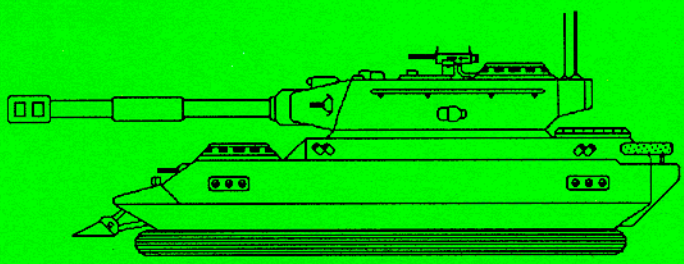
The ADJUTANT

RM-90-01

Imperial Armed Forces Vehicles Guide, Altair Sub-Sector

Set Number One, *Air Cushion*



Introduction

Thank you for your purchase of this vehicle guide. It contains Air Cushioned Vehicles, (ACV's), designed for use with the Traveller® and Striker® science fiction role playing systems. However, the specifications are comprehensive enough that conversion to other systems should cause no problems.

With the advent of small, functional fusion drives, armored ACVs became a reality. The high expense and maintenance of anti-gravity vehicles made the air cushion vehicle a cost effective alternative at lower tech levels. The vehicles in this guide are all designed at tech level 13 and use the same type chassis. It is based on the successful XM-12 ACV Model developed on Calabar in the Altair System by the Ministry of War, Equipment Development Department. All have an internal Rapid-deploy, fire suppression system, manual override/control, food & supplies for their crew for at least one week and small arms with ammunition for each crewmember. Once in a combat environment, crews always personalize their vehicles. Because of this, it is not uncommon to find extras of everything that can be strapped on, buckled in or shoved under any usable space in the crew compartment or on the outside of the vehicle.

Air cushioned vehicles move by virture of a contained layer of air underneath the chassis. A strong power source, in this case a fusion motor, drives high speed fans that force air into a contained chamber creating a high pressure "cushion", causing the vehicle to rise off the ground. It's just like the air hockey games we have all played. The puck rides on a cushion of air. The result of this is minimal ground resistance (only from the containment skirt that holds the air in and the presure of the air inside. If the vehicle rises to high or tips to one side, air bleeds out from under the skirt and the vehicle settles down to a level that allows the skirt to hold enough air to maintain the cushion. Small holes in the skirt will not affect performance, but large holes or tears will, as this will prevent the skirt from maintaining enough air to keep the vehicle "afloat".

To make the vehicle move, the fans are rotated slightly causing thrust in the opposite direction of travel. Because most of these vehicles have eight fans, they may also "spin on a dime" or turn very quickly by moving the back half of fans in one direction and the front half in the other direction thus spinning the vehicle on its axis. Because each fan is independendtly controlled, high manouverability can be achieved by a skilled driver. While speeds of over 200 kilometers an hour can be acheived, this speed is not recommended, except for wide open areas, because of the dangers of trying to maneuver, avoid obstacles, or stop without damage to the vehicle.

One important note: Air cushioned vehicles do exert ground pressure. To lift a 200+ ton vehicle the air must push against something (one of Newton's Laws). If this air cushion pushes against something that yields, that something will be

displaced, and the vehicle will settle until it meets material that will not yield. This causes a "boil-out" or blowing of material out from under the skirt. Thus, these vehicles can not cross water, mud or other soft material deeper than 2 meters. Depths greater than this can cause the intake fans to "drown" the Vectored Thrust Units. Sand or soft earth do not present a problem although some boil-out will occur. Individuals next to a vehicle in a boil-out condition can encounter considerable discomfort and even injury from flying debris.

The final point to address is the use of chemically propelled Rounds, (CPR) and Mass Driver Guns (MD) vs. high energy weapons. The decision to use CPR and MD guns was based on expense, maintenance & versatility. No matter how smooth the ride, ACVs are always subject to severe bumping and jaring. High precision energy weapons in these vehicles must be constantly calibrated and adjusted. Repair parts are expensive and time consuming to install and not always available in the middle of a battle. CPR and MD guns, on the other hand, offer a cost effective alternative and have the advantage of firing a wide variety of ammunition based on the situation, often available locally, with minimal energy requirements. These guns use a chemical charge to propel the round down the barrel. The Mass Driver then accelerates the round to the desired velocity and imparts "spin" necessary for the round's gyros and fuse. When was the last time you saw a fusion gun fire smoke, or offer indirect fire support, or fire different types of ammunition? For that reason, only one fusion gun is included for use on these vehicles. But the manufacturers will accept orders for specialized configurations. Customized vehicles often become the "de facto" standard on the battlefield.

We hope this brief explanation helps with use of these vehicles in your campaigns. We will be happy to answer any questions or clarify an unclear point. Simply enclose an S.A.S.E. with your questions and an answer will be sent to you. Look for future sets outlining other vehicle families.

Also write for a sample issue of The ADJUTANT, a newsletter published for Traveller's Army, Marine and Mercenary characters. Published six times a year, each issue is full of rules variants, suggestions, personal weapons, etc. At only $9.00 per year, it's one of the best deals in the Imperium. Sample issues are available for only $1.50.

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Acknowledgments

Anyone who has ever tried to design new and inovative vehicles for a science fiction game realize the complexities involved. Great amounts of time are spent in calculating and designing all the components that make up futuristic combat vehicles.. Staying up until the wee hours of the morning before the gaming session vainly trying to get the last little details worked out for gadget greedy players. As GMs, we have all been placed in this unenviable position.

It is my intent to save you the time and aggrevation required to put vehicles into your campaign. I hope you find this and future guides useful. My thanks and deepfelt gratitude go to the following individuals for their help in working as many of the "bugs" out of this package as is possible;

Jonathan Krost; for his production assistance
Steve Popp; for his valuable technical assistance and experience
Phil Lashbrook; for his suggestions and willingness to try yet another new vehicle
Dave Hentges; for playtesting and his enthusiasm

Thanks to these friends and the rest of the Marina Gaming Club without whose help this project would never have been. Also a special thanks to all the loyal readers that sent in corrections and suggestions to make the second edition of this guide that much better

Mark Schmidt

Other guides planned in this series will include:

RM-90-02	Rotary and Fixed Wing Aircraft
RM-90-03	Tracked Vehicles
RM-90-04	Wheeled Vehicles
RM-90-05	Grav Vehicles
RM-90-06	Waterborne Vehicles
RM-90-07	Orbital Assault & Landing Vehicles
RM-90-08	Exotic Vehicles
RM-90-09	Infantry Weapons

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Effects of Munitions

20mm HVV RFC Rounds

Type	Penetration in mm /Radius / Frag Pent.	Cost per Round
KEAP	140, , usually DPU equipped	2.5 cr

120mm HPVMD Rounds

Type	Penetration in mm /Radius / Frag Pent.	Cost per Round
HE	250 / 40m /40mm	1875 cr
KEAP	460, usually DPU equipped	3750 cr
KEAPER	460 eff. / 440 long / 420 extr. (add 4km to all ranges)	4125 cr
APFSDS	650, similar to KEAP but with better penetration	3750 cr
HESH	360, designed to cause spalling insidetarget (like a bb when it hits a window, a concave section fragments	3000 cr
Flechette	200 m danger space with +6 to hit, ("Beehive" shell)	9375 cr

175 mm LVH Rounds

Type	Penetrations Value in mm of armor	Cost per Round
HE	285 / 120 meter radius with 45 mm prentration frag.	360 cr
HE (I)	143 / 45 meter radius with 23 mm pent. (ignites combust.)	375 cr
CBM	225 / 180 meter radius with 45 mm penetration frag.	1080 cr
ICM	10 shot, top fire AP rounds with 98 mm pent. 1 km rad.	2520 cr
Illum.	1290 meter radius	720 cr
WP	45 meter radius and shift with wind	338 cr
Smoke	45 meter radius and shift with wind	250 cr
Flechette	23 mm pent. 150 meter lethal zone with +6 to hit	1800 cr

300 mm LVM Rounds

Type	Penetrations Value in mm of armor	Cost per Round
HE	380 / 160 meter radius with 60 mm prentration frag.	480 cr
HE (I)	190 / 60 meter radius with 30 mm pent. (ignites combust.)	500 cr
CBM	300 / 240 meter radius with 60 mm penetration frag.	1440 cr
ICM	10 shot, top fire AP rounds with 130 mm pent. 1 km rad.	3360 cr
Illum.	1290 meter radius, 1 minute duration	960 cr
WP	60 meter radius and shift with wind	450 cr
Smoke	60 meter radius and shift with wind	
Flechette	30 mm pent. 200 meter lethal zone with +6 to hit	2400 cr
FAE	240 meter radius when used with 4 gun battery, 3 FAE	500Ignit.

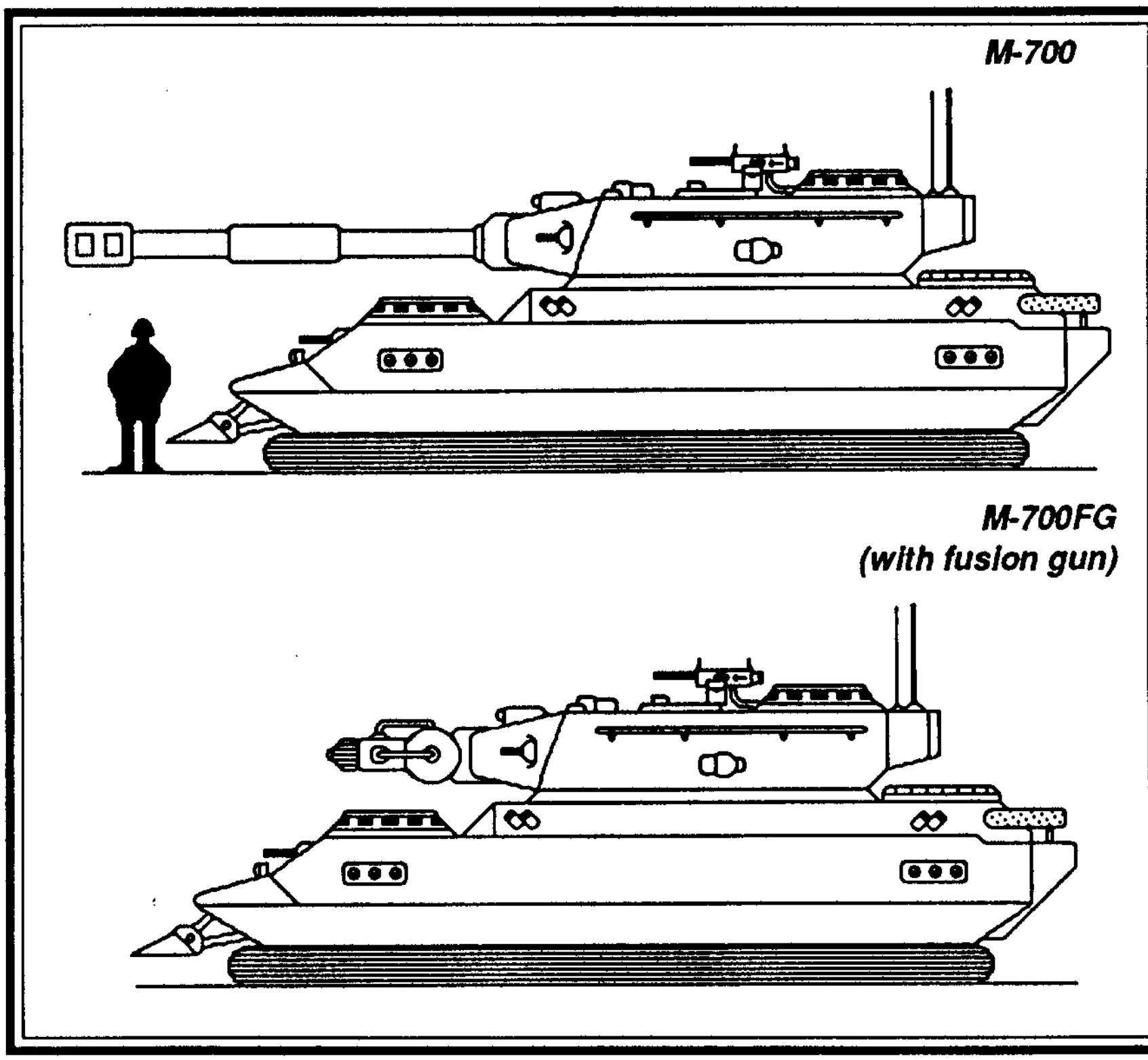
shells & one Igniter. Armor penetration of only 30 mm but incinerates 480 fuel combustables, and depletes all oxygen in Radius. Overblast pressure of 22kg/cm2 are achieved up to 15 meters below groundso all but armored targets are destroyed. The 3 Fuel Rounds air burst over the target mixing fuel and oxygen to create explosive concentration. The igniter round is fired on a slight delay to allow time for proper mixture.

M-700

The M-700 is an air cushioned AFV of the MBT class, used when fluid battle-field conditions necessitate rapid movement with the ability to bring mass firepower to bear on the enemy. Propulsion is accomplished via 8 VTUs mounted behind an APACS located at the base of the vehicle. The fans are powered by a Fusion Power Plant. Although standard armament is the Mk VII 120mm smooth-bore, hypervelocity, stabilized MD gun, there is sufficient output from the power plant to fire a Telstar Model V Rapid Pulse Fusion Gun. Secondary armament consists of one bow mounted LMG, one turret mounted coaxial LMG and an additional LMG mounted on the commander's coupaola on top of the turret. All are 5.55mm and fed from 100 round boxed belts. An APERS defense system is mounted on both sides of the chassis.

SPECIFICATIONS:

Dimensions:	Chassis - 10.75m l, 1.8m h, 4m w, low hit DM: +1				
	Turret - 5m l, 1.2m h, 4m w, high hit DM: 0				
Suspension:	Air Cushion with 8 independent VTU's				
Combat Weight:	230 metric Tons				
Power Plant:	Fusion, 60 megawatt output				
Fuel Req.:	90 liters/hour, 720 liters carried				
Armor:	Chassis: Front	Sides	Rear	Deck	Belly
Actual/Rated in mm	102/1428	595/625	42/294	42/294	20/294
	Turret: Front	Sides	Rear	Top	
Actual/Rated in mm	130/1820	648/680	50/350	42/294	
Max. Speed:	240 kph				
Max. Eff. Rng:	7680 km				
Weapons:	Main - 120mm HPVC MD Gun				
Range in km:	Effective: 5.25 +2, Long: 10.5 +1, Extreme: 21, 2 targets/turn				
	Aux. - 3 5.55mm LMGs, 1 in bow, 1 coax, 1 turret top on commander's coupola				
Fire Rate:	Main - 6 rounds / turn				
	Aux. - 10 rounds / turn				
Feed Device:	Main - 30 round autoloader with 1 reload (30 rounds)				
	Aux. - 100 round linked belts stored in ammo boxes, 4,000 rounds carried				
Crew:	4 - Driver, Gunner, EW-RTO, Commander				
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot APERS charges Extensive ECM/EW, NBC System, RDFSS				
Electonics:	Mk III FCS, 5k Pwr Radio, Map Box, Battle Computer, Passive IR (x3) & L3TV (x3)				
Cargo:	1 ton, box located at rear of turret				
Price:	9,707,232 cr, plus cost of 120mm ammo.				



120mm HPV-MD Rounds

Type	Penetration in mm /Radius / Frag Pent.	Cost per Round
HE	250 / 40m /40mm	1875 cr
KEAP	460, usually DPU equipped	3750 cr
KEAPER	460 eff. / 440 long / 420 extr. (add 4km to all ranges)	4125 cr
APFSDS	650, similar to KEAP but with better penetration	3750 cr
HESH	360, designed to cause spalling insidetarget (like a bb when it hits a window, a concave section fragments	3000 cr
Flechette	200 m danger space with +6 to hit, ("Beehive" shell)	9375 cr

Telstar Model V Rapid-Fire Fusion Gun

	Effective	Long	Extreme
Range:	5 km	10 km	21 km
Penetration:	5040 mm	1890 mm	250 mm
Radius/Frag. Pen.	8 m / 4880 mm	5 m / 1730 mm	1.5 m / 90mm
ROF:	4 shots/ turn, up to 4 separate targets @ +3 ea. target		
Electonics:	Add Point Defense Fire Control		
Price:	Add 245,000 cr		

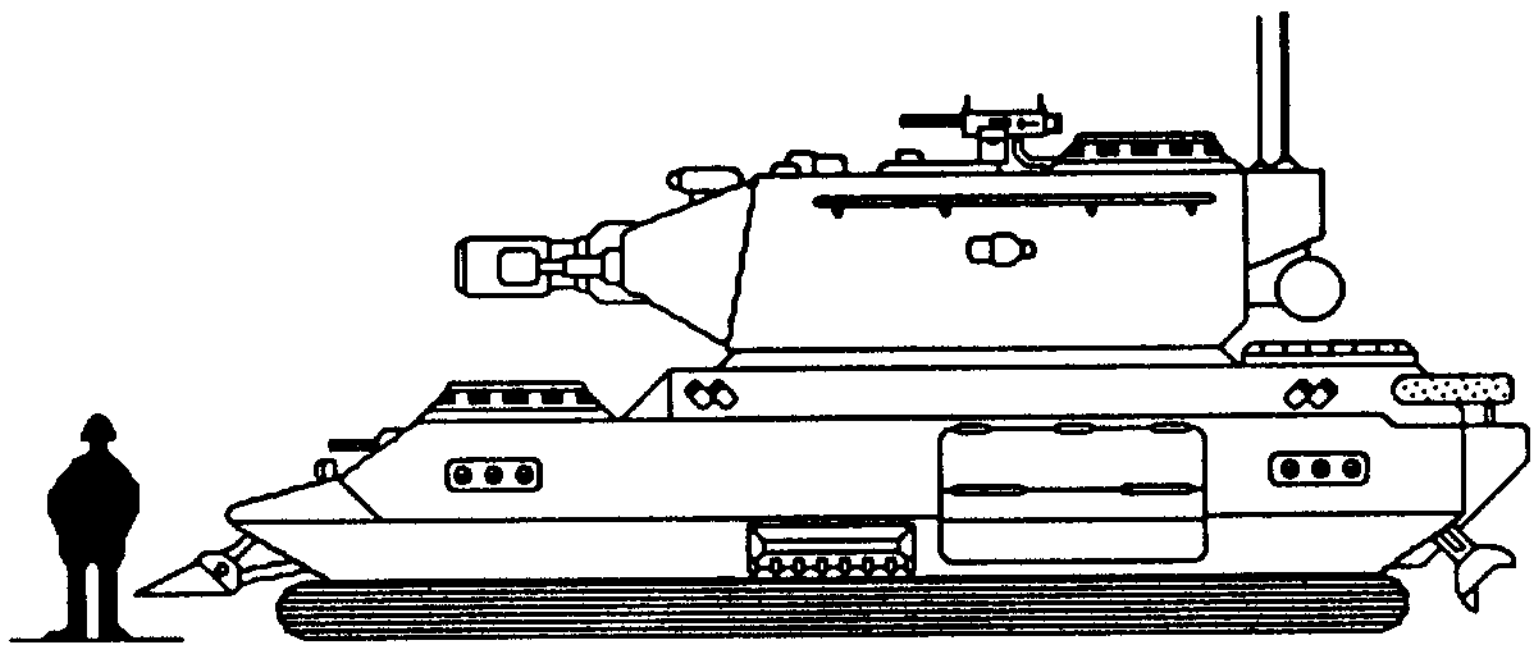
M-732-*

The M-732 is an air cushioned, SPAW of the AFSV class, used when fluid battlefield conditions necessitate rapid movement with the ability to bring mass firesupport to bear on the enemy. These vehicles are further defined as an LVH, LVM or MRLS. Propulsion is accomplished via 8 VTU's mounted behind an APACS located a the base of the vehicle. The fans are powered by a Fusion Power Plant. Main armament is the Mk IX 300mm smooth bore MD mortar for the LVM, a MkVIII 175mm smooth bore MD gun for the LVH and two Grenadier Missles for the MRLS. Secondary armament consists of one bow mounted LMG and an additional LMG mounted on the commander's coupola on the top of the turret. All are 5.55mm and fed from 100 round boxed belts.

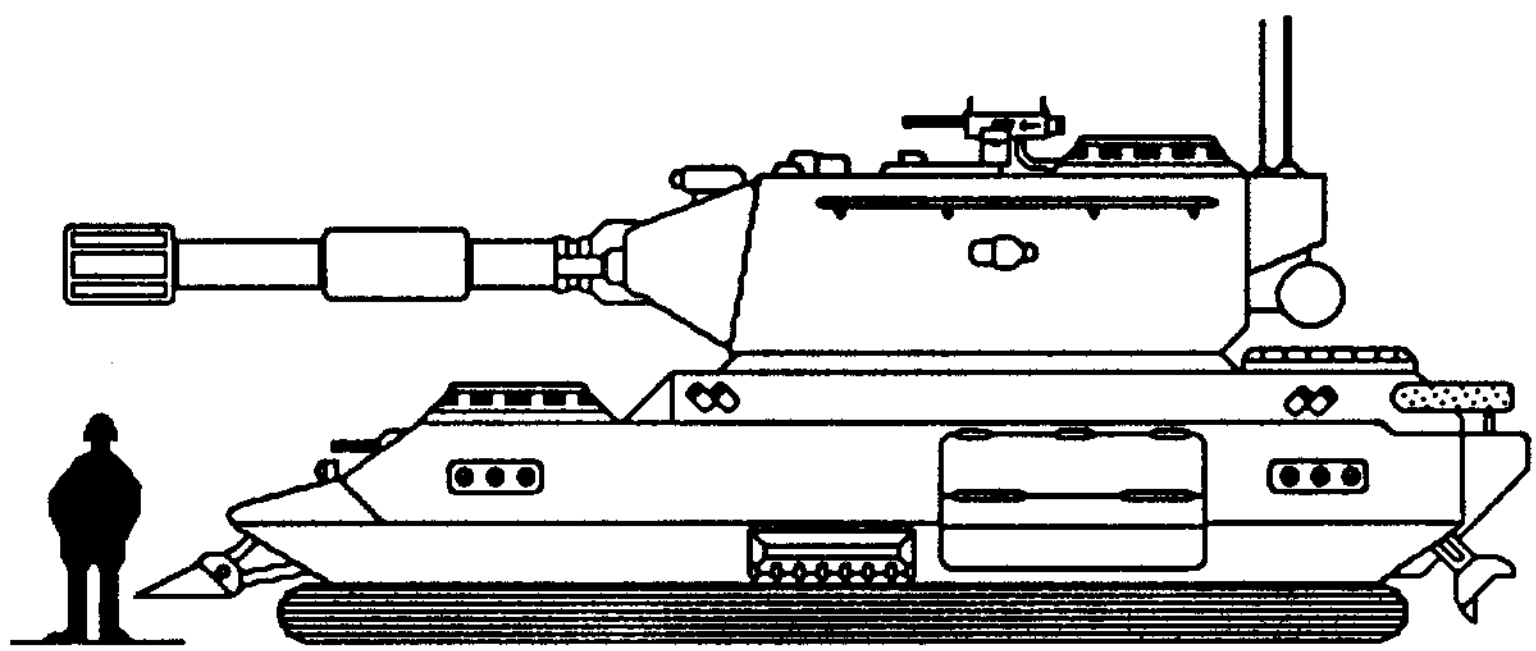
SPECIFICATIONS:

Dimensions:	Chassis - 10.75m l, 1.8m h, 4m w, low hit DM: +1				
	Turret - 5.5m l, 1.8m h, 4m w, high hit DM: 0				
Suspension:	Air Cushion with 8 independent VTUs				
Combat Weight:	198 metric Tons				
Power Plant:	Fusion, 60 megawatt output				
Fuel Req.:	90 liters/hour, 720 liters carried				
Armor:	Chassis: Front	Sides	Rear	Deck	Belly
Actual/Rated in mm	102/1428	595/625	42/294	40280	20/140
	Turret: Front	Sides	Rear	Top	
Actual/Rated in mm	102/1428	595/625	50/350	42/294	
Max. Speed:	240 kph				
Max. Eff. Rng:	7680 km				
Weapons:	Main - 300mm / 175mm smooth bore, Launch Rail				
Range in km:	Effective: 21.5 (32.25 w/RAP), 300 (missile)				
	Aux. - 2 5.55mm LMGs, 1 in bow, 1 turret top				
Fire Rate:	Main - 1 round / turn for gun, 2 / 30 minutes missile (reload)				
	Aux. - 10 rounds / turn				
Feed Device:	Main - 20 round autoloader with 1 reload (20 rounds)				
	Aux. - 100 round linked belts stored in ammo boxes,				
	4,000 rounds carried				
Crew:	5 - Driver, Gunner, 2 Asst. Gunner/Loaders,				
	Commander				
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot				
	APERS charges,				
	Extensive ECM/EW Package, NBC System, RDFSS				
Electronics:	5k Pwr Radio, Map Box, MK V EPAWS, CSI, Passive				
	IR (x3) & L3TV w/Inhancements (x3)				
Cargo:	1 ton, box located at rear of turret				
Price:	2,654,000 cr, plus cost of munitions				

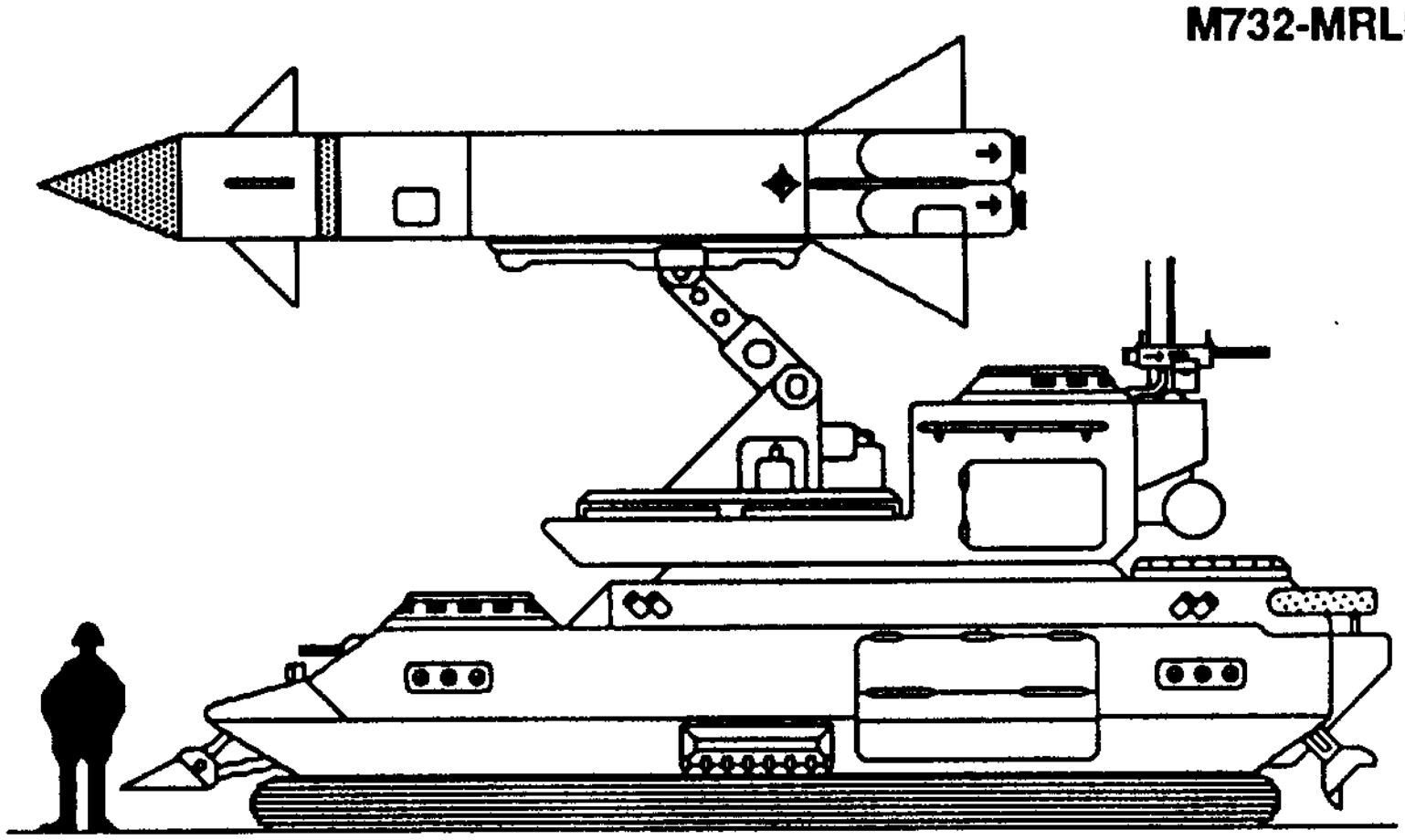
M732-LVM



M732-LVH



M732-MRLS



300 mm LVM Rounds

Type Round	Penetrations Value in mm of armor	Cost per
HE	380 / 160 meter radius with 60 mm prentration frag.	480 cr
HE (I)	190 / 60 meter radius with 30 mm pent. (ignites combust.)	500 cr
CBM	300 / 240 meter radius with 60 mm penetration frag.	1440 cr
ICM	10 shot, top fire AP rounds with 130 mm pent. 1 km rad.	3360 cr
Illum.	1290 meter radius, 1 minute duration	960 cr
WP	60 meter radius and shift with wind	450 cr
Smoke	60 meter radius and shift with wind	
Flechette	30 mm pent. 200 meter lethal zone with +6 to hit	2400 cr
FAE	240 meter radius when used with 4 gun battery, 3 FAE	500Ignit.

shells & one Igniter. Armor penetration of only 30 mm but incinerates 480 fuel combustables, and depletes all oxygen in Radius. Overblast pressure of 22kg/cm2 are achieved up to 15 meters below groundso all but armored targets are destroyed. The 3 Fuel Rounds air burst over the target mixing fuel and oxygen to create explosive concentration. The igniter round is fired on a slight delay to allow time for proper mixture.

175 mm LVH Rounds

Type	Penetrations Value in mm of armor	Cost per Round
HE	285 / 120 meter radius with 45 mm prentration frag.	360 cr
HE (I)	143 / 45 meter radius with 23 mm pent. (ignites combust.)	375 cr
CBM	225 / 180 meter radius with 45 mm penetration frag.	1080 cr
ICM	10 shot, top fire AP rounds with 98 mm pent. 1 km rad.	2520 cr
Illum.	1290 meter radius	720 cr
WP	45 meter radius and shift with wind	338 cr
Smoke	45 meter radius and shift with wind	250 cr
Flechette	23 mm pent. 150 meter lethal zone with +6 to hit	1800 cr

Grenadier Missle

Specifications:

Warhead: Variable, See below

Type	Penetrations Value in mm of armor	Cost per Missle
HE	380 / 320 meter radius with 45 mm prentration frag.	10,360cr
HE (I)	143 / 120 meter radius with 23 mm pent. (ignites combust.)	10,375cr
CBM	225 / 920 meter radius with 45 mm penetration frag.	11,080cr
ICM	25 shot, top fire AP rounds with 98 mm pent. 5 km rad.	12,520cr

Fuse: Varaible; Delayed or proximity

Guidance: STAFF w/Target Memory, Enhanced L3TV, IR-ARETS, Radio Link

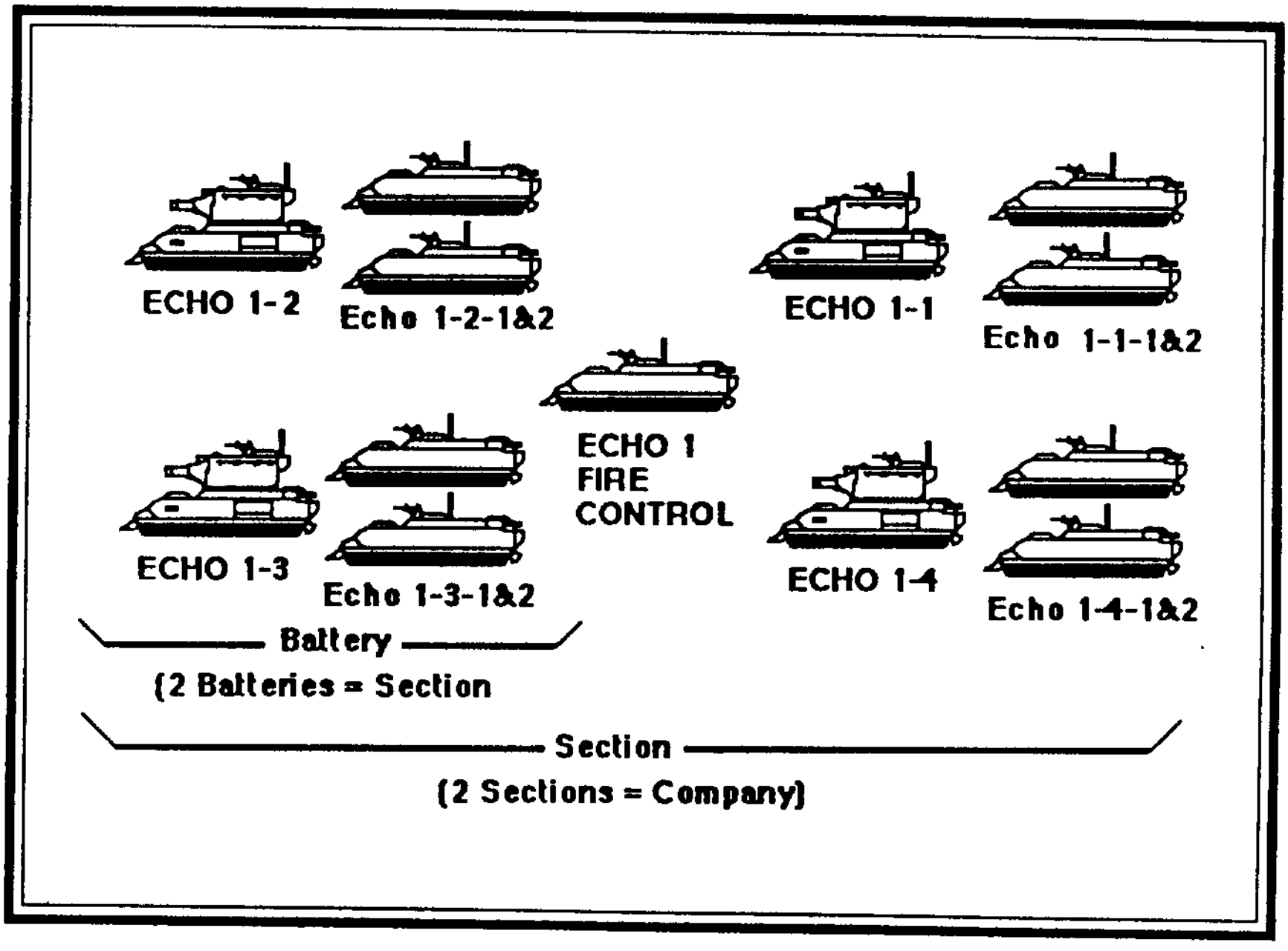
Range: 10 km min. to 300 km max.

Weight: 3.5 tons

Organizational Notes

The effective use of Artillery on the battle field requires that great amounts of ammunition be expended if it is to have a measurable difference on the battle's outcome. Since the M-732 carries only 20 rounds in its autoloader and one 20 round reload, two modified APCs are provided to each M-732 as ammunition carriers. Designated as M-740A AASV they can carry up to 30 rounds each, giving the M-732-LVM and LVH 100 shells at its disposal. The M732-MRLS carries two missles ready to launch with two additional missles on each M-740A. These carriers are further defined as an M-740-A1 and have a small lift crane to facilitate reloading.

These Artillery peices are typically organized into companies comprised of 2 Sections. The sections are further split into 2 batteries each. Each section has 4 M-732s with 8 M740-A's and an M-740B BCC to coordinate fire control. BCC vehicles are usually equipped with an electronics package comprised of Map Box, Battle Computer, Long Range Radio, CBTSS, CSI, CSS, ECM/EW, FCS, RAFTAC, TADS and Point Defense Fire Control, Passive IR & L3TV w/Image Enhancement.



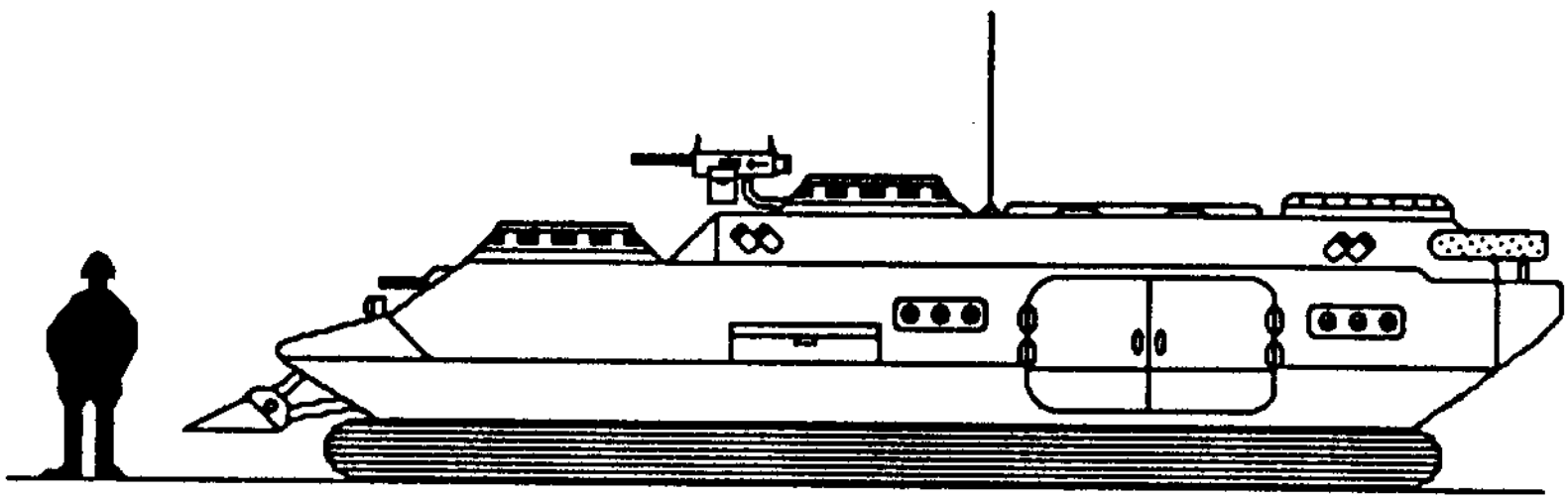
M-740

The M-740 is an air cushioned APC or ACCV of the MICV class, used when fluid battlefield conditions necessitate rapid movement with the ability to deliver combat troops to the FEBA. Propulsion is accomplished via 8 VTUs mounted behind an APACS located a the base of the vehicle The fans are powered by a Fusion Power Plant. Armament consists of one bow mounted LMG and a ring mounted LMG on the commander's coupola on the chassis deck. Both are 5.55mm and fed from 100 round boxed belts. An APERS defense system is mounted on both sides of the chassis. Passengers enter and exit the vehicle through two side doors, a top hatch or a rear door. Many variations have been made to this vehicle, some of the more common are listed below.

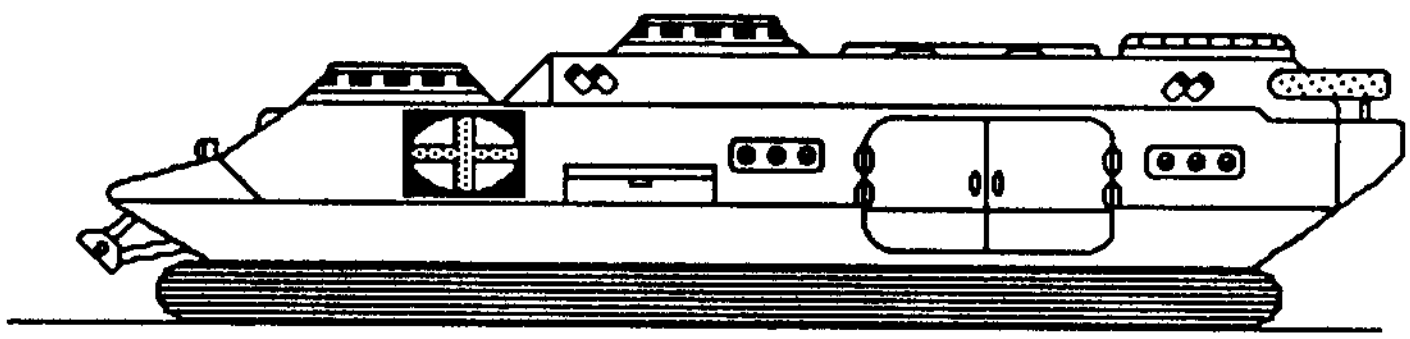
SPECIFICATIONS:

Dimensions:	Chassis - 10.75m l, 1.8m h, 4m w; low hit OM: +1				
Suspension:	Air Cushion with 8 independent VTUs				
Combat Weight:	126 metric Tons				
Power Plant:	Fusion, 60 megawatt output				
Fuel Req.:	90 liters/hour, 720 liters carried				
Armor:	Chassis: Front	Sides	Rear	Deck	Belly
Actual/Rated in mm	102/1428	595/625	42/294	42/294	20/140
Max. Speed:	240 kph				
Max. Eff. Rng:	7680 km				
Weapons:	Two 5.55mm LMG; 1 in bow, 1 on comdrr's coupola				
Fire Rate:	10 rounds / turn / gun				
Feed Device:	100 round linked belts stored in ammo boxes, 4,000 rounds carried				
Crew:	2 - Driver, Commander / EWO				
Passengers:	10, (std APC, for others see below)				
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot APERS charges, Extensive ECM/EW Package, NBC System, RDFSS				
Electronics:	5k pwr Radio, CSI, TADS, TIS, Passive IR (x2) &L3TV w/ Image Enhancement (x2)				
Cargo:	Varaible based on version				
Price:	1,492,000 cr				
Options:	M-740: 1 ton M-740A: AASV, 10 tons of ammo M-740B: BCC, see Organization Notes on M-732 (+200k cr) M-740C: Cargo, up to 10 tons or 20 m3 of cargo M-740D: MEV, 9 litters and 2 corpsman M-740E: C3 TCV, similar to BCC, (add 200k cr) M-740F: ACCV, 4 additional LMGs on swivel mounts				

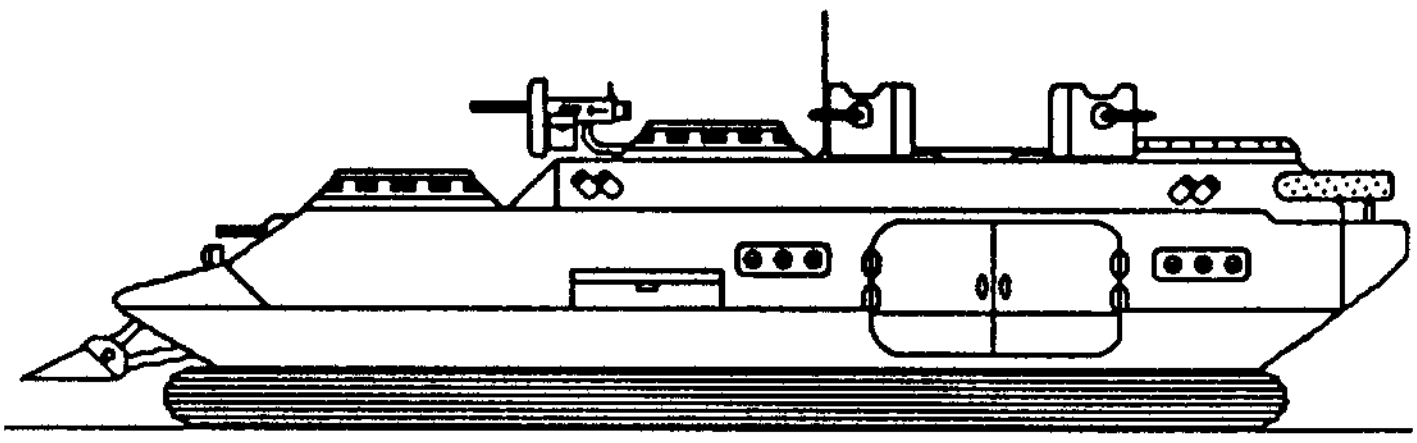
M-740, -A, -B,-C, -E



M-740D



M-740F



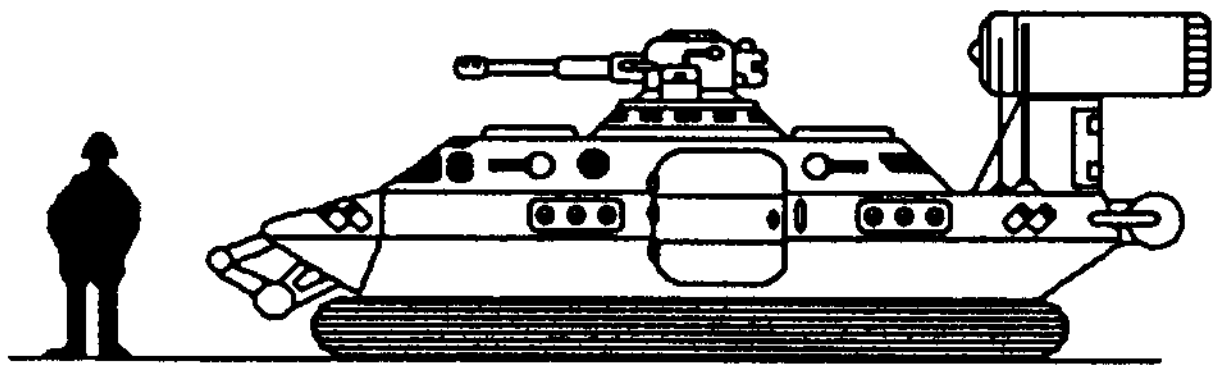
M-742

The M-742 is an air cushioned ASRV used when fluid battlefield conditions necessitate rapid movement with the ability to gather accurate intelligence on the enemy. Propulsion is accomplished via 6 VTUs mounted behind an APACS located at the base of the vehicle. The fans are powered by a Fusion Power Plant. Two additional VTUs are mounted on pylons at the rear of the vehicle to provide extra manouverability. Standard armament is the Mk XIV 20mm rifled bore, HPV-RFC. This scout may also be fitted with a "Wild Card" missle rack holding three missles. A specialized version of this vehicle is fitted with a mine dispersal canister for sowing hundreds of APERS mines on either side of the platform. Secondary armament consists of four 5.55mm LMGs mounted in the side of the chassis and fed from 100 round boxed belts. The bow guns are controlled by the driver and the stern guns are controlled from the gunners position. The commander can overide any of the weapons stations. An APERS defense system is mounted on both sides of the chassis.

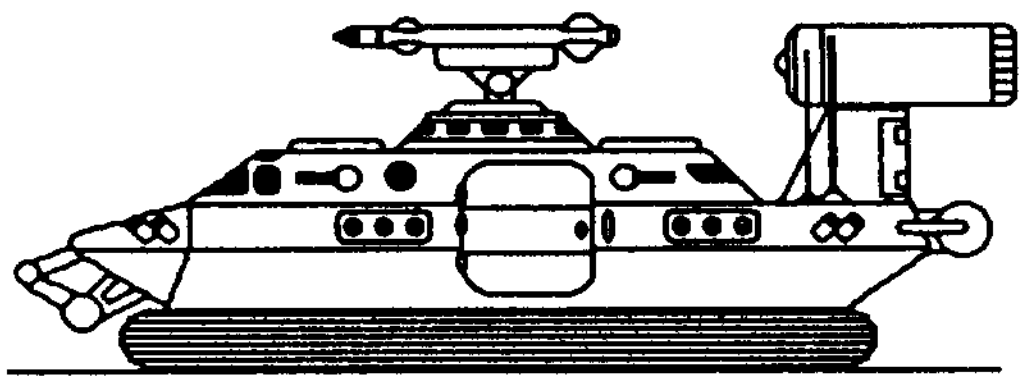
SPECIFICATIONS:

Dimensions:	Chassis - 8.25m l, 1.5m h, 3m w, low hit DM: +1					
Suspension:	Air Cushion with 6 independent VTUs					
Combat Weight:	52 metric Tons					
Power Plant:	Fusion, 6 megawatt output					
Fuel Req.:	9 liters/hour, 250 liters carried					
Armor:	Chassis:	Front	Sides	Rear	Deck	Belly
Actual/Rated in mm		50 / 700	30 / 315	25/175	25/175	25/175
Max. Speed:	165 kph					
Max. Eff. Rng:	4750 km					
Weapons:	Main - 20mm, 120 mm Penetration					
Range:	Effective: 5.25 km, Long: 10.5 km, Extreme: 21 km,					
	Aux. - 4 - 5.55mm LMGs					
Rate of Fire:	Main - 56 Rounds / turn					
	Aux. - 10 Rounds/ turn					
Feed Device:	Main - electric drive from 2 selectable 5,000 round magazines					
	Aux. - 100 round linked belts stored in ammo boxes, 2000 rounds carried					
Crew:	3 - Driver, Gunner/ EW-RTO, Commander					
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot APERS charges					
	Extensive ECM/EW Package, NBC System, RDFSS					
Electronics:	Mk III FCS, 5k Pwr Radio, Map Box, Battle Computer, Passive IR (x3), L3TV w/Image Enhancement (x3)					
Cargo:	1 ton, on rear deck					
Price:	1,389,000 cr					

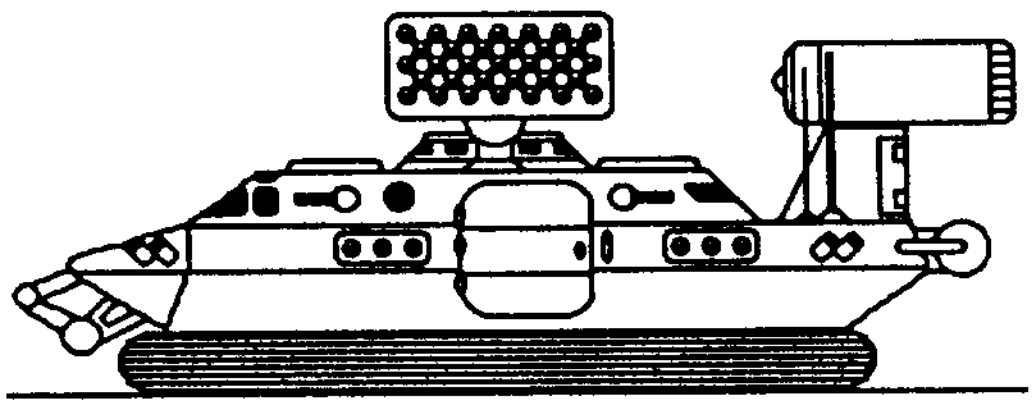
M-742



M-742-A2
w/Wild Card Rack



M-742-A5
w/ Scatter-Mine Ejector Rack

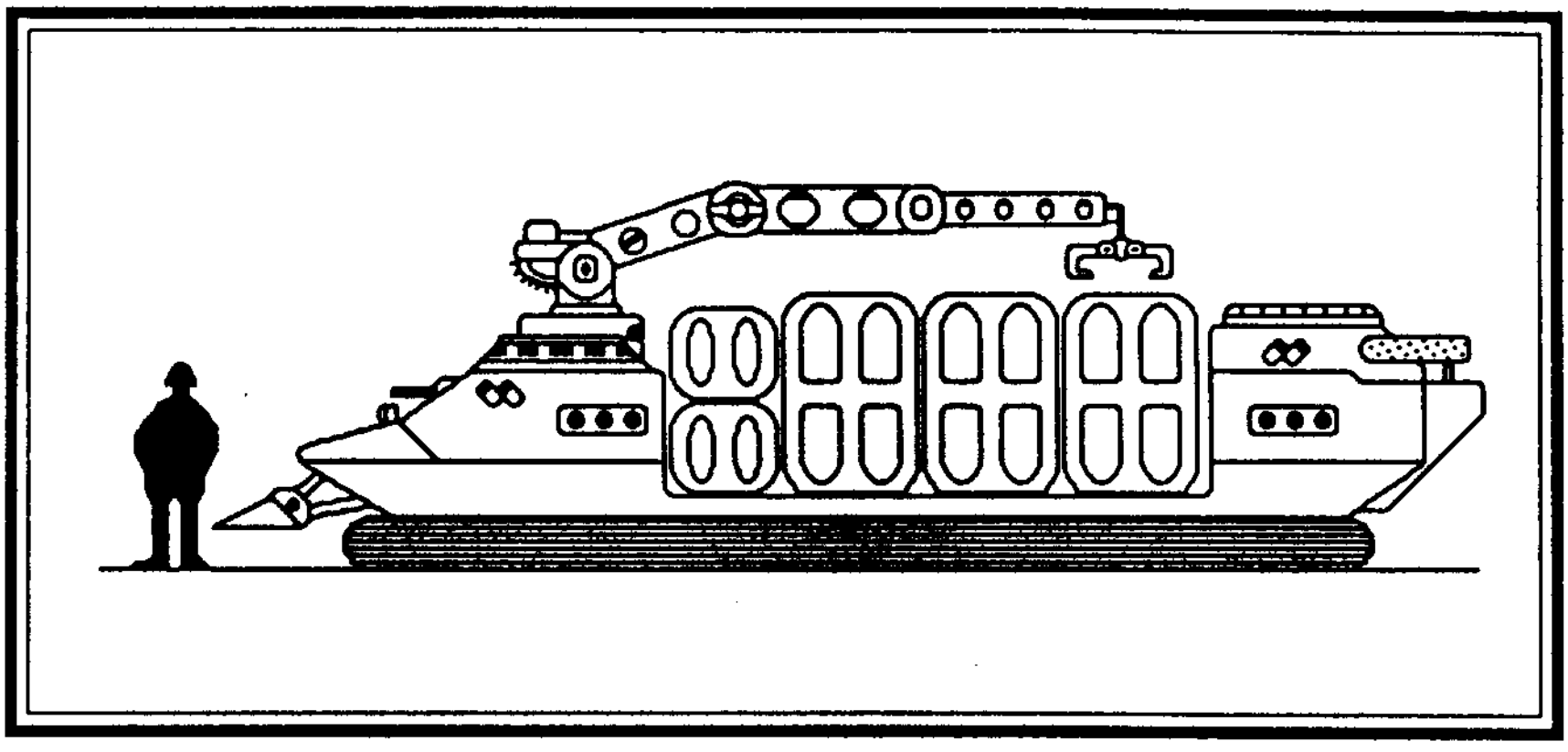


M-755

The M-755 is an air cushioned, cargo carrier of the AVGP class, used when fluid battlefield conditions necessitate rapid movement and delivery of vital supplies to the FOB. Propulsion is accomplished via 8 VTUs mounted behind an APACS located a the base of the vehicle. The fans are powered by a Fusion Power Plant. Cargo space allows for the transport of 40 tons of materials. A 10 ton medium-lift crane is fitted to the chassis deck above the crew space and is operated from inside. Armament consists of one bow mounted LMG. It is 5.55mm and is fed from 100 round boxed belts. An APERS defense system is mounted on both sides of the chassis.

SPECIFICATIONS:

Dimensions:	Chassis - 10.75m l,1.8m h, 4m w, low hit DM: +1				
Suspension:	Air Cushion with 8 VTUs				
Combat Weight:	220 metric Tons				
Power Plant:	Fusion, 60 megawatt output				
Fuel Req.:	90 liters/hour, 720 liters carried				
Armor:	Chassis: Front	Sides	Rear	Deck	Belly
Actual/Rated in mm	102/1418	595/625	42/294	42/294	20/140
Max. Speed:	240 kph				
Max. Eff. Rng:	7680 km				
Weapons:	5.55mm LMG in bow				
Fire Rate:	10 Rounds / turn				
Feed Device:	100 round limked belts stored in ammo boxes, 1000 rounds carried				
Crew:	3 - Driver, Cargo handler / Gunner, Commander				
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot APERS charges, Extensive ECM/EW Package, NBC System, RDFSS				
Electronics:	5k Pwr Radio, Passive IR (x2) & L3TV w/Image Enhance(x2)				
Cargo:	40 tons, or 48 m3				
Price:	1,282,000 cr				



Presurized Cargo Container:
This contaner came be shipped in vaccum without damage to contents. It can also be fitted with a simple parashute or a parasail with a remote pilot unit for insertion into small landing areas.

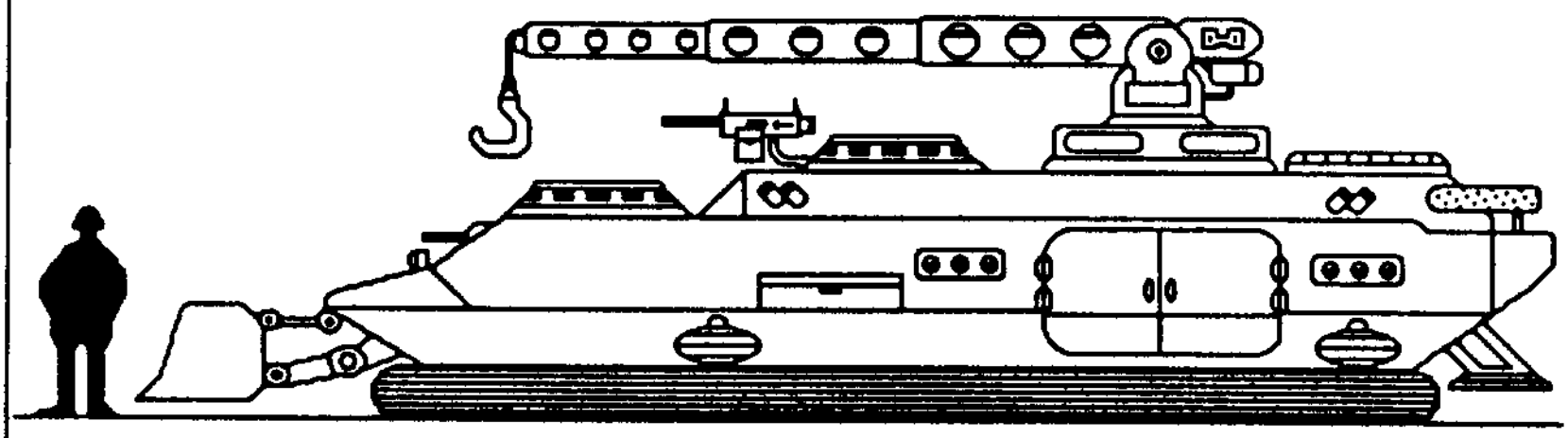
	Type A	Type B
Capacity :	16	24 tons
Volume:	3	6 m3
Cost:	1,000cr	2,500 cr

M-778

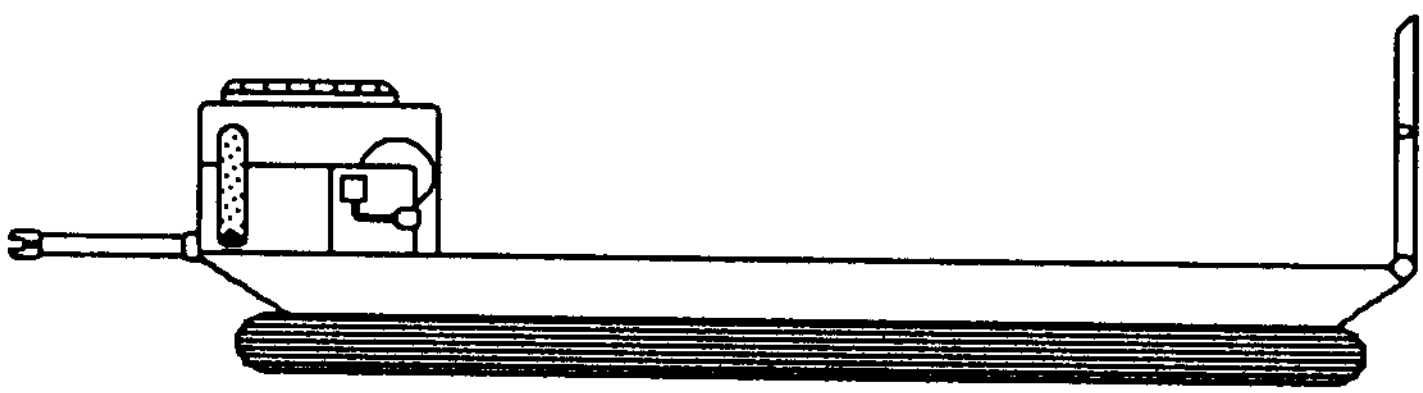
The M-778 is an air cushioned ARV/CEV that can be used in a recovery or combat engineering role at the FEBA. Propulsion is accomplished via 8 VTUs mounted behind an APACS located a the base of the vehicle. The fans are powered by a Fusion Power Plant. A scoop-dozer blade is fitted at the front on the vehicle with a 3 cubic meter capacity. A heavy crane is fitted to the chassis deck with the capacity to lift 120 tons. Stabilization is provided by six hydraulic-assist feet placed around the vehicle. For recovery duty, an RPV unit is installed on the disabled vehicle and it is towed to the rear area. The RPV allows control of the disabled vehicles VTUs and power plant from the Engineering vehicle. Complete power plant replacement in the field is also possible. This vehicle also carries an additional 720 liters of fusion fuel for emergency refueling as well as a wide variety of construction and mechanical tools and common spare parts. Armament consists of one bow mounted LMG, and an LMG mounted on the commander's coupola on the chassis deck. Both are 5.55mm and fed from 100 round boxed belts. An APERS defense system is mounted on both sides of the chassis.

SPECIFICATIONS:

Dimensions:	Chassis - 10.75m l, 1.8m h, 4m w, low hit DM: +1, Crane - 8 m l,1.8 m h, .5 m w					
Suspension:	Air Cushion with 8 VTUs					
Combat Weight:	132 metric Tons					
Power Plant:	Fusion, 60 megawatt output					
Fuel Req.:	90 liters/hour, 720 liters carried, 720 additional liters in reserve tank					
Armor:	Chassis: Front	Sides	Rear	Deck	Belly	
Actual/Rated in mm	102/1418	595/625	42/294	/294 42	20/140	
Max. Speed:	240 kph					
Max. Eff. Rng:	7680 km					
Weapons:	Two 5.55mm LMGs; 1 in bow, 1 on comdr's coupola					
Fire Rate:	10 Rounds / turn					
Feed Device:	100 round linked belts stored in ammo boxes, 2,000 rounds carried					
Crew:	5 - Driver, Crane Operator/Gunner, 2 Mechanical/ Combat Engineers, Commander,					
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot APERS charges, Extensive ECM/EW Package, NBC System, RDFSS					
Electronics:	5K pwr Radio, Map Box, CSI, TADS, Passive IR (x2) & L3TV w/Image Enhancement (x2)					
Cargo:	3 tons: made up of RPV units, fuel, spare parts					
Misc.:	Heavy Lift Crane, Const. , Mech. & Electronic Tools					
Price:	1,500,000 cr					



Recovery Trailer



Trailer

Weight.:	18 tons
Suspension:	Air Cushion with 8 VTUs
Power Plant:	Fusion, 60 megawatt output
Fuel Req.:	90 liters/hour, 720 liters carried
Lift Capacity:	230 tons
Misc.:	Winch rated at 230 tons
Price:	750,000 cr

M-790-*

The M-790 is an air cushioned, armored utility sled in the AVGP class that can be equipped in a variety of configurations based on need. Propulsion is accomplished via 8 VTUs mounted behind an APACS located at the base of the vehicle. The fans are powered by a Fusion Power Plant. Armament consists of one LMG on the commander's coupola on the chassis deck. It is 5.55mm and feeds from 100 round boxed belts. AnAPERS defense system is mounted on both sides of the chassis. Composed of Claymore APERS mines individually controlled by the vehicle's Commander. The most common Pods mounted on the back of this vehicle are listed on the following pages. Many barttlefield configurations have been observed but have not yet been classified as official varaiants

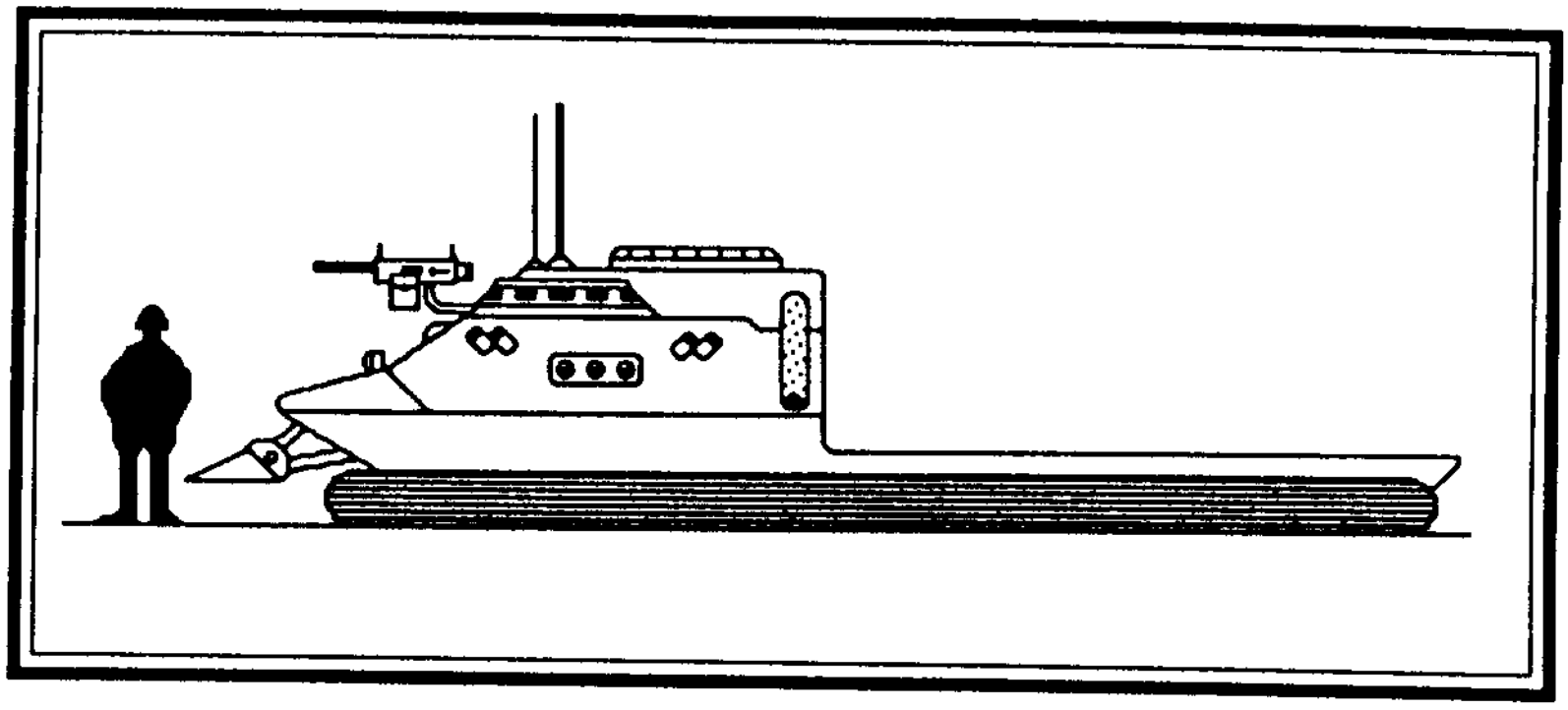
SPECIFICATIONS:

Dimensions:	Chassis - 5m l, 1.8m h, 4m w, low hit DM: +1 (without pods)
Suspension:	Air Cushion with 8 VTUs
Combat Weight:	140 metric Tons, (base vehicle)
Power Plant:	Fusion, 60 megawatt output
Fuel Req.:	90 liters/hour, 720 liters carried

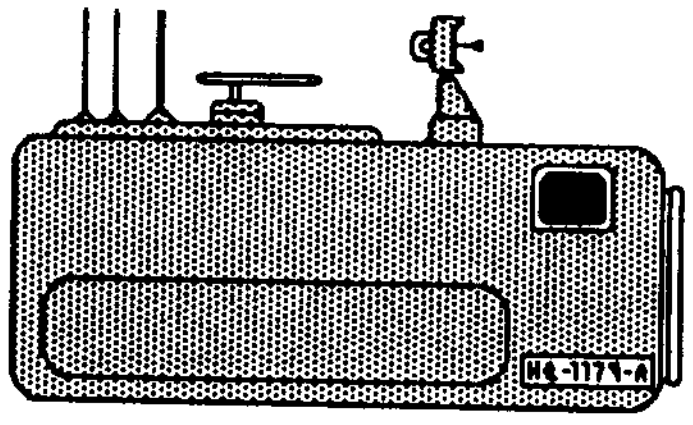
Armor:	Chassis: Front	Sides	Rear	Deck	Belly
Actual/Rated in mm	102/1418	595/625	42/294	42/294	20/140

Max. Speed:	240 kph
Max. Eff. Rng:	7680 km
Weapons:	One 5.55mm LMG, on commander's coupola
Fire Rate:	10 Rounds / turn
Feed Device:	100 round linked belts stored in ammo boxes, 1000 rounds carried
Crew:	1 - Driver, (plus pod personnel)
Passengers:	variable based on pod carried
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot APERS charges, Extensive ECM/EW Package, NBC System, RDFSS
Electronics:	Base Vehicle; 5k pwr Radio, CSI, L3TV w/ Image Inhancement
Cargo:	90 tons w/out pod
Price:	835,000 cr, base vehicle only (plus pod cost)

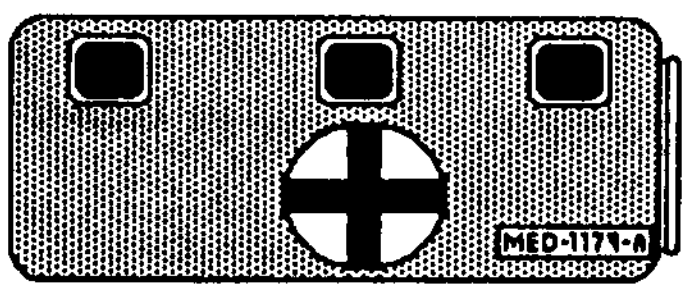
* - *Letter and Number designator based on pod type*



Pods

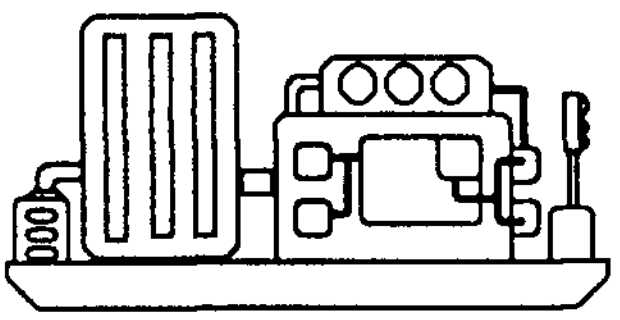


-A-1: TCV pod:
Size - 5.75m L x 1.25m H x 4m W
Wt.- 2.7 tons
Crew - 5
Pod Cost - 800,000 cr
Defense- 50 mm armor all sides, NBC system, RDFSS 5k pwr Radar / Radio Jammers, ECM/EW
Electronics: Radio 5k pwr, Laser Comm. Map Box, Battle Computer, RDF, CBTSS, BCC, CSI, L3TV, TIS, VDU (5)

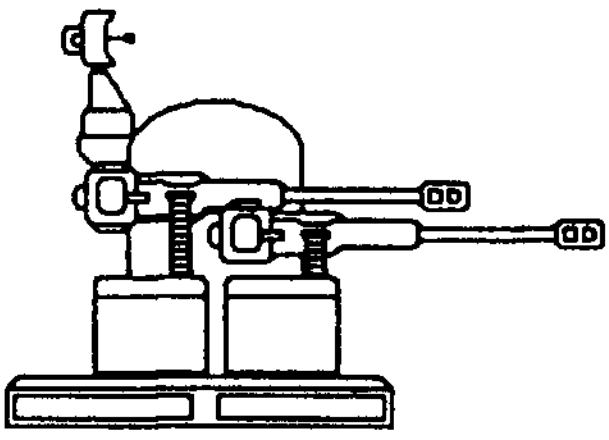


-A-2: MEV Pod
Size- 5.75m L x 1.25m H x 4m W
Wt - 10 tons
Crew - 10
Pod Cost - 136,500 cr
Defense - 50 mm all sides, NBC System, RDFSS
Electronic - Radio 5k pwr, Laser Comm (orbital), Diagnostic/Reference Computer
Equipment - Medical & Surgical equipped (2 stations)
Variations with X-ray, Lab, etc. deployed in MASH units

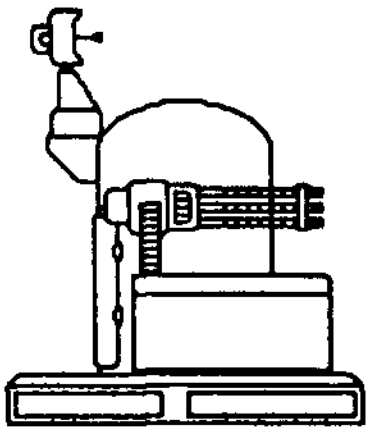
-A-3: M-605 Fusion Generator Pod
Wt. - 3.45 tons
Output - 60 megawatts for 112 hours
Fuel Req. 90 liters / hour
Fuel Storage- 10.2 m3
Pod Cost - 225,000 cr



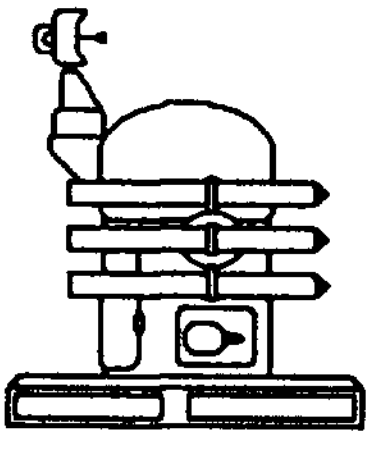
-A-4: Quad 20mm ARMAD Pod (SPAAG class)
Bore - 20mm Rifled (x4)
Type - HPV-RFC; APDS w/DPU, APHE
Fire Control - Direct and Point Defense
Defense - ECM/EW
Electronics - Mk III FCS, L3TV (all weather)
Range - Eff. 5.25 km, Long 10.5 km, Ext. 21 km
ROF - 30 rnds / turn
Fire Bonus - +2 eff., +1 long
Feed Device: electric drive from 5000 rnd. box ea.
# of Targets - 2 / phase (point defense mode)
Weight - 10 tons
Crew - 1; Gunner
Pod Cost - 1.6 million



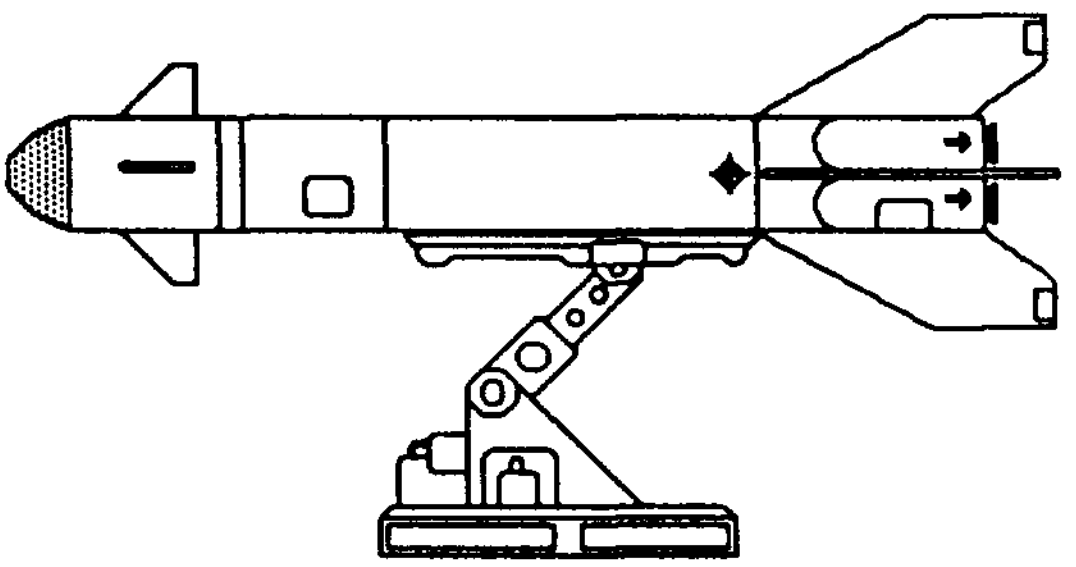
-A-5: PODVADS Pod (LADS class)
Bore - 20mm Rifled (x12)
Type - 6 barrel HPV-RFC (2 guns per pod)
Fire Control - Direct & Point Defense
Defense - ECM/EW
Electronics: Mk III FCS, L3TV, (all weather)
Range - Eff. 5.25 km, Long 10.5 km, Ext. 21 km
ROF - 337 rnds per phase, 674/turn
Fire Bonus Eff. +6, Long +5, Ext. +2
Feed Device - Electric drive from
10,000 rnd bin (per gun)
# of Targets - 16/phase
Weight - 10 tons
Crew - 1
Pod Cost - 1.30 million cr



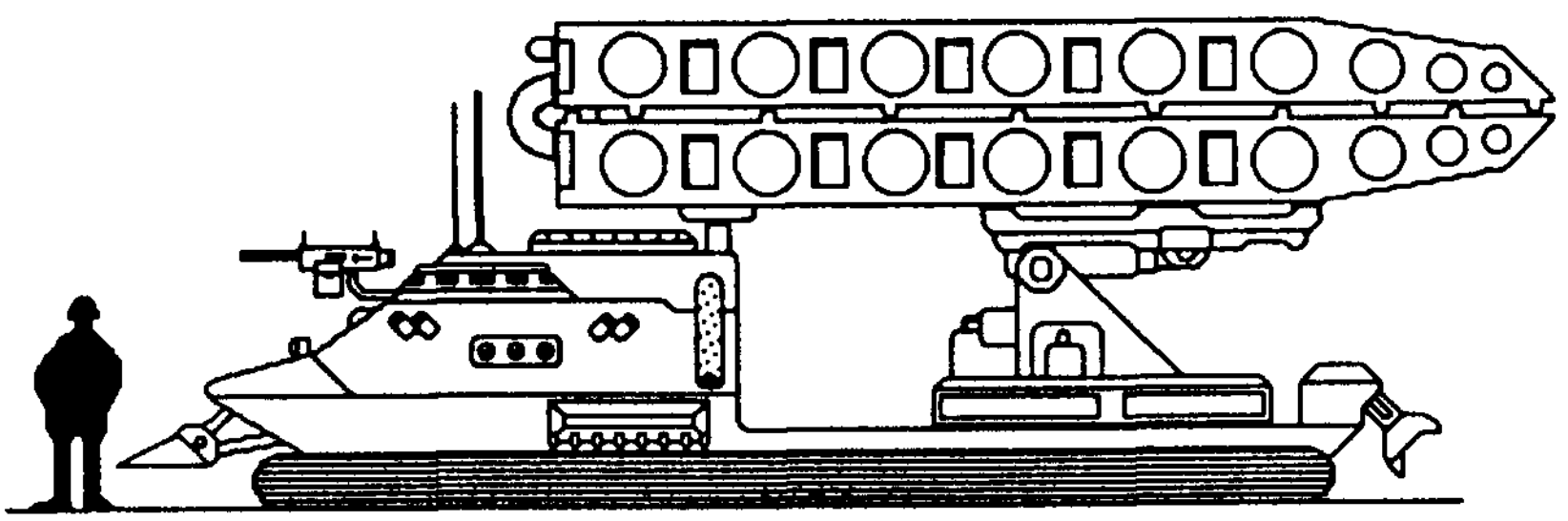
-A-6: ADMP Pod (LADS class) w/Six M-486 "Yellow Jacket" Missles
Warhead - 6 kg (equal to 120 kg)
Guidance - IR Homing w/STAFF
Defense - ECM/EW
Electronics - All weather TADS, FCS,
L3TV, MTI, TES, TIS, TOGS
Range - 10 km
Weight - 1.5 tons (loaded pod),
210 kg (per launch package)
Pod Cost - 250,000 cr



-A-7: Planetary Defense Pod(SPL class w/M-491 Purgatory Missle)
Warhead - 240 kg w/Proximity fuse (equal to 4.8 kt, 1 km radius)
Guidance - Target memory, STAFF
Defense - ECM/EW
Electronics - All weather Skysweeper TADS, TES
Range - 1st Stage - 20 km
2nd Stage - 400 km
3rd Stage - 600 km
Weight w/launcher - 5.4 tons
Pod Cost - 750,000 cr (includes 1 missle)
(missle reload: 650,000 cr)



-A-8: AVLB (AVGP class)
Bridge Length - 19 meters
Support Weight - 240 tons
Weight of Bridge - 36 tons
Volume - 36m3
Cost - 12,000 cr (includes bridge &
control equipment inside M790)

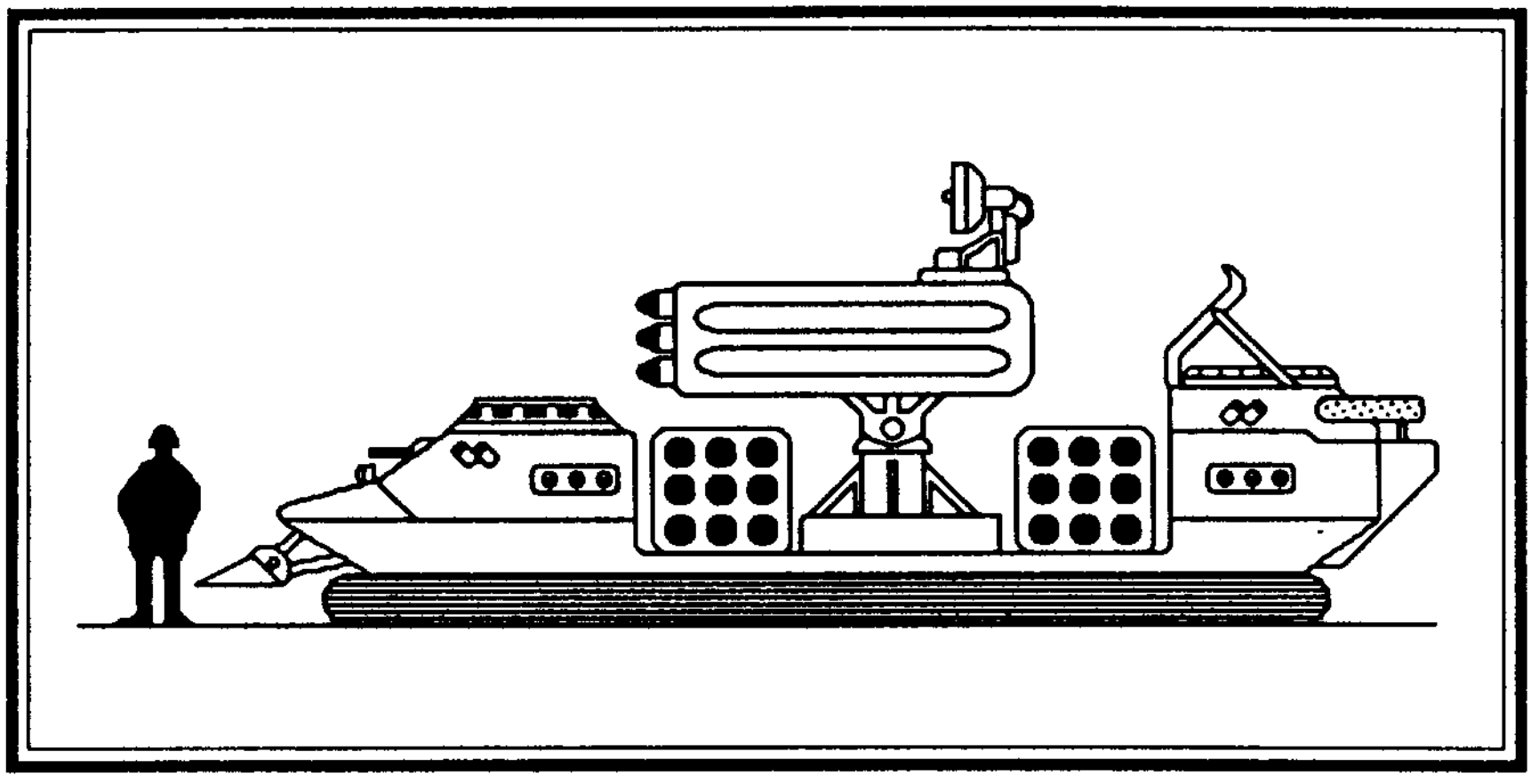


M-792

The M-792 is an air cushioned, ARMAD-MRLS in the SPL class, used when battlefield conditions necessitate long range protection from enemy air units. This vehicle can also fill the role of tank hunter. Fitted with the lethal "Super Wild Card" multi-role missle and sophisticated computers, it may engage up to 4 targets simultaneously within a 180° arc. Vehicle propulsion is accomplished via 8 VTUs mounted behind an APACS located a the base of the vehicle. The fans are powered by a Fusion Power Plant. Secondary armament consists of one bow mounted LMG. It is 5.55mm and feeds from 100 round boxed belts. An APERS defense system is mounted on both sides of the chassis. Composed of Claymore APERS mines they are individually controlled by the vehicle's Commander. The missle launch Pod holds 9 missles with space for 2 reloads in the weapons bay. This platform may also engage ground targets. See the back of this sheet for the missile specifications.

SPECIFICATIONS:

Dimensions:	Chassis - 10.75m l, 1.8m h, 4m w, low hit DM: +1					
Suspension:	Air Cushion with 8 VTUs					
Combat Weight:	220 metric Tons					
Power Plant:	Fusion, 60 megawatt output					
Fuel Req.:	90 liters/hour, 720 liters carried					
Armor:	Chassis: Front	Sides	Rear	Deck	Belly	
Actual/Rated in mm	102/1418	595/625	42/294	42/294	20/140	
Max. Speed:	240 kph					
Max. Eff. Rng:	7680 km					
Weapons:	Main: 27 M-410 "SuperWild Card" Multi-role missles					
	Aux: One 5.55mm LMG in bow					
Fire Rate:	Main: 4 missles / turn					
	Aux: 10 Rounds / Turn					
Feed Device:	9 missle pod with 2 reloads carried in bins within bay					
	100 round linked belts stored in ammo boxes,					
	1000 rounds carried					
Crew:	3 - Driver, Commander, EW/Launch Officer					
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot					
	APERS charges, Extensive ECM/EW Package,					
	NBC System,RDFSS & 5k pwr Radar Jammer					
Electronics:	5k pwr Radio, AIFS, CSS, LTD, MTI, STAFF, TADS,					
	TES, Passive IR (x2) & L3TV w/Image Enhancement					
Cargo:	1 ton					
Price:	2,500,000 cr, plus cost of missles					



M-410S "Super Wild Card"

This weapon is an extended range version of the M-410 multi-role missle. It can engage any target fed to it by the Weapons Officer. Aircraft or Ground targets, either mobile or stationary can be targeted. This weapons system can also recieve targeting information form an external souce via its ARETS computer. The TADS provides a profile of available targets for the operator with the highest threat displayed as a priority. With a 90 kilometer air stand-off range and 20 kilometer stand-off range for ground targets, the launch vehicles computer automaticaly guides launched missles to the nearest threat until its own STAFF interlock takes over. Should a missle fail to destroy its target, the computer can redirect the next missle behind it to that target. Missles are held in a 9 tube launch pod. Each missle weighs 264 kilograms and is loaded by sliding it into the launch tube where electical connections are automatically made.

SPECIFICATIONS:

Warhead:	Air to Air , Equiv. to 240 kg, 80 m Radius w/ 60 mm frag. pent.
Fuse:	Variable; Delayed (Hard Ground Targets), or Proximity (Air targets or soft ground targetw w/air burst)
Guidance:	STAFF w/Target Memory, Enhanced L3TV, IR-ARETS, Radio Link
Range:	From 1 (direct fire) to 90 km (indirect)
Weight:	264 kg
Price:	8,500 cr
Optional Warheads:	HE, 80 m radius w/40 mm frag. pen, 8,500 cr CBM, 430 m radius w/30mm pent & 6mm frag. pen., 10,200 cr *ICM, 40 anti-tank sub-munitions w/120mm pent., 9200 cr *"Iron Curtain", 80 m radius w/ 60 mm pent, 12,500 cr

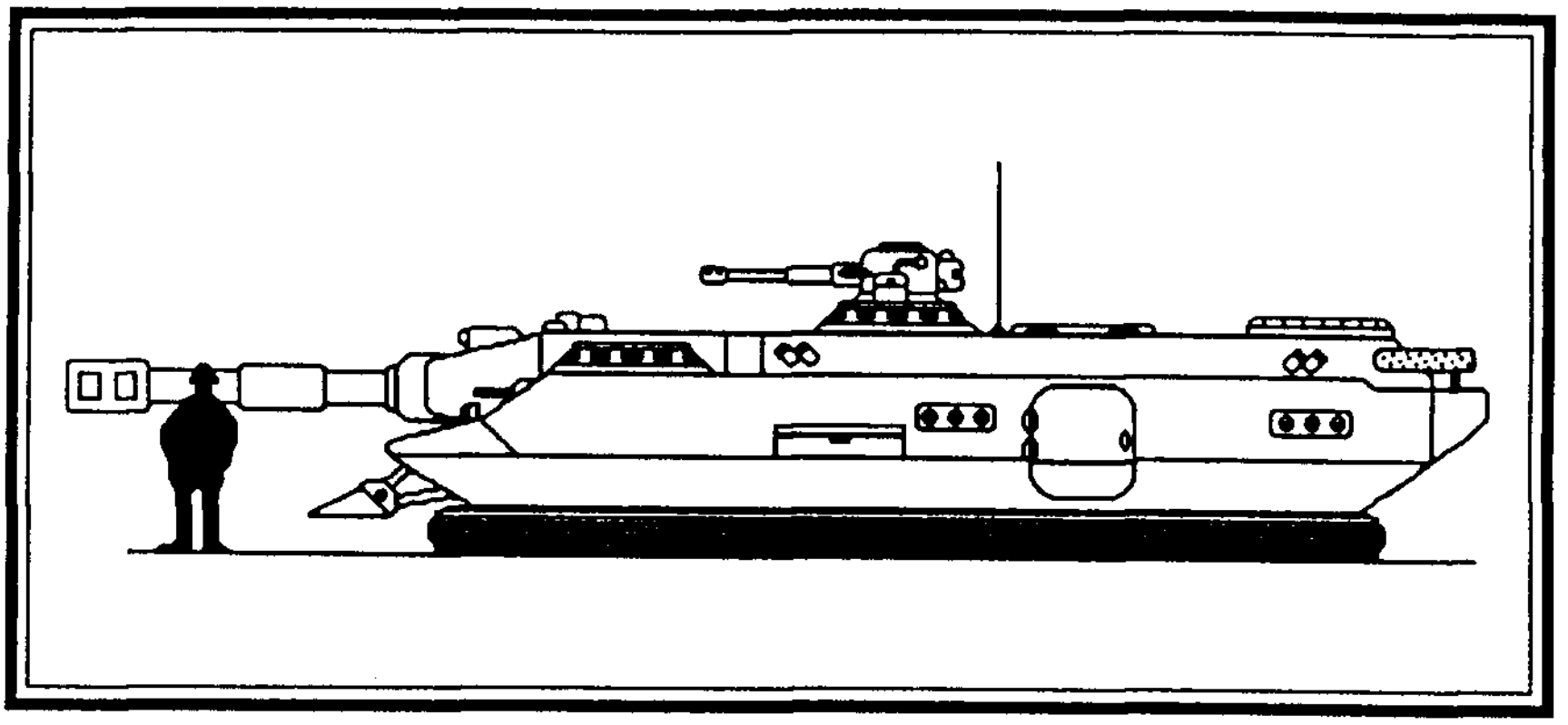
***Note:** Experimental Warheads are currently under development. These include a multiple-target, Anti-Tank configurations similar to the ICM round for the M-732 and a Point Defense Warhead with several hundred time delayed bomblets set to detonate in front of incoming air targets (the "Iron Curtain").

M-794

The M-794 is an air cushioned AFV of the SPAW class, used when static battle-field conditions necessitate minimal movement with the ability to bring mass firepower to bear on enemy attacks. Propulsion is accomplished via 8 VTUs mounted behind an APACS located at the base of the vehicle. The fans are powered by a Fusion Power Plant. Standard armament is the Mk VII 120mm smooth-bore, hypervelocity, stabilized MD gun. This gun is mounted in a semi-fixed chassis mount. It can traverse +/-30° and elevate or depress +/- 30°. Secondary armament consists of one bow mounted LMG, and a 20mm auto-cannon mounted on the commander's coupaola on top of the turret. An APERS defense system is mounted on both sides of the chassis.

SPECIFICATIONS:

Dimensions:	Chassis - 10.75m l, 1.8m h, 4m w, low hit DM: +1					
Suspension:	Air Cushion with 8 independent VTU's					
Combat Weight:	215 metric Tons					
Power Plant:	Fusion, 60 megawatt output					
Fuel Req.:	90 liters/hour, 720 liters carried					
Armor:	Chassis: Front	Sides	Rear	Deck	Belly	
Actual/Rated in mm	102/1428	595/625	42294	42/294	20/140	
Max. Speed:	240 kph					
Max. Eff. Rng:	7680 km					
Weapons:	Main - 120mm HPVC MD Gun					
Range in km:	Effective: 5.25 @+2, Long: 10.5 @+1, Extreme: 21, 2 targets / turn Aux. - 1 5.55mm LMGs in bow, 20mm RFC on commander's coupola					
Fire Rate:	Main - 6 rounds / turn Aux. - 10 rounds / turn					
Feed Device:	Main - 30 round autoloader with 1 reload (30 rounds) Aux. - 100 round linked belts stored in ammo boxes, 4000 rounds carried, 1000 Rnd Bin for 20mm					
Crew:	4 - Driver, Gunner, EW-RTO, Commander					
Defense:	TLS w/ 8 Prismatic Aerosol Canisters, Four 3-shot APERS charges, Extensive ECM/EW, NBC System, RDFSS					
Electonics:	Mk III FCS, 5k Pwr Radio, Map Box, Battle Computer, Passive IR (x3) & L3TV (x3)					
Cargo:	0					
Price:	7,500,000 cr, plus cost of 120mm ammo.					



120mm HPV-MD Rounds

Type	Penetration in mm /Radius / Frag Pent.	Cost per Round
HE	250 / 40m /40mm	1875 cr
KEAP	460, usually DPU equipped	3750 cr
KEAPER	460 eff. / 440 long / 420 extr. (add 4km to all ranges)	4125 cr
APFSDS	650, similar to KEAP but with better penetration	3750 cr
HESH	360, designed to cause spalling insidetarget (like a bb when it hits a window, a concave section fragments	3000 cr
Flechette	200 m danger space with +6 to hit, ("Beehive" shell)	9375 cr

20mm RFC Rounds

Type	Penetration in mm	Cost per Round
KEAP	140, usually DPU equipped	2.5 cr

Explanation of Terms

AGLS, FCS, MRLS, TOGS...?! Arggg! you say. What is all this *@#%?! I didn't buy this guide to learn government speak. Actually once you start to use these abreviations, you'll be surprised how fast they stick. Let us explain how they work.

The Fire Control System (FCS) is the package of controls and sensors that allow the gunner to identify and engage targets. Within this system are Optical (L3TV), Infra-Red (TOGS) and Laser (LTFCS) sighting sub-systems.

Artillery vehicles have a similar package (EPAWS) but it also includes indirect fire components (AGLS, AIFS).

The weapons in this guide are also stabilized (FCE).This allows for "fire on the fly" or firing while moving with no penalty.

All Direct fire guns are equipped with a Mk. III FCS. It contains the following Sensor/Computer sub-systems:
ATTS, CSS, LTFCS w/LTD, MTI, TADS/TES, TGTS & TOGS.

All Indirect Fire guns are equipped with a MK V EPAWS. It contains the following Sensors/Computer sub-systems:
AGLS, AIFS, ARETS, CAWS, CSS, FCE & TOGS.

Should the main power fail, a manual system can be emplyed but the fire rate will be cut to 1/4 normal.

Oposite is a list of what all this "techspeak" can do for you in game terms, and a full glossary can be found at the rear of this guide.

OFFENSIVE

AGLS +2 to hit coordinates fed by the BCC.

AIFS Computer Link to BCC or can function independently for fire support only.

ARETS Allow gun to fire based on laser designator from other vehicle and use their bonus. *(tank A spots and Tank B fires)*

ATTS Works with TADS to identify targets as hostile or friendly and then ques the Targeting computer.

CAWS Allows artillery to function in a direct fire mode.

CSS Coordinates L3TV, TOGS and Laser sighting subsystems to give gunner the best target solution.

LTFCS Interprets and integrates sighting from lasers. Works with ARETS.

MTI Allows fire at a moving target with no penalty

TGTS Allow stationary target bonus (+1/turn) against a moving target.

TOGS Sighting sub-system used when Optical system fails to obtain a target lock. Operates in the Infra-Red spectrum.

DEFENSIVE

APERS Flechette charge with 15 meter danger space (6D6 damage, +4 to hit)

ECM -2 to opponents attempt to target vehicle by radio or radar.

EW If opponents fails to lock because of ECM, EW attempts to redirect missles to nearest enemy target (normal roll to hit nearest enemy in range)

NBC no effect to crew inside vehicle form Nuclear fallout, biological or chemical contaminates.

Prismatic anti-Laser/Thermal/Optical screen, good for 2 turns
Aerosol (works both ways though, you can't see out either).

RDFSS gives +2 to crews survival roll in case of internal fire or explosion. (still damaged by fragmentation)

TLS Senses incoming targeting lasers and automatically deploys aerosol.

Glossary of Terms

AASV	Armored Ammunition Supply Vehicle
ACV	Air Cushioned Vehicle
ACCV	Air Cushioned Cavalry Vehicle
ADMP	Air Defense Missile Platform
AFSV	Armored Fire Support Vehicle
AFV	Armored Fighting Vehicle
AGLS	Automatic Gun Laying System (targeting location from map box)
AIFS	Advanced Indirect Fire System
AIFV	Armored Infantry Fighting Vehicle
AP	Armored Piercing
APACS	Armor Plated, Air Containment Skirt
APC	Armored Personnel Carrier
APDS	Armor Piercing, Discarding Sabot
APERS	Anti-Personnel
APFSDS	Armor Piercing, Fin Stabilized, Discarding Sabot
APHE	Armor Piercing, High Explosive
ARETS	Armor Remote Target System (targeting from external source)
ARMAD	Armored & Mechanized Unit Air Defense
ARSV	Armored Recon/Scout Vehicle
ARV	Armored Recovery Vehicle
ATTS	Automatic Tank Target System
AVGP	Armored Vehicle, General Purpose
AVLB	Armored Vehicle, Lauched Bridge
BCC	Battery Control Center (arty. command vehicle)
CAWS	Cannon Artillery Weapons System (arty. fire control for direct fire mode)
CMB	Cluster Bomblet Munition
CBTSS	Counterbattery Targeting Solution System
CEV	Combat Engineering Vehicle
CLGP	Cannon Launched, Guided Projectile
CSI	Computer Synthisized Image
CSS	Computer Sighting System
C3	Command, Control & Communications
DPU	Depleted Uranium (used in shell to enhance warhead penetration)
ECM	Electronic Counter Measures
EPAWS	Enhanced Self Propelled Artillery Weapons System (primariy indirect fire control)
EW	Electionic Warfare
FACE	Field Artillery Computer Equipment
FAE	Fuel Air Explosive (better than Napalm)
FCE	Fire Control Equipment (stabilization gear)
FCS	Fire Control System
FEBA	Forward Edge of Battle Area (the front lines!)
HE	High Explosive
HEAT	High Explosive, Anti-Tank
HEI	High Explosive, Incindiary
HESH	High Explosive, Squash Head (causes spalling inside tank)
HPVC	Hyper Velocity Cannon
HPVAP	Hyper Velocity, Armor Piercing

ICM	Improved Conventional Munitions
IFV	Infantry Fighting Vehicle
IR	Infra Red (detects variations in heat signitures)
KEAP	Kinetic Energy, Armor Piercing
KEAPER	Kinetic Energy, Armore Piercing, Extended Range
LAAV	Light Armored Assault Vehicle
LADS	Light Air Defense System
L3 TV	Low Light Level TeleVision
LMG	Light Machine Gun
LTFCS	Laser Tank Fire Control System, (main gun sights from laser)
LTD	Laser Target Designator (paints laser target for main gun)
LVH	Low Velocity Howitzer
LVM	Low Velocity Mortar (usually siege gun)
MASH	Mobile Army Surgical Hospital
MBT	Main Battle Tank
MD	Mass Driver (accelerates & spins rounds)
MEV	Medical Evacuation Vehicle
MICV	Mechanized Infantry Combat Vehicle
MRLS	Multiple Rocket Launching System (includes missile systems)
MTI	Moving Taget Indicator (allows tracking of moving targets)
NBC	Nuclear, Biological, Chemical (system includes overpressurization, filtration & shielding)
POVADS	Point Defense, Vulcan Air Defense System
RAP	Rocket Assisted Projectile, (enhanced munition)
RAFTAC	Radar For Field Tactical Artillery Fire Control
RDF	Radio Direction Finder (locates radio transmission for artty. fire)
RDFSS	Rapid Deployment, Fire Suppression System
RFC	Rapid Fire Cannon
RPV	Remote Piloted Vehicle
SAPI	Semi Armor Piercing, Incendiary (soft and light armored targets)
SP	Self Propelled
SPAAG	Self Propelled Anti-Aircraft Gun
SPAW	Self Propelled Artillery Weapon
SPH	Self Propelled Howitzer
SPL	Self Propelled Launcher (see also MRLS)
STAFF	Smart Target Activated, Fire and Forget
TADS	Target Acquisition & Designatin System (friend or foe ID of target)
TCV	Tactical Control Vehicle
TES	Target Engagement System (coordinates all targeting subsystems)
TGTS	Tank Gunnery Tracking System (works with MTI to keep gun on moving target)
TIS	Thermal Imaging System (infra-red observation)
TLS	Target Laser Sensor (def. system detects hostile laser designators)
TOGS	Thermal Observation & Gunnery System (IR option for guns)
VDU	Video Display Unit (combined with L3TV)
VTU	Vectored Thrust Unit (variable direction lift fans)
WP	White Phospherous ("willy pete", used as smoke screen or as burning agent when concentrated)