

Transportation Data Clearinghouse Regional Model



NATMEC Improving Traffic Data Collection Analysis and Use
June 23, 2010

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Presentation Outline

- Data Needs
- Background
- Goals
- Objective
- Data Sources
- Interface
- Future Directions
- Conclusion

Data Needs

- Internal Users
 - Model Calibration
 - Congestion Monitoring
 - Planning
- External Users
 - Consultants
 - Marketing
 - Research

Background

- Data in File Cabinets
- Some Electronic
- Fragmented
- Partnerships

Goal

- To develop a system to store and retrieve traffic counts that is web based, graphical and electronic

Objectives

- Proof of concept
 - Get Data Out of File Cabinets and Into Use
 - Agencies
 - Privates Sector (for Agencies)
- Ease of Access (Internet Based)
 - Internal and External
 - Query Based
 - Map Based
- Electronic Input/Output
 - Standard Format

Data Sources

- TxDOT Saturation Count Data
- TxDOT Classification
- Historical vs Real Time Data
- Other Agencies
- Other Data Sources
 - Speed limits
 - Environmental Data
 - Travel Time Data
 - Traffic Signal Inventory

Interface

Houston Regional Traffic Count Map - Windows Internet Explorer

http://tthouston.tamu.edu/hgac/trafficcountmap/TrafficCountMap.html

File Edit View Favorites Tools Help

★ Favorites Houston Regional Traff... X Houston TranStar Real-Ti... Texas Transportation Instit... Houston-Galveston Area C...

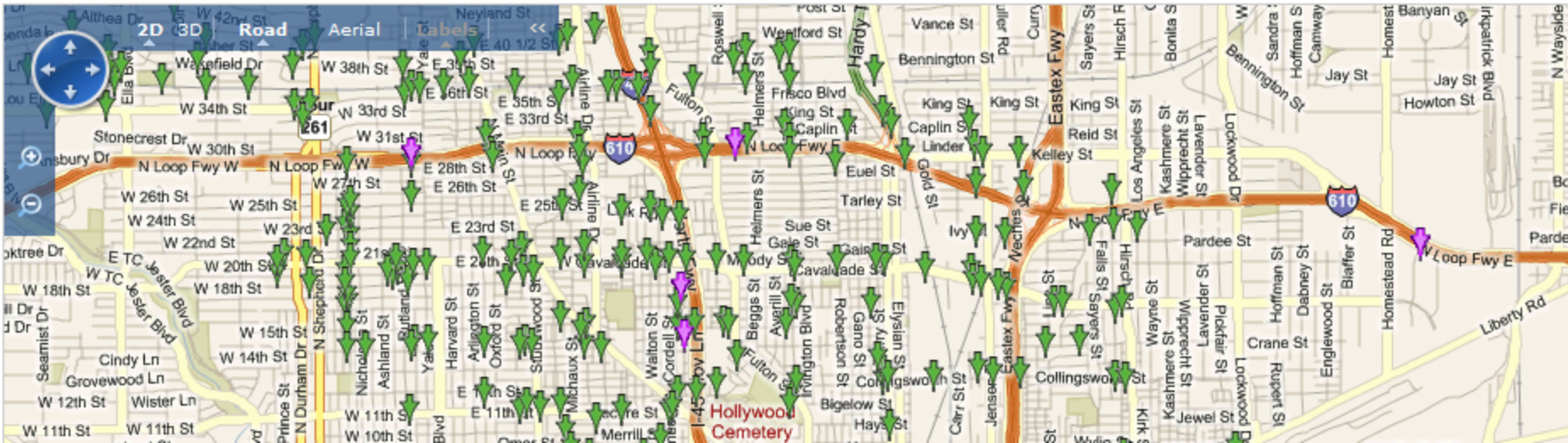
Houston Regional Traffic Count Map

[Map](#) | [About the Map](#) | [Disclaimer](#)

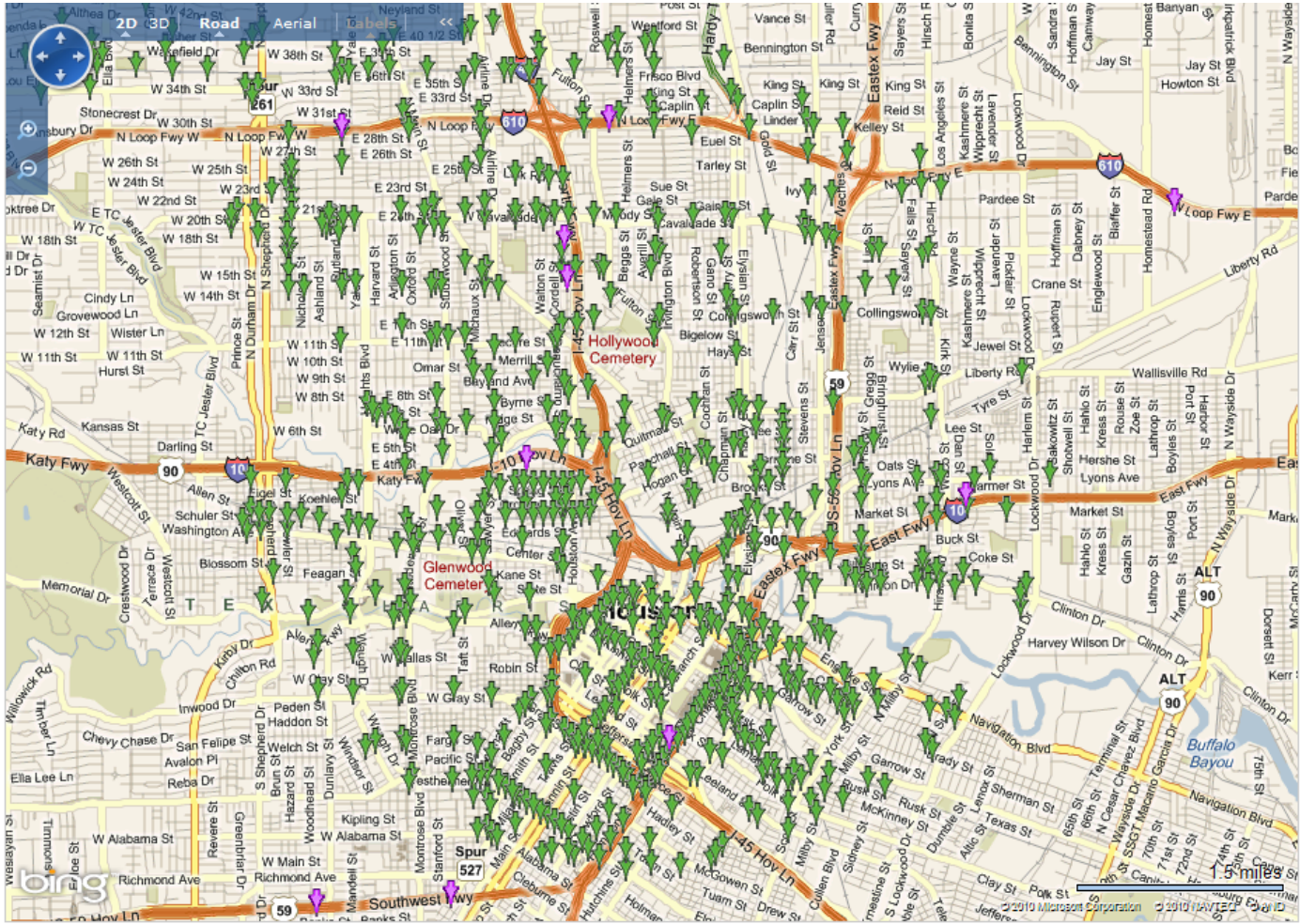
Enter a location or zoom on the map to view counts

Valid locations include zip codes, city names, and street addresses. (e.g. 77001...Alvin, Tx...1 Main Street Houston, Tx)

Location:  TxDOT Saturation Count  TxDOT Vehicle Classification Count

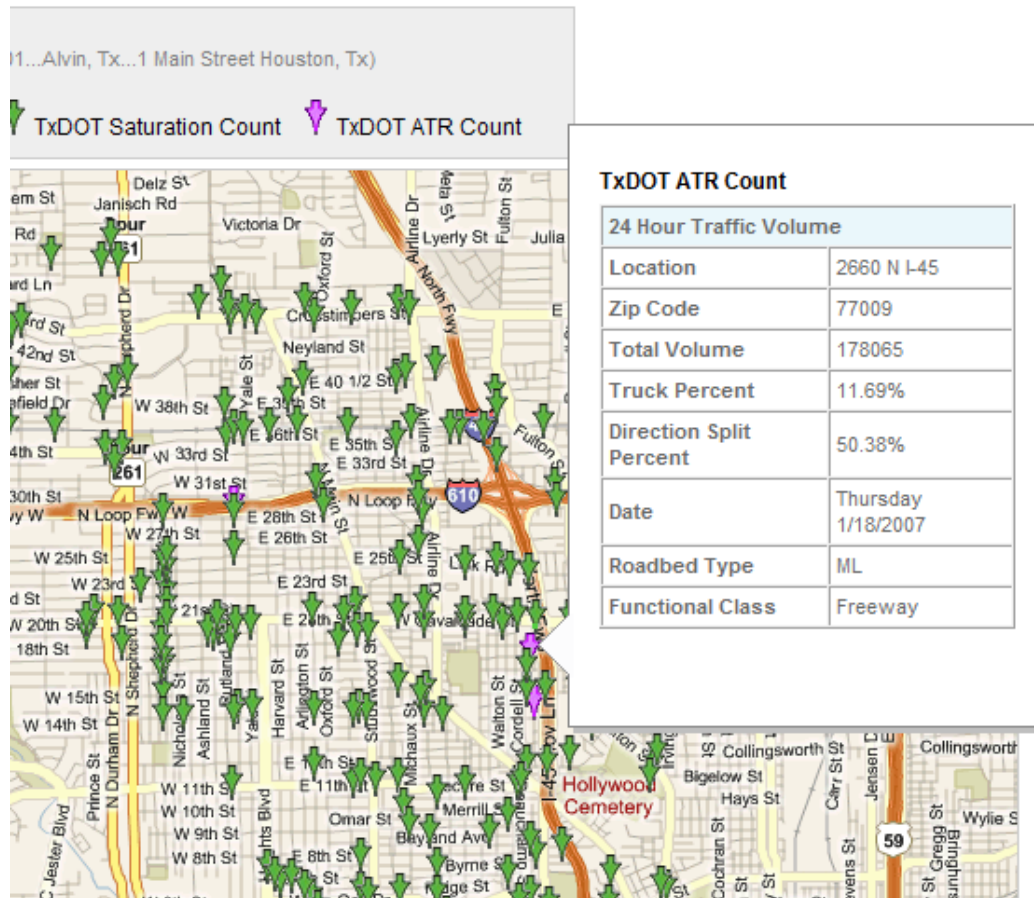


Interface



Drill Down

[Map](#) | [About the Map](#) | [Disclaimer](#)



Drill Down

Houston Regional Traffic Count Map

Enter a location or zoom on the map to view counts

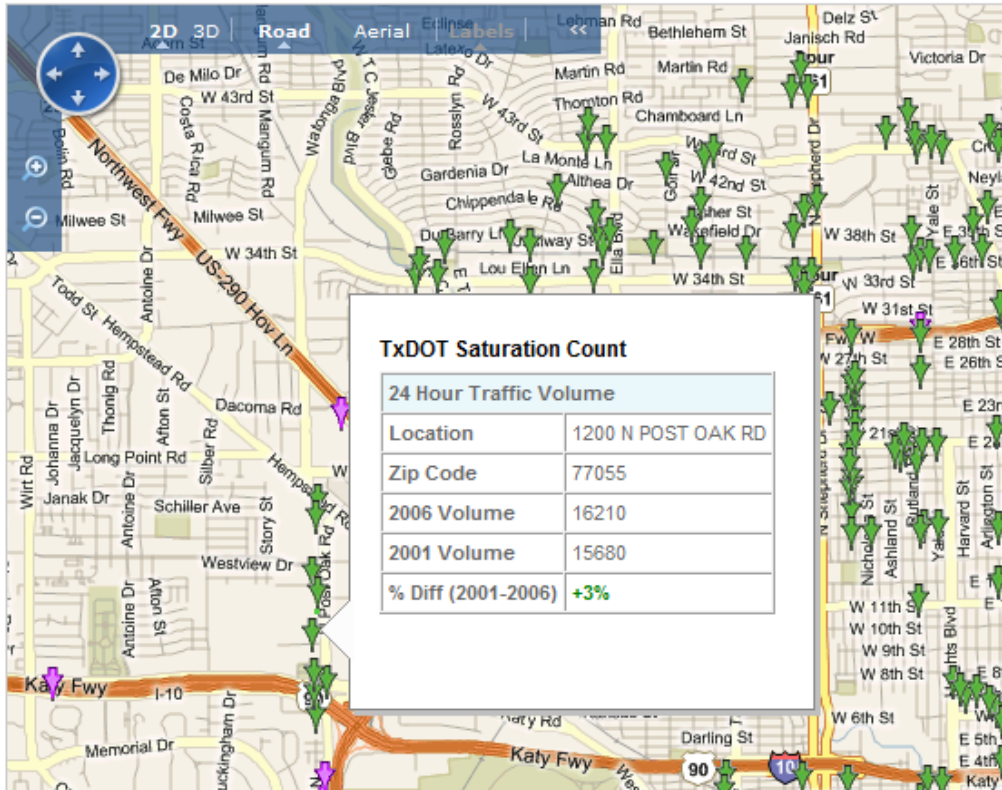
Valid locations include zip codes, city names, and street addresses. (e.g. 77001...Alvin, Tx...1 Main Street Houston)

Location:

Show Counts



TxDOT Saturation Count



Future Directions

- Low Hanging Fruit
 - Agencies with Electronic Data
 - Standards for Traffic Counts
- ITS Data
 - Travel Time
 - Traffic Volume
 - Weather
- Inventories
 - Signals
- Count Modules

Future Directions

- Agency Needs
- Storage of 15 min data (aggregated to one hour)
- Electronic input/output
- QAQC
 - More accurate averages
 - Reduction in recounts
 - Reasonableness Check

Major Components

- ✓ Database
 - Count Request
 - Field Data Scheduler
- ✓ Data Loader (From counter to data base)
- ✓ Count Checker (QAQC)
- ✓ Map Interface
 - User Query Interface
 - Printer/Export

QAQC

TTI Houston Tube Count Information System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://tthouston.tamu.edu/counts/newmanager/edit.aspx?id=06-26-07-2571.JDF&page=2

LOCATION: I-610 S.L EB CULLEN EXIT + FR SITE NO: 00064A-2571

DIRECTION: I-610 EB HARDFILE ID:

CHANNEL: FR DATE: 6/19/2007

WEATHER: RAIN KEY MAP:

COUNT CONDITION: TYPICAL LATITUDE:

REVIEWER 1: r-benz LONGITUDE:

[EXIT](#) | FR | N/A | N/A

TIME	MONDAY 6/25	TUESDAY 6/19	WEDNESDAY 6/20	THURSDAY 6/21	FRIDAY 6/22	SATURDAY 6/23	SUNDAY 6/24	WEEK-DAY AVG	WEEK AVG
0-1	20 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	21 <input type="checkbox"/> Check All	12 <input type="checkbox"/> Check All	15 <input type="checkbox"/> Check All	26 <input type="checkbox"/> Check All	27 <input type="checkbox"/> Check All	13	17
1-2	5 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	5 <input type="checkbox"/> Check All	11 <input type="checkbox"/> Check All	14 <input type="checkbox"/> Check All	31 <input type="checkbox"/> Check All	22 <input type="checkbox"/> Check All	7	12
2-3	12 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	10 <input type="checkbox"/> Check All	13 <input type="checkbox"/> Check All	10 <input type="checkbox"/> Check All	31 <input type="checkbox"/> Check All	33 <input type="checkbox"/> Check All	9	15
3-4	11 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	9 <input type="checkbox"/> Check All	12 <input type="checkbox"/> Check All	15 <input type="checkbox"/> Check All	15 <input type="checkbox"/> Check All	17 <input type="checkbox"/> Check All	9	11
4-5	14 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	6 <input type="checkbox"/> Check All	13 <input type="checkbox"/> Check All	11 <input type="checkbox"/> Check All	23 <input type="checkbox"/> Check All	31 <input type="checkbox"/> Check All	9	14
5-6	18 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	17 <input type="checkbox"/> Check All	18 <input type="checkbox"/> Check All	17 <input type="checkbox"/> Check All	25 <input type="checkbox"/> Check All	29 <input type="checkbox"/> Check All	14	18
6-7	37 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	38 <input type="checkbox"/> Check All	41 <input type="checkbox"/> Check All	57 <input type="checkbox"/> Check All	29 <input type="checkbox"/> Check All	14 <input type="checkbox"/> Check All	34	31
7-8	92 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	78 <input type="checkbox"/> Check All	88 <input type="checkbox"/> Check All	85 <input type="checkbox"/> Check All	57 <input type="checkbox"/> Check All	25 <input type="checkbox"/> Check All	68	61
8-9	85 <input type="checkbox"/> Check All	* <input type="checkbox"/> Check All	72 <input type="checkbox"/> Check All	60 <input type="checkbox"/> Check All	69 <input type="checkbox"/> Check All	55 <input type="checkbox"/> Check All	36 <input type="checkbox"/> Check All	53	51
9-10	64 <input type="checkbox"/> Check All	61 <input type="checkbox"/> Check All	58 <input type="checkbox"/> Check All	58 <input type="checkbox"/> Check All	68 <input type="checkbox"/> Check All	64 <input type="checkbox"/> Check All	70 <input type="checkbox"/> Check All	62	63
10-11	68 <input type="checkbox"/> Check All	90 <input type="checkbox"/> Check All	69 <input type="checkbox"/> Check All	82 <input type="checkbox"/> Check All	71 <input type="checkbox"/> Check All	73 <input type="checkbox"/> Check All	56 <input type="checkbox"/> Check All	76	73
11-12	89 <input type="checkbox"/> Check All	72 <input type="checkbox"/> Check All	61 <input type="checkbox"/> Check All	81 <input type="checkbox"/> Check All	75 <input type="checkbox"/> Check All	85 <input type="checkbox"/> Check All	47 <input type="checkbox"/> Check All	76	73
12-13	87 <input type="checkbox"/> Check All	72 <input type="checkbox"/> Check All	87 <input type="checkbox"/> Check All	66 <input type="checkbox"/> Check All	86 <input type="checkbox"/> Check All	110 <input type="checkbox"/> Check All	70 <input type="checkbox"/> Check All	80	83
13-14	68 <input type="checkbox"/> Check All	83 <input type="checkbox"/> Check All	93 <input type="checkbox"/> Check All	63 <input type="checkbox"/> Check All	89 <input type="checkbox"/> Check All	74 <input type="checkbox"/> Check All	110 <input type="checkbox"/> Check All	79	83
14-15	84 <input type="checkbox"/> Check All	87 <input type="checkbox"/> Check All	83 <input type="checkbox"/> Check All	82 <input type="checkbox"/> Check All	85 <input type="checkbox"/> Check All	85 <input type="checkbox"/> Check All	78 <input type="checkbox"/> Check All	84	83
15-16	98 <input type="checkbox"/> Check All	82 <input type="checkbox"/> Check All	92 <input type="checkbox"/> Check All	76 <input type="checkbox"/> Check All	95 <input type="checkbox"/> Check All	101 <input type="checkbox"/> Check All	69 <input type="checkbox"/> Check All	89	88
16-17	120 <input type="checkbox"/> Check All	111 <input type="checkbox"/> Check All	131 <input type="checkbox"/> Check All	127 <input type="checkbox"/> Check All	180 <input type="checkbox"/> Check All	72 <input type="checkbox"/> Check All	57 <input type="checkbox"/> Check All	134	114
17-18	141 <input type="checkbox"/> Check All	238 <input type="checkbox"/> Check All	168 <input type="checkbox"/> Check All	161 <input type="checkbox"/> Check All	148 <input type="checkbox"/> Check All	87 <input type="checkbox"/> Check All	68 <input type="checkbox"/> Check All	171	144
18-19	109 <input type="checkbox"/> Check All	119 <input type="checkbox"/> Check All	96 <input type="checkbox"/> Check All	128 <input type="checkbox"/> Check All	115 <input type="checkbox"/> Check All	61 <input type="checkbox"/> Check All	70 <input type="checkbox"/> Check All	113	100
19-20	77 <input type="checkbox"/> Check All	83 <input type="checkbox"/> Check All	85 <input type="checkbox"/> Check All	93 <input type="checkbox"/> Check All	96 <input type="checkbox"/> Check All	71 <input type="checkbox"/> Check All	57 <input type="checkbox"/> Check All	87	80
20-21	48 <input type="checkbox"/> Check All	54 <input type="checkbox"/> Check All	60 <input type="checkbox"/> Check All	75 <input type="checkbox"/> Check All	73 <input type="checkbox"/> Check All	53 <input type="checkbox"/> Check All	65 <input type="checkbox"/> Check All	62	61
21-22	38 <input type="checkbox"/> Check All	47 <input type="checkbox"/> Check All	53 <input type="checkbox"/> Check All	63 <input type="checkbox"/> Check All	66 <input type="checkbox"/> Check All	64 <input type="checkbox"/> Check All	66 <input type="checkbox"/> Check All	53	57
22-23	43 <input type="checkbox"/> Check All	44 <input type="checkbox"/> Check All	50 <input type="checkbox"/> Check All	54 <input type="checkbox"/> Check All	54 <input type="checkbox"/> Check All	67 <input type="checkbox"/> Check All	38 <input type="checkbox"/> Check All	49	50
23-24	21 <input type="checkbox"/> Check All	25 <input type="checkbox"/> Check All	21 <input type="checkbox"/> Check All	25 <input type="checkbox"/> Check All	36 <input type="checkbox"/> Check All	26 <input type="checkbox"/> Check All	21 <input type="checkbox"/> Check All	28	25
DAILY TOTAL	1,429	1,259	1,463	1,502	1,630	1,385	1,176	1,457	1,407
AM PEAK (6-9)	194	-	189	189	211	141	75	155	143
AM PEAK HOUR	92	90	78	88	85	85	70	76	73
PM PEAK (3-6)	359	431	391	364	423	260	194	394	346
PM PEAK HOUR	141	238	168	161	148	110	110	171	144

* denotes missing or flagged data in total
- denotes missing or flagged data

QAQC Comments:

Comments:

Unchecked
 Recount
 Review Pending
 Use Other Tube
 Invalid
 Good

Save

QAQC Interface

[EXIT](#) | FR | N/A | N/A

TIME	MONDAY 6/25	TUESDAY 6/19	WEDNESDAY 6/20	THURSDAY 6/21	FRIDAY 6/22	SATURDAY 6/23	SUNDAY 6/24	WEEK-DAY AVG	WEEK AVG
	<input type="checkbox"/> Check All	<input type="checkbox"/> Check All	<input type="checkbox"/> Check All	<input type="checkbox"/> Check All	<input type="checkbox"/> Check All	<input type="checkbox"/> Check All	<input type="checkbox"/> Check All		
0-1	20 <input type="checkbox"/>	* <input type="checkbox"/>	21 <input type="checkbox"/>	12 <input type="checkbox"/>	15 <input type="checkbox"/>	26 <input type="checkbox"/>	27 <input type="checkbox"/>	13	17
1-2	5 <input type="checkbox"/>	* <input type="checkbox"/>	5 <input type="checkbox"/>	11 <input type="checkbox"/>	14 <input type="checkbox"/>	31 <input type="checkbox"/>	22 <input type="checkbox"/>	7	12
2-3	12 <input type="checkbox"/>	* <input type="checkbox"/>	10 <input type="checkbox"/>	13 <input type="checkbox"/>	10 <input type="checkbox"/>	31 <input type="checkbox"/>	33 <input type="checkbox"/>	9	15
3-4	11 <input type="checkbox"/>	* <input type="checkbox"/>	9 <input type="checkbox"/>	12 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>	17 <input type="checkbox"/>	9	11
4-5	14 <input type="checkbox"/>	* <input type="checkbox"/>	6 <input type="checkbox"/>	13 <input type="checkbox"/>	11 <input type="checkbox"/>	23 <input type="checkbox"/>	31 <input type="checkbox"/>	9	14
5-6	18 <input type="checkbox"/>	* <input type="checkbox"/>	17 <input type="checkbox"/>	18 <input type="checkbox"/>	17 <input type="checkbox"/>	25 <input type="checkbox"/>	29 <input type="checkbox"/>	14	18
6-7	37 <input type="checkbox"/>	* <input type="checkbox"/>	38 <input type="checkbox"/>	41 <input type="checkbox"/>	57 <input type="checkbox"/>	29 <input type="checkbox"/>	14 <input type="checkbox"/>	34	31
7-8	92 <input type="checkbox"/>	* <input type="checkbox"/>	78 <input type="checkbox"/>	88 <input type="checkbox"/>	85 <input type="checkbox"/>	57 <input type="checkbox"/>	25 <input type="checkbox"/>	68	61
8-9	65 <input type="checkbox"/>	* <input type="checkbox"/>	72 <input type="checkbox"/>	60 <input type="checkbox"/>	69 <input type="checkbox"/>	55 <input type="checkbox"/>	36 <input type="checkbox"/>	53	51
9-10	64 <input type="checkbox"/>	61 <input type="checkbox"/>	58 <input type="checkbox"/>	58 <input type="checkbox"/>	68 <input type="checkbox"/>	64 <input type="checkbox"/>	70 <input type="checkbox"/>	62	63
10-11	68 <input type="checkbox"/>	90 <input type="checkbox"/>	69 <input type="checkbox"/>	82 <input type="checkbox"/>	71 <input type="checkbox"/>	73 <input type="checkbox"/>	56 <input type="checkbox"/>	76	73
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14-15	84 <input type="checkbox"/>	87 <input type="checkbox"/>	83 <input type="checkbox"/>	82 <input type="checkbox"/>	85 <input type="checkbox"/>	85 <input type="checkbox"/>	78 <input type="checkbox"/>	84	83
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18-19	109 <input type="checkbox"/>	119 <input type="checkbox"/>	96 <input type="checkbox"/>	128 <input type="checkbox"/>	115 <input type="checkbox"/>	61 <input type="checkbox"/>	70 <input type="checkbox"/>	113	100
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22-23	43 <input type="checkbox"/>	44 <input type="checkbox"/>	50 <input type="checkbox"/>	54 <input type="checkbox"/>	54 <input type="checkbox"/>	67 <input type="checkbox"/>	38 <input type="checkbox"/>	49	50
23-24	21 <input type="checkbox"/>	25 <input type="checkbox"/>	21 <input type="checkbox"/>	25 <input type="checkbox"/>	36 <input type="checkbox"/>	26 <input type="checkbox"/>	21 <input type="checkbox"/>	26	25
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* denotes missing or flagged data in total

- denotes missing or flagged data

QAQC Comments and Status

22-23	43	<input type="checkbox"/>	44	<input type="checkbox"/>	50	<input type="checkbox"/>	54	<input type="checkbox"/>	54	<input type="checkbox"/>	67	<input type="checkbox"/>	38	<input type="checkbox"/>	49	50
23-24	21	<input type="checkbox"/>	25	<input type="checkbox"/>	21	<input type="checkbox"/>	25	<input type="checkbox"/>	36	<input type="checkbox"/>	26	<input type="checkbox"/>	21	<input type="checkbox"/>	26	25
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AM PEAK HOUR	92		90		78		88		85		85		70		76	73
PM PEAK (3-6)	359		431		391		364		423		260		194		394	346
PM PEAK HOUR	141		238		168		161		180		110		110		171	144

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- denotes missing or flagged data

QAQC
Comments:

Comments:

Unchecked

Recount

Review Pending

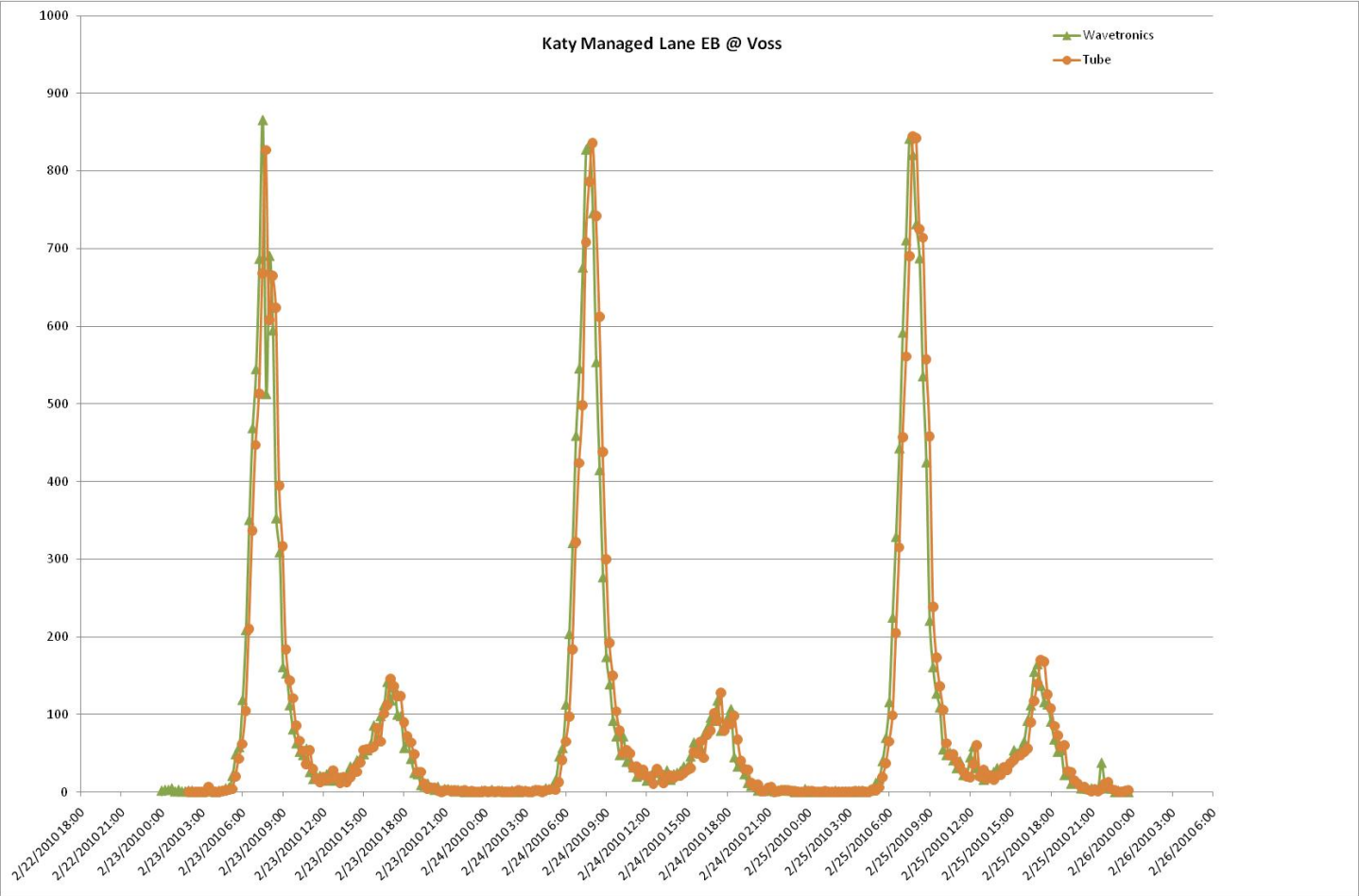
Use Other Tube

Invalid

Good

Save

ITS Data Validation



Conclusions

- Useful
- Easy to Navigate
- Reduce Data Request Workload
- More Detail Desired
- ITS Data
- More Agencies

Questions?

QAQC

Unchecked Counts

TTI Houston Tube Count Information System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

Address <http://ttihouston.tamu.edu/counts/newmanager/default.aspx>

Google Go Bookmarks 64 blocked Check AutoLink AutoFill Send to

TTI Houston Tube Count Information System

[Unchecked Counts](#) | [Recount](#) | [Review Pending](#) | [Count Reports](#)

Unchecked Counts: Select...

- Select...
- 06-26-07-2571.JDF @ I-610 S L EB CULLEN EXIT + FR---EXIT
- 06-26-07-2571.JDF @ I-610 S L EB CULLEN EXIT + FR---FR
- 06-26-07-2560.JDF @ I-610 S L WB LONG ENTRY---ENT1
- 06-26-07-2560.JDF @ I-610 S L WB LONG ENTRY---ENT2
- 06-26-07-2564.JDF @ I-610 S L WB WAYSIDE EXIT + FR---EXIT
- 06-26-07-2564.JDF @ I-610 S L WB WAYSIDE EXIT + FR---FR
- 06-26-07-2565.JDF @ I-610 S L WB CRESTMONT EXIT +F---EXIT
- 06-26-07-2565.JDF @ I-610 S L WB CRESTMONT EXIT +F---FR
- 6-26-07-2566.JDF @ I-610 SL EB TO SH 288 S NB---EB1
- 6-26-07-2566.JDF @ I-610 SL EB TO SH 288 S NB---EB2

Start Deleted Items - ... R:\FieldData\Tu... Microsoft Power... TTI Houston ...