



**UPS Audit
November 2015**

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Overview

Adafruit came out ahead in November despite some notable UPS surcharges. Total shipping revenue as well as revenue by service saw an increase, likely due to the combination of the holiday season and the release of the new Raspberry Pi Zero.

Some substantial UPS surcharges stem from discrepancies between entered weight and billed weight, especially when coupled with Air services; residential and address correction surcharges; delivery/extended area surcharges; and delivery confirmation signature surcharges.

Shipping Revenue

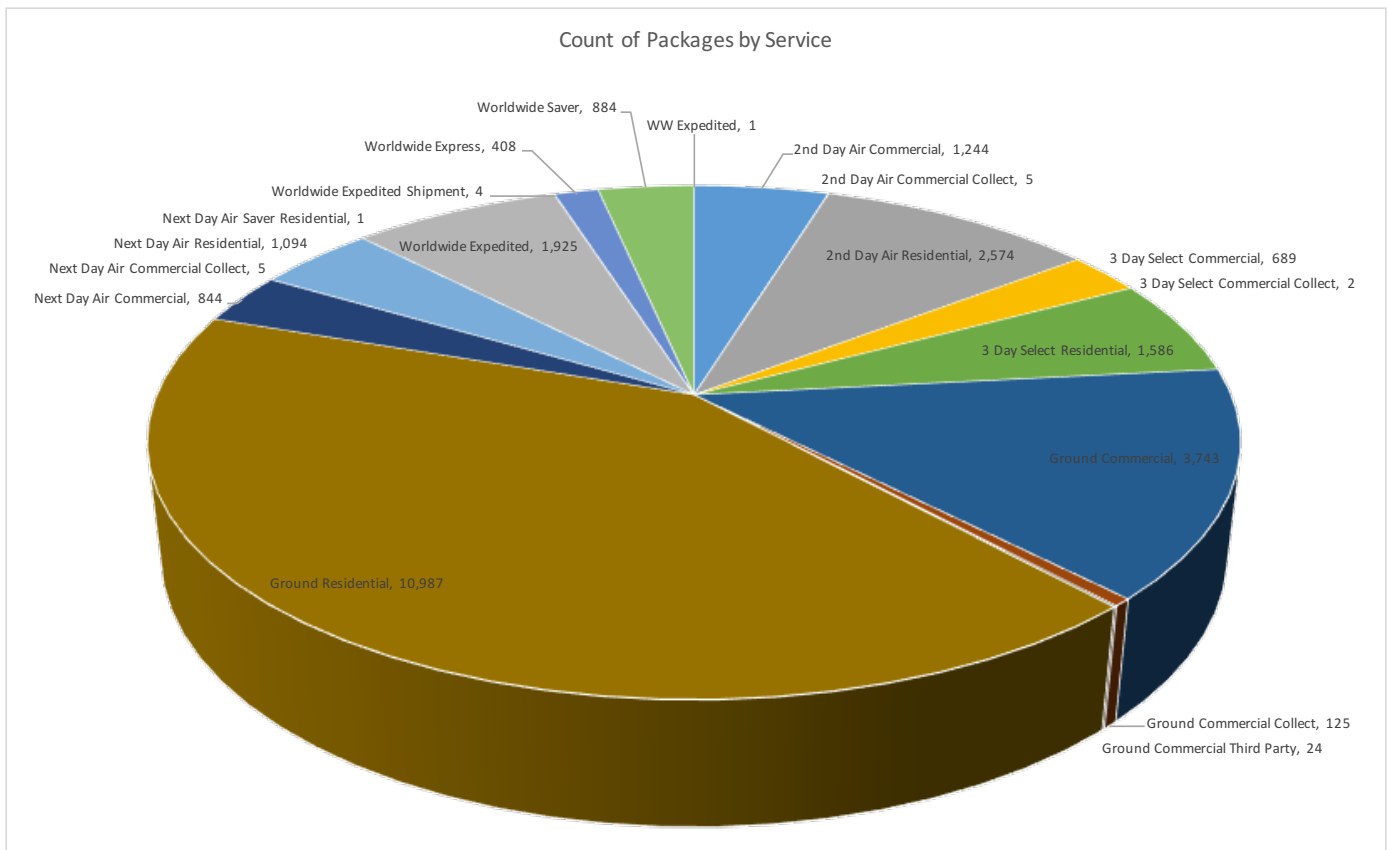
November 2015 saw an overall increase in shipping revenue compared to October 2015. Total shipping revenue increased by 31% while Ground service took the lead with an increase of 48%. 2nd Day Air increased in the least at only 9%.

Oct to Nov Shipping Revenue % change	
2nd day air	9%
3 day select	26%
express saver	32%
ground	48%
next day air	18%
worldwide express	30%
Total	31%

Services by Volume

There was a total of about 26,000 packages sent this past month. Ground Residential took the lead as most popular service with around 11,000 packages, while Ground Commercial clocked in at about 3,700 for a total of about 14,700 packages, or about 56.5% of total packages shipped

Other high volume services include 2nd Day Air Residential (about 2,500 packages or 9.85% of the total amount shipped), 2nd Day Air Commercial (about 1,200 packages or 4.75%), Worldwide Expedited (about 1,900 packages or 7.3%), and 3 Day Select Residential (about 1,500 packages or 6.00%).



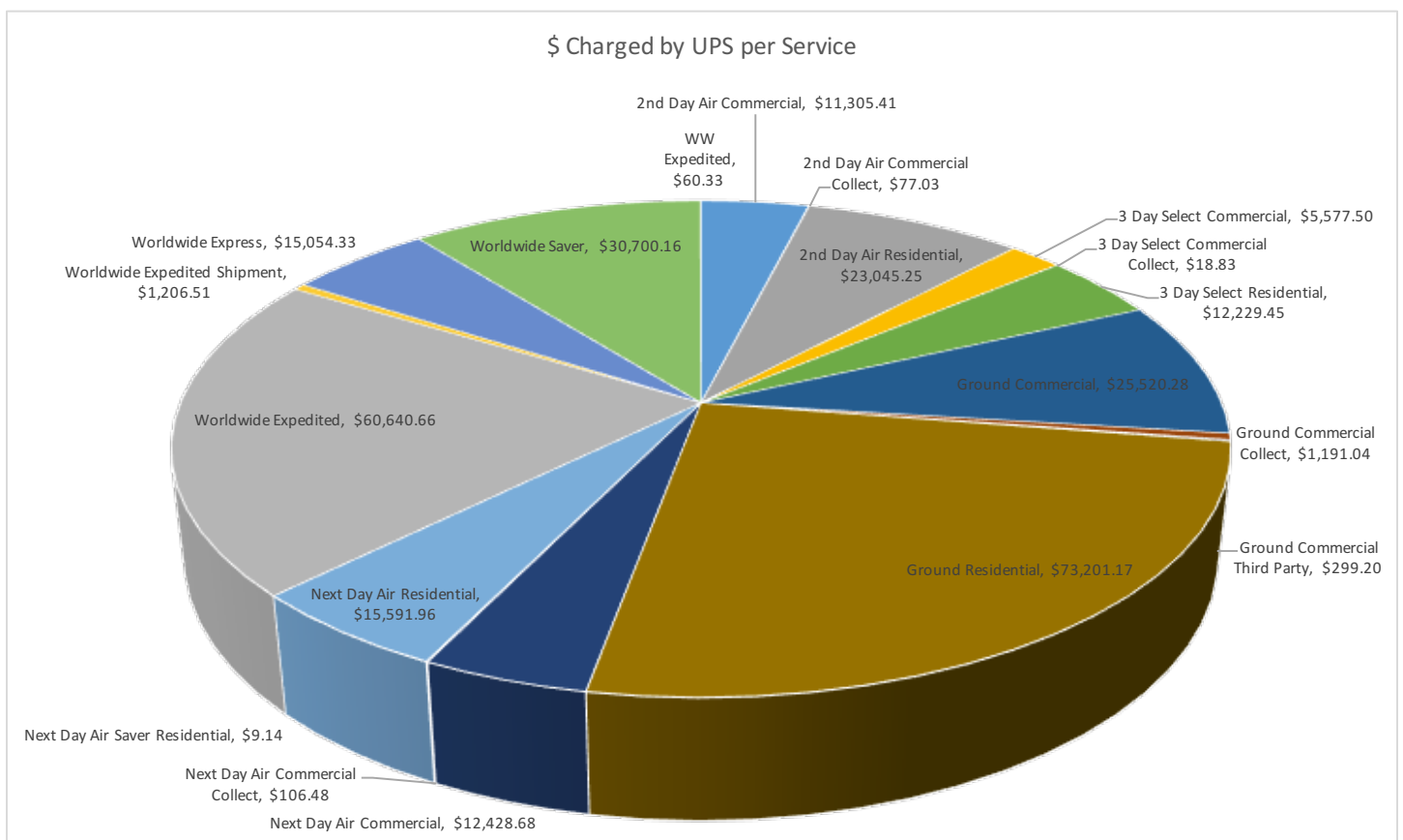
% of Total Packages by Service	
2nd Day Air Commercial	4.76%
2nd Day Air Commercial Collect	0.02%
2nd Day Air Residential	9.85%
3 Day Select Commercial	2.64%
3 Day Select Commercial Collect	0.01%
3 Day Select Residential	6.07%
Ground Commercial	14.32%
Ground Commercial Collect	0.48%
Ground Commercial Third Party	0.09%
Ground Residential	42.02%
Next Day Air Commercial	3.23%
Next Day Air Commercial Collect	0.02%
Next Day Air Residential	4.18%
Next Day Air Saver Residential	0.00%
Worldwide Expedited	7.36%
Worldwide Expedited Shipment	0.02%
Worldwide Express	1.56%
Worldwide Saver	3.38%
WW Expedited	0.00%

Services by UPS Charge

The total dollar amount, after incentives, charged by UPS for all services during November 2015 was around \$288,000. Indeed a large proportion of packages were sent via

Ground, and as a result it had one of the highest costs at \$100,211 (after incentives). But all worldwide services combined (Worldwide Expedited, Express, and Saver) cost a total of \$107,661 with Worldwide Expedited alone cost around \$60,640, (21% of the total dollar amount charged by UPS). Worldwide Saver alone cost about \$30,700 (10.60%).

Although Ground shipments exceeded combined Worldwide shipments by about 11,600, we paid less for Ground shipments due to a higher DIM divisor. A smaller DIM divisor for Air shipments increases the cost of all Worldwide shipments. Although fewer packages were shipped Worldwide we ended up paying more for them. This discrepancy could be remedied by a larger DIM divisor for Worldwide services.



\$ Charges by UPS per Service	
2nd Day Air Commercial	\$11,305.41
2nd Day Air Commercial Collect	\$77.03
2nd Day Air Residential	\$23,045.25
3 Day Select Commercial	\$5,577.50
3 Day Select Commercial Collect	\$18.83
3 Day Select Residential	\$12,229.45
Ground Commercial	\$25,520.28
Ground Commercial Collect	\$1,191.04
Ground Commercial Third Party	\$299.20
Ground Residential	\$73,201.17
Next Day Air Commercial	\$12,428.68
Next Day Air Commercial Collect	\$106.48
Next Day Air Residential	\$15,591.96
Next Day Air Saver Residential	\$9.14
Worldwide Expedited	\$60,640.66
Worldwide Expedited Shipment	\$1,206.51
Worldwide Express	\$15,054.33
Worldwide Saver	\$30,700.16
WW Expedited	\$60.33
Total	\$288,263.41

Fees - Residential and Address Correction Surcharges

Residential and address correction surcharges remain high, but are mitigated by our \$0.05 order add on. There was a total of about 16,700 residential Fees amounting to about \$37,000. Address correction fees were much less in number (92 instances) and in cost (\$1,150).

With the \$0.05 add on we actually came out ahead in this arena at about \$68. Although we have been able to absorb these surcharges with this add on for some time now, we do have some options for reducing these surcharges.

We currently receive an incentive for the residential surcharge, but not for the address correction surcharge. We could negotiate for an incentive for the latter. Another option is to speak with DEV to see how customers are inputting their addresses in order to improve the address recognition algorithm to avoid address corrections.

Fees - Delivery/extended Area Surcharges

These are some of the most expensive fees for which we do not currently receive an incentive. Between delivery area, delivery area extended, extended area, remote area, and remote area extended surcharges we paid about \$9,800 for November. At this rate that is about \$117,600 a year. Delivery area surcharges (regular and extended) instances alone totaled about 2,300.

We could negotiate for some kind of incentive rate for these surcharges. We could also input the problematic zip codes into our system and charge customers who are ordering from these areas an extra fee. We have access to these zip codes, and it would only be a matter of speaking with DEV to see if it were possible and if so, how they would need to receive the information in order to make this change.

Delivery/Extended Area Surcharges	
Delivery Area Surcharge	\$3,806.10
Delivery Area Surcharge - Extended	\$3,835.25
Extended Area Surcharge	\$1,770.00
Remote Area Surcharge	\$365.50
Remote Area Surcharge-Extended	\$30.00
Total	9,806.85

Fees - Other

There are other miscellaneous surcharges for November, but the only one worth noting is the delivery confirmation signature surcharge which occurred about 450 times and cost us about \$1,200 after incentives. This has been a recurring surcharge. Last month it cost us about \$1,400 and occurred about 550 times.

One way to mitigate this surcharge would be to charge the customer a fee if this is a service they would like to have.

Fees - Shipping Charge Corrections

These fees are closely related to our ongoing effort to control our dimensional weight charges. When the entered weight which we provide differs from the dimensional weight which UPS calculates we receive this fee. There is no “extra fee” in the sense of a penalty charge; there is only an additional charge in an amount which will cover the discrepancy between the two disparate weights. Either way it is a fee which we have not accounted for.

However, these fees are down 2.5% from last month, even though the number of orders month to month increased by 27.76%, which means DEV's Box Predictor Tool is making an improvement.

We see more evidence of this improvement in the total amount of billed weight involved in these fees, which is down almost 5%. This is telling us that the gap between the weight we enter and the weight UPS uses to calculate their prices is getting smaller.

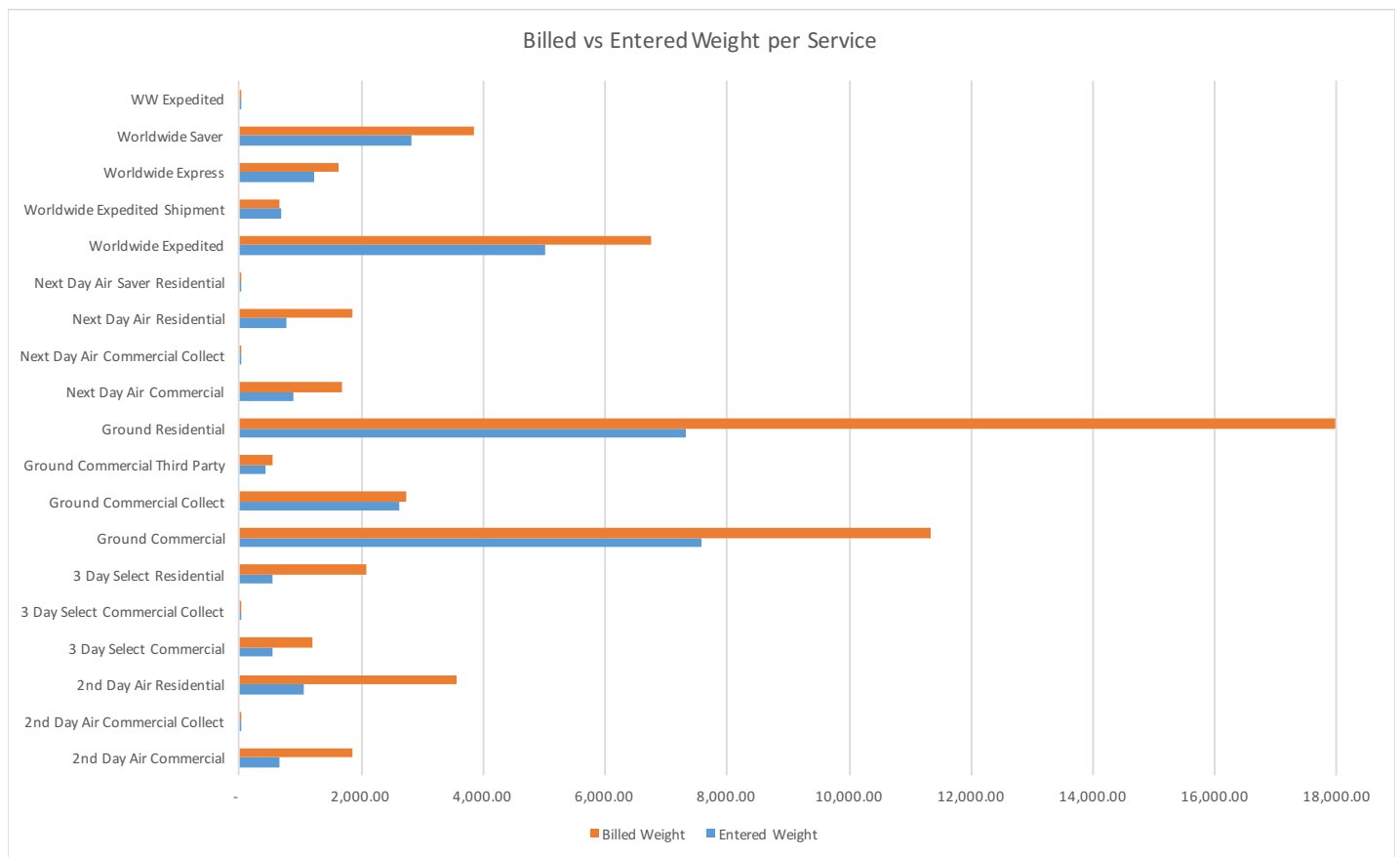
The total cost of these shipping charge corrections this month is about \$2,300, an increase of almost 10% from last month. Although the Box Predictor tool is producing results, these surcharges are sensitive to the services to which they belong. We can see from the table below that month to month Ground is down, but overall Air is up with Worldwide Express (up 2,378%) and Worldwide Saver (up 115%) seeing the largest increase.

Shipping Charge Correction Month to Month % Change			
Service	October	November	% Change
Shipping Charge Correction 2nd Day Air	\$566.87	\$566.79	-0.01%
Shipping Charge Correction 3 Day Select	\$237.32	\$272.77	14.94%
Shipping Charge Correction Expedited	\$274.55	\$268.10	-2.35%
Shipping Charge Correction Express	\$4.90	\$121.43	2378.16%
Shipping Charge Correction Fuel Surcharge	\$70.91	\$103.22	45.56%
Shipping Charge Correction Ground	\$438.97	\$430.69	-1.89%
Shipping Charge Correction Next Day Air	\$505.79	\$523.22	3.45%
Shipping Charge Correction Worldwide Saver	\$19.18	\$41.24	115.02%
Total	\$2,118.49	\$2,327.46	

Another thing to consider is the fuel surcharge increase from October to November, as this would naturally increase the shipping charge correction fee.

Fuel Surcharge %	October	November
Ground	4.75%	5.25%
Air	3.00%	4.50%

These shipping charge corrections fees should continue to decrease in the coming months as the Box Predictor Tool continues to be refined. This tool, combined with a larger DIM divisor for Air shipments, could dramatically reduce our overall fees in the DIM weight arena. Our goal, in time, is to reduce the orange bars (billed weight) in the following graph to the length of the blue ones (entered weight):



Conclusion

UPS surcharges did not send Adafruit into the red for November, but there are some areas which could be addressed in order to better control these surcharges.

These areas are discrepancies between entered weight and billed weight, especially when coupled with international services; residential and address correction surcharges; delivery/extended area surcharges; and delivery confirmation signature surcharges.