Action Stations on the Danube

By David Manley

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This short article was inspired by Simon Stokes' article "Great War Riverine Actions" in Battlefleet Volume 30. In his article, Simon suggests that Great War actions could be recreated using developments of coastal forces rules. I decided to give it a try, using my "Action Stations" coastal rules (available from A&A Games Engineering in the UK and Brookhurst Hobbies in the US) as the basis. AS! already includes rules for troops on shore, mines, torpedoes and shore defences (both fixed and mobile) so it seemed to be a good place to start.

Speeds and Movement

Action Stations is a game of high speed craft, often achieving speeds in excess of 30 knots. In contrast the riverine craft employed on the great rivers were rather more pedestrian, and speeds of 10 knots or less were not uncommon. Vessels are therefore moved 2cm per knot of speed. This also means that river current movement and drifting is at a higher rate than specified in the rules.

Turning Distances

Riverine craft tended to be quite manoeuvrable. The turning distances quoted in the rules are therefore not adjusted

Towing

Rolls for parting of tow lines are not made when vessels turn

Revised Gunnery Table – Direct Fire

The revision in vessel movement also manifests itself in an increased in weapon engagement distances on the table. This is not as straightforward as just multiplying the ranges in the rules since it also takes into account shorter ranges over which actions were fought.

Weapon	Range (cm)						
	10	20	40	80	120	200	>200
Machine Guns, Small Arms	8	5	2	-	-	-	-
Heavy Machine Gun	8	5	3	2	-	-	-
37mm guns	7	6	5	4	2	-	-
57mm guns	6	5	4	3	3	-	-
3" or larger	1	2	3	3	3	2	1

Direct Fire from Elevated Locations

When firing from locations that are significantly higher than sea / river level the maximum range band is increased by 25%. This means that Small arms can fire out to 50cm, HMGs to 100cm, 37 and 57mm guns to 150cm

Indirect Fire

Shore based guns using indirect fire have their aim point designated by the firing player. Their range is generally sufficient to ensure that they can cover the entire table. Indirect fire cannot be used against targets within 50cm. Roll a direction die (d6 with an arrow drawn on each face) or a spinner to determine direction. Roll a d6 (if the guns are on table) or a d10 (if the battery is off-table) and subtract 1. The shot falls away from the direction of the designated aim point by the distance shown on the die (so a d10 roll of 1 would be a direct hit). NB: shore batteries were notoriously short on ammunition – if they are included in a scenario they should be limited in their ammunition usage and hence number of turns of firing.

Damage Tables

Results	2	3	4	5	6	7	8	9	10	11	12
LMG/HMG and Small Arms	C	W	B	L	N	N	N	W	M	H	SH
37mm	C	W	B	C	M	W	H	WF	M2H	SH	PF2H
57mm	W	C	B	M	C	W	H	WF	M2H	S2H	PF3H
3"	WH	C	BF	LH	C	LW	2H	WF	M2H	S3H	PF4H
4"/ 120mm	WH	B2H	CF2H	W2H	M2H	2H	W3H	C3H	M4H	S5H	PF5H
5"/127mm guns	W2H	B3H	CF3H	W2H	M2H	W2H	W3H	C3H	M4H	S5H	PF6H
6.1 / 152mm guns	W3H	B4H	CF4H	W3H	M3H	W2H	W3H	C4H	M5H	S5H	PF6H
Larger guns	W4H	B4H	CF4H	W3H	MF3H	W3H	W4H	CF4H	M5H	S6H	PF7H

Hits from guns using indirect fire use the next row down the table.

Floating Mines

Floating mines were often employed against permanent or semi permanent structures such as pontoon bridges. The main rules already allow for tidal flow and drifting. This largely covers the movement of mines. However, the controlling player will naturally attempt to drift the mine in such a way as to ensure a hit. To frustrate their carefully laid plans a d10 is rolled after the mine has drifted.

D10 Roll	Effect
1	Mine moved 4cm to the left
2	Mine moved 3cm to the left
3	Mine moved 2cm to the left
4	Mine moved 1cm to the left
5,6	Mine remains in place
7	Mine moved 1cm to the right
8	Mine moved 2cm to the right
9	Mine moved 3cm to the right
10	Mine moved 4cm to the right

If a mine makes contact with a structure roll a d10 and add the speed of the current. On a roll of 7 or less the mine becomes hung up on the target. It no longer drifts and may detonate (although it may also detach later). On a roll of 8+ the mine does not become hung up and carries on its way.

If a mine is hung up on a target roll a d6 and a d10 at the start of each turn. If the d10 roll is equal or less than the river current speed the mine becomes detached and continues on its way. If the d6 roll is 1-3 the mine explodes. If both results occur simultaneously the mine detonates before it drifts away.

Command Detonated Mines

Mines employed during the period on rivers were either contact mines (already covered in the rules) or command detonated. These relied on an observer on shore who would detonate the mine when they thought a target was overhead. This could be a hit and miss affair, coupled with the fact that they were not totally reliable.

Command mines are represented on the table by markers as for normal mines. If a ship passes within 10cm the controlling player may roll a d10 for detonation of they wish (they roll in secret to preserve the element of surprise – some degree of trust is required here – and may make "dummy rolls" to either preserve the identity of a dummy or to suggest that they are rolling for detonation when in fact they are letting the potential target pass). If the die roll is equal class of the target ship or less the mine detonates; roll an additional d6. On a 1-3 a close detonation occurs; the ship suffers as if hit by a light torpedo; on a 4-6 the detonation is further away and the ship suffers half the damage of a light torpedo (but rolls on the torpedo damage table are not affected). If the d10 roll is greater then the ship class but less than or equal to twice the ship class the mine detonates too soon or too early and no damage is caused. Otherwise the mine fails to detonate but may be used later in the game, except on n a natural roll of 10 where the mine detonation system has failed completely and the mine is useless.

Older Torpedoes

All running torpedoes are treated as Light torpedoes

Spar Torpedoes

Most riverine torpedo boats were equipped with antiquated spar torpedoes (similar to those used with some little success in the American Civil War). In order to use a spar torpedo the torpedo boat must attempt to collide with the target. If it is successful it is assumed that the torpedo boat has successfully backed engines and stops just short of the target. Roll a d6. On a 1-2 the torpedo detonates, causing damage as if it were a Light Torpedo. On a 3-4 the torpedo fails to detonate, but may be recocked and a subsequent attempt may be made. On a 5 or 6 the torpedo fails to detonate and is broken; no subsequent attacks can be made.

Spar torpedoes were reloadable with time; a torpedo can be replaced in 6 turns during which the vessel cannot exceed 5 knots; If it comes under fire that hits during the reloading process roll a d6, adding 1 if the vessel was damaged. On a roll of 4 or more the torpedo is dropped overboard and the process must be restarted.

Pontoon Bridges

Pontoon bridges were a favourite target of riverine forces. They are represented by a line of moored boats or pontoons (see the data tables). If any one pontoon is sunk the bridge is considered to be broken. Obviously sinking more pontoons will result in greater damage to the bridge.

Soil Filled Barges

One of the tactics used by the Austrians to clear pontoon bridges was to float soil laden lighters downstream in order that they would collide with one of the supports and (hopefully) carry it away with the current rather than sink it. This can be simulated using the same rules as for floating mines, except obviously they do not explode. Instead, if they make contact with a moored vessel or pontoon roll a d6 and subtract the Class of the vessel – on a roll of 3+ the vessel or pontoon is carried away.

Cables

Another favourite method of blocking a river was to secure a stout steel cable across it. Cables are assigned a Class, representing their stoutness (so a thin cable may be Class 1, a thick cable Class 3), and a number of hull boxes equal to twice its Class. If a vessel collides with a cable treat this as a normal collision (the cable obviously treated as an immobile vessel). The ramming vessel takes damage from the collision as normal. If the cable takes damage equal to or exceeding its current number of hull boxes it is broken. If it takes any damage but is not broken reduce the hull boxes by 1. For example, a Class 2 cable (4 hull boxes) is rammed. The ramming ship causes 3 points of damage. This does not break the cable but reduces its hull boxes by 1 to 3.

Cables would also be submerged apart from close to the river bank, and thus may not be visible to an oncoming ship. Cables may therefore be designated as hidden at the start of the game (generally for night actions or actions I reduced visibility). When a vessel comes within 15cm of a cable roll a d10, adding 1 for Veteran crews, subtracting 1 for Green crews. The cable is spotted on a roll of 3 or more.

Land Forces

Use the standard rules to cover land forces, fortifications and batteries. Some points to note:

- Fortifications can be assigned Light, Medium or Heavy armour values to reflect their natural protection
- Elevated batteries can increase the ranges on the Direct Fire Table by 10cm per range band to reflect the advantage that height confers. For example, machine guns and small arms can shoot out to 50cm rather than 40cm.
- Field artillery and machine gun emplacements are only knocked out with a result of crew or weapon hit, and are merely suppressed by hull hits. Suppression lasts only for the following turn.

Finally…..

Thanks to Simon Stokes for his input to this article, especially his help with the ship data tables that follow.

Data Tables for WW1 Riverine and Lake Vessels

Type	Class	Hull Boxes	Speed (knots)	Torpedoes	Guns	Notes
Austrian						
Leitha, Maros Monitors	*3L*	*15*	*8*		*1x4.7"(FPS)* *1x76mm(FAP)* *1x76mm(FAS)* *1xMG(FPS)* *1xMG(P)* *1xMG(S)*	*3½' draught so treat as class 2 vessel for grounding tests.* *305 tons.*
Szamos, Körös Monitors	*3L*	*22*	*10*		*1x4.7"(FPS)* *1x4.7"(APS)* *1x60mm(FPS)* *1x60mm(APS)* *1xMG(P)* *1xMG(S)* *1x4.7" howitzer (FAPS)*	*4' draught so treat as class 2 vessel for grounding tests.* *440 tons.*
Temes, Bodrog Monitors	*3L*	*22*	*13*		*1x4.7"(FP)* *1x4.7"(FS)* *1x37mm(P)* *1x37mm(S)* *1xMG(FPS)* *1xMG(P)* *1xMG(S)* *1x4.7" howitzer (FAPS)*	*4' draught so treat as class 2 vessel for grounding tests.* *440 tons*
Bosna, Sava, Enns & Inn Monitors	*3L*	*26*	*13*		*1x4.7"(FP)* *1x4.7"(FS)* *1x60mm(P)* *1x60mm(S)* *3xMG(P)* *3xMG(S)* *3x4.7" howitzer (FAPS)*	*4' draught so treat as class 2 vessel for grounding tests.* *528 tons.*
Stör, Lachs Gunboats	*1H*	*1*	*22*		*1x37mm(APS)* *1xMG(FS)* *1xMG(FP)*	*18 tons*
Fogas, Csuka Gunboats	*1M*	*3*	*20*		*1x37mm(APS)* *1xMG(FS)* *1xMG(FP)*	*60 tons*
Wels, Barsch, Compó, Viza Gunboats	*2M*	*6*	*18*		*2x70mm(FPS)* *2x70mm(APS)* *1xMG(FPS)* *1xMG(P)* *1xMG(S)*	*128 tons*
Samson, Una, Almos Steamers	*3L*	*30*	*13*		*1x76mm(FPS)* *1x76mm(APS)*	

Type	Class	Hull Boxes	Speed (knots)	Torpedoes	Guns	Notes
British						
Espiegle, Odin & Clio Sloops	*3L*	*53*	*13½*		*1x4"(FP)* *1x4"(FS* *1x4"(AP)* *1x4"(AS)* *2x47mm(P)* *2x47mm(S)* *1xMG(P)* *1xMG(S)* *1xMG(F)*	*Clio had 2 more 4" guns mounted midships port and starboard.* *4" guns have open gun mounts with only a gun shield so are lightly armoured.* *1070 tons.*
Dalhousie armed steamer	*3L*	*98*	*13*		*1x57mm(FP)* *1x57mm(FS)* *1x57mm(P)* *1x57mm(S)* *1x57mm(AP)* *1x57mm(AS)*	*Royal Indian Marine.* *1960 tons.*
Lawrence armed paddle steamer	*3M*	*57*	*13½*		*1x57mm(FP)* *1x57mm(FS)* *1x57mm(AP)* *1x57mm(AS)* *2xMG(P)* *2xMG(S)*	*Royal Indian Marine.* *1154 tons.*
Insect Class Gunboats	*3L*	*32*	*14*		*1x6"(FPS)* *1x6"(APS)* *1x76mm(FPS)* *1x76mm(APS)* *3xMG(P)* *3xMG(S)*	*4' draught so treat as class 2 vessel for grounding tests.* *6" guns have open gun mounts with only a gun shield so are lightly armoured.* *645 tons.*
Fly Class Gunboats	*2M*	*5*	*9½*		*1x4"(FPS)* *1x76mm(FPS)* *1x47mm(APS)* *1x40mm(FAPS)* *2xMG(P)* *2xMG(S)*	*2' draught so treat as class 1 vessel for grounding tests.* *4" guns have open gun mounts with only a gun shield so are lightly armoured.* *98 tons.*
Dance Class tunnel Minesweepers	*2M*	*15*	*9½*		*1x76mm(FPS)* *1x57mm(APS)*	*3' draught so treat as class 1 vessel for grounding tests.* *290 tons.* *Served on Dvina during RCW.*
Armed Barge	*2L*	*2*	*-*		*1x4" (FAPS)*	*4" may be 5" in some cases*
Horse Boat	*2L*	*2*	*-*		*1x4.7" (FAPS)*	
"The Terror of the Danube"	*1H*	*1*	*12*	*2x18"*	*1xMG(FPS)*	*Picket boat.*

Type	Class	Hull Boxes	Speed (knots)	Torpedoes	Guns	Notes
German						
Weichsel Gunboat	*1M*	*2*	*12*		*1x76mm howitzer (FAPS)* *1xMG(FPS)* *1xMG(APS)*	
Motor boats of the Kaiserliches Motorbootkorps	*1M*	*1*	*12*		*1xMG(FPS)* *1xMG(APS)*	
Rumanian						
Ion C Bratianu class Monitors	*3L*	*34*	*13*		*1x4.7"(FP)* *1x4.7"(FS)* *1x4.7"(APS)* *2x4.7" howitzers (FAPS)* *1x47mm(FP)* *1x47mm(FS)* *1x47mm(AP)* *1x47mm(AS)* *1xMG(P)* *1xMG(S)*	*5' draught so treat as class 2 vessel for grounding tests.* *680 tons.*
Capitan Bogdan class Gunboat	*1H*	*3*	*18*	*2xSpar torpedoes*	*1x47mm(FPS)* *1xMG(APS)*	*45 tons*
Oltul class Gunboat	*2M*	*6*	*13*		*1x57mm(FPS)* *1x37mm(APS)*	
Rahova class Gunboat	*1M*	*2*	*8½*		*1x37mm(FPS)* *1xMG(APS)*	
Russian						
Kubanetz, Teretz, Donetz, Uraletz Gunboats	*3L*	*64*	*12*		*1x6"(FP)* *1x6"(FS)* *1x4.7"(APS)* *1x76mm (P)* *1x76mm(S)* *2x37mm(P)* *2x37mm(S)* *1x20mm(FPS)* *1x20mm(APS)*	*1295 tons.*
Strogi, Svirepi, Stremiteiny, Smetlivy small destroyers	*2M*	*19*	*26*	*2x15"*	*1x76mm (FPS)* *1x76mm (APS)* *1xMG(P)* *1xMG(S)*	*376 tons.* *5' draught.*
Kinjal, Shaska, Sablya, Rapira motor patrol boats.	*1H*	*1*	*16*		*1x76mm(APS)* *1xMG(FPS)*	*24 tons*
Turkish						
Marmaris Gunboat	*2M*	*21*	*15*	*1x18" forward*	*1x60mm (FPS)* *1x60mm (APS)* *1x60mm (FP)* *1x60mm (FS)* *1x20mm (P)* *1x20mm (S)*	*422 tons.*
Thornycroft Gunboats	*1H*	*1*	*11*		*1x37mm (FPS)* *1x37mm (APS)*	*12 tons.*
Doghan Armed Tug	*2M*	*7*	*12*		*1x60mm (APS)* *1xMG(FP)* *1xMG(FS)*	
German built 50' Motor Boats	*1H*	*1*	*11*		*1xMG (FPS)* *1xMG (APS)*	

Type	Class	Hull Boxes	Speed (knots)	Torpedoes	Guns	Notes
Generic						
Armed Tug	*2M*	*7*	*12*		*1x60mm(APS)* *1xMG(FP)* *1xMG(FS)*	
Armed River Steamer	*3L*	*30*	*11*		*1x76mm(FPS)* *1x57mm(APS)* *2xMG(P)* *2xMG(S)*	
Armed Paddle Steamer	*3M*	*30*	*10*		*1x76mm(FPS)* *1x57mm(APS)* *2xMG(P)* *2xMG(S)*	
Bridge Pontoon	*1*	*5*	*towed*		*Nil*	
Barge, Lighter	*1*	*3*	*towed*		*Nil*	*Use this vessel for Austrian soil-filled barges and lighters*
Lake Tanganyika Campaign						
Mimi, Toutou	*3H*	*2*	*19*	-	*1x 3pdr (FPS)*	
Kingani	*3M*	*8*	*8*	-	*1x 6pdr (FPS)*	*Captured by the British, renamed Fifi*
Fifi	*3M*	*8*	*8*	-	*1x 12pdr (FPS)*	
Hedwig von Wismann	*2M*	*12*	*7*	-	*1x 6pdr (FP)* *1x 6pdr (FS)* *1x HMG (APS)*	
Graf von Götzen	*1M*	*60*	*9*	-	*1x 4.1" (FPS)* *1x4.1" APS)*	
Vengeur						
Dix-Tonne						
Whaler (Belgian)	*3H*	*2*	*12*	-	*1x LMG (FPS)*	