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M A G A Z I N E



SHINING ARMOR

by Thomas M. Kane

When you're surrounded by 50 tons of steel and shooting bullets the size of your arm, you're unstoppable, right?

These are guidelines and rules for using tanks in a TOP SECRET/S.I.™ Commando campaign. Commandos do not use tanks often, but never take anything for granted in the covert line of work. If your game agent or commando finds himself supporting a guerilla movement, the movement might give him an armored fighting vehicle (tankers call them AFVs). Most insurgents keep a few tanks, whether they're any real use or not. Guerillas figure at least the tanks will look mean in a victory parade if they win. In the meantime, they let the foreign advisors (i.e., your characters) drive them. On other missions, agents might use an armored personnel carrier

(APC) for insertion. An enemy tank might make the perfect getaway car, too. The Administrator may also want to know what the commandos meet if they stumble across an enemy armored force. Put the following information in your portfolio, just in case.

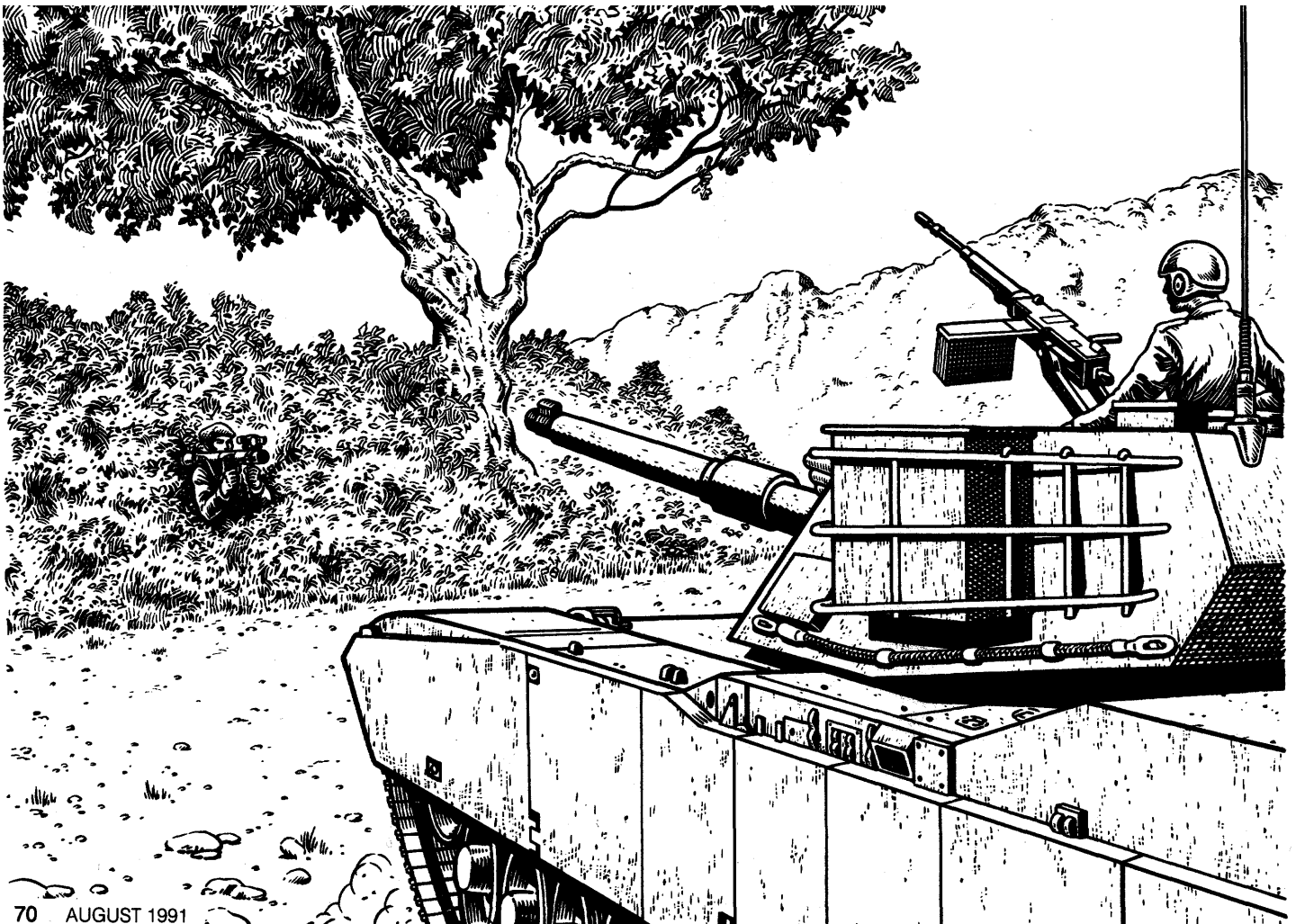
Tank tactics

Driving a tank would be easy except for two things: Tank drivers can neither see nor hear anything outside the tank. With the hatches closed, an AFV crew sees the world through metal slits, while head-splitting noise shakes the tank from all sides. Anyone outside can waltz up and write his initials on the tank's turret. Therefore, smart tankers seldom close their hatches. They keep their heads out

until the bullets come too close.

For game purposes, the crew of a buttoned-up (hatches closed) AFV cannot see anything within 30' of the tank. Beyond this, the driver can observe objects a maximum of 45° to his left and right. The gunner may only see things within 30° to the left and right. If the tank crew attempts an INT check to hear something, it suffers a -10 penalty if the engine is running and a -3 penalty if it is not. Characters have normal vision when extending their heads through the hatches, but they still suffer a -5 penalty on hearing INT checks if the engine is running.

When tanks stumble into a trap, though, they usually have help. Armored vehicles never travel alone. They operate in platoons of three to five vehicles and almost



Artwork by Dan Burr

always have infantry with them, men who can clear away ambushes. The foot soldiers ride armored personnel carriers which keep them from slowing the armored column too badly.

Tanks can also hide. In defense, they routinely use hills and other obstacles to protect their hulls, leaving only the turrets and guns exposed. Consult page 73 of the TOP SECRET/S.I. *Player's Guide* for the effects of cover. Armored vehicles use a special "reverse slope" tactic to protect themselves on inclines. They go to the side of a ridge that is away from the enemy and lower their guns as far as possible. Then they drive upslope until only the gun and turret protrude over the crest. The hill provides hard cover for the hull, but the tank can shoot into the valley beyond. To determine whether a shot hits an exposed part of its target, consult Table 1. One can use the normal called shots and bumping rules (page 73, *Player's Guide*) in vehicular combat. When moving, armored vehicles dash between "bounds" or covered areas. Ideally, a bound protects the tanks behind it but allows them to fire in support of other tanks. If no suitable cover is available, gunners create it by firing smoke shells (noted later).

Gunners suffer a -40 penalty to their skill checks when firing cannon from moving vehicles. Therefore, tanks move using "overwatch" maneuvers, in which half of a platoon remains still and ready to shoot while the other half advances. The faster form of overwatch, called "leap-frog," works as follows: 1) Group A advances to a firing position behind a bound; 2) Group B drives to group A and passes it, to a new bound; 3) Group A drives to group B and passes it; etc. This leaves the platoon divided at any given moment. Cautious tankers use "caterpillar" movement, in which, at step #2 above, group B joins group A at the bound before either advances to a new position, and so on.

Overwatch maneuvers give the stationary tanks a "watch" bonus of +5 on initiative (pages 62-63, *Player's Guide*). The real advantages of tactics appear through common sense, not numbers. Caterpillar movement does not receive any movement penalty, but the tanks only go half as far in each step. For the same reason, this maneuver makes it harder for enemies to catch the groups separated. If the Administrator keeps track of which tank is where and who can see what, astute tactics work the same way they do for real tanks, by concentrating maximum firepower at minimum risk.

Gunnery and equipment

Tanks carry many specialized sorts of ammunition. Common sorts include solid shot for carving through armor; high explosive for use against infantry; HEAT, which uses a shaped charge to penetrate tanks; and Hetz, HESH, and other specialized shells to defeat composite armors. For game purposes, assume that there are two

classes of offensive ammunition: high explosive and antitank. High-explosive shells cause more damage in a wider radius to exposed targets but always have an antivehicle (AV) rating of zero. The AV rating of antitank shot, along with explosion types for both kinds of shells, appears on Table 2.

When a vehicle is hit by a cannon round, it must immediately roll on the Crash Table (page 86, *Player's Guide*). A high-explosive hit causes a crash only if the operator fails a driving check. After checking the Crash Table, roll 1d6. On a 1 or 2, the tank loses its largest functional weapon. This can be fixed only at a military garage by a character with the appropriate weapons skill (Tank Gun, Machine Gun, etc.).

Cannon may also fire smoke or illumination rounds. Each smoke shell blankets a circle 50' in diameter. Anyone attempting to fire through the smokescreen suffers a -100 penalty on weapon skill checks. The wind disperses smoke after 1d6 turns, or faster if the Administrator rules that the wind is especially strong. A flare shell drops burning magnesium by parachute, illuminating a 1,000' radius for 3d6x10 seconds.

No tank cannon holds more than one round at a time. Most AFVs carry 50-70 rounds for the main cannon. Standard loading times appear in Table 2. Certain tanks have specialized loaders, described on Table 3.

The Administrator may design vehicles with customized devices. One example would be a flail, a rotating bar in front of the tank that beats the ground with chains. It detonates all mines in the vehicle's path, harmlessly and automatically. See "Watch Your Step!" in DRAGON® issue #148 for more details on land mines. Advanced tanks also carry night-vision equipment, which functions like a triple-range version of the infrared flashlight and goggles described on page 11 of the *Equipment Inventory*.

In the near-future setting of the TSAC4 *ER.E.E.Lancers* supplement, vehicles may depend on elaborate electronic equipment and can be hermetically sealed against chemical weapons. In order to steer, these vehicles must depend on video cameras, which make wonderful targets for sharpshooters. A mad scientist's custom-built tank might have hi-tech sensors, geiger counters, computer brains, or force-field generators. If any of this equipment is mounted outside the tank, gunners can disable it with called shots.

Vehicle notes

The following are special notes and comments on the vehicles described in Table 3. The "Weapons" column shows the bore in millimeters of a vehicle's main cannon. Cannon and ATGMs (antitank guided missiles) are described in Table 2. Page 5 of the *Equipment Inventory* covers HMGs (heavy machine guns) and LMGs (light machine guns). Many tanks also

mount an AAMG (antiaircraft heavy machine gun); it is not mounted for antipersonnel use, although characters might modify it with a successful metalworking check.

AIFV: This vehicle is used in the Netherlands, Belgium and the Philippines. Armies often use it to recover damaged tanks from the battlefield.

AMX-10: Many models of this APC exist. The French often put a 105 mm gun on the AMX APC, converting it to a light tank with a crew of four. The French export these tanks widely.

AMX-30: This widely exported and often-modified tank can reload its main gun in four game turns.

ASU-85: The Soviets air-land this light tank hunter to protect paratroopers and other elite forces from enemy armor.

BMP: This is a light APC often used by paratroopers or special forces.

BMP: The BMP is often adapted for scouting or carrying radar.

Centurion: This tank is used throughout the Third World.

Chieftain: A gunner can reload this tanks main gun in four game turns.

Leopard II: A gunner can reload this tanks main gun in four game turns.

Merkava: This inventive Israeli tank has wide rear doors, allowing the crew to load and change its ammunition quickly. Its large interior allows four passengers to ride along with the crew.

M4 Sherman: This World War II tank is still used in the Third World.

M48, M60: Both are still in the U.S. arsenal and widely used in the Third World.

PT-76: This light Soviet tank requires 10 game turns to reload its main cannon.

Scorpion: This tank is widely used in the Middle East.

S-Tank: This famous "defensive" tank has a low profile that allows it to protect everything but the gun behind cover while still firing. It carries a bulldozer blade to entrench itself. The S-Tank cannot shoot while moving, and its fixed gun can only fire straight forward. However, once it starts shooting, the crew can reload their main cannon in two game turns. Sweden is the only country that uses this tank, but others experiment with it.

T-34: The Soviets and Czechs ship this World War II tank to their less reliable Third World allies, including some insurgent groups like the PLO.

T-series: The Soviets export all these tanks to the Third World. Only the T-80 is exclusively Russian. The T-55 requires 10 game turns to reload the main cannon. The T-62 requires seven game turns to reload. T-72 and T-80 tanks can be reloaded in four turns, but their automatic loaders break easily. Add five friction points to any mission that involves them (see pages 36-38, TSAC5 *Commando*).

UDES: This experimental vehicle is intended to correct the disadvantages of the S-Tank. Current models use a Marder APC chassis. If it is ever produced, the Swedes

will probably develop a new body, more like the S-Tank. A special UDES, the XX-20, uses a jointed hull that can twist itself into new shapes for crossing obstacles or taking cover.

Tank driving performance: Armies neither build nor rate AFVs for fancy driving. Assume that all AFVs have the generic acceleration, handling, and braking statistics shown on page 15 of the *Equipment Inventory*.

Life inside

Tanks are hot, cramped, noisy, and often broken down. In the USSR and France, the army selects the shortest 5% of its recruits for tank crews. People over 5'6" can barely squeeze into their tanks. Tankers regularly suffer slashes, fractures, and amputations from their machinery. Commandos in tanks lose half a psychological-index point per hour (pages 27-28, *Commando*). P.I. losses increase to a full point in Soviet or French tanks. Anyone over 5'6" suffers doubled P.I. penalties in any country's vehicles.

Typical tanks carry four crewmembers. The driver sits in the hull and can put his head out his own personal hatch when he dares. A commander, gunner, and loader squeeze into the turret. If characters try to operate a tank without the loader, it takes twice as long to prepare each shot. Modern Soviet tanks use mechanical feeders and do not need a loader.

U.S. vehicles break down on average every 180 miles. We like to tell ourselves that Soviet tanks malfunction every 150 miles. Commandos accumulate 10 friction points on any mission in which they use tanks and 12 if they use Soviet models. The Israeli Merkava, however, contains large doors for easy servicing and costs only five friction points.

Characters suffer double friction-point costs if they fail to provide normal maintenance for their AFVs. All tanks require eight man-hours of work per day. Tankers

usually make their own repairs, using tool kits in their vehicle or from nearby bases. Generally, if characters have gotten a tank, they can get the tools to fix it. Up to eight people may work on the same vehicle (thereby reducing time to one hour). However, anyone without the basic mechanic skill must pass a default roll of ¼ DEX to contribute useful work.

Tank destroyers

Main battle tanks are always getting bigger, faster, heavier, and more expensive. A lot of forces would rather not try to keep up. However, they do not want main battle tanks to massacre them. Thus, they use tank destroyers, which are weak tanks designed to ward off bigger ones. Little nations, notably Austria, favor these vehicles since their governments cannot afford armies of super-tanks. Special-operations groups also use tank destroyers, since 80,000-lb. monsters will complicate airdrop insertion. Furthermore, a 90 mm cannon may be small in a tank battle, but it usually satisfies commandos who otherwise get only handguns.

The "little" APCs

In brushfire operations, "armor" does not need to mean the latest juggernaut fit for World War III. Guerillas and their enemies usually use APCs and reconnaissance cars in place of main battle tanks. Little vehicles often go faster, and, to an insurgent's AK-47, 2" of metal plate might as well be 2'. An armored transport makes a useful base for commandos on long missions, since it has room for supplies, rescued friends, captured enemies, etc. Furthermore, main battle tanks cost fortunes, and the recent ones have secret instrumentation on board. Anyone issuing ordinance for risky work prefers to give out APCs.

Against light opposition, APCs behave like tanks. In an armored battle, they disgorge their passengers and provide cover while the foot soldiers and tanks advance. An APC's infantry must dismount before it can fight. The Soviet Union once instructed foot soldiers to stay in their vehicles and fire through gunnery slits, but this tactic worked so poorly for Syria in the 1973 Middle-East war that all armies abandoned it. Riflemen suffer a -30 penalty on weapons skill checks when firing

through an APC's gun slits, in addition to penalties for firing while moving, etc. (page 74, *Player's Guide*).

An APC's foot soldiers ride as long as they can, usually leaving their vehicles about 600'-900' behind the front. Climbing out of the vehicles is dangerous in enemy fire. APC units try to release their infantry simultaneously, to keep enemy machine-gunners from concentrating on the dismounting squads one at a time. Once on foot, soldiers advance about 300' behind the tanks, and 300' in front of their empty APCs. They communicate with tank commanders using hand signals, loud voices, or, in some cases, telephones on the backs of the vehicles. In defense, infantry stands in front of everything, to stop troops with light antitank weapons (LAWs) from creeping up on their vehicles (see "Hunting Tanks is Fun and Easy!" in DRAGON issue #171 for details on antitank weapons).

Like other armored vehicles, APCs are finicky and uncomfortable. Characters receive five friction points for using an APC. Riders on transports do not need to perform the maintenance associated with tanks. Passengers in armored personnel carriers also pay one P.I. point per day, two in the BMP or BMD, but only one-half point in the M2, M3, M113, AMX-10 and Marder. The comfortable LVTP-7 has no P.I. cost at all.

Conclusion

Heavy weapons add more to the game than simply being deadlier toys for secret agents. They force characters to think before they fight. With clever tactics, agents can defeat tanks. Since their enemies can do this, too, game balance remains unchanged. Armored vehicle data also makes the TOP SECRET/S.I. world more complete. Special forces must expect to meet heavy weapons. It seems much more plausible for agents to trap a T-34 in some steamy jungle than to chase through New York firing Uzis from red Porsches.

Articles of this sort traditionally include reminders that the TOP SECRET/S.I. game is not a war game. It may not be, but spies—and especially commandos—certainly take an interest in military activity.

Table 1
Hit Location Against AFVs

1d10	Location
0	Cannon barrel
1-2	Turret
3-8	Hull
9	Treads

Table 2
Tank Weapons

Weapon	AV	Dam/Exp	Range			Load	Weight	Speed
			Min.	Med.	Long			
20-50 mm	+25	1d8/Gre	—	1,500	4,500	3	—	—
51-80 mm	+50	1d8/Mis	—	1,500	3,000	4	—	—
81-110 mm	+70	Gre/Tan	—	2,000	6,000	5	—	—
111+ mm	+90	Gre/Tan	—	3,000	10,000	5	—	—

AV = antivehicle rating; Dam/Exp = damage for antivehicle shot, and type of explosion for high-explosive shot; Gre = grenade-type explosion; Mis = missile type explosion; Tan = tank projectile (see page 80, TOP SECRET/S.I. *Player's Guide*).

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The information in this article is authentic, although standard trench/obstacle/grade data has been extrapolated to cover Soviet tanks where such information is unknown. The following sources were consulted:

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Table 3
Armored Vehicle Statistics Table

Vehicle (Nation)	Speed	Prot.	Crew + Pas.	Range	Trench	Obstac.	Grade	Weapons
APCs								
AIFV (NATO)	38/3.9	-80	3+7	304	5.3	1.5	60	25 mm, LMG, ATGM
AMX-10 (Fr)	40/4.4	-90	3+8	372	8	2.3	60	20 mm, LMG
BMD (USSR)	36/6	-80	3+6	199	8	2.6	60	73 mm, LMG, ATGM
BMP (USSR)	49.7/5	-80	3+8	310	8	2.6	60	73 mm, LMG, ATGM
BRDM (USSR)	60/6	-70	3	466	8	2	60	HMG, LMG
BTR-50 (USSR)	26/6	-70	2+14	156	8	2	60	LMG
BTR-60 (USSR)	48/6	-70	2+14	300	8	2	60	HMG, LMG
4K (Au)	40	-80	2+8	323	6.9	2.6	75	LMG
LAV 25 (Swi)	63/6	-80	3+6	485	8	2	70	25 mm, LMG
LVTP 7 (US)	45/8.4	-80	3+25	300	7	2	60	HMG
M2/M3 (US)	41/4.5	-100	3+6	300	8.3	3	60	25 mm, LMG, ATGM
M113 (US)	42/3.6	-70	2+11	300	5.5	2	60	HMG, LMG, ATGM
Marder (Ge)	46.6	-100	4+6	323	8	3.3	60	30 mm, LMG
MCV 80 (US)	46.6	-80	2+8	310	8.2	2.6	60	30 mm, LMG
MTLB (USSR)	38/3.7	-80	2+11	310	7	2.3	60	LMG
Main battle tanks								
AMX-30	39	-100	4	295	9	4.1	60	105 mm, HMG, LMG
Chieftain (UK)	30	-135	4	280	10	3	60	120 mm, HMG, 2xLMG
Centurion (UK)	21	-125	4	150	8	3	60	105 mm, 2xHMG, LMG
Leopard I (Ge)	39	-125	4	225	9.8	3.7	60	105 mm, HMG, LMG
Leopard 2 (Ge)	35	-140	4	210	10	3	60	120 mm, 2xLMG
M1 (US)	39	-140	4	336	8	3	60	105 mm, HMG, LMG
M4 Sherman (US)	25	-100	4	120	7.5	2	60	75 mm, HMG, LMG
M48 A3 (US)	30	-100	4	288	8.5	3	60	90 mm, HMG, LMG
M48 A5 (US)	30	-125	4	288	8.5	3	60	105 mm, HMG, 1-2xLMG
M60 (US)	29	-125	4	280	8.5	3	60	105 mm, HMG, LMG
Merkava (Is)	27	-130	4+4	311	10	3	60	105 mm, HMG, LMG
OF-40 (Is)	40	-120	4	373	9.8	3.6	60	105 mm, HMG, LMG, AAMG
PT76 (USSR)	26/6	-70	4	250	7	3	60	76 mm, 2xLMG
S (Swe)	30/4	-125	4	242	7.5	2.9	60	105 mm, 3xLMG, AAMG
T-34 (USSR)	32	-90	4	150	8	3	60	85 mm, HMG, LMG
T-55 (USSR)	30	-90	4	180	8	3	60	100 mm, HMG, LMG, AAMG
T-62 (USSR)	36	-100	3	288	8	3	60	115 mm, LMG, AAMG
T-72 (USSR)	36	-130	3	300	8	3	60	125 mm HMG, LMG, AAMG
T-80 (USSR)	36	-135	3	240	8	3	60	125 mm, HMG, LMG, AAMG
TAM (Ar)	46	-120	4	342	8.2	3.2	65	105 mm, HMG, LMG, AAMG
Type 61 (Ja)	36	-100	4	248	8	3	60	105 mm, HMG, LMG
Type 69 (Ja)	31	-110	4	248	8.8	2.6	60	105 mm, HMG, LMG, AAMG
Type 74 (Ja)	26	-110	4	166	8.9	3.3	60	105 mm, HMG, LMG, AAMG
UDES (Swe)	46.6	-80	3	323	8	3.3	60	120 mm, HMG, 2xLMG, AAMG
Vickers (UK)	31	-100	4	373	8	3	60	105 mm, HMG, LMG, AAMG
Tank destroyers								
ASU-85 (USSR)	28	-100	5	161	7	3.6	70	85 mm, HMG, AAMG
IK-91 (Swe)	43/6	-100	4	342	9.7	2.6	50	90 mm, HMG
Jagdpanzer (Ge)	43	-100	4	249	6.6	2.5	60	90 mm, LMG, AAMG
Panzerjäger (Au)	40	-100	3	323	7.9	2.6	75	105 mm, HMG
Scout vehicles and light tanks								
Ratel (SA)	62.2	-80	3+7	620	6	1.5	60	20 mm, LMG
Type 63 (Ch)	25	-80	3	150	7	2	60	85 mm, HMG, LMG
Type 73 (Ja)	43.5	-80	3+9	186	7	2.3	60	HMG, LMG
Scorpion (UK)	50	-80	3	400	6	1.6	60	76 mm, HMG

Speed = Maximum speed (land/amphibious); Prot. = Protection; Crew + Pas. = Passengers (necessary crew + extra passengers); Range = range in miles; Trench = maximum width in feet of trench that can be crossed; Obstac. = Maximum height in feet of obstacle that can be overridden; Grade = maximum grade climbed, in percent.

Nations: Au = Austria; Ar = Argentina; Ch = China; Fr = France; Ge = Germany; Is = Israel; Ja = Japan; NATO = North Atlantic Treaty Organization; SA = South Africa; Swe = Sweden; Swi = Switzerland; UK = United Kingdom; US = United States; USSR = Soviet Union.