

| First Base |              |         | 2nd Base |             |         | ShortStop |            |         | 3rd Base |               |          | Left/Right Field |        |          |         | Pitcher |              |            | 1B/2B/SS/3B X-CHART |      |       |       |       |       |  |  |
|------------|--------------|---------|----------|-------------|---------|-----------|------------|---------|----------|---------------|----------|------------------|--------|----------|---------|---------|--------------|------------|---------------------|------|-------|-------|-------|-------|--|--|
| Er         | E1           | E2      | Er       | E1          | E2      | Er        | E1         | E2      | Er       | E1            | E2       | Er               | E1     | E2       | E3      | Er      | E1           | E2         |                     | 1    | 2     | 3     | 4     | 5     |  |  |
| 0          |              |         | 0        |             |         | 0         |            |         | 0        |               |          | 1                | 3      | 17       |         | 0       | -            | -          | SI2                 | -    | -     | 1-2   | 1-4   | 1-6   |  |  |
| 1          | 17,18        |         | 1        | 18          |         | 1         | 18         |         | 1        | 3             | 18       | 2                | 3,18   | 16       |         | 4       | 14           | 18         | SI1                 | -    | 1-2   | 3-4   | 5-6   | 7-8   |  |  |
| 2          | 3,16,18      |         | 2        | 3,18        |         | 2         | 3,18       |         | 2        | 3,4           | 18       | 3                | 3,18   | 15       |         | 6       | 3,13         | 18         | G3#                 | 1    | 3-5   | 5-8   | 7-10  | 9-12  |  |  |
| 3          | 3,15         | 18      | 3        | 3,17        |         | 3         | 17         |         | 3        | 3,4           | 17       | 4                | 4      | 3,15     | 18      | 7       | 3,12         | 18         | G3                  | -    | -     | 9     | 11-13 | 13-17 |  |  |
| 4          | 14           | 18      | 4        | 3,17        | 18      | 4         | 17         | 18      | 4        | 3,16          | 17       | 5                | 4      | 14       | 18      | 8       | 6,15,16,17   | 3,18       | G2#                 | 2-4  | 6     | -     | -     | -     |  |  |
| 5          | 14,17        | 18      | 5        | 16          | 18      | 5         | 3,17       | 18      | 5        | 15            | 17       | 6                | 3,4    | 14,17    | 18      | 10      | 11,15        | 3,18       | G2                  | -    | 7-9   | 10-14 | 14-16 | 18-19 |  |  |
| 6          | 3,13         | 18      | 6        | 3,16        | 18      | 6         | 16         | 18      | 6        | 4,15          | 17       | 7                | 16     | 6,15     | 18      | 11      | 12,15,16     | 3,18       | G1                  | 5-20 | 10-20 | 15-20 | 17-20 | 20    |  |  |
| 7          | 3,9          | 18      | 8        | 16,17       | 18      | 7         | 3,16       | 18      | 8        | 3,15,16       | 17,18    | 8                | 16     | 6,15,17  | 3,18    | 12      | 6,12,15      | 17         |                     |      |       |       |       |       |  |  |
| 8          | 6,15-17      | 3,18    | 10       | 4,16,17     | 18      | 8         | 16,17      | 18      | 10       | 13            | 3,17,18  | 9                | 16     | 11       | 3,18    | 13      | 11,13        | 17         |                     |      |       |       |       |       |  |  |
| 9          | 7,14,17      | 3,18    | 11       | 15,17       | 18      | 10        | 16,17      | 3,18    | 11       | 6,15,17       | 16       | 10               | 4,16   | 14,15,17 | 3,18    | 14      | 7,13,14      | 17         |                     |      |       |       |       |       |  |  |
| 10         | 11,15        | 3,18    | 12       | 15,17       | 3,18    | 12        | 15         | 3,18    | 12       | 12            | 16       | 11               | 4,16   | 13,15    | 3,18    | 15      | 4,11,12      | 17         |                     |      |       |       |       |       |  |  |
| 11         | 6,8,15       | 3,18    | 13       | 14          | 3,18    | 14        | 4,15       | 17      | 13       | 11            | 16,18    | 12               | 4,16   | 13,14    | 3,18    | 16      | 4,9,12,16    | 17         |                     |      |       |       |       |       |  |  |
| 12         | 6,9,15       | 3,18    | 14       | 15,16       | 3,18    | 16        | 14         | 17      | 14       | 3,4,14,15     | 16,18    | 13               | 6      | 4,12,15  | 17      | 17      | 3,6,11,12    | 17         |                     |      |       |       |       |       |  |  |
| 13         | 11,13        | 17      | 15       | 14,17       | 3,18    | 17        | 15,16      | 17      | 15       | 13,15         | 3,16,18  | 14               | 3,6    | 12,14    | 17      | 18      | 11,12,14     | 17         |                     |      |       |       |       |       |  |  |
| 14         | 3,9,12       | 17      | 16       | 15,16,17    | 3,18    | 18        | 15,16,18   | 17      | 16       | 4,7,14        | 3,16,18  | 15               | 3,6,18 | 4,12,14  | 17      | 19      | 6,9,12,15    | 17,18      |                     |      |       |       |       |       |  |  |
| 15         | 7,12,14      | 17      | 17       | 6,15        | 3,18    | 19        | 4,14       | 17      | 17       | 12,15         | 16,17    | 16               | 4,6    | 12,13    | 17      | 20      | 6,10,11,15   | 17,18      |                     |      |       |       |       |       |  |  |
| 16         | 3,11,12,16   | 17      | 18       | 13          | 3,18    | 20        | 4,15,16    | 17      | 18       | 3,11,15       | 16,17    | 17               | 4,6    | 9,12     | 17      | 21      | 7,11,13,14   | 17,18      |                     |      |       |       |       |       |  |  |
| 17         | 3,6,11,12    | 17      | 19       | 6,15,17     | 3,18    | 21        | 6,15       | 17      | 19       | 7,14,16,17    | 15       | 18               | 3,4,6  | 11,12,18 | 17      | 22      | 8,12,13,14   | 17,18      |                     |      |       |       |       |       |  |  |
| 18         | 11,12,14     | 17      | 20       | 3,13,18     | 17      | 22        | 6,15       | 17,18   | 20       | 11,14         | 15       | 19               | 7      | 3,10,11  | 17,18   | 23      | 10,11,12,16  | 17,18      |                     |      |       |       |       |       |  |  |
| 19         | 10,11,15,16  | 17,18   | 21       | 4,13        | 17      | 23        | 3,13       | 17,18   | 21       | 6,11,16       | 15,18    | 20               | 3,7    | 11,13,15 | 17,18   | 24      | 10,11,12,15  | 17,18      |                     |      |       |       |       |       |  |  |
| 20         | 6,10,11,15   | 17,18   | 22       | 12,18       | 17      | 24        | 4,6,15     | 17,18   | 22       | 12,14,16      | 15,18    | 21               | 3,7    | 11,12,15 | 17,18   | 26      | 9,12-15      | 3,17,18    |                     |      |       |       |       |       |  |  |
| 21         | 3,9,10,12    | 17,18   | 23       | 11          | 17      | 25        | 4,13       | 17,18   | 23       | 11,13         | 3,15,18  | 22               | 3,6,16 | 9,12,14  | 17,18   | 27      | 10-13        | 3,17,18    |                     |      |       |       |       |       |  |  |
| 22         | 7,11,12,14   | 17,18   | 24       | 11,18       | 17      | 26        | 12         | 17,18   | 24       | 9,12          | 3,15,18  | 23               | 4,7    | 11,12,14 | 17,18   | 28      | 9-12         | 3,17,18    |                     |      |       |       |       |       |  |  |
| 23         | 10-12,16     | 17,18   | 25       | 3,11,18     | 17      | 27        | 3,12       | 17,18   | 25       | 6,8,13        | 15,17    | 24               | 4,6,16 | 8,11,13  | 3,17,18 | 30      | 3,10-13,15   | 16         |                     |      |       |       |       |       |  |  |
| 24         | 11-14        | 3,17,18 | 26       | 13,15       | 17      | 28        | 6,15,16    | 3,17,18 | 26       | 10,11         | 15,17    | 25               | 4,6,16 | 11,12,13 | 3,17,18 | 31      | 10-14        | 16         |                     |      |       |       |       |       |  |  |
| 25         | 9,11,12,14   | 3,17,18 | 27       | 13,15,18    | 17      | 29        | 11         | 3,17,18 | 27       | 9,12,16       | 15,17,18 | 26               |        |          |         | 33      | 3,8,10-13    | 16         |                     |      |       |       |       |       |  |  |
| 26         | 9,12-15      | 3,17,18 | 28       | 3,13,15     | 17,18   | 30        | 4,12       | 3,17,18 | 28       | 11,13,15      | 14       | 27               |        |          |         | 34      | 9-13         | 16,18      |                     |      |       |       |       |       |  |  |
| 27         | 7,8,11,13,14 | 3,17,18 | 29       | 3,11,16     | 17,18   | 31        | 4,6,15,16  | 3,17,18 | 29       | 9,12,15       | 14       | 28               |        |          |         | 35      | 9-12,14-15   | 16,18      |                     |      |       |       |       |       |  |  |
| 28         | 7,11-14      | 3,17,18 | 30       | 12,15       | 17,18   | 32        | 13,15      | 3,17,18 | 30       | 6,8,13,15     | 14,18    | 29               |        |          |         | 36      | 3,4,6,7,9-12 | 16,18      |                     |      |       |       |       |       |  |  |
| 29         | 9-12,17      | 16      | 32       | 11,15       | 17,18   | 33        | 13,15      | 16      | 31       | 10,11,15      | 14,18    | 30               |        |          |         | 38      | 6,8,10-13,15 | 16,18      |                     |      |       |       |       |       |  |  |
| 30         | 10-13,15,18  | 16      | 34       | 12,14       | 17,18   | 34        | 13,15,18   | 16      | 32       | 11,13,14,17   | 15,16,18 | 31               |        |          |         | 39      | 6-10,12,13   | 3,16,18    |                     |      |       |       |       |       |  |  |
|            |              |         | 37       | 11,15,16    | 3,17,18 | 36        | 13,15,17   | 16      | 33       | 8,11,13       | 15,16,18 | 32               |        |          |         | 40      | 4,6,9-13,15  | 3,16,18    |                     |      |       |       |       |       |  |  |
|            |              |         | 39       | 12,13       | 3,17,18 | 38        | 13,14      | 16      | 34       | 6,9,12,15     | 14,17    | 33               |        |          |         | 42      | 7,9-14       | 3,16,18    |                     |      |       |       |       |       |  |  |
|            |              |         | 41       | 11,13       | 3,17,18 | 40        | 11,15      | 16,18   | 35       | 11,12,13      | 14,17    | 34               |        |          |         | 43      | 6-10,12-14   | 3,16,18    |                     |      |       |       |       |       |  |  |
|            |              |         | 44       | 9,12,18     | 16      | 42        | 12,14      | 16,18   | 37       | 9,11,12       | 15,16,17 | 36               |        |          |         | 44      | 3,7-13       | 16,17      |                     |      |       |       |       |       |  |  |
|            |              |         | 47       | 7,12,14     | 16      | 44        | 8,13       | 16,18   | 39       | 7,9,12,14,18  | 6,15     | 37               |        |          |         | 46      | 6,8-13,15    | 16,17,18   |                     |      |       |       |       |       |  |  |
|            |              |         | 50       | 11,13,15,18 | 16      | 48        | 6,12,15    | 3,16,18 | 41       | 10,11,12,16   | 13       | 38               |        |          |         | 47      | 7-13,15      | 16,17,18   |                     |      |       |       |       |       |  |  |
|            |              |         | 53       | 11,12,15    | 16,18   | 52        | 11,13,18   | 16,17   | 44       | 4,11-14       | 6,15,17  | 39               |        |          |         | 48      | 7-14         | 16,17,18   |                     |      |       |       |       |       |  |  |
|            |              |         | 56       | 6,12,13,15  | 16,18   | 56        | 11,12,18   | 16,17   | 47       | 8,9,11,12     | 13,17    | 40               |        |          |         | 50      | 7-14         | 15,17      |                     |      |       |       |       |       |  |  |
|            |              |         | 59       | 6,11,13,15  | 3,16,18 | 60        | 7,11,14    | 15      | 50       | 9,10,11,12    | 14,15,18 | 41               |        |          |         | 51      | 7-14         | 15,16      |                     |      |       |       |       |       |  |  |
|            |              |         | 62       | 6,11,12,15  | 3,16,18 | 64        | 6,9,12     | 15,18   | 53       | 6,8,9,10,11   | 13,16    | 42               |        |          |         | 13      | 16           | 4,6,15,17  | 3,18                |      |       |       |       |       |  |  |
|            |              |         | 65       | 7,12,13,14  | 3,16,18 | 68        | 9,12,14    | 15,18   | 56       | 8-10,12,14,17 | 3,11,18  | 43               |        |          |         | 14      | 16           | 12,17      | 3,18                |      |       |       |       |       |  |  |
|            |              |         | 68       | 10,11,12    | 16,17   | 72        | 6,11,13,15 | 4,16,17 | 59       | 4,7,9-12      | 13,15    | 44               |        |          |         | 15      | 4,16         | 12,17      | 3,18                |      |       |       |       |       |  |  |
|            |              |         | 71       | 11,12,13,15 | 16,17   | 76        | 9,12,13    | 15,17   | 62       | 7-11,14       | 12,16,18 | 45               |        |          |         | 16      | 4,16         | 7,14       | 3,18                |      |       |       |       |       |  |  |
|            |              |         |          |             |         | 80        | 4,11,12,13 | 15,17   | 65       | 7-10,12,13    | 11,16,18 | 46               |        |          |         | 17      | 4,16         | 7,14,17    | 3,18                |      |       |       |       |       |  |  |
|            |              |         |          |             |         | 84        | 10,11,12   | 3,15,17 |          |               |          | 47               |        |          |         | 18      | 4,16         | 13,14      | 3,18                |      |       |       |       |       |  |  |
|            |              |         |          |             |         | 88        | 9,11,12,16 | 14      |          |               |          | 48               |        |          |         | 19      | 6            | 11,15      | 3,18                |      |       |       |       |       |  |  |
|            |              |         |          |             |         |           |            |         |          |               |          | 49               |        |          |         | 20      | 6            | 4,13,14    | 17                  |      |       |       |       |       |  |  |
|            |              |         |          |             |         |           |            |         |          |               |          | 50               |        |          |         | 21      | 3,6          | 12,14      | 17                  |      |       |       |       |       |  |  |
|            |              |         |          |             |         |           |            |         |          |               |          | 51               |        |          |         | 22      | 3,6          | 4,12,14    | 17                  |      |       |       |       |       |  |  |
|            |              |         |          |             |         |           |            |         |          |               |          | 52               |        |          |         | 23      | 3,6,18       | 4,13,14,16 | 17                  |      |       |       |       |       |  |  |
|            |              |         |          |             |         |           |            |         |          |               |          | 53               |        |          |         | 24      | 4,6          | 12,13      | 17                  |      |       |       |       |       |  |  |
|            |              |         |          |             |         |           |            |         |          |               |          | 54               |        |          |         | 25      | 4,6          | 11,13,18   | 17                  |      |       |       |       |       |  |  |

**Outfield X-CHART**

|     | 1     | 2     | 3     | 4     | 5     |
|-----|-------|-------|-------|-------|-------|
| TR3 | -     | -     | -     | 1     | 1-2   |
| DO3 | -     | -     | 1     | 2     | 3-4   |
| DO2 | -     | 1     | 2-3   | 3-4   | 5-7   |
| SI2 | -     | 2-3   | 4-6   | 5-11  | 8-15  |
| F1  | 1     | 4     | 7-8   | 12-13 | 16-18 |
| F2  | 2-13  | 5-15  | 9-16  | 14-18 | 19    |
| F3  | 14-20 | 16-20 | 17-20 | 19-20 | 20    |

**Pitcher X-CHART**

|     | 1     | 2     | 3     | 4     | 5     |
|-----|-------|-------|-------|-------|-------|
| SI1 | -     | 1-2   | 1-3   | 1-4   | 1-6   |
| G3  | 1-7   | 3-9   | 4-12  | 5-13  | 7-14  |
| G2  | 8-9   | 10-12 | 13-16 | 14-18 | 15-19 |
| G1  | 10-20 | 13-20 | 17-20 | 19-20 | 20    |

**Catcher X-CHART**

|     | 1     | 2     | 3     | 4     | 5     |
|-----|-------|-------|-------|-------|-------|
| W/S | 1     | 1     | 1     | 1     | 1     |
| W/G | 2-4   | 2-4   | 2-4   | 2-4   | 2-4   |
| P/P | 5     | 5-7   | 5-8   | 5-10  | 5-11  |
| P/F | 6-7   | 8-10  | 9-13  | 11-16 | 12-18 |
| PO  | 8-12  | 11-13 | 14    | 17    | -     |
| FO  | 13-16 | 14-16 | 15-16 | -     | -     |
| G3  | -     | -     | 17-18 | 18-19 | 19-20 |
| G2  | 17-18 | 17-19 | 19-20 | 20    | -     |
| G1  | 20    | 20    | -     | -     | -     |

# Infield Position Chart

| <b>Normal</b> |    | <b>1st</b> | <b>2nd</b> | <b>1st &amp; 2nd</b> | <b>3rd or 2nd &amp; 3rd</b> |              | <b>1st &amp; 3rd</b> |              | <b>Bases Loaded</b> |
|---------------|----|------------|------------|----------------------|-----------------------------|--------------|----------------------|--------------|---------------------|
|               |    |            |            |                      | <b>Safe</b>                 | <b>Loose</b> | <b>Safe</b>          | <b>Loose</b> |                     |
| <b>GBA</b>    | P  | DP         | HOLD       | DP                   | HOLD                        | HOLD         | DP / HOLD            | DP           | DP (H-1B)           |
|               | 3B | DP         | HOLD       | DP (3B-1B)           | HOLD                        | HOLD         | DP / HOLD            | DP           | DP (H-1B)           |
|               | SS | DP         | HOLD       | DP                   | HOLD                        | ADV / HOLD   | DP                   | DP           | DP                  |
|               | 2B | DP         | ADV        | DP                   | HOLD                        | ADV          | DP                   | DP           | DP                  |
|               | 1B | DP         | ADV        | DP                   | HOLD                        | ADV          | DP / HOLD            | DP           | DP (H-1B)           |
| <b>GBB</b>    | C  | FC         | HOLD       | FC / 3rd             | HOLD                        | HOLD         | HOLD                 | HOLD         | FC / HOME           |
|               | P  | FC         | HOLD       | FC / 3rd             | HOLD                        | HOLD         | HOLD                 | HOLD         | FC / HOME           |
|               | 3B | FC         | HOLD       | FC / 3rd             | HOLD                        | FC / HOME    | FC / HOME            | FC           | FC / HOME           |
|               | SS | FC         | HOLD       | FC                   | HOLD                        | ADV          | FC / HOME            | FC           | FC                  |
|               | 2B | FC         | ADV        | FC                   | HOLD                        | ADV          | FC / HOME            | FC           | FC                  |
|               | 1B | FC         | ADV        | FC                   | HOLD                        | HOLD         | HOLD                 | FC           | FC / HOME           |
| <b>GBC</b>    |    | ADV        | ADV        | ADV                  | HOLD                        | ADV          | HOLD                 | ADV          | ADV                 |

| <b>Corners IN</b> |       | <b>1st</b> | <b>2nd</b> | <b>1st &amp; 2nd</b> | <b>3rd or 2nd &amp; 3rd</b> |              | <b>1st &amp; 3rd</b> |              | <b>Bases Loaded</b> |
|-------------------|-------|------------|------------|----------------------|-----------------------------|--------------|----------------------|--------------|---------------------|
|                   |       |            |            |                      | <b>Safe</b>                 | <b>Loose</b> | <b>Safe</b>          | <b>Loose</b> |                     |
| <b>GBA</b>        | P     | DP         | HOLD       | DP                   | HOLD                        | HOLD         | DP / HOLD            | DP / HOLD    | DP (H-1B)           |
|                   | 3B    | DP         | HOLD       | DP                   | HOLD                        | HOLD         | HOLD                 | FC / HOME    | DP (H-1B)           |
|                   | SS    | DP         | HOLD       | DP                   | HOLD                        | ADV / HOLD   | DP / HOLD            | DP           | DP                  |
|                   | 2B    | DP         | ADV        | DP                   | HOLD                        | ADV          | DP / HOLD            | DP           | DP                  |
|                   | 1B    | DP         | ADV        | DP                   | HOLD                        | HOLD         | HOLD                 | FC / HOME    | FC / HOME           |
| <b>GBA+</b>       | 1B/3B | SINGLE **  |            |                      |                             |              |                      |              |                     |
| <b>GBB</b>        | C     | FC         | HOLD       | FC / 3rd             | HOLD                        | HOLD         | HOLD                 | HOLD         | FC                  |
|                   | P     | FC         | HOLD       | FC / 3rd             | HOLD                        | HOLD         | HOLD                 | HOLD         | FC / HOME           |
|                   | 3B    | FC         | HOLD       | FC / 3rd             | HOLD                        | FC / HOME    | HOLD                 | FC / HOME    | FC / HOME           |
|                   | SS    | FC         | HOLD       | FC                   | HOLD                        | ADV          | HOLD                 | FC           | FC                  |
|                   | 2B    | FC         | ADV        | FC                   | HOLD                        | ADV          | HOLD                 | FC           | FC                  |
|                   | 1B    | FC         | ADV        | FC                   | HOLD                        | FC / HOME    | HOLD                 | FC / HOME    | FC / HOME           |
| <b>GBB+</b>       | 1B/3B | SINGLE **  |            |                      |                             |              |                      |              |                     |
| <b>GBC</b>        |       | ADV        | ADV        | ADV                  | HOLD                        | ADV          | HOLD                 | ADV          | ADV                 |

| <b>Infield IN</b> |  | <b>1st</b> | <b>2nd</b> | <b>1st &amp; 2nd</b> | <b>3rd or 2nd &amp; 3rd</b> |              | <b>1st &amp; 3rd</b> |              | <b>Bases Loaded</b> |
|-------------------|--|------------|------------|----------------------|-----------------------------|--------------|----------------------|--------------|---------------------|
|                   |  |            |            |                      | <b>Safe</b>                 | <b>Loose</b> | <b>Safe</b>          | <b>Loose</b> |                     |
| <b>GBA</b>        |  | FC         | HOLD       | FC / 3RD             | HOLD                        | HOLD         | HOLD                 | HOLD         | DP (H-1B)           |
| <b>GBA+</b>       |  | SINGLE **  |            |                      |                             |              |                      |              |                     |
| <b>GBB</b>        |  | FC         | ADV        | FC                   | HOLD                        | FC / HOME    | HOLD                 | FC / HOME    | FC / HOME           |
| <b>GBB+</b>       |  | SINGLE **  |            |                      |                             |              |                      |              |                     |
| <b>GBC</b>        |  | ADV        | ADV        | ADV                  | HOLD                        | DECIDE       | HOLD                 | DECIDE       | FC / HOME           |

- FC                   Fielders choice at 2nd, other runners advance
- FC/3RD           Fielders choice at 3rd, other runners advance
- FC/HOME         Fielders choice at home, all runners advance
- FC/HOLD         Fielders choice at 2nd, other runners hold
- DP                 Double play 2B to 1B other runners advance
- DP/HOLD         Double play 2B to 1B other runners hold
- DP (3B - 1B)    Double play 3B to 1B other runners advance
- DP (H - 1B)     Double play Home to 1B other runners advance
- HOLD             Batter out at 1st runners hold unless forced
- ADV               Batter out at 1st other runners advance
- ADV/HOLD        Batter out at 1st, runner scores from 3rd, other runners hold
- DECIDE           Lead runner can attempt to advance a base.

If the offensive manager tries to attempt this compute the lead runner safe chance as:

Running speed – 4 + defensive fielders rating. (Maximum safe range 1-19)

Defensive manager must decide to take the sure out at first (batter is out and all runners advance 1 base) or try and throw out the lead runner (batter is safe and all other runners advance 1 base)