

Utilization of Phone Application Technology to Record Log Truck Movements in the Southeastern U.S.

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& TIM MCDONALD

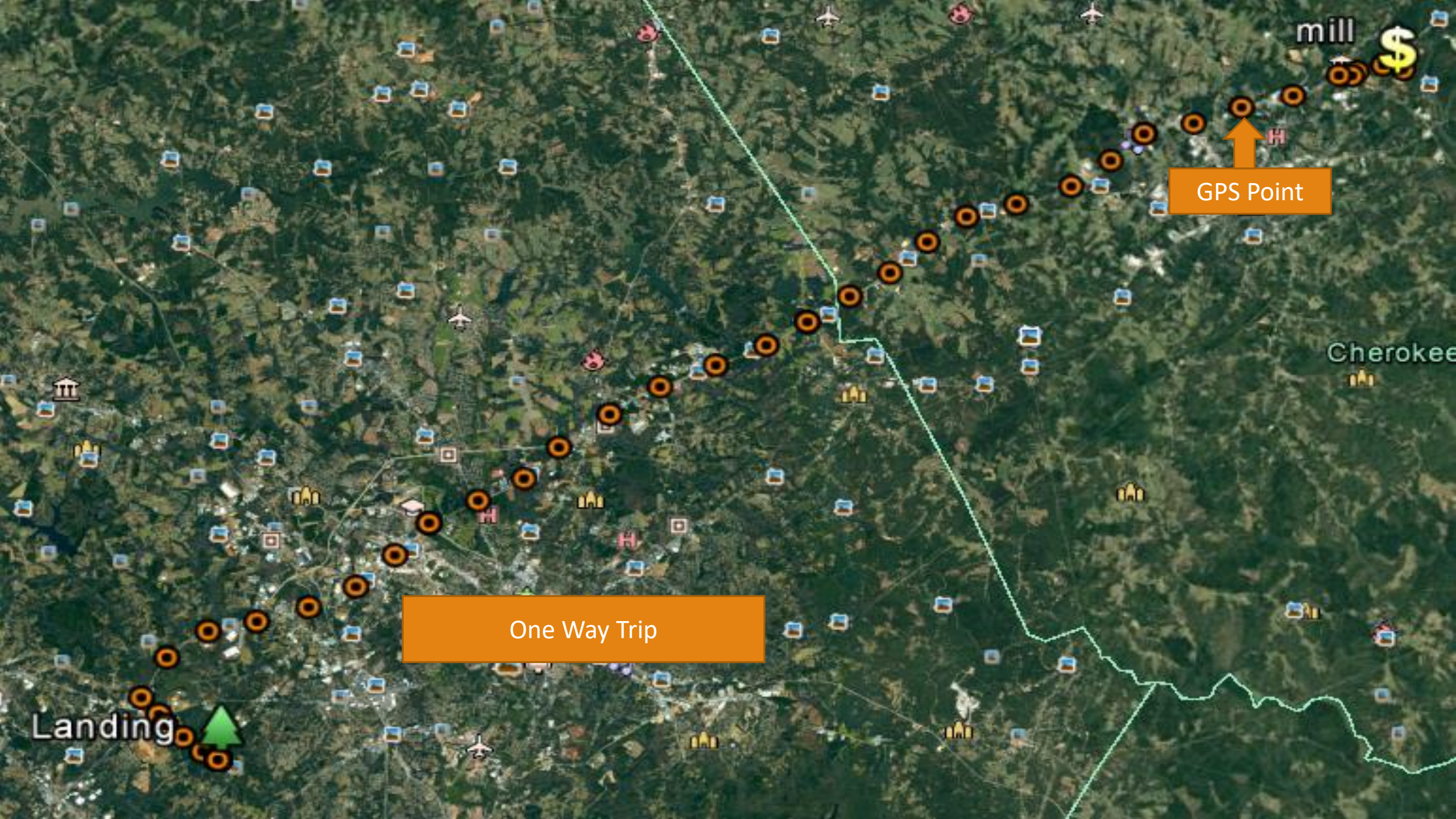
Initial Trucking App

Google based app developed by Dr. Timothy McDonald.

Identified when driver had moved less than 500ft in 15 minutes.

Ability to alert driver when a stop event occurred.

3 original state studies conducted. 1 additional study after minor modifications.



mill



GPS Point

Cherokee

One Way Trip

Landing



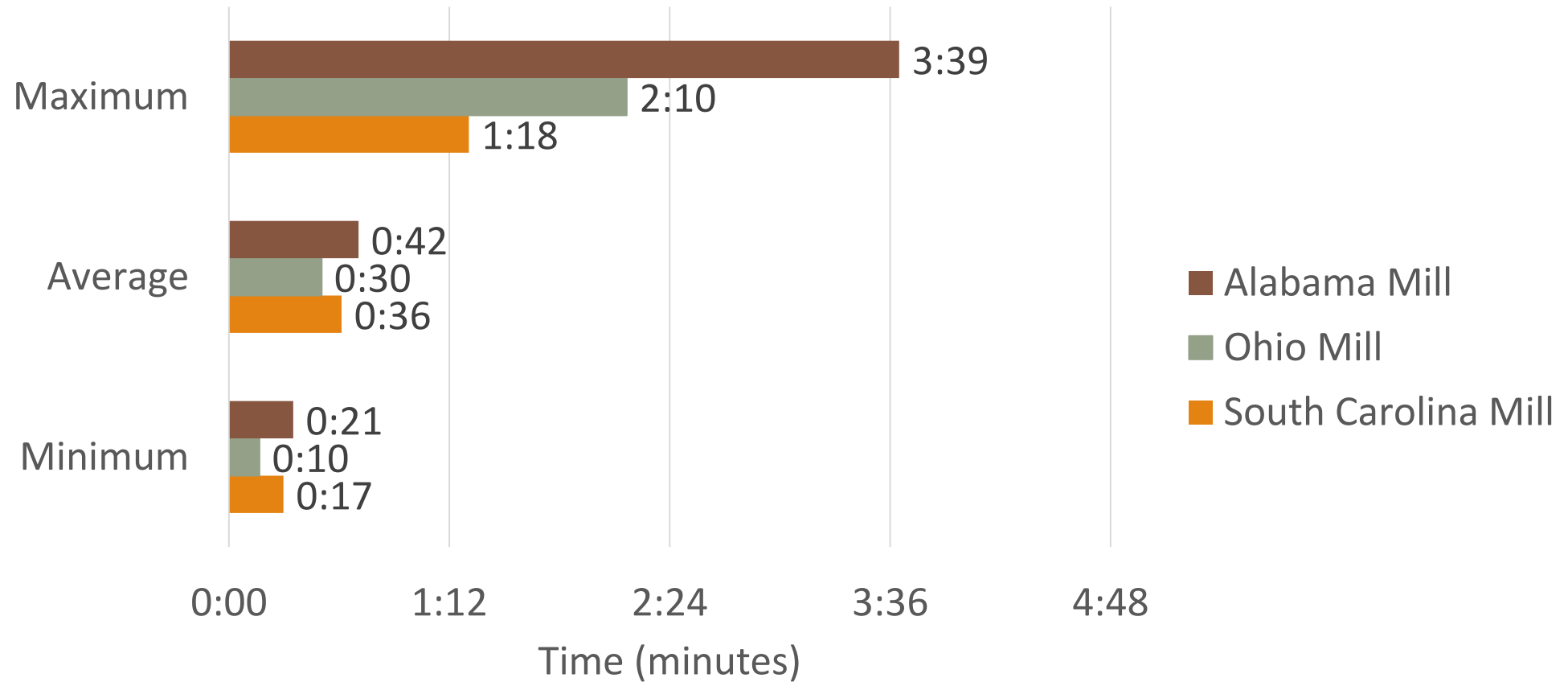
Driver 1001

(In Minutes)	Mill Delay	Logging Deck Delay	Concentration Yard Delay
Min	0:21:52	0:18:54	0:22:18
Average	0:37:47	0:32:05	0:24:34
Max	1:39:47	1:21:50	0:26:23

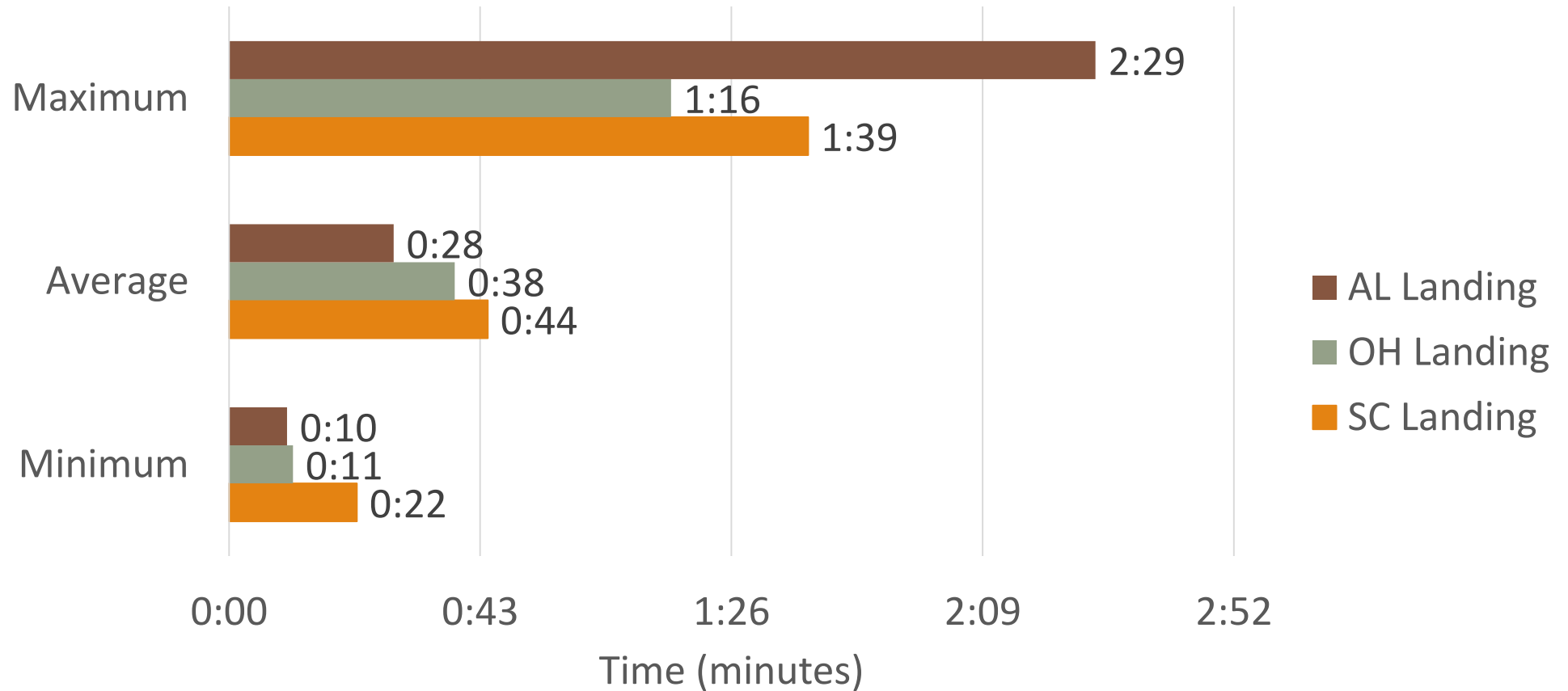
Next Step

Test the phone app in three states: Alabama, South Carolina, Ohio.

Mill: State Comparison



Landing: State Comparison



Trucking App

Developed by Dr. Timothy McDonald.

Google Based App.

App is currently only accessible to designated participants with Android phones.

Activated through Gmail/Google Drive account.

Data collected is stored in Google Drive on participants account.

Data is “shared” at initial setup for collection and analysis



User Marissa Jo Daniel mndc59@gmail.com	Files to Process Please select a file to process 1001.17-02-24_105210 <input type="button" value="Process File"/>	Summary Downloads 1001.17-03-07_160901 1001.17-03-06_142340 1001.17-02-27_154914	KML Downloads 1001.17-03-07_160901 1001.17-03-06_142340 1001.17-02-27_154914
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Summaries of Mileage and Stops for File: 1001.17-03-03_162852

Daily Summaries

Day	Began	Ended	Number of Stops	Total Stopped Time	Mileage	In State
27Feb2017_1	22:48:40	23:59:54	1	57.58	1.4	Alabama
28Feb2017_2	00:48:47	23:58:26	6	738.48	13.0	Alabama
01Mar2017_3	10:13:24	23:58:54	11	810.48	353.4	Alabama
02Mar2017_4	00:00:05	23:59:06	9	830.28	282.1	Alabama
03Mar2017_5	04:15:09	22:28:01	13	724.58	442.8	Alabama

Calculated Stops

Day	Time Of Stop	Duration	Lat	Lon
27Feb2017_1	21:49:50	57.58	32.605766180555555	-86.25994822916668
28Feb2017_2	00:01:34	46.07	32.605626083333333	-86.260031
28Feb2017_2	00:54:52	48.47	32.60583408730158	-86.25990988095236
28Feb2017_2	01:45:44	460.83	32.605801739316234	-86.25995190170939
28Feb2017_2	09:28:48	49.42	32.60558757936508	-86.25992710317459
28Feb2017_2	10:20:40	46.20	32.605739291666666	-86.2599435
28Feb2017_2	11:09:11	87.50	32.605797272727272	-86.2598872077922
01Mar2017_3	00:00:05	612.13	32.60581538804068	-86.25989952926214
01Mar2017_3	12:13:23	20.37	32.90241947916667	-86.45225593750001

User-defined Stops

Day	Time	Type	Parameter	Time Added
01Mar2017	10:11:00	AM Mileage	561280	10:10:53
01Mar2017	20:23:00	Delay	1	20:23:24
01Mar2017	23:28:00	Fuel	94	23:28:00
02Mar2017	10:13:00	AM Mileage	561671	10:13:12
02Mar2017	11:34:00	Delay	1	11:34:01
02Mar2017	18:00:00	Delay	2	18:35:45
02Mar2017	22:20:00	PM Mileage	561952	22:20:02
03Mar2017	07:32:00	AM Mileage	561952	07:31:41
03Mar2017	08:30:00	Delay	2	09:44:56

Example of

Number of Days Ran per Week:	5
Total Number of Days Ran:	9
Average Loads per Day:	3
Total Loads Hauled:	25
Miles Ran per Day:	369
Total Miles per Week:	1104
Number of Stop Events Occurred:	13
Most Prominant Stop Event Reason:	2

Objectives From the Study

Set-out trucking versus hot-loading.

Trade off of in-woods utilization versus truck utilization.

Productivity analysis during quota versus non quota times

Questions?

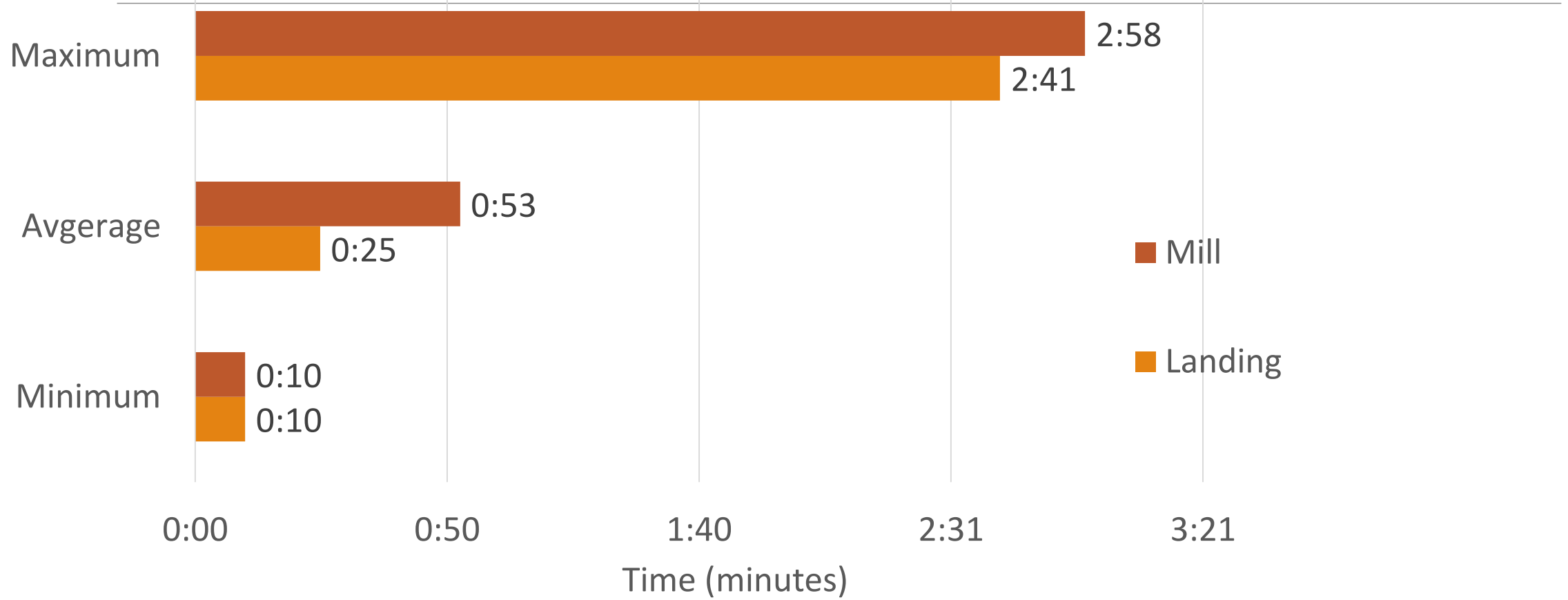


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Initial Results: Round 2



Reason For Stop

Stop ID:5

CANCEL REASON

- In-woods Loading
- In-woods Delay
- Waiting at Mill
- Maintenance/Repair
- Traffic
- DOT Stop
- Fueling
- Personal/Meal Time
- Equipment Move
- Other

Stop Reasons

10 responses are available for the driver to select for their situation.

Once selected, driver sets stop reason.