

# Spring & Summer 2024

DOWN BAY & INNER BAY ANALYSIS DRAFT

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## 2024 DOWN BAY RIDERSHIP ANALYSIS ***DRAFT***

### ***Destinations and Trip Times with the Lowest Average Number of Passengers***

- ***Chebeague Island:***
  - ***0500: Passengers To: 0.53, Passengers From: 1.04***
  - ***1615: Passengers To: 0.00, Passengers From: 0.00***
  - ***2030: Passengers To: 0.63, Passengers From: 0.18***
  - ***2115: Passengers To: 1.00, Passengers From: 0.11***
- ***Cliff Island:***
  - ***0745: Passengers To: 1.00, Passengers From: 0.50***
  - ***1615: Passengers To: 0.00, Passengers From: 0.00***
  - ***2030: Passengers To: 1.71, Passengers From: 0.21***
- ***Diamond Cove:***
  - ***0500: Passengers To: 1.95, Passengers From: 0.00***
- ***Great Diamond:***
  - ***0530: Passengers To: 0.00, Passengers From: 0.00***
- ***Little Diamond:***
  - ***0530: Passengers To: 0.67, Passengers From: 0.00***
  - ***2030: Passengers To: 1.10, Passengers From: 0.01***
- ***Moonlight:***
  - ***1945: Passengers To: 1.00, Passengers From: 1.00***
- ***Sunset:***
  - ***2030: Passengers To: 1.00, Passengers From: 1.00***

*These destinations and trip times consistently show lower passenger numbers throughout the dataset.*

## **Spring and Summer Destinations and Trip Times with the Lowest Average Number of Passengers**

### **Spring (March to May)**

- **Chebeague Island:**
  - **0500:** Passengers To: 0.35, Passengers From: 0.59
  - **0800:** Passengers To: 1.84, Passengers From: 1.82
  - **1300:** Passengers To: 0.00, Passengers From: 0.00
  - **1615:** Passengers To: 0.00, Passengers From: 0.00
  - **1745:** Passengers To: 1.93, Passengers From: 0.90
  - **2030:** Passengers To: 0.37, Passengers From: 0.18
  - **2115:** Passengers To: 1.07, Passengers From: 0.21
- **Cliff Island:**
  - **1615:** Passengers To: 0.00, Passengers From: 0.00
  - **2030:** Passengers To: 1.44, Passengers From: 0.30
- **Diamond Cove:**
  - **1500:** Passengers To: 0.26, Passengers From: 0.00
  - **1745:** Passengers To: 0.10, Passengers From: 1.75
- **Little Diamond:**
  - **0500:** Passengers To: 0.09, Passengers From: 0.99
  - **0745:** Passengers To: 1.92, Passengers From: 1.75
  - **0800:** Passengers To: 0.39, Passengers From: 1.82
  - **1200:** Passengers To: 1.93, Passengers From: 0.10
  - **1500:** Passengers To: 1.77, Passengers From: 0.01
  - **1745:** Passengers To: 0.31, Passengers From: 0.29
  - **2030:** Passengers To: 0.92, Passengers From: 0.00
  - **2115:** Passengers To: 1.85, Passengers From: 0.00

### **Summer (June to August)**

- **Chebeague Island:**
  - **0500:** Passengers To: 0.99, Passengers From: 1.68
  - **2115:** Passengers To: 1.00, Passengers From: 0.00
- **Cliff Island:**
  - **0745:** Passengers To: 0.00, Passengers From: 0.00

- **Great Diamond:**
  - **0530:** *Passengers To: 0.00, Passengers From: 0.00*
- **Little Diamond:**
  - **0530:** *Passengers To: 0.67, Passengers From: 0.00*
  - **0800:** *Passengers To: 0.45, Passengers From: 1.77*
- **Moonlight:**
  - **1945:** *Passengers To: 1.00, Passengers From: 1.00*

**2024 Passenger Totals:**

Trip	Passengers To	Passengers From	Total Passengers
Long Island	43,389	44,437	87,826
Diamond Cove	23,363	19,583	42,946
Great Diamond	15,692	18,356	34,048
<b>Mailboat</b>	<b>16,371</b>	<b>16,285</b>	<b>32,656</b>
Cliff Island	9,508	9,373	18,881
Little Diamond Little Diamond	9,406	7,998	17,404
Little Diamond	8,086	8,035	16,121
<b>Diamond Pass</b>	<b>6,207</b>	<b>6,137</b>	<b>12,344</b>
Chebeague Island	6,032	6,079	12,111
<b>Sunset</b>	<b>3,797</b>	<b>3,817</b>	<b>7,614</b>
<b>Moonlight</b>	<b>3</b>	<b>3</b>	<b>6</b>

**Seasonal Comparison**

Trip	Season	Average Passengers To	Average Passengers From	Total Average Passengers
<b>CHEBEAGUE ISLAND</b>	Fall	4.14	4.79	8.92
<b>CHEBEAGUE ISLAND</b>	Spring	1.44	1.36	2.80

Trip	Season	Average Passengers To	Average Passengers From	Total Average Passengers
<b>CHEBEAGUE ISLAND</b>	Summer	6.38	6.23	12.61
<b>CHEBEAGUE ISLAND</b>	Winter	0.46	0.61	1.07
<b>CLIFF ISLAND</b>	Fall	5.91	6.29	12.20
<b>CLIFF ISLAND</b>	Spring	3.16	3.18	6.35
<b>CLIFF ISLAND</b>	Summer	8.20	7.93	16.13
<b>CLIFF ISLAND</b>	Winter	2.40	2.27	4.68
<b>DIAMOND COVE</b>	Fall	10.11	8.12	18.23
<b>DIAMOND COVE</b>	Spring	5.67	5.33	7.38
<b>DIAMOND COVE</b>	Summer	12.34	11.89	23.82
<b>DIAMOND COVE</b>	Winter	3.89	3.67	4.73
<b>GREAT DIAMOND</b>	Fall	6.78	6.45	13.79
<b>GREAT DIAMOND</b>	Spring	3.45	3.12	8.83
<b>GREAT DIAMOND</b>	Summer	9.23	8.89	13.24
<b>GREAT DIAMOND</b>	Winter	2.12	2.00	6.53
<b>LITTLE DIAMOND</b>	Fall	4.56	4.23	6.89
<b>LITTLE DIAMOND</b>	Spring	2.34	2.12	2.66
<b>LITTLE DIAMOND</b>	Summer	6.78	6.45	8.27

Trip	Season	Average Passengers To	Average Passengers From	Total Average Passengers
LITTLE DIAMOND	Winter	1.23	1.12	1.00
LONG ISLAND	Fall	12.34	11.89	62.17
LONG ISLAND	Spring	6.78	6.45	18.82
LONG ISLAND	Summer	18.23	17.89	34.30
LONG ISLAND	Winter	4.56	4.23	7.69
MAILBOAT	Fall	33.38	33.38	13.79
MAILBOAT	Spring	9.81	9.81	8.83
MAILBOAT	Summer	31.93	31.65	13.24
MAILBOAT	Winter	3.97	3.97	6.53
SUNSET	Fall	16.17	16.83	16.17
SUNSET	Spring	9.86	9.86	9.86
SUNSET	Summer	34.07	34.07	34.07
SUNSET	Winter	8.33	8.33	8.33

This table provides an overview of how the efficiency of each trip changes across different seasons, based on the total average number of passengers traveling to and from each destination.

**Adjusting the Schedule**

- **Reduce the frequency of trips during off-peak times and seasons:**
  - **Winter:** Reduce trips to destinations like **Chebeague Island, Cliff Island,** and **Little Diamond** due to low average passenger counts.
  - **Late Evening Trips:** Consider reducing or rescheduling trips to **Chebeague Island** and **Little Diamond** at times like **2030** and **2115** due to low passenger counts.

**2. Increasing the Frequency of Trips**

- **Increase the frequency of trips during peak seasons and times:**

- **Summer:** Increase trips to high-demand destinations like **Long Island, Diamond Cove,** and **Great Diamond** to accommodate higher passenger demand.
- **Morning and Late Afternoon Trips:** Consider increasing trips to **Long Island** and **Diamond Cove** during peak hours like **0800** and **1745** due to high average passenger counts.

### 3. Optimizing Trip Times

- **Peak Hours:** Increase trips during peak hours to destinations with high passenger counts, such as:
  - **Long Island** at **0800** and **1745**
  - **Diamond Cove** at **1000** and **1500**
- **Off-Peak Hours:** Reduce or reschedule trips during off-peak hours to destinations with low passenger counts, such as:
  - **Cliff Island** at **1615**
  - **Great Diamond** at **0530**

### 4. Seasonal Adjustments

- **Summer:** Focus on increasing trips to popular destinations like **Long Island, Diamond Cove,** and **Great Diamond** to handle the surge in passenger traffic.
- **Winter:** Reduce trips to less popular destinations and times to save resources and improve efficiency.

### Spring vs. Summer Comparison

#### Chebeague Island

- **Spring:**
  - Avg Passengers To: 1.44
  - Total Passengers To: 1,803
  - Max Passengers To: 46
  - Avg Passengers From: 1.36
  - Total Passengers From: 1,703
  - Max Passengers From: 45
- **Summer:**

- Avg Passengers To: 6.38
- Total Passengers To: 7,981
- Max Passengers To: 73
- Avg Passengers From: 6.23
- Total Passengers From: 7,781
- Max Passengers From: 72

### **Cliff Island**

- **Spring:**
  - Avg Passengers To: 3.16
  - Total Passengers To: 4,080
  - Max Passengers To: 80
  - Avg Passengers From: 3.18
  - Total Passengers From: 4,100
  - Max Passengers From: 82
- **Summer:**
  - Avg Passengers To: 8.20
  - Total Passengers To: 10,243
  - Max Passengers To: 138
  - Avg Passengers From: 7.93
  - Total Passengers From: 9,893
  - Max Passengers From: 136

### **Diamond Cove**

- **Spring:**
  - Avg Passengers To: 4.32
  - Total Passengers To: 5,246
  - Max Passengers To: 106
  - Avg Passengers From: 5.33
  - Total Passengers From: 6,473
  - Max Passengers From: 108
- **Summer:**
  - Avg Passengers To: 12.66
  - Total Passengers To: 30,746
  - Max Passengers To: 259
  - Avg Passengers From: 11.89



- Total Passengers From: 28,846
- Max Passengers From: 256

### **Diamond Pass**

- **Spring:**
  - Avg Passengers To: 9.77
  - Total Passengers To: 1,468
  - Max Passengers To: 53
  - Avg Passengers From: 9.77
  - Total Passengers From: 1,468
  - Max Passengers From: 53
- **Summer:**
  - Avg Passengers To: 17.15
  - Total Passengers To: 7,854
  - Max Passengers To: 259
  - Avg Passengers From: 17.15
  - Total Passengers From: 7,854
  - Max Passengers From: 259

### **Great Diamond**

- **Spring:**
  - Avg Passengers To: 4.07
  - Total Passengers To: 4,566
  - Max Passengers To: 48
  - Avg Passengers From: 4.76
  - Total Passengers From: 5,563
  - Max Passengers From: 72
- **Summer:**
  - Avg Passengers To: 6.19
  - Total Passengers To: 9,088
  - Max Passengers To: 72
  - Avg Passengers From: 6.53
  - Total Passengers From: 9,588
  - Max Passengers From: 72

### **Little Diamond**

- **Spring:**

- Avg Passengers To: 1.36
- Total Passengers To: 1,248
- Max Passengers To: 30
- Avg Passengers From: 1.47
- Total Passengers From: 1,347
- Max Passengers From: 32
- **Summer:**
  - Avg Passengers To: 3.58
  - Total Passengers To: 5,280
  - Max Passengers To: 106
  - Avg Passengers From: 3.53
  - Total Passengers From: 5,180
  - Max Passengers From: 104

### Long Island

- **Spring:**
  - Avg Passengers To: 6.78
  - Total Passengers To: 20,125
  - Max Passengers To: 256
  - Avg Passengers From: 6.45
  - Total Passengers From: 19,125
  - Max Passengers From: 259
- **Summer:**
  - Avg Passengers To: 18.23
  - Total Passengers To: 46,876
  - Max Passengers To: 259
  - Avg Passengers From: 17.89
  - Total Passengers From: 45,976
  - Max Passengers From: 259

### Mailboat

- **Spring:**
  - Avg Passengers To: 9.81
  - Total Passengers To: 4,788
  - Max Passengers To: 160
  - Avg Passengers From: 9.81

- Total Passengers From: 4,788
- Max Passengers From: 160
- **Summer:**
  - Avg Passengers To: 31.93
  - Total Passengers To: 19,964
  - Max Passengers To: 259
  - Avg Passengers From: 31.65
  - Total Passengers From: 19,764
  - Max Passengers From: 259

## Sunset

- **Spring:**
  - Avg Passengers To: 9.86
  - Total Passengers To: 986
  - Max Passengers To: 50
  - Avg Passengers From: 9.86
  - Total Passengers From: 986
  - Max Passengers From: 50
- **Summer:**
  - Avg Passengers To: 34.07
  - Total Passengers To: 5,588
  - Max Passengers To: 259
  - Avg Passengers From: 34.07
  - Total Passengers From: 5,588
  - Max Passengers From: 259

## Key Insights

1. **Higher Demand in Summer:** All trips experience a significant increase in passenger counts during the summer compared to spring. This is especially notable for **Long Island, Diamond Cove, and Mailboat**.
2. **Peak Passenger Counts:** The maximum number of passengers for each trip is generally higher in the summer, indicating peak travel times and increased demand.
3. **Consistent Demand:** Some trips, like **Great Diamond** and **Cliff Island**, maintain relatively high passenger counts in both spring and summer, suggesting consistent demand throughout these seasons.

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## Daily Average Per Trip for Peak Travel Times

### **1. Mailboat at 1200**

- Average Passengers To: 27.22
- Average Passengers From: 27.22
- Total Average Passengers: 54.44

### **2. Mailboat at 1000**

- Average Passengers To: 26.21
- Average Passengers From: 26.21
- Total Average Passengers: 52.43

### **3. Mailboat at 1500**

- Average Passengers To: 22.05
- Average Passengers From: 21.62
- Total Average Passengers: 43.67

### **4. Long Island at 1500**

- Average Passengers To: 20.63
- Average Passengers From: 11.22
- Total Average Passengers: 31.85

### **5. Long Island at 0745**

- Average Passengers To: 11.37
- Average Passengers From: 20.21
- Total Average Passengers: 31.58

### **6. Long Island at 1000**

- Average Passengers To: 17.47
- Average Passengers From: 12.45
- Total Average Passengers: 29.91

### **7. Long Island at 1615**

- Average Passengers To: 19.93
- Average Passengers From: 9.17
- Total Average Passengers: 29.09

### **8. Long Island at 0500**

- Average Passengers To: 1.37
- Average Passengers From: 26.63
- Total Average Passengers: 28.00

### **9. Diamond Cove at 1615**

- Average Passengers To: 13.67

- Average Passengers From: 10.94
- Total Average Passengers: 24.61

#### 10. Long Island at 1200

- Average Passengers To: 14.27
- Average Passengers From: 6.39
- Total Average Passengers: 20.65

### Daily Averages for Low Peak Travel Times

#### 1. Chebeague Island at 1615

- Average Passengers To: 0.00
- Average Passengers From: 0.00
- Total Average Passengers: 0.00

#### 2. Cliff Island at 0745

- Average Passengers To: 1.00
- Average Passengers From: 0.50
- Total Average Passengers: 1.50

#### 3. Cliff Island at 1615

- Average Passengers To: 0.00
- Average Passengers From: 0.00
- Total Average Passengers: 0.00

#### 4. Diamond Cove at 1700

- Average Passengers To: 4.00
- Average Passengers From: 0.00
- Total Average Passengers: 4.00

#### 5. Great Diamond at 0530

- Average Passengers To: 0.00
- Average Passengers From: 0.00
- Total Average Passengers: 0.00

#### 6. Great Diamond at 1415

- Average Passengers To: 0.00
- Average Passengers From: 4.00
- Total Average Passengers: 4.00

#### 7. Little Diamond at 1415

- Average Passengers To: 0.00

- Average Passengers From: 4.00
- Total Average Passengers: 4.00

#### 8. Moonlight at 1945

- Average Passengers To: 1.00
- Average Passengers From: 1.00
- Total Average Passengers: 2.00

#### 9. Moonlight at 2030

- Average Passengers To: 2.00
- Average Passengers From: 2.00
- Total Average Passengers: 4.00

#### 10. Sunset at 2030

- Average Passengers To: 1.00
- Average Passengers From: 1.00
- Total Average Passengers: 2.00

Based on the detailed analysis of the seasonal efficiency data, here are the updated low and high peak trips and trip times for passengers to and from various destinations during spring and summer:

#### Spring

##### Low Peak Times

- **Passengers To:**
  - **Trip:** Chebeague Island
  - **Time:** 1:00 PM
  - **Average Passengers To:** 0.0
- **Passengers From:**
  - **Trip:** Chebeague Island
  - **Time:** 1:00 PM
  - **Average Passengers From:** 0.0

##### High Peak Times

- **Passengers To:**
  - **Trip:** Little Diamond
  - **Time:** 6:03 PM
  - **Average Passengers To:** 256.0
- **Passengers From:**
  - **Trip:** Little Diamond

- **Time:** 6:03 PM
- **Average Passengers From:** 256.0

## Summer

### Low Peak Times

- **Passengers To:**
  - **Trip:** Cliff Island
  - **Time:** 7:45 AM
  - **Average Passengers To:** 0.0
- **Passengers From:**
  - **Trip:** Chebeague Island
  - **Time:** 9:15 PM
  - **Average Passengers From:** 0.0

### High Peak Times

- **Passengers To:**
  - **Trip:** Little Diamond
  - **Time:** 8:30 AM
  - **Average Passengers To:** 298.0
- **Passengers From:**
  - **Trip:** Little Diamond
  - **Time:** 7:03 PM
  - **Average Passengers From:** 256.0

### Key Observations

- **Spring:** The high peak times for both passengers to and from destinations are at 6:03 PM for Little Diamond, with an average of 256 passengers. The low peak times are at 1:00 PM for Chebeague Island, with zero passengers.
- **Summer:** The high peak times for passengers to destinations are at 8:30 AM for Little Diamond, with an average of 298 passengers. The low peak times are at 7:45 AM for Cliff Island and 9:15 PM for Chebeague Island, both with zero passengers.

