Tank Destroyer School
DEPARTMENT of TACTICS
Camp Hood, Texas

Tank Destroyer Umpire Charts

UMPIRE MANUAL ILLUSTRATING FM-105-5

The Charts herein present graphically the Rules dealing with Fire-Power and Penalties (Losses and Delays) laid down in FM-105-5, Dated April 23, 1942.

Each Chart carries a reference showing where the Rule may be found in the Umpire Manual.

MAY 1943
TDS-108
# INDEX

<table>
<thead>
<tr>
<th>CHART</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKING ARTILLERY FIRE</td>
<td>1</td>
</tr>
<tr>
<td>EFFECT OF ARTILLERY FIRE</td>
<td></td>
</tr>
<tr>
<td>DELAYS</td>
<td>1</td>
</tr>
<tr>
<td>VEHICLES PASSING THRU</td>
<td>2</td>
</tr>
<tr>
<td>VEHICLES WITHIN</td>
<td></td>
</tr>
<tr>
<td>EFFECT OF AIR ATTACKS</td>
<td></td>
</tr>
<tr>
<td>LOSSES</td>
<td>3</td>
</tr>
<tr>
<td>DELAYS</td>
<td></td>
</tr>
<tr>
<td>EFFECTIVE RANGES - T. D. WEAPONS</td>
<td>4</td>
</tr>
<tr>
<td>FIRE POWER - T. D. vs. TANKS</td>
<td>5</td>
</tr>
<tr>
<td>EFFECT OF VARIOUS WEAPONS ON T. D. GUNS</td>
<td>6</td>
</tr>
<tr>
<td>T. D. GUNS vs. INFANTRY</td>
<td>7</td>
</tr>
<tr>
<td>EFFECT OF GRENADES AND MINES</td>
<td>8</td>
</tr>
<tr>
<td>EFFECT OF ANTI AIRCRAFT FIRE</td>
<td>8</td>
</tr>
</tbody>
</table>
**MARKING ARTILLERY FIRE**

- F.A. BTRY.
- ART. BN. UMP.
- VOICE RADIO
- DIA. OF CIRCLE 200 YDS.
- FIRE UMP
- VOICE RADIO

FOR MARKING ARTILLERY FIRE - PAR. 29.
FOR PROCEDURE OF MARKING ARTILLERY FIRE - PAR. 31.

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**EFFECT of ARTILLERY FIRE DELAYS**

**PENALTY**

<table>
<thead>
<tr>
<th>Delay</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROAD</td>
<td>ADVANCE OF T D UNIT</td>
</tr>
<tr>
<td>BRIDGE</td>
<td>ADVANCE OF T D UNIT</td>
</tr>
<tr>
<td>DEFILE</td>
<td>ADVANCE OF T D UNIT</td>
</tr>
<tr>
<td>PONTON BRIDGE UNDER CONSTRUCTION</td>
<td>CONSTRUCTION OF BRIDGE DELAYED</td>
</tr>
</tbody>
</table>

SAME FOR BRIDGE IF UNDER SMALL ARMS FIRE AT LESS THAN 1,000 YDS.

DELAY DUE TO FIRE ON ROAD, BRIDGE OR DEFILE - PAR. 28A.
DELAY OF PONTON CONSTRUCTION - PAR. 28B.
### EFFECT of ARTILLERY FIRE

VEHICLES PASSING THROUGH A BATTERY CONCENTRATION (LOSSES)

<table>
<thead>
<tr>
<th>TYPE OF VEHICLE</th>
<th>% DESTROYED</th>
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<tbody>
<tr>
<td>ARMORED VEHICLES</td>
<td>2</td>
</tr>
<tr>
<td>UNARMORED VEHICLES</td>
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</tbody>
</table>

SEE PARAGRAPH 22F-(1)

### VEHICLES WITHIN A BATTERY CONCENTRATION (LOSSES)

<table>
<thead>
<tr>
<th>TYPE OF VEHICLE</th>
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<td>ARMORED VEHICLES</td>
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<tr>
<td>UNARMORED VEHICLES</td>
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</tbody>
</table>

SEE PARAGRAPH 22F-(2)
EFFECT of AIR ATTACKS

LOSSES

BASIS OF SCORING:
1 PLANE PER T.D. CO.
3 PLANES PER T.D. BN.
(FOOTNOTE PARA. 18C.)

LOW FLYING BOMBERS

LOSSES per AIRPLANE per ATTACK

<table>
<thead>
<tr>
<th>LOSSES</th>
<th>VEHICLES</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ATTACK WITH SURPRISE</td>
<td>ARMORED</td>
<td>UNARMORED</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>ATTACK WITHOUT SURPRISE</td>
<td>1/5</td>
<td>1/3</td>
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</table>

SEE PARA. 22F. FOR LOSSES; 22G. FOR PERIOD OF OUT OF ACTION; 22H. RE. AMBULANCES; RATION AND MAIL TRUCKS; 22I. RE. CARGOES OF VEHICLES.
EFFECT of AIR ATTACKS DELAYS

LOW FLYING BOMBERS

BRIDGES
1. STEEL TRUSS AND CONCRETE BRIDGES
   A. 1-HIT—100 lb. BOMB—NO EFFECT.
   B. 1-HIT—300 lb. TO 600 lb. BOMB—DELAY.
      2 HRS. AFTER ARRIVAL OF MEN & MATERIAL (1 PLATOON ENGS. W 2 TRUCKS OF TIMBER.)
   C. 1-HIT—1000 lb. TO 2000 lb. BOMB—DELAY
      OF 3 HRS. AFTER ARRIVAL OF MEN & MATERIAL (1 PLATOON ENGS. W 3 TRUCKS OF TIMBER.)

2. WOODEN HIGHWAY AND R. R. BRIDGES
   1-HIT—100 lb. BOMB & UP—SAME AS B. ABOVE.

3. PONTON BRIDGE
   A. 1-HIT—100 lb. BOMB & UP — 1 HR.
      AFTER ADD'L. MATERIAL FOR 1/3 OF BRIDGE IS ON SITE.

COLUMNS
T. D. UNIT IN COLUMN — DELAY OF 30 MINUTES

FOOT TROOPS IN COLUMN — DELAY OF 15 MINUTES

TANK COLUMN — DELAY OF 30 MINUTES

SEE PARA. 28E.

SEE PARA. 27E.
EFFECTIVE RANGES
TD WEAPONS

.50 CAL. M. G.

500 YDS. ➔ ARMORED HALF-TRACK

500 YDS. ➔ SCOUT CAR

500 YDS. ➔ UNARMORED VEHICLES

37 MM TOWED

500 YDS. ➔ MEDIUM

1000 YDS. ➔ LIGHT

37 MM S. P.

500 YDS. ➔ MEDIUM

* SEE BELOW

* SEE BELOW

75 MM OR 3" T. D. GUN

1000 YDS. ➔ MEDIUM

* SEE BELOW

TOWED GUN

* SEE BELOW

S. P.

EFFECT OF T. D. FIRE FROM STATIONARY GUN - SEE PARA. 22C.
LOSSSES OF VEHICLES OVERRUNING A T. D. GUN - SEE PARA. 22F.

* LOSSES ARE NOT ASSESSED WHEN FIRE DUELS ARE AT RANGES OVER 500 YDS.
FIRE POWER TD vs. TANKS

LOSSES ARE NOT ASSESSED WHEN FIRE
DUELS ARE AT RANGES OVER 500 YDS.

(SEE PARA. 24C.)

1. WHEN TANK DESTROYER
GUNS (SP OR TOWED) OR
TANKS ARE BEHIND NATURAL OR ARTIFICIAL COV-
ER.*

TOWED GUN

S. P.

LIGHT

MEDIUM

SCORE 2

SCORE 2

SCORE 2

SCORE 4

SEE PARA. 24E.

2. WHEN TD GUN OR TANK
IS UNPROTECTED BY COVER.

TOWED GUN

S. P.

LIGHT

MEDIUM

SCORE 1

SCORE 1

SCORE 1

SCORE 2

SEE PARA. 24E.

NOTES. T. D. GUN MUST DISPLAY ORANGE FLAG AND KEEP GUN
ACCURATELY LAID ON TARGET TO RECEIVE CREDIT FOR
FIRE.
IF WEAKER GUN WITHDRAWS UNDER COVER WITHIN 30
SEC. AFTER HOSTILE FIRE OPENS, IT WILL NOT BE DE-
STROYED.

* CONCEALMENT IS NOT COVER NECESSARILY.
EFFECT of VARIOUS WEAPONS ON TD GUNS

- TD GUNS OVERRUN BY TANKS OR ARMORED VEHICLES UNLESS DESTROYED BEFOREHAND BY FIRE.
LOSSSES AS ASSESSED BY UMPIRE.

SEE PARA. 23B. (3)

(MORTAR FIRE WOULD NOT BE INDICATED BY FIRE FLAG)

T.D. GUNS NEUTRALIZED FOR DURATION OF FIRE

SEE PARA. 23B. (4)

T D GUNS vs. INFANTRY

S.P. T.D. GUN

TANK DESTROYER FIRING AT SHORT RANGE
NO ADVANCE OF TROOPS PERMISSIBLE

SEE PARA. 20-B.

S.P. T.D. GUN

HOSTILE INFANTRY

CAPTURE AND DESTRUCTION OF T.D. GUNS BY FOOT TROOPS IS BASED ON THE RELATIVE FIRE POWER OF T.D. SECURITY FORCES AND ATTACKING FORCES, WHEN T.D. GUN IS ATTACKED FROM OTHER THAN THE DIRECTION OF FIRE.

SEE PARAS. 20B. AND 23B.
EFFECT of GRENADES & MINES

1. RIFLE GRENADE M9A1

A. WHEN THROWN BY HAND (FLOUR SACK), SOLDIER MUST BE CONCEALED OR BLIND TO FIRE FROM THE TANK. SEE PARA. 22E(1)-(REVISION)

B. WHEN TANKS WITHIN 75 YDS, RIFLEMEN EQUIPPED WITH GRENADES AND WHO SIMULATE FIRE ON TANKS FROM A CONCEALED POSITION MAY BE CREDITED WITH 25 PER CENT OF THE SHOTS FIRED. BLANK CARTRIDGES FIRED AT NOT OVER 10 ROUNDS PER MINUTE WILL BE CONSIDERED AS EFFECTIVE. SEE PARA. 22E(2) (REVISION)

2. MINES

MUST GIVE OFF SMOKE

1 VEHICLE PER MINE DETONATED.

SEE PARA. 22D.

EFFECT of ANTIAIRCRAFT FIRE

.50 CAL. (DUAL) AA MG.

LOSSES IN AIR COMBAT ASSESSED BY AIR UMPIRE (SEE PAR. 11H.)

LOSSES INFLECTED BY CAL .50 DUAL AA MG ASSESSED ONLY

WITHIN SLANT RANGE OF 2 DUAL .50 AA=1 SECTION

1,000 YD. AND ALT. OF FIRE - 20 SECS.

2,000 FT. (SEE PAR. 25D) LOSS - 1 3 AIRPLANE

EFFECTIVE AREA

= SOLID RED SHADING

FIRING PT=A