LSTB July 2021 Report

July 16, 2021

1 GSF Sigma LS Geo TB Report July 2021

1.1 Load Data

[1]:
```
import pandas as pd
p1 = pd.read_csv('phase_1.csv',index_col = 0).drop_duplicates().fillna(0)
p2 = pd.read_csv('phase_2.csv',index_col = 0).drop_duplicates().fillna(0)
p3 = pd.read_csv('phase_3.csv',index_col = 0).drop_duplicates().fillna(0)
p4 = pd.read_csv('phase_4.csv',index_col = 0).drop_duplicates().fillna(0)
```

[2]:
```
p4['pointsPerGP'] = round(p4['territoryPointsContributed']/
 ↪(p4['shipGP']+p4['characterGP']),3)
avgPointsPerGP = round(p4['pointsPerGP'].mean(),3)
```

1.2 Input

1.2.1 Sandbagging

[3]:
```
tbType = 'LS'

sbag_1_top = False
sbag_1_mid = True
sbag_1_bottom = False

sbag_2_top = False
sbag_2_mid = False
sbag_2_bottom = True

sbag_3_top = True
sbag_3_mid = True
sbag_3_bottom = False
```

1.2.2 Shards and Stars

KAM shards: 15

[4]:
```

```

```
print(pd.DataFrame(['Doomslug','Masajj␣
↪Vemtits','Wolfman314','Promethean','AKB','SloppySaberFlavor','Loadage','ilekkund2','LGuy␣
↪21','Stewabob','xipokemastrix','TacoPizza','GANIC','Maxaron␣
↪Lexilon','starshaker'],columns=['Name']))
```

```
                Name
0            Doomslug
1      Masajj Vemtits
2          Wolfman314
3          Promethean
4                 AKB
5   SloppySaberFlavor
6             Loadage
7           ilekkund2
8             LGuy 21
9            Stewabob
10      xipokemastrix
11          TacoPizza
12              GANIC
13    Maxaron Lexilon
14         starshaker
```

Phase 4	Phase 3	Phase 2	Phase 1
0	2	1	2
0	0	2	2
0	0	2	2

1.3 Calculations

1.3.1 TB Points per CM

LS GEO TB

[5]:
```
if (tbType == 'LS'):
    p1_ships_1 = [0,523900]
    p1_ships_2 = [0,0]
    p2_ships_2 = [0,0]
    p3_ships_2 = [0,0]
    p4_ships_2 = [0,0]

    if(sbag_1_top):
        p2_ships_1 = p1_ships_1
    else:
        p2_ships_1 = [0,900000]
    if(sbag_2_top):
        p3_ships_1 = p2_ships_1
    else:
        p3_ships_1 = [0,1800000]
```

```
    if(sbag_3_top):
        p4_ships_1 = p3_ships_1
    else:
        p4_ships_1 = [0,2750000]

    p1_ground_1 = [0,403000,573500,840000,1155000]
    p1_ground_2 = [0,403000,573500,840000,1155000]

    if(sbag_1_bottom):
        p2_ground_1 = p1_ground_1
        p2_ground_2 = p1_ground_2
    else:
        p2_ground_1 = [0,434000,704000,1014750,1377000]
        p2_ground_2 = [0,434000,704000,1014750,1377000]
    if(sbag_2_bottom):
        p3_ground_1 = p2_ground_1
        p3_ground_2 = p2_ground_2
    else:
        p3_ground_1 = [0,464000,775500,1105000,1627500]
        p3_ground_2 = [0,464000,775500,1105000,1627500]
    if(sbag_3_bottom):
        p4_ground_1 = p3_ground_1
        p4_ground_2 = p3_ground_2
    else:
        p4_ground_1 = [0,511500,867000,1242500,1837500]
        p4_ground_2 = [0,511500,867000,1242500,1837500]

    p1_ground_3 = [0,403000,573500,840000,1155000]
    p1_ground_4 = [0,523900,745550,1092000,1501500]
    p1_ground_5 = [0,0,0,0,0]

    if(sbag_1_mid):
        p2_ground_3 = p1_ground_3
        p2_ground_4 = p1_ground_4
        p2_ground_5 = p1_ground_5
    else:
        p2_ground_3 = [0,434000,704000,1014750,1377000]
        p2_ground_4 = [0,434000,704000,1014750,1377000]
        p2_ground_5 = [0,564200,915200,1319175,1790100]
    if(sbag_2_mid):
        p3_ground_3 = p2_ground_3
        p3_ground_4 = p2_ground_4
        p3_ground_5 = p2_ground_5
    else:
        p3_ground_3 = [0,464000,775500,1105000,1627500]
        p3_ground_4 = [0,464000,775500,1105000,1627500]
        p3_ground_5 = [0,0,0,0,0]
```

```
    if(sbag_3_mid):
        p4_ground_3 = p3_ground_3
        p4_ground_4 = p3_ground_4
        p4_ground_5 = p3_ground_5
    else:
        p4_ground_3 = [0,511500,867000,1242500,1837500]
        p4_ground_4 = [0,664950,1127100,1615250,2388750]
        p4_ground_5 = [0,867000,1837500,0,0]
```

DS GEO TB

[6]:
```
if (tbType == 'DS'):

    p1_ships_1 = [0,0]
    p1_ships_2 = [0,0]
    p2_ships_1 = [0,825000]
    p2_ships_2 = [0,1072500]

    if(sbag_2_top):
        p3_ships_1 = p2_ships_1
        p3_ships_2 = p2_ships_2
    else:
        p3_ships_1 = [0,1665000]
        p3_ships_2 = [0,2164500]
    if(sbag_3_top):
        p4_ships_1 = p3_ships_1
        p4_ships_2 = p3_ships_2
    else:
        p4_ships_1 = [0,2750000]
        p4_ships_2 = [0,0]

    p1_ground_1 = [0,187500,297500,500000,792000]
    p1_ground_2 = [0,187500,297500,500000,792000]

    if(sbag_1_bottom):
        p2_ground_1 = p1_ground_1
        p2_ground_2 = p1_ground_2
    else:
        p2_ground_1 = [0,270000,420000,708000,1080000]
        p2_ground_2 = [0,270000,420000,708000,1080000]
    if(sbag_2_bottom):
        p3_ground_1 = p2_ground_1
        p3_ground_2 = p2_ground_2
    else:
        p3_ground_1 = [0,336000,540000,910000,1352000]
        p3_ground_2 = [0,336000,540000,910000,1352000]
    if(sbag_3_bottom):
```

```
        p4_ground_1 = p3_ground_1
        p4_ground_2 = p3_ground_2
    else:
        p4_ground_1 = [0,405000,675000,1038500,1564000]
        p4_ground_2 = [0,405000,675000,1038500,1564000]

    p1_ground_3 = [0,187500,297500,500000,792000]
    p1_ground_4 = [0,187500,297500,500000,792000]
    p1_ground_5 = [0,0,0,0,0]

    if(sbag_1_mid):
        p2_ground_3 = p1_ground_3
        p2_ground_4 = p1_ground_4
        p2_ground_5 = p1_ground_5
    else:
        p2_ground_3 = [0,270000,420000,708000,1080000]
        p2_ground_4 = [0,270000,420000,708000,1080000]
        p2_ground_5 = [0,351000,546000,920400,1404000]
    if(sbag_2_mid):
        p3_ground_3 = p2_ground_3
        p3_ground_4 = p2_ground_4
        p3_ground_5 = p2_ground_5
    else:
        p3_ground_3 = [0,336000,540000,910000,1352000]
        p3_ground_4 = [0,336000,540000,910000,1352000]
        p3_ground_5 = [0,0,0,0,0]
    if(sbag_3_mid):
        p4_ground_3 = p3_ground_3
        p4_ground_4 = p3_ground_4
        p4_ground_5 = p3_ground_5
    else:
        p4_ground_3 = [0,405000,675000,1038500,1564000]
        p4_ground_4 = [0,405000,675000,1038500,1564000]
        p4_ground_5 = [0,1350050,2033200,0,0]
```

1.3.2 Max CM Points

[7]:
```
p1max_ship = p1_ships_1[1]+p1_ships_2[1]
p1max_ground = p1_ground_1[4]+p1_ground_2[4]+p1_ground_3[4]+p1_ground_4[4]
p2max_ship = p2_ships_1[1] + p2_ships_2[1]
p2max_ground =␣
 ↪p2_ground_1[4]+p2_ground_2[4]+p2_ground_3[4]+p2_ground_4[4]+p2_ground_5[4]
p3max_ship = p3_ships_1[1] + p3_ships_2[1]
p3max_ground = p3_ground_1[4]+p3_ground_2[4]+p3_ground_3[4]+p3_ground_4[4]
p4max_ship = p4_ships_1[1]+p4_ships_2[1]
p4max_ground =␣
 ↪p4_ground_1[4]+p4_ground_2[4]+p4_ground_3[4]+p4_ground_4[4]+p4_ground_5[4]
```

1.4 Low Performers

1.4.1 Lowest TB Points per GP

[8]:
```
n = 10
low_ppg = p4['pointsPerGP'].sort_values().head(n)
print(low_ppg)
```

```
name
Diesel87           2.509
Indeedus           3.003
ONE                3.396
Guntha Arbos       3.566
HiddenWolf         3.605
Corran Horn        3.605
Zhil Axfow         3.659
ExcellentNutAlt    3.726
starshaker         3.898
T swizzle          3.907
Name: pointsPerGP, dtype: float64
```

1.4.2 Lowest CM Waves Completed

[9]:
```
low_cm = p4['combatMissionWavesCompleted'].sort_values().head(n)
print(low_cm)
```

```
name
HiddenWolf         0
Guntha Arbos       0
Indeedus           0
ExcellentNutAlt    0
Corran Horn        0
Seamonster34       0
Vsarr              0
Tommy              1
Obi Won Sebroni    1
T swizzle          2
Name: combatMissionWavesCompleted, dtype: int64
```

1.4.3 Lowest TB Points

[10]:
```
low_tb = p4['territoryPointsContributed'].sort_values().head(n)
print(low_tb)
```

```
name
ExcellentNutAlt     9178390
Diesel87           10705534
BabyYodaHitta      10941345
Obi Won Sebroni    12416947
```

```
Tommy              12639192
T swizzle          12660131
Nydot              13293760
MINI Stewabob      14006918
Seamonster34       14045493
Indeedus           14287642
Name: territoryPointsContributed, dtype: int64
```

1.5 Top Performers

1.5.1 Highest TB Points per GP

[11]:
```
high_ppg = p4['pointsPerGP'].sort_values(ascending = False).head(n)
print(high_ppg)
```

```
name
ilekkund2              7.261
Baxston Kane           7.132
LGuy 21                6.943
Loadage                6.893
AKB                    6.732
Promethean             6.122
Wolfman314             6.092
GANIC                  5.949
Larping Soccer Moms    5.930
ShootMeow              5.778
Name: pointsPerGP, dtype: float64
```

1.5.2 Highest Combat Waves Completed

[12]:
```
high_cm = p4['combatMissionWavesCompleted'].sort_values(ascending = False).
 ↪head(n)
print(high_cm)
```

```
name
Baxston Kane    46
LGuy 21         41
AKB             38
Wolfman314      36
Loadage         33
Promethean      32
MINICalens      31
ilekkund2       30
GANIC           26
ShootMeow       24
Name: combatMissionWavesCompleted, dtype: int64
```

1.5.3 Highest TB Points

[13]:
```
high_tb = p4['territoryPointsContributed'].sort_values(ascending = False).
 ↪head(n)
print(high_tb)
```

```
name
Baxston Kane       44985866
LGuy 21            41342245
AKB                37515448
Wolfman314         37039327
Loadage            36790097
Maxaron Lexilon    34523021
ShootMeow          34461083
ilekkund2          32303402
Promethean         31922280
MINICalens         31734073
Name: territoryPointsContributed, dtype: int64
```

1.6 Guild Performance

[14]:
```
if(not (("Ch 5") in p1.columns)):
    p1['Ch 5'] = [0]*len(p1)
if(not (("Ch 5") in p2.columns)):
    p2['Ch 5'] = [0]*len(p2)
if(not (("Ch 5") in p3.columns)):
    p3['Ch 5'] = [0]*len(p3)
if(not (("Ch 5") in p4.columns)):
    p4['Ch 5'] = [0]*len(p4)

if(not (("Fl 2") in p1.columns)):
    p1['Fl 2'] = [0]*len(p1)
if(not (("Fl 2") in p2.columns)):
    p2['Fl 2'] = [0]*len(p2)
if(not (("Fl 2") in p3.columns)):
    p3['Fl 2'] = [0]*len(p3)
if(not (("Fl 2") in p4.columns)):
    p4['Fl 2'] = [0]*len(p4)
```

[15]:
```
def toPoints(points,waves):
    i = 0
    point_value = pd.Series([0]*len(waves),index = waves.index)
    while(i<len(waves)):
        point_value[i] = points[waves.iloc[i].astype('int64')]
        i+=1
    return point_value
```

[16]:
```
p1['ground'] = toPoints(p1_ground_1,p1['Ch 1'])+toPoints(p1_ground_2,p1['Ch␣
↪2'])+toPoints(p1_ground_3,p1['Ch 3'])+toPoints(p1_ground_4,p1['Ch␣
↪4'])+toPoints(p1_ground_5,p1['Ch 5'])
p2['ground'] = toPoints(p2_ground_1,p2['Ch 1'])+toPoints(p2_ground_2,p2['Ch␣
↪2'])+toPoints(p2_ground_3,p2['Ch 3'])+toPoints(p2_ground_4,p2['Ch␣
↪4'])+toPoints(p2_ground_5,p2['Ch 5'])
p3['ground'] = toPoints(p3_ground_1,p3['Ch 1'])+toPoints(p3_ground_2,p3['Ch␣
↪2'])+toPoints(p3_ground_3,p3['Ch 3'])+toPoints(p3_ground_4,p3['Ch␣
↪4'])+toPoints(p3_ground_5,p3['Ch 5'])
p4['ground'] = toPoints(p4_ground_1,p4['Ch 1'])+toPoints(p4_ground_2,p4['Ch␣
↪2'])+toPoints(p4_ground_3,p4['Ch 3'])+toPoints(p4_ground_4,p4['Ch␣
↪4'])+toPoints(p4_ground_5,p4['Ch 5'])

p1['ship'] = toPoints(p1_ships_1,p1['Fl 1'])+toPoints(p1_ships_2,p1['Fl 2'])
p2['ship'] = toPoints(p2_ships_1,p2['Fl 1'])+toPoints(p2_ships_2,p2['Fl 2'])
p3['ship'] = toPoints(p3_ships_1,p3['Fl 1'])+toPoints(p3_ships_2,p3['Fl 2'])
p4['ship'] = toPoints(p4_ships_1,p4['Fl 1'])+toPoints(p4_ships_2,p4['Fl 2'])
```

[17]:
```
p1_ground_perc = round(pd.Series(p1['ground']/p1max_ground).mean()*100,0).
↪astype(int).astype(str)+'%'
p2_ground_perc = round(pd.Series(p2['ground']/p2max_ground).mean()*100,0).
↪astype(int).astype(str)+'%'
p3_ground_perc = round(pd.Series(p3['ground']/p3max_ground).mean()*100,0).
↪astype(int).astype(str)+'%'
p4_ground_perc = round(pd.Series(p4['ground']/p4max_ground).mean()*100,0).
↪astype(int).astype(str)+'%'

p1_ship_perc = round(pd.Series(p1['ship']/p1max_ship).mean()*100,0).astype(int).
↪astype(str)+'%'
p2_ship_perc = round(pd.Series(p2['ship']/p2max_ship).mean()*100,0).astype(int).
↪astype(str)+'%'
p3_ship_perc = round(pd.Series(p3['ship']/p3max_ship).mean()*100,0).astype(int).
↪astype(str)+'%'
p4_ship_perc = round(pd.Series(p4['ship']/p4max_ship).mean()*100,0).astype(int).
↪astype(str)+'%'
```

1.6.1 Percent of Combat Mission Points per Phase

[18]:
```
data =␣
↪[[p1_ground_perc,p1_ship_perc],[p2_ground_perc,p2_ship_perc],[p3_ground_perc,p3_ship_perc],
perc_points = pd.DataFrame(data, index = ['Phase 1','Phase 2','Phase 3','Phase␣
↪4'],columns = ['Ground','Ships'])
print(perc_points)
```

```
        Ground Ships
Phase 1    18%   21%
```

```
Phase 2    20%   20%
Phase 3    19%   18%
Phase 4    15%   27%
```

1.6.2 Average TB Points per GP

[19]:
```
print(avgPointsPerGP)
```

```
4.797
```

1.6.3 Guild TB Points and TB Points per GP

[20]:
```
p4.loc[:,['territoryPointsContributed','pointsPerGP']].
↪sort_values(by=['territoryPointsContributed'], ascending=False)
```

[20]:

name	territoryPointsContributed	pointsPerGP
Baxston Kane	44985866	7.132
LGuy 21	41342245	6.943
AKB	37515448	6.732
Wolfman314	37039327	6.092
Loadage	36790097	6.893
Maxaron Lexilon	34523021	5.558
ShootMeow	34461083	5.778
ilekkund2	32303402	7.261
Promethean	31922280	6.122
MINICalens	31734073	5.504
Masajj Vemtits	30436108	5.327
SloppySaberFlavor	28066067	4.996
GANIC	27084246	5.949
Philo Beddoe	26874073	4.904
Thegreatplant	26479692	5.411
Elyana	26371112	4.756
Kypomm	25108020	4.096
Higgs	24902450	4.758
TacoPizza	23494946	4.719
The Wall	23123940	4.928
Neeb	23019564	4.118
Argarax	22666824	5.240
Zhil Axfow	22103740	3.659
Wolfman	21715197	4.852
Spectrum	21443535	4.976
DorkHelmet	21425468	4.088
Guntha Arbos	21275685	3.566
ONE	20715358	3.396
M1TTH	20649803	4.607
HiddenWolf	20533206	3.605

Quinton Samulson	19894073	5.099
starshaker	19734029	3.898
Larping Soccer Moms	19163807	5.930
Theflavorgreen	18845245	3.939
MINI xipokemastrix	18458760	4.687
Vsarr	18309714	4.004
Doomslug the Destroyer	17327323	4.997
Dark Penguin	16478855	4.202
Corran Horn	16030751	3.605
Indeedus	14287642	3.003
Seamonster34	14045493	4.004
MINI Stewabob	14006918	4.475
Nydot	13293760	4.690
T swizzle	12660131	3.907
Tommy	12639192	4.132
Obi Won Sebroni	12416947	4.206
BabyYodaHitta	10941345	4.068
Diesel87	10705534	2.509
ExcellentNutAlt	9178390	3.726