## Appendix C: Top 10 Codes Used from December 2019 to January 2020

Problem			
Code and			
Sub Code	Descriptions	Total Count	% Used
LF-ITEM	Lost&Found Item	954	13.31%
OP-EROR	Operator- Error	855	11.93%
DL-LTRF	Delay-late traffic	835	11.65%
OP-RELF	Operator- No Relief	540	7.54%
MR-FBOX	Mechanical- Farebox	481	6.71%
DL-LOTR	Delay-LateOther	475	6.63%
MR-ENGN	Mechanical -Engine	475	6.63%
IO-OTHR	Incident-Other	457	6.38%
SV-OTHR	Service-Other	441	6.15%
SC-DISC	Security- Disorderly Conduct	221	3.08%

## Appendix D: OTP - Swiftly vs. OrbCAD on High-Frequency Routes

## **Swiftly OTP vs OrbCAD**

Date Range: 1/05/20 - 1/31/20							
Pouto	Swiftly OTP		OrbCAD				
Route	Early	On-Time	Late	Early	On-Time	Late	
2	8.6%	80.3%	11.2%	3.4%	83.6%	13.1%	
4	14.2%	75.1%	10.7%	6.1%	82.5%	11.3%	
7	11.2%	71.1%	17.8%	7.4%	73.8%	18.8%	
10	18.0%	69.9%	12.1%	9.4%	76.8%	13.8%	
17	6.2%	87.3%	6.5%	5.1%	89.7%	5.2%	
18	15.6%	73.1%	11.3%	4.5%	83.5%	12.0%	
20	9.5%	70.3%	20.1%	7.4%	74.1%	18.5%	
217	23.6%	71.0%	5.4%	4.7%	91.2%	4.1%	
300	11.0%	71.4%	17.7%	5.9%	75.9%	18.3%	
311	13.2%	73.1%	13.7%	5.4%	79.4%	15.2%	
325	12.6%	81.5%	5.9%	8.6%	84.5%	7.0%	
333	12.1%	79.7%	8.3%	6.9%	82.6%	10.5%	
335	15.7%	78.9%	5.4%	10.6%	84.1%	5.4%	
801	13.5%	47.2%	39.3%	18.9%	44.0%	37.2%	
803	19.9%	52.7%	27.3%	27.7%	49.9%	22.5%	
Average	13.7%	72.2%	14.2%	8.8%	77.0%	14.2%	

## OrbCAD Variance to Swiftly OTP

	Route	Early	On-Time	Late			
ſ	2	-5.2%	3.3%	1.9%			
l	4	-8.1%	7.4%	0.6%			
	7	-3.8%	2.7%	1.0%			
Ī	10	-8.6%	6.9%	1.7%			
	17	-1.1%	2.4%	-1.3%			
	18	-11.1%	10.4%	0.7%			
	20	-2.2%	3.8%	-1.6%			
	217	-18.9%	20.2%	-1.3%			
	300	-5.1%	4.5%	0.6%			
	311	-7.8%	6.3%	1.5%			
	325	-4.0%	3.0%	1.1%			
	333	-5.2%	2.9%	2.2%			
	335	-5.1%	5.2%	0.0%			
	801	5.4%	-3.2%	-2.1%			
l	803	7.8%	-2.8%	-4.9%			
ı	Average	-4.9%	4.9%	0%			

**Note:** Differences between Swiftly and OrbCAD are expected since Swiftly captures GPS location every 10 seconds versus OrbCAD's every 30 seconds. Additional reasons for differences can be found in Appendix A.

<sup>\*\*\*</sup> Route 801 and 803, OTP is captured on arrival time by OrbCAD, instead of departure times for all other routes.