SEQUENCE OF PLAY

COMMAND PHASE
Both players do the following:
2) Accrue Weighted Turns [6.9d].
3) Make any implementation checks [6.9].
4) Make any Reserve or Alternate Die Roll Check attempts [6.14d].
5) Add units to existing Op Sheets [6.13].
6) Create new Op Sheets [6.8].
7) Roll for Weather if necessary [7.0a].

AIRCRAFT & ARTILLERY PHASE
Roll to determine which player fires first [2.0]. The player who wins the roll chooses to be first or second for the duration of the Aircraft & Artillery Phase.

Action Phases
Roll to determine who conducts his phase first [2.0]. Each player conducts his own separate Action Phase. Conduct them one right after the other, following the sequence described below:
1) Review the Accumulated Aircraft & Artillery Bases for any own and enemy Artillery and Aircraft in the area.
2) Remove Mortar and IG Smoke and Illum placed by the player during the previous turn.
3) Adjust missions by rolling on the Artillery Adjustment Table.
4) Make any Reserve or Alternate Die Roll Check attempts [6.14d].
5) Make any implementation checks [6.9].

CLEAN UP PHASE [26.2c, 19.2]
Both players work together to do all of the following (ORDER is important):
1) Remove all Artillery Illum markers.
2) Remove all Level 1 Smoke markers.
3) Flip all Level 2 Smoke markers to Level 1 Smoke markers.

TURN END
Advance Turn marker.

COMMAND PREP TABLE

<table>
<thead>
<tr>
<th>Type</th>
<th>Weighted Turns Elapsed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prep. Defense</td>
<td>1 12 18 24 30 36 42 49 56 63 71</td>
</tr>
<tr>
<td>Attack</td>
<td>1 6 9 12 16 22 28 34 42 52 61</td>
</tr>
<tr>
<td>Hasty Defense</td>
<td>1 3 6 9 12 17 22 26 32 40 45</td>
</tr>
<tr>
<td>Move</td>
<td>1 2 4 6 8 12 15 18 22 28 34</td>
</tr>
</tbody>
</table>

If # rolled is greater than or equal to the table value, implement the Op Sheet.

SORTIE SUCCESS TABLE

<table>
<thead>
<tr>
<th>Open/Billiard</th>
<th>Partial Prot/Prot</th>
<th>Full woods hex (no roads or trails)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

SORTIE [25.1]

<table>
<thead>
<tr>
<th>Modifiers</th>
<th>Sortie Point Fire Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2 Partly Protective</td>
<td>-</td>
</tr>
<tr>
<td>-1 Vehicle or Carrier in Move Mode</td>
<td>+2 Defense Strength is 2 or less</td>
</tr>
<tr>
<td>+2 Defense Strength is 2 or less</td>
<td>-1 Dug-in</td>
</tr>
<tr>
<td>+1 Vehicle in hex</td>
<td>-</td>
</tr>
<tr>
<td>+1 Move Mode in hex</td>
<td>-</td>
</tr>
<tr>
<td>+1 AA gun [25.1e]</td>
<td>-</td>
</tr>
<tr>
<td>-1 No spotter [25.2]</td>
<td>-</td>
</tr>
</tbody>
</table>

Roll one die. Modify the roll as above. If the result is equal to or greater than number in the table execute sortie. Otherwise no effect. Sorties automatically fail in Smoke or Arty Attack Zone.
**ARTILLERY, SPOTTING, AT-ROLLS**

### Artillery Barrage Zone Sizes

- **Battery Fire Mission**
  - Target Hex only
- **Battalion Fire Mission**
  - Target Hex and the six adjacent hexes

### Artillery Barrage Strength

<table>
<thead>
<tr>
<th>Location</th>
<th>HE</th>
<th>Continuous Fire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attack Zone</td>
<td>2 x Firepower</td>
<td>Firepower</td>
</tr>
<tr>
<td>Adj. to Attack Zone</td>
<td>Firepower</td>
<td>1/2 x Firepower</td>
</tr>
</tbody>
</table>

**FAST FIRE MISSIONS**

- 122mm guns or smaller
- Pay three times the ammunition
- Firepower above is x2

### Artillery Adjustment Table

<table>
<thead>
<tr>
<th>Result</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Shoot</td>
<td>11-12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Artillery Adjustment Table Modifiers

- +1 Observer on Prep. Defense Op Sheet
- -2 Observer Unassigned or on Move Op Sheet
- +1 Observer at least 40m higher than target hex
- -2 Twilight
- -1 Observer range 4+
- -1 Observer range 7+

All Shifts (including range) are cumulative.

Starting Column (if not otherwise given)

<table>
<thead>
<tr>
<th>US</th>
<th>CW, German</th>
<th>Other</th>
<th>Soviet, Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>10</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

### Artillery Scatter Table

- 1-3 1 hex
- 4-5 2 hexes
- 6 Opposing player may put it in any hex w/i 3.

Roll two dice, one for direction (use diagram on game map) and one for distance.

### Spotted Ball Range Table

- **[7.1e]**

### Artillery Point Fire Table

- +1 Fast Fire
- -1 Bad Shoot
- -1 Target in Move Mode
- -1 Continuous Fire
- -1 90mm or smaller

Roll two dice and modify total as above.

A result of 10+ destroys target.

### Artillery Scatter Table

- 1-3 No Smoke, unit Fired
- 4-6 Smoke successful

### Artillery Scatter Table

- 1-3 No Smoke, unit Fired
- 4-6 Smoke successful

---

**AT ROLL TABLE**

<table>
<thead>
<tr>
<th>Target Terrain</th>
<th>In Hex</th>
<th>One Hex Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billiard or Open</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Partly Protective</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Protective</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

**Modifiers:**

- +1 Target in Smoke
- -3 Target stacked with Infantry (any morale state)
- -2 Firer Suppressed or Paralyzed
- -2 Target or Firer in Artillery Attack Zone
- +1 Visibility is 3 or less or at night (negated in illuminated areas)
- +1 Road Moving target
- +1 Target is B-type or P-1 or P-2

**Attacker Step Loss:**

If AT Roll is RAW roll of 3 or less, destroy attacking step.

Roll two dice and modify as above. All modifiers are cumulative. If number is equal to or greater than number above, destroy the target.
## Fire Resolution

### Inf Firepower

<table>
<thead>
<tr>
<th>Range</th>
<th>Add to Fire Strength (not shifts!)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td># Inf steps</td>
</tr>
<tr>
<td>1</td>
<td>1/2 Inf steps</td>
</tr>
</tbody>
</table>

### Area Target Stacking

<table>
<thead>
<tr>
<th>Steps</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>–2*</td>
</tr>
<tr>
<td>3-4</td>
<td>–1*</td>
</tr>
<tr>
<td>5-7</td>
<td>0</td>
</tr>
<tr>
<td>8-9</td>
<td>+1</td>
</tr>
<tr>
<td>10-12</td>
<td>+3</td>
</tr>
<tr>
<td>13-19</td>
<td>+6</td>
</tr>
<tr>
<td>20+</td>
<td>+10</td>
</tr>
</tbody>
</table>

*Applies to Artillery and unspotted SFAs.

### Target Terrain / Posture

<table>
<thead>
<tr>
<th>Terrain</th>
<th>Move</th>
<th>Fire</th>
<th>Dug In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billiard Table</td>
<td>+4*+2</td>
<td>+2*+0</td>
<td>–1 –3</td>
</tr>
<tr>
<td>Open</td>
<td>+2</td>
<td>0</td>
<td>–2 –5</td>
</tr>
<tr>
<td>Partly Protective</td>
<td>0 –2</td>
<td>–2 –5</td>
<td>4 –7</td>
</tr>
<tr>
<td>Protective</td>
<td>–1 –3</td>
<td>–3 –6</td>
<td>–5 –8</td>
</tr>
</tbody>
</table>

**Bold number** if any firer Low-Trajectory vs. unspotted target

### Fire Table

**For Area Fires:** Total Area Fire Strength Points.

**For Point Fires:** Total Point Fire STEPS, not Strength Points. All results other than No Effect require a Morale Check.

### Area Fire Range

<table>
<thead>
<tr>
<th>Range</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7-8</th>
<th>9-10</th>
<th>11-13</th>
<th>14-16</th>
<th>17-20</th>
<th>21-25</th>
<th>26-32</th>
<th>33-40</th>
<th>41-50</th>
<th>51-64</th>
<th>65-80</th>
<th>81-100</th>
<th>101+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inf</td>
<td>+4</td>
<td>+2</td>
<td>+1</td>
<td>0</td>
<td>–1</td>
<td>–2</td>
<td>–3</td>
<td>–6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>+4</td>
<td>+2</td>
<td>+1</td>
<td>0</td>
<td>0</td>
<td>–1</td>
<td>–2</td>
<td>–3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>+4</td>
<td>+2</td>
<td>+1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortar</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does not apply to Artillery or Sortie

### Point Fire Range

<table>
<thead>
<tr>
<th>Range</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close</td>
<td>+5</td>
</tr>
<tr>
<td>Nominal</td>
<td>+3</td>
</tr>
<tr>
<td>Long</td>
<td>0</td>
</tr>
</tbody>
</table>

### Other Modifiers: Target...

-2 Night

-1 Illuminated or Twilight

+2 Road moving

-2 All Suppressed or Paralyzed

-2 P-2+ target in hex

### Fire...

-2 Any Suppressed or Paralyzed

+4 Cross Fire [11.4]

### Both...

-2 Arty Attack Zone

-1 Smoke

1 Does not apply to Artillery

2 Overwatch or moving through Artillery

3 Not at range 0

4 Low-Trajectory Area Fire only (tank cover)

### Point Fire Differential

Lowest P-Fire strength minus best

P-defense of defending units.

**Differential**

<table>
<thead>
<tr>
<th>Modifier</th>
<th>+3 or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+2</td>
</tr>
<tr>
<td></td>
<td>+1</td>
</tr>
<tr>
<td></td>
<td>–1</td>
</tr>
<tr>
<td></td>
<td>–2</td>
</tr>
<tr>
<td></td>
<td>–3</td>
</tr>
<tr>
<td></td>
<td>–4</td>
</tr>
</tbody>
</table>

### Stacking Area Fire Range

Does not apply to Artillery or Sortie

### Target... Area...

-2 Inf Firepower

+2 Partly Protective

-2 Low-Trajectory

### Tactical Combat Series, Page 3

### Morale Modifiers

+1 Arty Attack Zone

+1 Night

–2 Dug In

–1 P-2 or better target in hex

+2 Cross Fire [see 11.4]

–1 Partly Protective

+1 No Low-Trajectory Firers

+2 Unassigned [6.3b]

### Morale Table

<table>
<thead>
<tr>
<th>Morale (= Unit Morale + Step Losses + Bn Morale + Mods)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or less</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>54.65</td>
</tr>
<tr>
<td>66</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

### Morale Check

-8 steps

-7 steps

-6 steps

-5 steps

-4 steps

-3 steps

-2 steps

-1 step

No Effect
**BASIC TERRAIN EFFECTS ON COMBAT AND MOVEMENT CHART**

Game Specific Charts (if any) take precedence over this generic one.

<table>
<thead>
<tr>
<th>Terrain</th>
<th>Type</th>
<th>Foot</th>
<th>Tracked</th>
<th>Wheeled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>Open</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Swamp</td>
<td>Partly Pro</td>
<td>3</td>
<td>4</td>
<td>P</td>
</tr>
<tr>
<td>Woods</td>
<td>Partly Pro</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Hedge</td>
<td>Partly Pro</td>
<td>NE</td>
<td>+1</td>
<td>+2</td>
</tr>
<tr>
<td>Buildings</td>
<td>Partly Pro</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Forest</td>
<td>Partly Pro</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>City/Village</td>
<td>Protective</td>
<td>1/2</td>
<td>1/3</td>
<td>1/3</td>
</tr>
<tr>
<td>Beach</td>
<td>Billiard Table</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Bocage</td>
<td>Partly Pro</td>
<td>+2</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Cliff</td>
<td>ot</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Primary Road</td>
<td>ot</td>
<td>1/2</td>
<td>1/3</td>
<td>1/3</td>
</tr>
<tr>
<td>Secondary Road</td>
<td>ot</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Railroad</td>
<td>ot</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Stream</td>
<td>ot</td>
<td>+1</td>
<td>+3</td>
<td>+5</td>
</tr>
<tr>
<td>Creek/River</td>
<td>ot</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Shingle</td>
<td>Partly Pro</td>
<td>+2</td>
<td>P</td>
<td>P</td>
</tr>
</tbody>
</table>

*ot* = Other Terrain  
*P* = Prohibited  
*NE* = No Effect

**CHART OF COMMON GRAPHIC SYMBOLS AND THEIR USE**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Description of Use and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Symbol" /></td>
<td>Lateral Boundary...for a Battalion...for a Company</td>
<td>Defines the limit of operations between adjacent units.</td>
</tr>
<tr>
<td><img src="image2" alt="Symbol" /></td>
<td>Line of Departure Phase Line (PL Fish)</td>
<td>Designates the line at which operations begin: the jump-off point. Phase Lines are used to control the actions of several units. They can be used to coordinate the units, and to define different phases of the operation.</td>
</tr>
<tr>
<td><img src="image3" alt="Symbol" /></td>
<td>Unit Location (here a Battalion)</td>
<td>Used to mark a unit's location on the map.</td>
</tr>
<tr>
<td><img src="image4" alt="Symbol" /></td>
<td>Objective in this case, OBJ Green</td>
<td>Denotes the area to be taken by an attack or held by a defense. Obtainment of the objective is how operations succeed.</td>
</tr>
<tr>
<td><img src="image5" alt="Symbol" /></td>
<td>Axis of Advance, in this case, Axis Red</td>
<td>Denotes the general course of movement of the assigned units. Units are free to move anywhere within the bounds of the axis of advance.</td>
</tr>
<tr>
<td><img src="image6" alt="Symbol" /></td>
<td>Direction of Advance</td>
<td>Gives the exact path the movement must follow. This control measure is much more restrictive than the axis of advance as the units must take exactly the path under the arrow.</td>
</tr>
<tr>
<td><img src="image7" alt="Symbol" /></td>
<td>Area to be screened by Smoke</td>
<td>Denotes the use of smoke. A good idea is to record the time to use it with the symbol—such as “Fire when advance reaches PL Cod Piece.”</td>
</tr>
</tbody>
</table>

**MINEFIELD COSTS AND ATTACKS**

**Moving…**
- MP cost +2
- Area Fire Attack with 18 Firepower
- Point Target roll 8 or more to kill

**Breaching…**
- Begin adjacent
- Area Fire Attack with 9 Firepower

**ARTILLERY BARRAGE FIRE VALUES**

<table>
<thead>
<tr>
<th>Size Range (mm):</th>
<th>100 or less</th>
<th>101-120</th>
<th>121-130</th>
<th>131-200</th>
<th>201-300</th>
<th>301+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Sizes:</td>
<td>75</td>
<td>105</td>
<td>122</td>
<td>150, 155</td>
<td>8 inch</td>
<td>16 inch</td>
</tr>
<tr>
<td>Battery Barrage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good Shoot</td>
<td>8</td>
<td>12</td>
<td>15</td>
<td>18</td>
<td>30</td>
<td>120</td>
</tr>
<tr>
<td>Bad Shoot</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>14</td>
<td>54</td>
</tr>
<tr>
<td>Battalion Barrage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good Shoot</td>
<td>11</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>43</td>
<td>167</td>
</tr>
<tr>
<td>Bad Shoot</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>11</td>
<td>19</td>
<td>75</td>
</tr>
</tbody>
</table>