 1941-1945)

This aircraft machine gun was designed to be quick to manufacture but not especially durable (treat it as having a light barrel for sustained fire). It was available in three versions, the UBS (synchronised to fire through propellers), UBK (for wing mounts) and the UBT (for turrets). This last version required the gunner to charge it by pulling a cable, which required considerable force.

In contrast to the ShKAS, the Berezen was deliberately expendable…

US Intelligence Report

Volkov-Yartsev Vya-23, 23×152mmB (Russia, 1941-1945)

The main gun for the Il-2 Sturmovik was essentially an enlarged version of the Berezen UB. It's powerful recoil and abrupt reloading action caused significant wear when fired, leading to frequent jams (Malf. 16).

In addition to the SAPHE rounds in the table, APHCI rounds were available (7d×3(2) Pi++ inc).

Hughes M230 Chain Gun, 30×113mm (USA, 1975-)

This electrically-powered automatic cannon is the nose gun for the AH-64 Apache. The M230 is usually loaded with HEDP (in table) but can also accept the SAPHE ammunition used in other 30×113mm guns. However, the M230's HEDP ammunition is not safe to use in other weapons.

GIAT 30 M781, 30×113mm (France, 198?-)

The replacement for the DEFA cannon is an electrically-powered revolving feed weapon similar to the Hughes chain guns.

GUNNER (MACHINE GUN)

TL	*Weapon*	*Damage*	*Acc*	*Range*	*Ewt.*	*RoF*	*Shots*	*ST*	*Bulk*	*Rcl*	*Cost*
6	ShKAS	7d(2) pi- inc	5	1,000/4,200	23.2/64.5	30!	750(10)	15M	-7	2	$15K
6	KwK 30	6d×3 pi++	6	2,100/8,000	140/25	5	20(5)	25M	-10	3	$20K
	Follow-up	2d [1d] cr ex									
6	HS.404	6d×3 pi++	5	1,700/6,400	131/56	12!	60(5)	25M	-10	3	$25K
	follow-up	3d [1d] cr ex									
6	Berezin UB	7d×2 pi+	5	1,800/7,700	47.4/16.9	17!	50(5)	20M	-7	2	$8K
6	Vya-23	7d×3 pi++	5	1,800/7,700	150/56	10!	250(5)	30M	-10	3	$25K
	follow-up	3d [1d+1] cr ex									
7	Hughes M230	4d(10) cr ex	5	1,100/4,900	120/1,200	10!	1200(10)	25M	-10	2	$120K
	linked	3d+1 [1d+2] cr ex									
8	Giat 30 M781	6d×4 pi++	5	1,100/4,900	260/450	12!	450(10)	25M	-10	2	$120K
	follow-up	4d [1d+2] cr ex									

Grenade Launchers

Philco-Ford M129, 40×53mmSR (USA, 1967-?)

One of the options for the AH-1 Cobra's nose turret, this automatic grenade launcher had the unusual feature that it could fire both high-velocity 40×53mm grenades and low-velocity 40×46mm ones (Acc 1, Range 15/400). The first number under Range is minimum range.

An earlier design, the M75 (RoF 3, Rcl 3) could only use high-velocity grenades.

GUNNER (MACHINE GUN)

TL	*Weapon*	*Damage*	*Acc*	*Range*	*Ewt.*	*RoF*	*Shots*	*ST*	*Bulk*	*Rcl*	*Cost*
7	M129	4d-1 [2d] cr ex	2	35/2,200	43/412	7	300(5)	15M	-8	2	$7K

Rockets and Missiles

For unguided rockets (any weapon used with the Gunner (Rockets) skill) the first number given under Range is the minimum range while for guided and homing missiles it is the weapons speed.

Wurfrahmen 40, 28cm Wurfkörper Spreng (Germany, 1940-1945)

German artillery rockets were often launched from frames mounted on the side of vehicles such as the SdKfz 251. The 66 lbs. wooden frame (most of which was actually the rocket's packing crate) could fire the 28cm Wurfkörper Spreng high-explosive rocket (in table), the 32cm Wurfkörper Flamm incendiary (8 yard radius area effect, treat as napalm, see GURPS High-Tech p. 188 but the fire can be extinguished by normal means) or the 275 lbs. long-range Wurfkörper 42 (Dam 6d×22 [15d] cr ex, Range 500/5,000).

A 44 lbs. metal version was also used. Alternatively, the rockets could be fitted to a Wurfgerät launch frame and fired from the ground. Four rockets could fit onto either a 114 lbs. wooden frame or a 24s lbs. metal one. A rocket is $4,000.

M21, 122mm Grad (Russia, 1963-)

A modern version of the Katyusha (GURPS

High-Tech, p. 150) the Grad ('Hail') is a rectangular block of launch tubes mounted on a pivot which attaches to the back of a truck. Rifling and fins make the rockets a little more accurate than it's predecessor, but it is still a messy area bombardment weapon.

Improved rockets (Range 1,540/41,000) are available at TL8, weighing 150 lbs. A HE rocket is $5,000.

M261, 70mm Hydra (USA, 1979-)

A large pod for 70mm rockets, usually mounted on helicopter gunships. It has the same options for ammunition as the M260 (GURPS High-Tech, p. 150).

AGM-114A Hellfire (USA, 1984-)

The Helicopter Launched Fire and Forget Missile was originally intended to give helicopter gunships a serious anti-armour weapon, but has been used on a wide variety of aircraft against a wide variety of targets. It is the weapon of choice for American targeted killings, where it is often delivered by drone. It has even been used (once) to shoot down another aircraft.

The improved AGM-114K Hellfire II has a tandem warhead to defeat reactive armour: Acc 6, Dmg 6d×3(10) cr ex with a 7d×10(10) cr ex follow-up and a linked 6d5 cr ex. The 108 lbs. AGM-114L has the same warhead but is radar rather than laser guided. The AGM-114M is a 106 lbs. missile with a HE warhead: Dmg 6d×6 [3d×3] cr ex. The 105 lbs. AGM-114N has a thermobaric warhead: Dmg 4d×11 cr ex and damage is divided by 2× distance in yards from the blast centre.

The Hellfire is usually launched from a 145 lbs. launch rail system which holds four missiles. A 96 lbs. system which only holds two missiles is also available. One missile is $50,000. Backblast is 6d×2 burn.

GUNNER (ROCKETS)

TL	*Weapon*	*Damage*	*Acc*	*Range*	*Ewt.*	*RoF*	*Shots*	*ST*	*Bulk*	*Rcl*	*Cost*
6	Wurfrahmen 40	6d×23 cr ex	1	300/2,400	66/180	1	1(15)	30M	-10	1	$100
7	M21 Grad	6d×6 [6d] cr ex	2	1,640/16,400	5,700/125	2	40(5i)	50M	-13	1	$30K
7	M261	7d×3 [3d+2] cr ex	2	70/10,500	87/23	19	19(5i)	25M	-10	1	$10K

ARTILLERY (GUIDED MISSILE)

TL	*Weapon*	*Damage*	*Acc*	*Range*	*Ewt.*	*RoF*	*Shots*	*ST*	*Bulk*	*Rcl*	*Cost*
8	Hellfire	6d×14(10) cr ex	5	500/8,800	145/100	1	4(5i)	25M	-10	1	$20K
	linked	6d×8 cr ex									