

# Your TravTek Driving Experience

Rental Users Study Data Summary

November 1993



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#### TRAVTEK TASK B1 - RENTAL USERS STUDY

#### <u>Purpose</u>

This report documents the questionnaire data collected and the instruments used for the TravTek Evaluation Task B1 - Rental Users Study. It presents summary statistics for the primary drivers derived from the renter study, which was conducted from March 1992 through March 1993.

This report also documents the items that were included in the three configuration-specific questionnaires and highlights significant item differences that occurred between the versions developed throughout the project. Where the items changed significantly, the data are reported separately.

#### Sample

During the period of data collection a total of 2896 rental trips was completed. Employees of partner organizations, partner affiliates, or others with special TravTek interests (termed "VIPs) were excluded from the analyses, leaving a total of 2,568 rentals. This total was comprised of 369 in the Services configuration; 921 in Navigation; and 1,278 in Navigation Plus. A total of 1808 questionnaires from these drivers was returned.

A subset of the returned questionnaire data are contained in this report. The data were subset to **exclude** drivers who were identified as VIPs; or those whose data showed a configuration conflict between the returned questionnaire, the TISC data and/or the in-vehicle log data.

Due to these subsetting criteria, the results presented here are based on a set of 1608 drivers. The sample breakout by configuration and questionnaire version is:

	CONFIGURATION						
VERSION	NAVIGATION +	NAVIGATION	SERVICES	TOTAL			
1	179	141	52	372			
2	459	367	86	912			
3	213	101	10	324			
TOTAL	851	609	148	1608			

#### Format

The document pages are numbered from R-l to R-134 to represent these data are obtained from the Renters study. It is anticipated that several similar volumes will be produced from other the other studies and will be numbered in a similar fashion (i.e., O-x to O-xx to represent the OTNS study; L-x to L-xx for the Local Users study, etc.). This convention will aid analysts in reviewing data from different studies.

Each questionnaire item that was included in the Renters study is reproduced exactly as it appeared in the questionnaire(s). Notation is included in the in the upper right hand comer of each page that designates where the item appeared in the questionnaire(s). For instance, the code, "N+VI/BI" indicates the item was included in the Navigation Plus questionnaire, in the first version of that questionnaire, and was item B1. Where multiple designations occur, it is important to note that **except where explicitly stated in a footnote, the items are identical across the configurations and versions.** Significant item changes, wording differences, or additions are documented in the footnotes.

Item #	N+/V3/A1	N/V3/A1	S/V3/A1
	N+/V2/A1	N/V2/A1	S/V2/A1
	N+/V1/A1	N/V1/A1	S/V1/A1



**Background Information** 

Please check the box that best describes your household?

- □ Single with no children
- □ Single with children: Number of children under 18\_\_\_\_\_ over 18 \_\_\_\_
- □ Married with no children
- □ Married with children: Number of children under 18 \_\_\_\_\_ over 18\_\_\_\_\_
- □ Widow/Widower

#### Frequency

	Navigation Plus	Navigation	Services
Single: no children	112	75	15
Single: with children	43	31	5
Married: no children	160	88	19
Married: with children	498	392	97
Widow/Widower	12	6	3
Other	12	7	3
Total	837	599	142

#### Mode (Number of children)

	Navigation Plus	Navigation	Services
Under 18 with single			
parent	1	1	3
Over 18 with single			
parent	2	1	1
Under 18 with married			
parents	2	2	1
Over 18 with married			
parents	2	1	2

Item #	N+/V3/A2	N/V3/A2	S/V3/A2
	N+/V2/A2	N/V2/A2	S/V2/A2
	N+/V1/A2	N/V1/A2	S/V1/A2

What was your household's income before taxes last year?

🗆 Under \$20,000	🗆 <i>\$20,000 to \$39,999</i>	🗆 \$40,000 to \$59,999
\$60,000 to \$79,999	\$80,000 to \$99,999	$^{\square}$ \$100,000 and over

### Frequency

	Navigation Plus	Navigation	Services
Under 20k	9	4	1
20k to 39k	56	62	10
40k to 59k	175	127	38
60k to 79k	169	126	38
80k to 99k	144	95	17
Over 100k	249	154	33
Total	802	568	137

#### Median

 Navigation Plus	Navigation	Services
60K – 79K	60K – 79K	60K – 79K

Item #	N+/V3/A3	N/V3/A3	S/V3/A3
	N+/V2/A3	N/V2/A3	S/V2/A3
	N+/V1/A3	N/V1/A3	S/V1/A3

Many of the following questions ask for answers from your car's primary and secondary drivers. Prior to your trip, you identified a primary and secondary driver. Please indicate the primary and secondary drivers' age, gender, and the estimated percent of time each drove theTravTek car.

Primary Driver

Age \_\_\_\_\_ M ale \_\_\_\_ Female \_\_\_\_ Percent of Time Drove Car \_\_\_\_\_ % Secondary Driver

Age \_\_\_\_\_ Male\_\_\_\_ Female \_\_\_\_\_ Percent of Time Drove Car \_\_\_\_\_\_%

	Na	avigation F	Plus		Navigatio	n		Services	
	Number	Mean	Standard	Number	Mean	Standard	Number	Mean	Standard
			Deviation			Deviation			Deviation
Age	8.36	44.98	11.04	602	45.23	10.79	143	44.85	11.50
Percent of time for									
primary driver	834	90.23	17.14	596	88.57	19.98	143	88.93	20.84

	Navigation Plus	Navigation	Services
Male	739	522	116
Female	100	79	27
Total	839	601	143

Item #	N+/V3/A4	N/V3/A4	S/V3/A4
	N+/V2/A4	N/V2/A4	S/V2/A4

During your trip, how many people (including the driver) in the following age ranges usually rode in the car? (Please indicate the number of people within each of the following age ranges.)

O - 5 years old	19 – 25 years old
6 - 12 years old	Over 25 years old
13 - 18 years old	

	Navigation Plus		Navigation			Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
0–5 years old	58	1.19	0.40	58	1.19	0.40	12	1.25	0.45
6–12 years old	77	1.35	0.53	92	1.32	0.53	20	1.45	0.61
13-25 years old	50	1.38	0.67	52	1.33	0.59	6	1.33	0.52
19-25 years old	43	1.54	0.83	24	1.33	1.05	6	1.50	0.55
Over 25 years old	629	2.16	1.05	441	2.17	1.01	88	1.97	0.84

Including the drivers, how many people in each of the following age ranges usually rode in the car?

O - 5 years old	19 – 25 years old
6 - 12 years old	Over 25 years old
13 - 18 years old	

	N	avigation P	lus		Navigation	n		Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
0–5 years old	18	1.17	0.38	20	1.50	0.69	4	1.00	0.00
6–12 years old	30	1.60	0.77	27	1.37	0.49	10	1.40	0.52
13-25 years old	18	1.44	0.51	14	1.14	0.36	7	1.29	0.49
19-25 years old	15	1.73	2.05	12	1.00	0.00	6	1.67	0.52
Over 25 years old	157	2.18	1.14	116	2.23	1.16	43	2.05	1.07

Item #	N+/V3/A5	N/V3/A5	S/V3/A4
	N+/V2/A5	N/V2/A5	S/V2/A4
	N+/V1/A4	N/V1/A4	S/V1/A4

### What type of car do you currently drive?

	Primary Driver	Secondary Driver
Make (e.g., Oldsmobile, Chevrolet)		
Model (e.g., Toronado, Lumina)		
Year		

#### Navigation Plus Navigation Services Acura AMC Audi BMW Buick Cadillac Chevrolet Chrysler Daihatsu Dodge Eagle European unspecific Ford Geo Geo tracker Honda Hyundai Inifiniti Jaguar Lexus Lincoln Mazda Mercedes Mercury Merkur

### Frequency for "Make"

Item #	N+/V3/A5	N/V3/A5	S/V3/A4
	N+/V2/A5	N/V2/A5	S/V2/A4
	N+/V1/A4	N/V1/A4	S/V1/A4

	Navigation Plus	Navigation	Services
Mitsubishi	2	8	2
Nissan	35	27	5
Oldsmobile	42	31	5
Peugeot	3	0	0
Plymouth	6	4	2
Pontiac	26	24	4
Porsche	6	1	0
Renault	1	0	0
Saab	6	5	0
Saturn	5	3	0
Sterling	1	0	1
Subaru	8	6	3
Toyota	56	30	6
Volkswagen	8	7	1
Volvo	16	8	0
Chevrolet truck	26	31	7
Dodge truck/van	15	14	3
Ford truck/van	35	23	6
GMC truck	10	6	1
Isuzu truck	1	2	1
Jeep truck	14	10	3
Mazda truck/van	4	0	3
Mitsubishi truck	0	1	0
Nissan truck/van	4	6	0
Plymouth truck/van	13	4	1
Pontiac transporter	1	2	1
Suzuki truck/van	1	0	0
Toyota truck	9	10	1
VW truck/van	1	1	0
Total	698	515	107

## Frequency for "Make" (cont.)

Item #	N+/V3/A5	N/V3/A5	S/V3/A4
	N+/V2/A5	N/V2/A5	S/V2/A4
	N+/V1/A4	N/V1/A4	S/V1/A4

	Navigation Plus	Navigation	Services
Compact, special	32	19	3
Compact, reg	50	33	7
Fullsize	17	12	3
Intermediate, reg	32	21	4
Intermediate, special	17	7	1
Large	23	26	2
Large, special	7	4	0
Low luxury	18	11	3
Low midsize	54	34	5
Low small	21	16	3
Luxury, reg	46	29	4
Luxury, special	40	25	8
Luxury, sport	2	2	0
Middle luxury	22	9	2
Middle regular	13	11	1
Middle specialty	19	9	1
Minicompact	6	5	1
Minispecialty	1	2	0
Minivan	26	9	2
Small specialty	8	7	0
Sport vehicle	50	33	8
Subcompact	28	17	6
Subcompact, special	3	7	0
Truck	30	39	6
Upper luxury	8	10	5
Upper midsize	45	28	6
Upper small	14	11	2
Van	20	22	5
Total	652	458	88

## Frequency for "Model"

Item #	N+/V3/A5	N/V3/A5	S/V3/A4
	N+/V2/A5	N/V2/A5	S/V2/A4
	N+/V1/A4	N/V1/A4	S/V1/A4

## Frequency for "Year"

	Navigation Plus	Navigation	Services
1979 & earlier	23	19	9
1980 & 1984	80	57	14
1985 – 1989	369	261	63
1990 – 1993	315	237	52
Total	787	564	138

Item #	N+/V3/A5a	N/V3/A5a	S/V3/A5a
	N+/V2/A5a	N/V2/A5a	S/V2/A5a

Did you:

Buy this car new?	 
Buy this car used?	 
Lease this car?	 
Other	 

	Navigation Plus	Navigation	Services
New	435	307	57
Used	132	100	23
Lease	70	43	9
Other	20	12	4
Total	657	462	93

Did you:	Primary Driver	Secondary Driver
Buy this car new?		
Buy this car used?		
Lease this car?		

	Navigation Plus	Navigation	Services
New	118	88	36
Used	34	35	11
Lease	18	14	4
Total	170	137	51

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:	Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
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	Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	L					

Comments:

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	٢	lavigation Plu	8		Navigation		Services				
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Easy to learn	809	5.46	0.81	128	5.40	0.90					
Easy to use	807	5.43	0.85	129	5.26	1.06					
Helped find way	808	5.30	1.03	129	5.09	1.21					
Helped pay attention	800	4.20	1.48	127	4.13	1.69					
Interfered driving	743	2.42	1.39	123	2.34	1.51					
Timely information	746	5.00	1.12	122	4.79	1.36					
Functioned properly	739	4.77	1.16	122	4.48	1.31					

	Navigation Plus	Navigation	Services
Didn't use	21	25	
Total	21	25	

Helped Me Pay More

Attention To My

Driving

Disagree A g r e e

3

Strongly

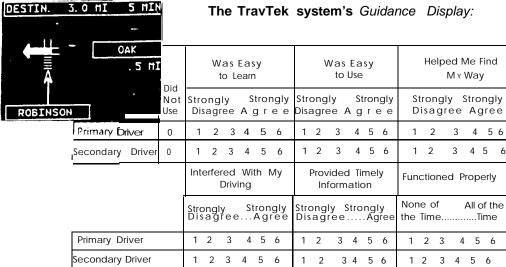
4 5 6

4 5 6

Strongly

1 2 3

1 2



### The TravTek system's Guidance Display:

		Navigation Plu	15		Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Easy to learn				438	5.41	0.85				
Easy to use				437	5.36	0.91				
Helped find way				437	5.21	1.09				
Helped pay attention				433	4.24	1.46				
Interfered driving				399	2.32	1.33				
Timely information				400	4.91	1.16				
Functioned properly				397	4.63	1.15				

#### Frequency

	Navigation Plus	Navigation	Services
Didn't use		19	

Total

 $\leq$  ....

Item #	N+/V3/B10	N/V3/B10
	N+/V2/B10	N/V2/B10
	N+/V1/B10	N/V1/B10

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	Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	
	Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	]
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				ong agre	ly e			<i>J</i> /	Str Dis		gly ree.	Stro					of ne.			-	
	Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	]
	Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	]

## Comments: \_\_\_\_\_

	Ν	Javigation Plu	s		Navigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	
Easy to learn	581	5.46	0.93	377	5.37	1.07			
Easy to use	582	5.56	0.82	375	5.48	0.96			
Helped find way	579	5.12	1.18	376	5.08	1.28	_		
Helped pay attention	570	4.33	1.34	370	4.26	1.51			
Interfered driving	566	2.23	1.29	368	2.14	1.36			
Functioned properly	569	5.30	1.04	368	5.08	1.22			

	Navigation Plus	Navigation	Services
Didn't use	234	200	
Total	234	200	

Item # N+/V3/B11	N/V3/B11
N+/V2/B11	N/V2/B11
N+/V1/B11	N/V1/B11

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Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	4	5	6	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	5	6	1	2	3	4	5	5
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Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	4	5	6						
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	-	5	6						

#### Comments:

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	Ν	Javigation Plu	IS		Navigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	802	5.37	0.86	577	5.33	0.88			
Easy to use	800	5.32	0.93	576	5.24	1.00			
Sufficient detail	802	4.91	1.21	571	4.9 1	1.20			
Helped find way	800	5.12	1.10	571	5.08	1.17			
Helped pay attention	773	4.25	1.33	555	4.30	1.37			
Interfered driving	772	2.3 1	1.28	548	2.20	1.30			
Functioned properly	772	4.97	1.13	546	4.85	1.18			

#### Frequency Navagation Plus Navigation Services Didn't use 26 18 Total 26 18

			Up	" (	or	"He	ead	ing	Up	<b>)</b> ")		- 1-	-	-						-
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Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2		3	4	5	6
Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2		3	4	5	6
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Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	Ę	i	6

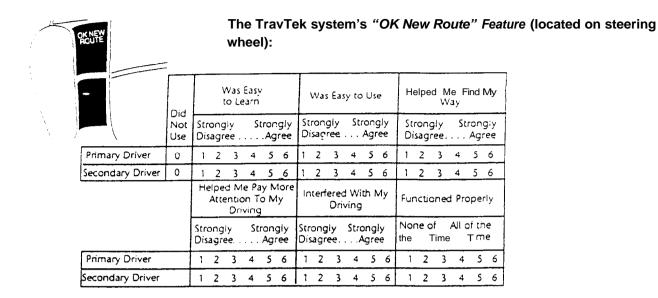
## The TravTek system's Map Orientation Feature: (showing "North Up " or "Heading Up ")

## Comments:

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	1	lavigation Plu	15		Navigation			Services	
	Number	Mcan	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	662	5.30	0.98	455	5.30	1.01			
Easy to use	659	5.26	1.07	455	5.30	1.02			
Useful	660	4.98	1.29	454	5.02	1.26			
Helped find way	652	4.78	1.33	448	4.89	1.32			
Available	642	4.85	1.33	444`	4.89	1.30			
Functioned properly	648	5.26	1.09	445	5.18	1.12			

	Navigation Plus	Navagation	Services
Didn't use	158	133	
Total	158	133	



Comments:

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	N	avigation Plu	IS		Navigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	714	5.48	0.83	491	5.31	1.02			
Easy to use	715	5.52	0.92	489	5.31	1.03			
Helped find way	710	5.05	1.23	491	4.90	1.30			
Helped pay attention	695	4.35	1.40	477	4.34	1.45			
Interfered driving	693	2.30	1.35	477	2.25	1.41			
Functioned property	686	4.82	1.27	473 '	4.68	1.31			

	Freque	ecy	_
	Navigation Plus	Navigation	Services
Didn't use	98	94	
Total	98	94	

N <u>PAR</u> 1/2				Th	e٦	Гrа	vTe	эk	sy	ste	m's	sΖ	200	m I	n/Z	00	m	Ou	t F	eatu	ıre:					
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	·	Use	Stro Disa	•••			rong Agre			ongl agre				ongly ee			gly ee		Stro Ag	ongly gree		rong isagi		S	tron Ag	- · ·
	Primary Driver	0	1	2	3	4	5	6	1	2	3	4	1 5	56	1	2	3	4	5	6	1	2	3	4	5	6
	Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	4 5	56	1	2	3	4	5	6	1	2	3	4	5	6
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	Primary Driver		1 2	2	3 4	4	56	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
	Secondary Driver		1 2	2	3 4	4	56	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6

Comments:

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7 4100

	Ν	Mean Standard			Navigation			Services					
	Number		Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation				
Easy to learn	761	, 5.53	0.75	515	5.49	0.76	110	5.13	1.10				
Easy to use	758	5.32	1.06	516	5.28	1.06	110	4.86	1.39				
Useful	757	5.05	1.22	516	5.00	1.28	109	3.62	1.81				
Helped find way	755	4.85	1.33	512	4.76	1.37	105	3.06	1.66				
Helped pay attention	744	4.10	1.41	499	4.11	1.44							
Interfered driving	744	2.37	1.35	502	2.12	1.30	_						
Functioned properly	741	5.30	1.01	502	5.28	1.05	101	4.95	1.45				
Available	739	4.33	1.60	499	4.35	1.58	103	3.75	1.87				

1. Items # S/V3,V2,V1 14 do not include colums for 'Helped Me Pay More Attention to My Driving'' and Interfered with My Driving''

Item # N+/V3/B14	N/V3/B14	S/V3/B14
N+/V2/B14	N/V2/B14	S/V2/B14
N+/V 1/B14	N/V1/B14	S/V1/B14

	Navigation Plus	Navigation	Services
Didn't use	70	73	23
Total	70	73	23

-

Item # S/V3/B15 S/V2/B15 S/V1/B15

			Т	'ne	Tr	av	Tek	sy	ste	em'	s I	Ио	ve l	Мар	) Fe	atı	ure	:	
	Did		V	Vas I Le	Easy				Wa	s Eas	iy to	o Us	æ		w	as	Use	ful	
HOVE QUIT	Not Use		on <u>c</u> agr	ily ee.			igly iree	1	agre	ly e.			ngly gree		rong sagr				ngly gree
Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
				elpe d M				Wa		vaila Nee			nen		-		tion perly		
			ong sagr	ly ee		Stroi Agr		Non the					f the m e	Non the	e of Time				f the ne
Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6

#### Comments: \_\_\_\_\_

		Navigation Plu	15		Navigation		Services							
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation					
Easy to learn							97	5.02	1.29					
Easy							98	4.54	1.61					
Useful							98	3.42	1.87					
Helped find way							93	3.03	1.72					
Available							90	4.00	1.81					
Functioned							89	5.14	1.39					

	Navigation Plus	Navigation	Services
Didn't use			36
Total			36

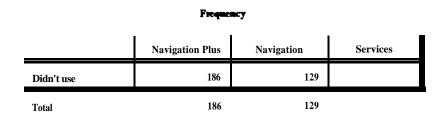
Item # N+/V3/B15	N/V3/B15
N+/V2/B15	N/V2/B15
N+/V1/B15	N/V1/B15

															•				spla <u>:</u> Desti	-			эса	I	
	Did				Eas	y to	1		Wa	s Ea	sy to	5 U s	ie		·	Nas		eful		He	elpe		le Fi Jay	na	٧Ŋ
	Not Use	- I -	ongl lagre				ngly gree		ong agre				ng:y gree		ron isag				ongly Agree	1	ong agre				ngiy gree
Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2		3 4	5	6	1	2	3	4	5	б
Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	3 4	5	6	1	2	3	4	5	6
<u> </u>		N	lore	At	teni	e Pa tion ting	ίο	<b>U</b> n	terf		l wil ing		Лy			unc Pro									
_			ong agre		<u>.</u>		ngiy gree		ongl agre			ong Agr			ne o Tin				the ime						
Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						

## The TravTek system's technique of displaying a Local

### Comments:

	N	avigation Plu	S		Navigation		*****	Services	·
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	639	5.51	0.80	457	5.47	0.79			
Easy to use	640	5.51	0.83	456	5.48	0.80			
Useful	639	5.35	1.00	458	5.38	0.93			ļ
Helped fmd way	636	5.09	1.16	454	5.17	1.11			
Helped pay attention	621	4.40	1.38	450	4.45	1.34			
Interfered driving	619	2.08	1.26	447	2.03	1.27			
Functioned properly	621	5.31	0.97	446	5.24	1.03			



ltem#	N/V3/B16	N/V3/B16
	N+/V2/B16	N/V2/B16
	N+/V1/B16	N/V1/B16

HELP CORRECT H TION OPTI HGVE CAR ON HA SAVED DESTINAT	P HAIN							n ti				•									iiig						
COMPLETE ADDRE INTERSECTION STREET NAME	<b>T O U</b>	Did		w		Eas	y to	2			Wer Und						٧	Vere	e Us	eful			He	l <b>ped</b> M	E IMI y W		nd
,	DONE	Not Use	1	rong sagre	,	S 		ngly gree			igly free				gly ree		ron sag	giy ree	• •		ongly Agree			gly ree			ongiy Agree
Primar	y Driver	0	1	2	3	4	5	6	Τ	1	2	3	4	5	6	1	2		3 4	4 :	56	1	2	3	} 4	5	ó
Second	lary Driver	0	1	2	3	4	5	6	1	1	2	3	4	5	6	1	2	: :	3 4	4 :	56	1	2	3	3 4	S	ó
			P	Hei More N		ten	tion	-			terfe My						F	unc Pro		hed Iy							
		į		rong sagr				ngly gree	1		gly ree			ong Agr		-	ne Tir	of ne			f the Time						
Primar	y Driver		1	2	3	4	5	6	1	2	3		4	5	6	1	2	3	4	5	6	1					
Second	ary Driver		1	2	3	4	5	6	1	2	3	;	4	5	6	1	2	3	4	5	6	1					

## The TravTek system's procedures for Correcting Your Car's

Comments:

	N	avigation Plu	£		Navigation			Services	<b>9</b> 0052860006005656566768788
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	289	4.66	1.48	236	4.52	1.52			
Easy to understand	288	4.70	1.47	235	4.55	1.46			
Useful	289	4.84	1.41	234	4.65	1.47			
Helped find way	286	4.37	1.64	227	4.36	1.64			
Helped pay attention	284	3.72	1.60	223	3.70	1.66			
Interfered driving	285	2.52	1.54	221	2.56	1.61			
Functioned properly	285	4.64	1.42	226	4.58	1.47			

	Navigation Plus	Navigation	Services
Didn't use	519	344	
Total	519	344	

Item #	N+/V3/B17	N/V3/B17
	N+/V2/B17	N/V2/B17
	N+/V1/B17	N/V1/B17

## The TravTek system's "Hop Right/Hop Left" feature (located on steering wheel):

Primary Driver	Did	V	Vasi	Easy	to	Lear	n	Wa	s Ea	sy to	o Un	ders	tand		V	Vas	Uset	ul		Helped Mell Find My Way					
LÉFT	Not Use	Stro Disa					ngly gree		ongi agre	<i>,</i>		Stroi Ac	ngly gree	Stro Oisa	~ ~ ~			tror Ag	igly ree		rony isagi				ongiy Agree
Primary Driver	0	1	2	3	4	5	6	1	2	3	4	S	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	ي ا	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	5
			ipec Atte	ntio		бMу				erfei viy D		with ing					tion perly								
		Stro: Disa	~ ~ ~				ngly gree		ongly agre			Stror Aç	ngly pree		ne o Tin				f the Time						
Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						

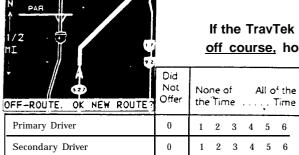
## Comments: \_\_\_\_\_

\_\_\_\_

	N	avigation Plus	S	Na	avigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard
Easy to learn	439	5.01	1.25	325	5.04	1.25			
Easy to understand	440	4.93	1.31	324	4.95	1.33			
Useful	434	4.76	1.38	324	4.61	1.48			
Helped find way	426	3.99	1.63	318	4.09	1.65			
Helped pay attention	424	3.50	1.50	313	3.56	1.57			
Interfered driving	422	2.58	1.49	314	2.37	1.45			
Functioned property	420	4.91	1.30	312	4.70	1.45			

			Services
Didn't use	365	250	
Total	365	250	

Item # N+/V3/B18	N/V3/B18
N+/V2/B18	N/V2/B18
N+/V1/B18	N/V1/B18



If the TravTek system offered new routes when the car was off course, how often did you accept them?

		Navigation Plu			Navigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number Mean S		Standard Deviation
Time	715	4.35	1.48	507	4.19	1.51			

All of the

	Frequ	iency	
	Navigation Plus	Navigation	Services
Didn't use	94	72	
Total	94	72	

Item # N+V3/B19 N+/V2/B19 N+/V1/B19

	Did		V		Eas earr		>	Was Easy to Understand					Was Useful					Heiped <b>Me Find My</b> Way					Му		
6	Not Use		rong sagr				ongly gree		ongl agre				ngly gree		ron sag				ongly Agree		rong sagr				ngiy gree
Primary Driver	0	1	2	3	4	Ş	5 6	1	2	3	4	5	6	1	2		3.	4	5 5	1	2	3	-4	5	6
Secondary Driver	0	1	2	3	4	5	i 6	1	2	3	4	5	6	1	2		3 4	4 .	5 5	1	2	3	4	5	6
		Helped Me Pay More Attention to My Driving					in	terfe [		l wil ring	th N	Лy	P				liev	able	Provided Timely Information						
			rong sagr				ngly gree		ongl agre			ron Ag			onç sagr				ngiy gree		rong sagr				ngiy Iree
Primary Driver		1	2	3	4	5	6	1	2	3	4	S	6	1	2	3	4	5	6	1	2	3	4	5	5
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	5
-					ione ierly										÷										-
			ne o Tim				f the Time																		
Primary Driver		1	2	3	4	5	6																		
Secondary Driver		1	2	3	4	5	0																		

## **The TravTek system's technique of displaying** Updated Traffic Conditions on the Route Map:

## Comments:\_\_\_\_\_

~\_\_\_

N \* 1/1

	N	avigation P	lus		Navigation			Service	S
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	575	5.03	1.21						
Easy to understand	573	4.88	1.31						
Useful	569	4.21	1.55						
Helped find way	556	3.48	1.65						
Helped pay attention	562	3.84	1.50						
Interfered driving	561	2.28	1.31						
Believable info.	558	3.79	1.57						
Timely information	560	3.76	1.60						
Functioned properly	537	4.51	1.46						

Item # N+/V3/B19 N+/V2/B19 N+/V1/B19

(Continued)

	Navigation Plus	Navigation	Services
Didn' t use	225		
Total	225		

S/V2/C9a S/V1/C9a

## While en route to your destination, did you

### Experience traffic problems?

	Neve	ſ	Fre	equen	tly	
Primary Driver	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6

## Comments:

	Na	vigation	Plus		Navigatio	on	Services					
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation			
Traffic problems							9	2.89	1.05			

DESTIN.	3.0 MI 5 MIN					Tek s uidai	-				nniqu	ie o	of d	ispl	ay	in	g U	pda	ited	l Tr	aff.	ic N	∕les
	L GAUILON			Was Le	Easy earn	to		Was	Easy	/ to	Use		11	Vas L	lsef	ul		Ŧĸ	elpe	d Me Wa		d N	ly
ROEINS		Not Use	Stron Disag			trongly .Agree		ongi agre		St	rongly Agree		rong isagr		S 		ngly gree	1	ong sagre		St	ron Agʻ	
	Primary Driver	0	1 2	2 3	4	5 0	5 1	2	3	4	56	1	2	3	4	Į	56	1	2	3	4	5	6
	Secondary Driver	0	1 2	2 3	4	5 6	1	2	3	4	56	1	2	3	4	Į	56	1	2	3	4	5	6
					tent	e Pay ion to ng	Ir	nterfe [	ered Drivir		ר My			inctic Prope									
			Stron Disag			trongly Agree		ongly agre			rongly Agree		ne c Tim	of e			f the ne						
	Primary Driver		1 2	3	4	56	1	2	3	4	56	1	2	3	4	5	6	]					
	Secondary Driver		1 2	3	4	56	1	2	3	4	56	1	2	3	4	5	6						

Comments:

	Ň	avigation Plu	15		Navigation		Services						
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation				
Easy to learn	558	5.29	1.06										
Easy to use	555	5.25	1.09						ļ				
Useful	553	4.43	1.55										
Helped find way	543	3.83	1.69										
Helped pay attention	545	4.06	1.51										
Interfered driving	546	2.19	1.29						L				
Functioned properly	531	4.72	1.39										

Frequency

	Navigation Plus	Navigation	Services
Didn't use	240		
Total	240		

R - 50

Item # N+/V3/B21 N +/V2/B2 1 N+/V1/B21

				tra	affi		rav con
OK NEW (BETTER) ROUTE?	Did Not Offer	No the	ne Tim				
Primary Driver	0	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6

TravTek system offered you new routes due to conditions, how often did you accept the new

Comments: \_\_\_\_\_

		Navigation Plu			Navigation		Services							
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation					
Time	140	4.11	1.91											

Frequency

	Navigation Plus	Navigation	Services
Didn't offer	669		

Total

669

Item	#	N+/V3/B22	N/V3/B19
		N +/V2/B22	N/V2/B19
		N+N 1/B22	N/V1/B19

## The TravTek system's Voice Guide Feature ("Turn right on Robinson"; button located on steering wheel):

	Did		N	as E Le	Easy arm	to			Was	Eas	y to	Use	Э		w	as <b>l</b>	lsefu	di		He	lpec	t Me W:		d№	ly.
	Not Use		ongl agre		S1		gly ree		ongl agre		St		gly ree		ong agr		S		igly ree		ong! agre		St	ron Ag	
Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6	;	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	5
		N	Hel More N		ent	ion		In	terfe l	ered Drivi		n M	у			ncti Prop	one erly	đ			Prov Ini		d Tir natio		
			ong sagri	-			gly` re <del>e</del>		ongi agre			ong Agr		Nor the				of t Tir			ne o Tim			of Ti	
Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	;
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	ł

#### Comments:

	N	lavigation Plu	S		Navigation		Services						
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation				
Easy to learn	746	5.49	0.84	531	5.49	0.88							
Easy to use	703	5.59	0.74	531	5.52	0.87							
Useful	744	5.42	0.93	528	5.38	1.02							
Helped find way	740	5.30	1.02	526	5.25	1.12							
Helped pay attention	727	5.03	1.23	520	5.06	1.25							
Interfered driving	724	1.82	1.17	519	1.79	1.17							
Functioned properly	729	4.92	1.19	520	4.80	1.26							
Timely information	719	5.00	1.04	515	4.89	1.14							

	Navigation Plus	Navigation	Services
Didn't use	77	56	
Total	77	56	

Item #	N+/V3/B23	N/V3/B20
	N+/V2/B23	N/V2/B20
	N+/V1/B23	N/V1/B20

## The TravTek system's *"Where Am I?"*Feature ("Heading West on Colonial"; button located on steering wheel):

	Did	Was Easy to Learn					Wa	s E.a	sy to	5 Us	e	Was Us				ul		Н	Helped Me Find My Way						
	Not Use		ong agre			tron .Ag			ongi agre		S 		ngiy ree		rong sagi				ngiy gree		ong agri		S	ror Ag	ıgi re
Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
			lore	At		Pay ion ng		In	terfe	ered Driv		h N	ly			unct Prop							d Tir natio		1
			ong agre			tron . Agi			ongl agre			rong Agr		Noi the				of Ti	the me	No the	ne c Tirr			of Ti	the me
Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6

Comments:

	N	Vavigation Plu	IS		Navigation		Services.				
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Easy to learn	678	5.61	0.68	470	5.63	0.74					
Easy to use	677	5.64	0.65	470	5.65	0.73					
Useful	677	5.01	1.26	467	5.09	1.20					
Helped find way	671	4.65	1.4	464	4.71	1.41					
Helped pay attention	660	4.45	1.41	456	4.52	1.54					
Interfered driving	661	1.85	1.17	457	1.72	1.09					
Functioned properly	664	5.10	1.12	463	5.01	1.20					
Timely information	659	4.97	1.18	455	4.91	1.22					

	Navigation Plus	Navigation	Services I
Didn't use	147	115	
Total	147	115	

	, <u></u>				51		ering	, w	nee	=1)	•															
TRAFFIC B REPORT	Did		N		Easy earn		0		Was	s Ea	sy t	o U	æ					sy tan				v	Vasi	Usei	iul	
	Not Use		ongi lagre				ongly Agree		ong lagri				ngly gree		ong agr					ngly pree		ong sagi	giy ree .			ngi Igre
Primary Driver	0	1	2	3	4		56	1	2	3	4	5	6	1	2	:	3	4	5	6	1;	2	3	4	5	ó
Secondary Driver	0	1	2	3	4	÷٠	56	1	2	3	4	5	6	1	2		3	4	5	6	1	2	3	4	5	6
		Helped Me Find Me Way					,	vlor	e A	d M tten Driv	tion		lr	Interfered with My Functioned Driving Properly												
			ongl agre				ongly Agree		ong sagi				ngiy Iree		ong agr		• •			gly ree	1	ne Tir	of ne			the îme
Primary Driver		1	2	3	4	5	56	1	2	3	4	5	6	1	2		3	4	5	6	1	2	3	4	5	6
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2		3	4	5	6	1	2	3	4	5	6
<u></u>		Ť	raffic was				ation le	T	raffi wa		fori Tim		on													
			ne o Tim				of the Time		ne o Tin	- ·			the ïme													
Primary Driver		1	2	3	4	5	56	1	2	3	4	5	6	1												
Secondary Driver		1	2	3	4	5	5 6	1	2	3	4	5	6	1												

## The TravTek system's "Traffic Report" Feature ("Congestion on d

#### Comments: \_\_\_\_\_

	1	Navigation Plu	5		Navigation	1		Services	5
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	518	5.59	0.67	`					
Easy to use	517	5.61	0.65						
Easy to understand	514	5.26	1.07						
Useful	514	4.15	1.54						
Helped find way	496	3.46	1.57						
Helped pay attention	500	3.79	1.49						
Interfered driving	498	2.00	1.19						
Functioned properly	502	4.49	1.53						
Believable info.	- 449	3.98	1.55						
Timely information	491	3.92	1.53						

Item # N+/V3/B245 N+/V2/B24 N+V1/B24

(Continued)

	Navigation Plus	Navigation	Services
Didn't Use	292		
Total	292		

Item #	N+/V3/B25	N/V3/B2I
	N+/V2/B25	N/V2/B2I
	N+/V1/B25	N/V1/B21

# The TravTek system's "*Repeat Voice*" Feature ("Last message was, . ."; button located on steering wheel):

epeat Voice		_	v	vas	, .	•	, DI		T1	100	ale	Ju	UII	50	ee	ιιις	j v	vne	ei).						
	Did		Wa	s Ea Le	isy † arn	to			Wa	ns Ea	isy t	o Us	e		١	Nas	Usef	ful		H	elp		∕le∣ Vay	ind	My
	Not		ongly agre			Stro Agi	ngly ree	Stro Disa		,		Stro Ag	ngly ree	Stro Disa				Stroi Agre	ngly ee		ong agr				ngly .gree
Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
		ſ	Nore	bed Att Iy D	ent	ion	-	Ini		erec Driv		th N	Лy			unct Prop									
			ongl agre	~			ngly ee		ong agre	gly ee		Stro Agre	ngly ee			of ne			f the						
Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						

#### Comments:

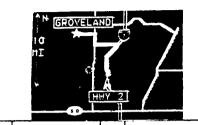
· \_\_\_\_

	Navigation Plus				Navigation		Services'				
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Easy to learn	616	5.67	0.60	403	5.70	0.59					
Easy to use	617	5.66	0.62	403	5.70	0.61					
Useful	616	5.08	1.23	401	5.03	1.25					
Helped find way	610	4.55	1.43	401	4.64	1.44					
Helped pay attention	603	4.36	1.48	391	4.43	1.57					
Interfered driving	601	1.83	1.11	391 -	1.85	1.21					
Functioned properly	603	5.25	1.07	393	5.04	1.27					

	Preque	ncy	
	Navigation Plus	Navigation	Services
Didn't use	199	185	
Total	199	185	

(As of: November 12, 1993)

#### How well did you like the following TravTek modes of operation?



	Did Not	Not with Voice					Did Not		Route Map <u>without</u> Voice							
	Use	Disliked Liked				Use	Dis	like	d.		Li	ed				
Primary Driver	0	1	2	3	4	5	6	0	1	2	3	4	5	6		
Secondary Driver	0	1	2	3	4	5	6	0	1	2	3	4	5	6		

DESTIN.	4.	7	ΠI	9	1	IN
			ROE	116	1 <u>5</u> ( 8	
					a	-
ADAITS						

Did Not	G	uida <u>w</u>	anc ith			lay	Did Not				U without Vic		L without Viorca 1					
Use	D	islik	ed		. Lik	ed	Use	Di	slike	ed.		Like	ed.					
0	1	2	3	4	5	6	0	1	2	3	4	5	6					
0	1	>	٦	4	5	6	0	1	2	3	4	5	6					

	Did Not		١	/oic	e C	Inly		
	Use	Di	Voice Only Disliked Liked 1 2 3 4 5 6					
Primary Driver	0	1	2	3	4	5	6	
Secondary Driver	0	1	2	3	4	5	6	

	1	Navigation Plu	s		Navigation		Services				
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Map with voice	774	5.44	0.89	550	5.47	0.98					
Map w/o voice	576	4.23	1.57	417	4.2 1	1.64					
Display with voice	787	5.48	0.90	554	s.46	0.96					
Display w/o voice	552	4.14	1 .58	384	4.03	1.65					
Voice only	337	4.05	1.75	248	4.04	1.81					

Item # N+/V3/B26 N/V3 B22 N+/V2/B26 N/V2/B22 N+/V1/B26 N/V1/B22

(Continued)

#### Frequency

	Navigation Plus	Navigation	Services
Didn't use route map	46	34	
Didn't use display	28	26	
Didn't use voice only	11	3	

Total

(As of: November 12, 1993)

Route	Мар			Gu	idanc	e Di	splay
		7	*		H. 4.		9 MIN SINSON 8 MI
	Did Not Use Both		ngly Prei e Map		S . Gui	trongly dance (	/ Prefer Display
Primary Driver	0	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6

Of the two routing displays, Route Map and Guidance Display, which did you prefer:

Comments: \_\_

	Navigation Plus				Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Prefer	189	3.91	1.54	91	3.81	1.44			1	

Frequency

	Navigation Plus	Navigation	Services
Didn't use both	0	0	

Total

Item #	N+/V3/B27	N/V3/B23
	N+/V2/B27	N/V2/B23
	N+/V1/B27	N/V1/B23

#### Overall, the steering wheel buttons:

	Were Easy Use	Were Easy to Learn	Were Easy to Find	Were Useful		
	Strongly Strongly DisagreeAgree	Strongly Strongly Disagree Agree	Strongly Strongly DisagreeAgree	Strongly Strongly DisagreeAgree		
Primary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		
Secondary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		
	Helped Me Find	Helped Me Pay More Attention to My	Interfered with My	Functioned		
	My Way	Driving	Driving	Properly		
	Strongly Strongly DisagreeAgree	Strongly Strongly DisagreeAgree	Strongly Strongly DisagreeAgree	None of All of the the timeTime		
Primary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		
Secondary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		

#### Comments:

	Navigation Plus				Navigatio	n	Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Easy to use	812	5.47	0.85	572	5.43	0.80				
Easy to learn	813	5.39	0.94	569	5.39	0.89				
Easy to find	813	5.26	1.06	570	5.24	1.00				
Useful	813	5.33	0.93	566	5.25	0.98				
Helped find way	801	4.92	1.13	560	4.91	1.17				
Helped pay attention	803	4.41	1.42	560	4.36	1.45				
Interfered driving	805	2.05	1.23	561	1.99	1.23				
Functioned properly	809	5.25	0.97	556	5.17	0.99				

Item #	N+/V3/B28	N/V3/B24	S/V3/B162
	N+/V2/B28	N/V2/B24	S/V2/B162
	N+/V1/B28	N/V1/B24	S/V1/B162

# Overall, how would you rate the TravTek system's *Visual Display's* (e.g. TrakTek Maps, TravTek Menus, TravTek Screen Instructions):

			l Could Easily Read the Text			l Could Understand The Information					l Liked to Screen Colors								
	Did Not Use		ong agr				ongly ee		ongl agre	y e		ong Iree	ly	Stro Disa	0,5			ong ee	ly
Primary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	0	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
		1	The Screen was Distracting at Night		Functioned Properly														
			ong sagr				ongly ee		ne c e Tim	of e	-		the						
Primary Driver		1	2	3	4	5	6	1	2	3	4	5	6	]					
Secondary Driver		1	2	3	4	5	6	1	2	3	4	5	6	1					

Comments:

	Navigation Plus				Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Easily read text	827	5.42	0.83	589	5.36	0.86	137	5.30	0.83	
Understand info.	823	5.33	0.84	586	5.23	0.90	136	5.20	0.91	
Liked screen colors	825	5.30	0.87	586	5.30	0.85	136	5.14	1.03	
Screen distracting	799	1.85	1.15	578	1.83	1.15	134	1.88	1.24	
Functioned properly	818	5.22	0.93	583	5.09	1.03	130	5.26	1.08	

#### Frequency

	Navigation Plus	Navigation	Services
Didn' t use	1	1	0
Total	1	1	0

2. Items # S/V3, V2, V1/B16 read: "The TravTek system' s Visual Display:"

Item #	N+/V3/B29	N/V3/B25
	N+/V2/B29	N/V2/B25
	N+/V1/B29	N/V1/B25

# How would you rate the TravTek system' s Voice Presentation (e.g., Voice Guide, Where Am I, Traffic Report, and Report Voice)?

	Voice Tone Was Clear	Message was Understandable	Functioned Properly			
	Strongly Strongly DisagreeAgree	Strongly Strongly Disagree Agree	None of All of the the TimeTime			
Primary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6			
Secondary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6			

Comments:

	N	avigation H	Plus		Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Clear tone	810	4.34	1.32	581	4.40	135				
Understand message	808	4.39	1.24	579	4.46	1.23				
Functioned properly	809	4.99	1.15	577	4.91	1.19				

Item #	N+/V3/B30	N/V3/B26	S/V3/B173
	N+/V2/B30	N/V2/B26	S/V2/B173
	N+/V1/B30	N/V1/B26	S/V1/B173

	Was Easy to Learn	Was Easy to Understand	Helped Me Find My Way		
	Strongly Strongly DisagreeAgree	Strongly Strongly Disagree Agree	Strongly Strongly DisagreeAgree		
Primary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		
Secondary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		
	Helped Me Pay More Attention to My Driving	Interfered with My Driving	Functioned Properly		
	Strongly Strongly DisagreeAgree	Strongly Strongly DisagreeAgree	None of All of the the timeTime		
Primary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		
Secondary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6		

#### Overall, the TravTek system:

#### Comments:

	Navigation Plus			Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Easy to learn	830	5.27	0.87	591	5.16	0.96	133	5.13	0.93
Easy to use							131	5.08	1.01
Easy to understand	828	5.27	0.85	590	5.16	0.97			
Helped find way	826	5.33	0.93	590	5.24	1.08	129	3.32	1.71
Helped pay attention	818	4.47	1.34	588	4.43	1.39	129	3.12	1.48
Interfered driving	817	2.08	1.23	586	2.04	1.23	130	2.27	1.35
Function properly	819	4.89	0.96	586	4.78	1.04	129	5.11	1.26

	Navigation Plus	Navigation	Services
Didn' t use			0
Total			

<sup>2.</sup> Items # S/V3, V2, V1/S17 read: "The Overall TravTek system' s Visual Display:"

Item #	N+/V3/B31	N/V3/B27	S/V3/B18
	N+/V2/B31	N/V2/B27	S/V2/B18
	N+/V1/B31	N/V1/B27	S/V1/B184

#### Do you think TravTek helped you save time in reaching your destinations?

	Didr	n't		Save a				
	Save	e Any		Considerable				
	Tim	e		Amount of Time				
Primary Driver	1	2	3	4	5	6		
Secondary Driver	1	2	3	4	5	6		

Comments: \_\_\_\_\_

	Ν	Vavigation Plu	S		Navigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Save time	822	4.65	1.39	587	4.57	1.49	130	2.59	1.76

4. Item # S/V1/B19 reads: "Do you think TravTek helped you avoid congestion in Orlando?

### Do you think TravTek helped you avoid congestion?

	Didn't Help Avoid Congestion At All Co				Av	Helped Avoid All ongestion		
Primary Driver	1	2	3	4	5	6		
Secondary Driver	1	2	3	4 5 6				
i						r#		

#### Comments: \_

	Navigation Plus			Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Avoid congestion	759	3.28	1.59	529	2.90	1.66	126	1.94	1.33

Item #	N+/V3/B33	N/V3/B29	S/V3/B20
	N+/V2/B33	N/V2/B29	S/V2/B20
	N+/V1/B33	N/V1/B29	S/V1/B205

#### Do you think TravTek helped you see more attractions in Orlando?

	Didr	n' t Helj	р			
	Me See			Helped Me		
	MoreSee More					
Primary Driver	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6

#### Comments: \_\_\_\_\_

	N	Vavigation Plu	IS		Navigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
See more attractions	781	3.34	1.80	569	3.29	1.80	74	2.20	1.47

5. Item # S/V1/B20 reads: "Do you think TravTek helped you see more attractions in the Orlando area?

#### Do you think TravTek helped you drive more safely in Orlando?

	Didn't Help Helped Me Me Drive Drive More SafelySafely						
Primary Driver	1	2	3	4	5	6	
Secondary Driver	1	2	3	4	5	6	

	Navigation Plus				Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Drive more safely	822	4.11	1.56	593	3.98	1.64	125	2.40	1.63	

Item # N+/V3/B35	N/V3/B3I	S/V3/B22
N+/V2/B35	N/V2/B3I	S/V2/B22
N+N 1/B35	N/V1/B31	S/V1/B22

#### Do you think TravTek helped you save fuel in Orlando?

	Didr Help Save	o Me		Helped Me Save More Fuel			
Primary Driver	1	2	3	4	5	6	
Secondary Driver	1	2	3	4	5	6	

	Navigation Plus			Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Save fuel	816	3.62	I.63	580	3.64	1.72	72	2.39	1.69

#### Overall, how do you rate the TravTek system?

<u></u>	Poor Excelle					
Primary Driver	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6

	Navigation Plus			Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Rate system	832	5.18	0.98	592	5.11	1.04	131	4.04	1.53

<sup>6.</sup> Item # S/VI/B23 reads: "Overall, how would you rate the TravTek system:

# How You Drove with the TravTek System

#### With TravTek, to what extent did you notice a change in your attention to:

	Traffic/Other Drivers	Road Signs	Billboards for Attractions, hotels, etc.	Paper Road Maps	Street Signs /Block Addresses
				l Substantial Substantia Decrease Increase	
Pnmary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
Secondary Driver	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6

#### Comments:

	 	lavigation Plu			Navigatior	)	Services			
	Number	Mcan	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Traffic/other drivers	813	3.82	0.98	528	3.77	1.00	113	3.64	0.71	
Road signs	820	3.29	1.2 4	588	3.39	1.22	120	3.74	0.91	
Billboards	808	3.09	1.16	580	3.16	1.14	119	3.36	1.15	
Paper road maps	821	1.68	1.03	581	1.81	1.16	115	3.28	1.43	
Street signs	817	2.96	1.34	581	3.11	1.34	116	3.66	1.20	

<sup>7.</sup> Items # S/V3.V2.V1/C1 read "To what extent did you notice a change in your attention to:"

Item #	N+/V3/C2	N/V3/C2
	N+/V2/C2	N/V2/C2
	N+/V1/C2	N/V1/C2

#### To what extent did you use TravTek to help you plan routes?

	None of the time the time					All of
Primary Driver	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6

	Navigation Plus			Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Time	832	5.16	1.12	589	4.99	1.24			

#### How often did you follow the routes planned by TravTek?

	Non the					ll of time
Primary Driver	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6

		Navigation Plus Navigation Services							
	Number	Mean			Mean	Standard Deviation	Number Mean		Standard Deviation
Time	828	5.12	1.04	586	5.06	1.06			

ltem#	N+/V3/C4a	N/V3/C4a
	N+/V2/C4a	N/V2/C4a
	N+N1/C4a	N/V1/C4a

Did having the TravTek System in your car have any effect on the length or number of trips you took?

Primary Driver	O Yes	O No (If no, go to question C5)
Secondary Driver	O Yes	O No (If no, go to question C5)

#### If yes, did you:

	Take More Tnps?		٦	Take Fewer Trips?			Take Longer Trips?				т	Take Shorter Trips?												
	Ne	eve	r	Fre	que	ntly	Ne	ver.	. Fi	requ	Jen	tly	Ne	ver	•	Free	que	ntly	Ne	ver.	Fr	equ	uen	tly
Pnmary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6

#### Comments: \_\_\_\_\_

	1	Navigation Plus			Navigation	gation Services					
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
More trips	282	4.67	1.08	201	4.63	1.00					
Fewer trips	244	1.64	0.91	171	1.66	1.01					
Longer trips	235	3.96	1.43	180	4.04	1.46					
Shorter tips	245	2.93	1.50	173	2.97	1.64					

	Navigation Plus	Navigation	Services
Yes	284	211	
No	536	376	
Total	820	587	-

Item # N+/V3/C5a	N/V3/C5a
N+/V2/C5a	N/V2/C5a
N+/V1/C5a	N/V1/C5a

Did you ever change your plans to visit a destination (e.g., go to Walt Disney World instead of Sea World, or go to both instead of one) based on the information you received from TravTek (e.g., parking lot full, lengthy trip time)?

Primary Driver	O Yes	O No (if no, go to question C6)
Secondary Drive.	O Yes	O No (If no, go to question C6)

If Yes, how often did you?

	Change Destinations?					Delay Tnps?						Cancel Trips?						
	Ne	ver	F	req	ue	ntly	Ne	ver	Fr	eq	uer	ntly	Ne	ver	Fr	equ	uen	tly
Primary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6

Comments:

		Navigation Plus			Navigation		Services				
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Change desintations	57	3.30	1.15	50	3.48	1.23					
Delay trips	55	1.91	1.19	45	1.80	1.12					
Cancel trips	55	1.73	1.10	44	1.75	1.14					

	Navigation Plus	Navigation	Services
Yes	58	53	
No	743	530	-
Total	801	582	-

Item # N+/V3/C6	N/V3/C6	S/V3/C2
N+/V2/C6	N/V2/C6	S/V2/C2
N+N1/C6	N/V1/C6	S/V1/C2

During your TravTek driving experience, how often did you stop or park to obtain more information from the system?

i	Nev Stop	er opea	ł		St Frec	oppe juent	d ly
Primary Driver	1	2	3	4	5	6	
Secondary Driver	1	2	3	4	5	6	

If never, please go to question C/;

		Navigation Plus			Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Stopped	831	3.13	1.28	599	3.06	1.33	133	2.71	1.37	

#### Why did you stop?

Primary Driver

- 0 Zoom In/Out
- O Cancel/Enter new routes
- O Obtain Services/Attraction information
- O Obtain information from Help Desk
- O "Correct Location" (from Main Menu)
- O Look at Paper Map
- O Look at Written Directions
- O Ask for Directions
- 0 Other

Secondary Driver

- 0 Zoom In/Out
- O Cancel/Enter new routes
- O Obtain Services/Attraction information
- O Obtain information from Help Desk
- O "Correct Location" (from Main Menu)
- O Look at Paper Map
- O Look at Written Directions
- O Ask for Directions
- O Other

	Navigation Plus	Navigation	Services
Zoom in/out	83	33	5
Cancel/enter	111	56	
Service/attractions	70	32	4
Help Desk info.	39	24	3
Correct location	33	23	2
Paper map	15	5	1
Written direction	7	7	3
Ask for directions	20	4	2
Other	14	3	2
Total	293	187	22

<sup>8.</sup> Item # S/V3/C2a does not include "Cancel/Enter new routes."

#### Why?

- Primary Driver
- O Zoom In/Out
- O Cancel/Enter new routes
- O Obtain Services/Attraction information
- O Obtain information from Help Desk
- O Correct Location
- 0 Other

Secondary Driver

- 0 Zoom In/Out
- O Cancel/Enter new routes
- O Obtain Services/Attraction information
- O Obtain information from Help Desk
- O Correct Location
- O Other\_\_\_\_\_

	Navigaton Plus	Navigation	Services
Zoom in/out	222	163	37
Cancel/enter	341	258	
Service/attractions	200	148	47
Help Desk info.	132	136	19
Correct location	204	158	
Other	32	23	14
Total	1131	886	107

<sup>9.</sup> Item # N/V2/C6a reads "Why did you stop?"

<sup>10.</sup> Item # S/V2/C2a does not include "Cancel/Enter new routes" end "Correct Location": also, it reads "Why did you stop?"

<sup>11.</sup> Item # S/V1/C2a does not include "Cancel/Enter new routes" and "Correct Location"

#### Where did you stop? (check all that apply)

- O Curb of Street
- O Side Street
- O Shoulder of Highway or Expressway
- O Parking Lot
- O Travel Lane
- 0 Other\_\_\_\_

- O Curb of Street
- O Side Street
- O Shoulder of Highway or Expressway
- O Parking Lot
- O Travel Lane
- 0 Other \_\_\_\_\_

	Navigation Plus	Navigation	Service
Curb of street	315	205	21
Side street	221	172	16
Shoulder	289	219	29
Parking lot	529	383	75
Travel lane	23	21	3
Other	41	42	5
Total	1418	1042	149

# While driving with the TravTek system, compared with driving a rental car without a TravTek system on other trips, please indicate the extent you felt:

			Nervous				Confident				Confused								
		Le	ss				More	Less				M	ore	Less	s			M	ore
Pri	imary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Sec	condary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
			Attentive																
		Le	e s s.				More	Less	i			.Mc	ore						
Prim	nary Driver	1	2	3	4	5	6	1 2	3		1 !	5	6						
Seco	ondary Driver	1	2	3	4	5	6	12	3	2	ļ	5	6						

		Navigation Plu		I	Navigation	]	Services			
	Number	Мсап	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Nervous	820	2.28	1.10	580	2.37	1.21				
Confident	828	4.85	1.03	592	4.75	1.09				
Confused	819	2.23	1.14	586	2.29	1.20				
Attentive	816	4.36	1.08	577	4.36	1.15				
Safe	816	4.51	1.06	576	4.49	1.16				

# How frequently did you experience "close calls" (or near accidents) while driving the vehicle?

	Neve	er	F	Frequei	ntly		
Primary Driver	1	2	3	4	5	6	
Secondary Driver	1	2	3	4	5	6	If Never, please go to Question C9

	Ν	lavigation Plu	S		Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Close calls	208	1.26	.55	99	1.32	.62	10	1.50	.85	

Item #	N+/V2/C8	N/V2/C8	S/V2/C3
	N+/V1/C8	N/V1/C8	S/V1/C3

# How many times did you experience "close calls" (or near accidents) while driving the vehicle?

	Non	e		Man	у		
Primary Driver	1	2	3	4	5	6	
Secondary Driver	1	2	3	4	5	6	

If none, please go to Section D.

	Ν	Vavigation Plu	S		Navigation			Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Close calls	618	1.26	.73	490	1.26	.68	121	1.19	.66

#### To what degree was traffic congestion a factor?

	Nor the			All of the time			
Primary Driver	1	2	3	4	5	6	
Secondary Driver	1	2	3	4	5	6	

Comments:

		Navigation Plu			Navigation		Services				
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Traffic congestion	144	2.85	1.60	110	2.93	1.60	18	2.56	1.25		

#### What were your actions immediately prior to the close calls? (Check all that apply)

	Operating non-TravTek Features (e.g., radio, air conditioning)	Operating TravTek Features	Looking at TravTek Display	Listening to TravTek Voice Message	
Primary Driver	1		1		
Secondary Driver					
	Using Cellular Phone	Looking at Paper Map	Looking at Written Directions	Normal Driving Actions	Other Specify
Primary Driver					
Secondary Driver					

#### Frequency

	Navigation Plus	Navigation	Services
Non-Trav/Tek	17	22	8
Trav/Tek features	39	17	
Display	65	50	
Voice message	14	6	
Cellular phone	5	6	5
Paper map	0	1	0
Written directions	0	1	0
Normal Drive	73	56	6
Other	4	0	1
Total	217	159	20

12. Items # N+/V2. V1/C8b and N/V2, V1/C8b do not include "Looking at Paper Map," "Looking at Written Directions, and "Other Specify"
 13. Item # S/V3/C3b does not include "Operating TravTek Features," "Looking at TravTek Display," and "Listening to TravTek Voice Message"

<sup>14.</sup> Item # S/V2,V1/C3b does not include "Operating TravTek Features," Looking at TravTek Display, " "Listening to TravTek Voice Message," "Looking at Paper Map," "Looking at Written Directions," and "Other Specify"

#### Who or what caused the close call to occur? (check all that apply)

	Myself	Driver of Another Vehicle	Road Debris	Roadside Signs	Other Specify
Primary Driver					
Secondary Driver					

#### Comments:

#### Frequency

	Navigation Plus	Navigation	Services
Myself	24	15	1
Another vehicle	67	50	7
Road debris	3	6	0
Roadside sip	10	10	4
Other	17	8	2
Totolo	121	89	14

Totals

How does the number of close calls you experienced in Orlando compare with the number you usually experience in your hometown? In Orlando I experienced:

\_\_\_\_\_

	Few Clos Call	se				ore ose alls
Primary Driver	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6

Comments:

	11	Navigation Plus			Navigation		Services				
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Close calls	I 574	2.65	1.27	438	2.69	1.30	7	2.57	1.40		

Item # S/V3/C5 S/V2/C4 S/V1/C4

Which of the following navigation aids did you use to help you plan your trips? (Check all that apply)

#### Primary Driver

- O Paper Maps/Triptiks
- O TravTek "Show Map" feature on screen
- O Directions from Friends,/ Relative
- O Directions from Others

0 Other\_\_\_\_\_

#### Secondary Driver

- O Paper Maps/Triptiks
- O TravTek "Show Map" feature on screen
- O Directions from Friends/' Relative
- O Directions from Others
- 0 Other\_\_\_\_\_

Frequency

	Navigation Plus	Navigation	Services
Paper maps			87
Show map feature			62
Direction from friend			38
Direction from other			52
Other			11

Total

250

ltem # S/V3/C5a S/V2/C4a S/V1/C4a

# When planning your trips (e.g., from the airport to Universal Studios) how important were the following in helping you decide your routes?

			lann astes						lann Iorte					A	voidi	ng T	olls	
	No Im		ant.	1	mpo	Very rtant	Nc Im		int.	11		Very rtant	No Imp	-	int.	ir		Very tant
Primary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
				oidir Frstat	-				<b>olio</b> cenic									
	No Imj	-	int.	14		Very rtant	No Imp	t porta	nt	. Ir	прог	Very tant						
Primary Driver	1	2	3	4	5	6	1	2	3	4	5	6	]					
Secondary Driver	1	2	3	4	5	6	1	2	3	4	5	6						

Comments:

		Vavigation Plus	5		Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Fastest route							119	4.25	1.70	
Shortest route							117	3.81	1.80	
Avoid tolls							118	2.52	1.69	
Avoid interstates							117	1.69	1.16	
Scenic route							118	2.31	1.55	

Item #	S/V3/C6a
	S/V2/C5a
	S/V1/C5a

While planning your routes, did you expect traffic congestion?										
Primary Driver		Yes		□ No (If no, go to question C6)						
Secondary Driver		Yes		No (If no, go to question C6)						
If yes, how did you attempt to compensate for it? Primary Driver Secondary Driver										
Adjusted departure til	mac			<ul> <li>Adjusted departure times</li> </ul>						
	nes									
□ Avoided congested ro	outes			□ Avoided congested routes						
□ Allowed more time for	r trave	1		□ Allowed more time for travel						
□ Other		_		□ Other						

Comments:

	Navigation Plus	Navigation	Services
Yes			72
No			48
Total			120

	Navigation Plus	Navigation	Services
Departure time			34
Avoided routes			9
More time allowed			46
Other			5
Total			94

Item # S/V3/C7 S/V2/C6 S/V1/C6

#### To what extent did you use metro radio traffic reports:

	For Planning Your Trips?					W			ving natio		Your ?
	NeverAlways			NeverAlways					s		
Primary Driver	1 2 3 4 5 6			1	2	3	4	5	6		
Secondary Driver	1 2 3 4 5 6					1	2	3	4	5	6

Comments: \_\_\_\_\_

	Navigation Plus		Navigation			Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Planning trip							122	1.61	1.20
Driving destination							100	1.86	1.32

Item # S/V3/C8 S/V2/C7 S/V1/C7

#### After deciding on your destinations, how easy was it for you to find them?

	Very Diff	, icult		Very	Easy	
Primary Driver	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6

	Navigation Plus			Navigation				Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation		
Easy to find							9	4.22	1.48		

Item # S/V3/C9 S/V2/C8 S/V1/C8

## Which of the following methods did you use to help guide you to your destinations? (Check all that apply)

#### Primary Driver

- O Looked at directions while driving
- O Looked at a map/Triptik while driving O Had passenger look at
- map/Trip tik
- O Used information from billboards
- O Other\_\_\_\_\_

#### Secondary Driver

- O Looked at directions while driving
- O Looked at a map/Triptik while driving
- O Had passenger look at map/Triptik
- O Used information from billboards
- 0 Other\_\_\_\_\_

#### Comments: \_\_\_\_\_

Frequency								
	Navigation Plus	Navigation	Services					
Directions			56					
Map/triptik			40					
Had passenger look			78					
Billboard info.			44					
Other			24 .					

Total

242

Item # S/V3/C10b S/V2/C9b S/V1/C9b

#### Get lost?

	NeverFrequently							
Primary Driver	1	2	3	4	5	6		
Secondary Driver	1	2	3	4	5	6		

Comments: \_\_\_\_\_

	Navigation Plus				Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Get lost							10	2.7	1.25	

Item # S/V3/C11 S/V2/C10 S/V1/C10

## Did you ever have to detour from any route you originally planned?

Primary Driver	🗌 Yes	$\Box$ No (If no, go to question C11)
Secondary Driver	□ Yes	$\Box$ No (If no, go to question C11)

Frequency								
	Navigation Plus	Navigation	Services					
Yes			47					
No			87					
Total			134					

How did you determine a new way to get to your destination? (Check all that apply)

Primary Driver	Secondary Driver
Looked at paper map/Triptik	Looked paper map/Triptik
Used TravTek "Show Map" feature	Used TravTek "Show Map" feature
Followed other cars	Followed other cars
Stopped and asked directions	Stopped and asked directions
Called Help Desk	Called Help Desk
Called destination	Called destination
Other	Other

	Frequency	/	1
	Navigation Plus	Navigation	Services
Paper map/Triptak			22
Show map			13
Followed other cars			3
Stopped and asked			13
Called Help Desk			2
Called destination			2
Other			8
Total			63

### Frequency

Item #	N/V3/C10	S/V3/C12
	N/V2/C11	S/V3/C12
	N/V1/C9	S/V1/C11

## If you had known current traffic conditions, would you have taken your original routes?

Primary Driver	🗆 Yes	🗆 No
Secondary Driver	🗆 Yes	🗆 No

Frequency								
	Navigation Plus	Navigation	Services					
Yes		294	47					
No		222	87					
Total		515	134					

How useful would it have been:

	On a Map?						With a Voice Message?					
							"You are heading North on Highway 2"					
	Not Use	t eful				Very Useful	Not Uset					Very Useful
Primary Driver	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6	1	2	3	4	5	6

C12a. If you could determine your car's location while driving to your destination:

Comments: \_\_\_\_

	Navigation Plus				Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Мар							132	5.55	1.01	
Voice message							120	5.17	1.29	

ltem # S/V3/C13b S/V2/C12b S/V1/C12b

	On a Map?					,	With a Voice Message?					
	DESTIN. 4.7 MI 9 MIN					"Turn right on Bobinson in						
	Not Use				l	Very Jseful	Not Usef	ul	<u></u> .	<u></u>	Ve Use	ery ful
Primary Driver	1	2	3	4	5	6	1	2	3	4	5	6
Secondary Driver	1	2	3	4	5	6	1	2	3	4	5	6

### If you had a route planned to your destinations and were guided there:

Comments:

.....

	Navigation Plus				Navigation		Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Мар							129	5.50	1.04
Voice message							123	5.43	0.99

,

Vinui a Voice Message? On a Map? DESTIN. 3.0 MI 5 MIN OAK \*Heavy traffic congestion ahead on .5 MI Robinson\* CAUTION AHEAD ROEINSCN Very Not Very Not Useful Useful Useful Useful 2 3 4 5 6 Primary Driver 2 3 4 5 6 1 1 5 6 5 6 1 2 3 4 Secondary Driver 2 3 4 1

How useful would it have been if you could receive updated traffic information to warn you of traffic problems?

#### Comments: \_

	Navigation Plus			Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Мар				553	4.97	1.29	127	4.95	1.40
Voice message				540	5.36	1.00	121	5.32	1.09

15. Items #S/V3/C13c and S/V2, V1/C12c read "If you received updated traffic information to warn you of traffic conditions."

Item #	N+/V3/D1	N/V3/D1	S/V3/D1
	N+/V2/D1	N/V2/D1	S/V2/D1
	N+/V1/D1	N/V1/D1	S/V1/D1

D Future Intentions

Frequency "At home daily driving"

Do you think TravTek would be useful for:

	Yes	Νο	
a. At home daily driving? Primary Driver			
Secondary Driver			
b. Out-of-town vacation driving? Primary Driver			
Secondary Driver			
c. Out-of-town business trips? Primary Driver			
Secondary Driver			
Comments			

Frequency for "Out-of-town vacation driving"

Total	826	589	133	Total	836	599	135
No	374	316	71	No	12	7	10
Yes	452	273	62	Yes	824	592	125
	Navigation +	Navigation	Services		Navigation +	Navigation	Services
Freque	ncy "At home dat	ly driving			1	1	1 1

Frequency for "Out-of-town business trips"

	Navigation +	Navigation	Services
Yes	821	590	121
No	13	8	13
Total	834	598	134

How much would you be willing to pay for a TravTek system such as you had in Orlando? (Please place a mark along the line below that best represents the price you' d be willing to pay.)



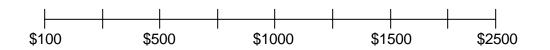
## Comments:

	Navigation Plus		Navigation			Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Willing to pay	205	987.80	651.35	96	1081.25	798.99	9	750.00	467.71

	Navigation Plus	Navigation	Services
\$0	8	5	1
\$1-\$250	11	5	1
\$251-\$500	48	20	2
\$501-\$750	18	6	0
\$751-\$1000	70	27	4
\$1001-\$1250	3	4	0
\$1251-\$1500	19	15	1
\$1501-\$1750	1	0	0
\$1751-\$2000	17	8	0
\$2001-\$2250	2	1	0
\$2251-\$2500	3	2	0
\$2501-\$2751	0	0	0
\$2751-\$3000	4	1	0
\$3001-\$3250	0	0	0
\$3251-\$3750	0	0	0
\$3751-\$4000	1	1	0
\$4001-\$4250	0	0	0
\$4251-\$4750	0	0	0
\$4751-\$5000	0	1	0
Total	205	96	9

## Frequency

How much would you be willing to pay for a TravTek system such as you had in Orlando? (Please place a mark along the line below that best represents the price you' d be willing to pay.)



Comments:

	Navigation Plus				Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Willing to pay	424	878.30	535.46	332	838.03	488.19	66	667.80	543.03	

#### Frequency

	Navigation Plus	Navigation	Services
\$1-\$250	39	32	17
\$251-\$500	120	99	23
\$501-\$750	54	43	3
\$751-\$1000	117	92	12
\$1001-\$1250	19	19	2
\$1251-\$1500	39	25	6
\$1501-\$1750	3	4	0
\$1751-\$2000	21	13	2
\$2001-\$2250	0	1	0
\$2251-\$2500	12	4	1
Total	424	332	66

# How much would you be willing to pay for a TravTek system such as you had in Orlando? (Please check one box)

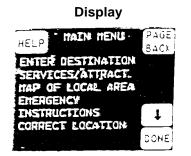
O Would not pay for	O <b>\$500</b>	0 <b>\$750</b> 0 <b>\$1000</b> 0	\$1250 O \$1500
	O <b>\$1750</b>	0 <b>\$2000</b> 0 <b>\$2250</b> 0	\$ 2500

	Navigation Plus		Navigation			Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Willing to pay	173	852.60	603.97	134	830.22	568.27	49	586.73	624.06

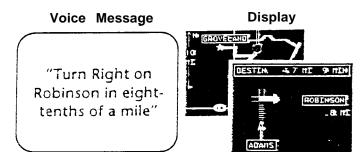
	Navigation Plus	Navigation	Services
\$0	35	23	18
\$500	20	27	15
\$750	32	19	1
\$1000	45	37	8
\$1250	10	7	0
\$1500	15	9	4
\$1750	2	3	0
\$2000	10	7	2
\$2250	0	0	0
\$2500	4	2	1
Total	173	134	49

#### Frequency

There are a number of options that the TravTek system can contain. These include:



SERVICES/ATTRACTIONS DIRECTORY – contains information on restaurants, hotels, and attractions;



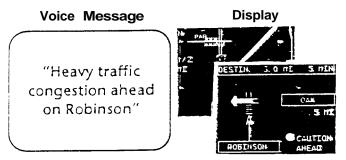
**ROUTE GUIDANCE** – features that plan your routes and guide you to your destinations;

Voice Message

Display



NAVIGATION - features to tell you where you are while you're driving (does not include route planning or guidance);



UP-TO-DATE TRAFFIC INFORMATION – features that provide timely road and traffic condition information.

Assuming the TravTek System were available nationwide, including your hometown:

How much would be be wiiling to pay for the following features AS AN OPTION IN A NEW  $\underline{CAR?}$  (Please indicate with an X on the lines below the price that best represents the price you'd be willing to pay.)

Services/Attractions Directory	\$0	\$750	\$1250	\$1750	\$2500
Navigation	 S0	\$750	\$1250	\$1750	\$2500
Route Guidance	\$0	\$750	\$1250	\$1750	<u>\$2500</u>
Up-to-date Traffic Information	 \$0	\$750	\$1250	\$1750	\$2500
Total TravTek With All Features	 S0	1 1 \$1000	\$2000	\$ <b>3000</b>	11 \$ <b>4000</b>

Comments:

#### S/V3/D3a

#### (Continued)

	N	Javigation I	Plus		Navigatio	n		Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Services/attractions	177	274.29	326.81	80	236.25	238.56	9	288.89	129.97
Navigation	184	532.74	450.04	82	550.00	542.53	9	430.56	295.22
Route guidance	186	558.20	442.60	83	556.02	472.74	9	502.78	367.73
Up-to-date info.	181	373.20	393.59	83	466.87	460.43	9	308.33	148.95
Total TravTek	196	1163.01	721.22	94	1215.43	753.62	9	1016.67	504.98

Frequency for "Services/Attractions Directory"

	Navigation +	Navigation	Services
\$0	38	21	0
\$1-\$250	68	32	3
\$251-\$500	51	19	6
\$501-\$750	13	6	0
\$751-\$1000	1	2	0
\$1001-\$1250	2	0	0
\$1251-\$1500	1	0	0
\$1501-\$1750	2	0	0
\$1751-\$2000	1	0	0
Total	177	80	9

## Frequency for "Navigation"

	Navigation +	Navigation	Services
\$0	17	9	1
\$1-\$250	41	20	1
\$251-\$500	53	23	5
\$501-\$750	37	16	1
\$751-\$1000	17	4	1
\$1001-\$1250	14	4	0
\$1251-\$1500	0	1	0
\$1501-\$1750	1	1	0
\$1751-\$2000	2	1	0
\$2001-\$2250	0	1	0
\$2251-\$2500	2	2	0
Total	184	82	9

	Navigation +	Navigation	Services
\$0	10	6	1
\$1-\$250	41	16	1
\$251-\$500	56	29	4
\$501-\$750	42	18	1
\$751-\$1000	21	4	1
\$1001-\$1250	9	6	1
\$1251-\$1500	1	1	0
\$1501-\$1750	2	0	0
\$1751-\$2000	2	1	0
\$2001-\$2250	0	1	0
\$2251-\$2500	2	1	0
Total	186	83	9

## Frequency for "Up-to-date TravTek Information"

## Frequency for "Route Guidance"

	Navigation +	Navigation	Services
\$0	21	8	1
\$1-\$250	70	24	2
\$251-\$500	54	27	6
\$501-\$750	19	16	0
\$751-\$1000	7	3	0
\$1001-\$1250	5	1	0
\$1251-\$1500	1	0	0
\$1501-\$1750	2	1	0
\$1751-\$2000	1	1	0
\$2001-\$2250	0	1	0
\$2251-\$2500	1	1	0
Total	181	83	9

	Navigation +	Navigation	Services
\$0	7	3	0
\$1-\$250	6	1	0
\$251-\$500	35	19	2
\$501-\$750	15	5	1
\$751-\$1000	51	24	4
\$1001-\$1250	8	6	0
\$1251-\$1500	35	17	0
\$1501-\$1750	4	0	1
\$1751-\$2000	20	10	1
\$2001-\$2250	0	0	0
\$2251-\$2500	6	4	0
\$2501-\$2570	0	0	0
\$2751-\$3000	7	4	0
\$3000-\$3250	1	0	0
\$3251-\$3500	0	0	0
\$3501-\$3750	0	0	0
\$3751-\$4000	1	1	0
Total	196	94	9

## Frequency for "Total TravTek With All Features"

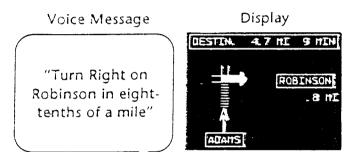
There are a number of options that the TravTek system can contain. These include:

Display

PAGE



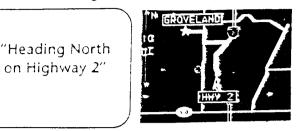
SERVICES/ATTRACTIONS DIRECTORY – contains information on restaurants, hotels, and attractions;



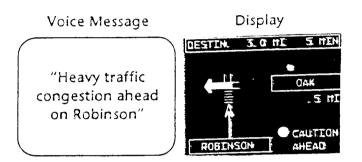
ROUTE GUIDANCE – features that plan your routes and guide you to your destinations;

Voice Message

Display



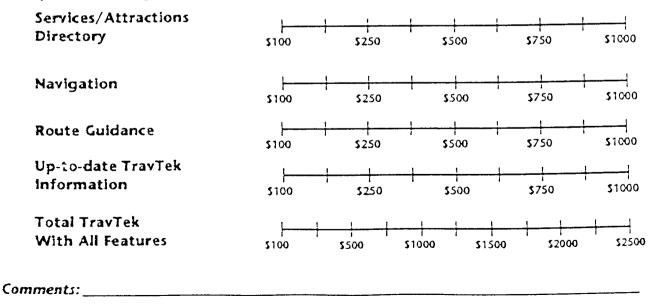
NAVIGATION – features to tell you where you are while you're driving to your destinations;



UP-TO-DATE TRAFFIC INFORMATION – features that provide timely road and traffic condition information.

Assuming the TravTek System were available nationwide, including your hometown:

How much would be be willing to pay for the following features <u>AS AN OPTION IN A JEW</u> <u>CAR?</u> (Please indicate with an X on the lines below the price that best represents the price you'd be willing to pay.)



	٩	Navigation Plus			Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	
Services/attractions	339	194.69	131.83	282	180.14	117.37	52	165.38	119.96	
Navigation	381	361.42	233.96	306	348.28	229.22	66	365.15	219.39	
Route guidance	388	364.50	225.82	301	344.35	221.62	67	369.03	230.70	
Up-to-date info.	358	273.39	199.97	290	265.80	209.96	57	317.54	213.44	
Total TravTek	409	990.37	551.85	335	948.73	532.78	69	975.72	534.85	

Frequency for "Services/Attractions Directory"

	Navigation +	Navigation	Services
\$1-\$250	294	252	48
\$251-\$500	37	29	3
<b>\$</b> 501- <b>\$</b> 750	7	0	1
\$751-\$1000	1	1	0
Total	339	282	52

#### Frequency for "Navigation"

	Navigation +	Navigation	Services
<b>\$1-\$2</b> 50	206	173	33
\$251-\$500	122	99	25
<b>\$</b> 501- <b>\$</b> 750	32	17	6
<b>\$</b> 751 <b>-\$</b> 1000	21	17	2
Total	381	306	66

#### Frequency for "Route Guidance"

	Navigation Plus	Navigation	Services	
\$1-\$250	206	176	34	
\$251-\$500	128	86	24	
\$501-\$750	37	27	6	
\$751-\$1000	17	12	3	
Total	388	301	67	

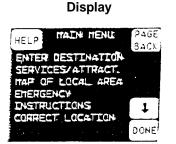
	Navigation Plus	Navigation	Services
\$1-\$250	265	223	32
\$251-\$500	69	46	19
\$501-\$750	11	13	5
\$751-\$1000	13	7	1
\$1001-\$1250	0	0	0
\$1251-\$1500	0	0	0
\$1501-\$1750	0	0	0
\$1751-\$2000	0	1	0
\$2001-\$2250	0	0	0
\$2251-\$2500	0	0	0
Total	358	290	57

Frequency for "Up-to-date TravTek Information"

	Navigation Plus	Navigation	Services
\$1-\$250	26	29	6
\$251-\$500	91	74	14
\$501-\$750	54	39	6
\$751-\$1000	111	91	20
\$1001-\$1250	24	26	4
\$1251-\$1500	52	45	14
\$1501-\$1750	11	7	1
\$1751-\$2000	26	16	2
\$2001-\$2250	2	1	0
\$2251-\$2500	12	7	2
Total	409	335	69

Frequency for "Total TravTek With All Features"

There are a number of options that the TravTek system can contain. These include:



SERVICES/ATTRACTIONS DIRECTORY – contains information on restaurants, hotels, and attractions;

Voice Message

Display

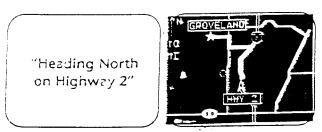
"Turn Right on" Robinson in eighttenths of a mile"



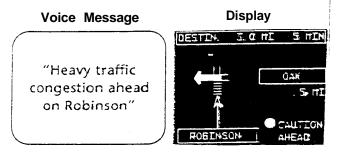
**ROUTE GUIDANCE –** features that plan your routes and guide you to your destinations;

Voice Messsage

Display



NAVIGATION – features to tell you where you are while you're driving to your destinations;



UP-TO-DATE TRAFFIC INFORMATION – features that provide timely road and traffic condition information.

SERVICES/ ATTRACTIONS												
DIRECTORY	0	Would not pay for	0	\$200	0	\$400	0	\$600	0	\$800	0 9	\$1000
ROUTE												
GUIDANCE	0	Would not pay for	0	\$200	0	\$400	0	\$600	0	\$800	0	\$1000
NAVIGATION	0	Would not pay for	0	\$200	0	\$400	0	\$600	0	\$800	0	\$1000
UP-TO-DATE TRAFFIC												
INFORMATION	0	Would not pay for	0	\$200	0	\$400	0	\$600	0	\$800	0	\$1000

		Vavigation I	Dhue		Navigation	2		Services	
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Services/attractions	165	144.36	170.40	132	174.24	178.89	49	130.61	166.09
Route Guidance	169	365.68	285.37	136	398.53	296.64	50	328.00	287.88
Navigation	170	360.00	287.49	136	372.06	273.44	50	352.00	290.14
Up-to-date info.	170	226.47	234.47	133	258.65	242.19	49	277.55	276.33

Frequency for "Services/Attractions Directory"

	Navigation +	Navigation	Services
\$0	75	46	25
\$200	67	68	19
\$400	20	11	2
\$600	1	4	3
\$800-\$1000	2	3	0
Total	165	132	49

## Frequency for "Route Guidance

	Navigation +	Navigation	Services
\$0	30	19	10
\$200	50	40	19
\$400	42	37	10
\$600	27	18	5
\$800-\$1000	20	22	6
Total	169	136	50

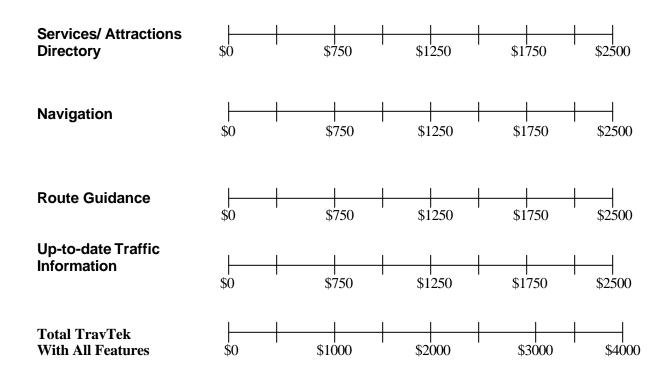
## Frequency for "Navigation"

	Navigation +	Navigation	Services
\$0	32	18	9
\$200	50	47	17
\$400	43	33	12
\$600	24	22	5
\$800-\$1000	21	16	7
Total	170	136	50

## Frequency for "Up-to-date Traffic Information"

	Navigation +	Navigation	Services
\$0	57	33	14
\$200	66	60	19
\$400	26	21	6
\$600	13	11	5
\$800-\$1000	8	8	5
Total	170	133	49

How much would you be willing to pay for the following features <u>AS AN ADD-ON TO ANY</u> <u>CAR?</u> (Please indicate with an X on the lines below the price that best represents what you' d be willing to pay.)



#### Comments:

	Ň	lavigation H	Plus	Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Services/attractions	155	199.68	236.83	70	212.14	253.37	7	242.86	177.78
Navigation	163	485.12	459.71	72	473.61	524.29	8	400.00	285.89
Route guidance	164	494.51	452.56	71	504.58	456.13	8	337.5	314.25
Up-to-date info.	158	346.99	377.87	74	382.43	348.99	7	217.86	168.15
Total TravTek	176	1101.70	754.43	86	1066.28	808.39	9	664.44	512.62

S/V3/D3b

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(Continued)

	Navigation +	Navigation	Services
\$0	49	25	2
\$1-\$250	55	24	1
\$251-\$500	41	13	4
\$501-\$750	7	5	0
\$751-\$1000	1	3	0
\$1001-\$1250	2	0	0
Total	155	70	7

Frequency for "Services/Attraction Directory"

#### **Frequency for "Nevigation"**

	Navigation +	Navigation	Services
\$0	24	14	1
<b>\$1-\$25</b> 0	36	17	1
<b>\$2</b> 51- <b>\$</b> 500	47	20	5
\$501-\$750	31	9	0
\$751-\$1000	8	4	1
\$1001-\$1250	11	2	0
\$1251-\$1500	1	2	0
\$1501-\$1750	3	2	0
\$1751-\$2000	0	1	0
\$2001-\$2250	0	0	0
\$2251-\$2500	2	1	0
Total	165	72	8

#### Frequency for "Route Guidance"

	Navigation +	Navigation	Services
<b>S</b> 0	18	11	2
\$1-\$250	37	14	1
\$251-\$500	54	20	4
\$501-\$750	29	13	0
\$751-\$1000	11	5	1
\$1001-\$1250	9	3	0
\$1251-\$1500	1	3	0
\$1501-\$1750	2	1	0
\$1751-\$2000	1	1	0
\$2001-\$2250	0	0	0
\$2251-\$2500	2	0	0
Total	164	71	8

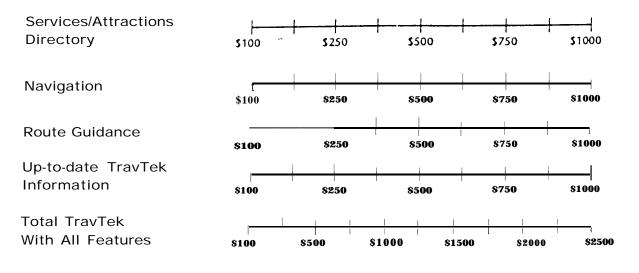
	Navigation +	Navigation	Services
\$0	29	13	2
\$1-\$250	56	21	2
\$251-\$500	40	20	3
\$501-\$750	21	14	0
\$751-\$1000	6	5	0
\$10001-\$1250	1	0	0
\$1251-\$1500	1	0	0
\$1501-\$1750	3	0	0
\$1751-\$2000	1	1	0
Total	158	74	7

#### Frequency for "Up-to-date TravTek Information"

	Navigation +	Navigation	Services
\$0	11	11	2
\$1-\$250	13	2	0
\$251-\$500	24	12	3
\$501-\$750	15	7	0
\$751	46	25	3
\$1001-\$1250	4	3	0
\$1251-\$1500	28	13	1
\$1501-\$1750	3	1	0
\$1751-\$2000	21	4	0
\$2001-\$2250	0	0	0
\$2251-\$2500	5	3	0
\$2501-\$2750	0	0	0
<b>\$2751-\$3000</b>	4	4	0
\$3001-\$3250	0	0	0
\$3251-\$3500	0	0	0
\$3501-\$3750	0	0	0
\$3751-\$4000	0	1	1
Total	176	86	9

#### Frequency for "Total TravTek With All Features"

How much would you be willing to pay for the following features <u>AS AN ADD-ON TO YOUR</u> <u>PRESENT CAR</u>? (Please indicate with an X on the lines below the price that best represents what you'd be willing to pay.)



Comments:\_

	Navigation Plus		Navigation			Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Services/attractions	264	174. 56	116. 27	220	167. 50	102. 90	40	156. 25	97. 85
Navigation	322	329. 81	236. 97	257	310. 02	204. 51	56	317.86	206. 58
Route guidance	321	336.06	225. 08	257	306. 81	203. 83	55	317. 27	202. 92
Up-to-date	289	251. 38	188. 12	236	238. 88	176. 78	47	304. 26	214. 19
Total TravTek		905. 82	558.72	292	836. 99	<b>528.68</b>	57	912. 02	522. 18

Navigatic	on 	Navigation Plus	Navigation	Services
	\$1-\$250	239	202	37
	\$251 -\$500	22	18	. 3
	\$501-\$750	3	0	0
	\$751-\$1000	0	0	0
	Total	264	220	40

#### Frequency for 'Services/AttractionsDirectory"

Frequency for "Navigation"

	Navigation Plus	Navigation	Services
\$1-\$250	201	155	35
\$251 -\$500	80	86	16
\$501 -\$750	25	9	4
\$751-\$1000	16	7	1
Total	322	257	56

#### Frequency for "Route Guidance"

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	Navigation Plus	Navigation	Services
S1-\$230	191	162	32
\$251 -\$500	92	75	20
\$501-\$750	26	14	2
\$751-\$1000	12	6	I
Total	321	257	55

#### Frequency for "Up-to-date TravTek Information"

	Navigation Plus	Navigation	Services
\$1-\$250	225	189	30
\$251 -\$500	48	34	13
\$501-\$750	8	10	2
\$751 -\$1000	8	3	2
Total	289	236	47

How much wou PRESENT CAR	uld you be willing to pay <u>?</u>	for the fo	llowing fea	atures <u>AS /</u>	AN ADD-ON TO YOUR
SERVICES/ ATTRACTIONS DIRECTORY	O Would not pay for	O <b>\$200</b>	O <b>\$400</b>	O \$600	O \$800 O \$1000
NAVIGATION	O Would not pay for	O <b>\$200</b>	O <b>\$400</b>	O <b>\$600</b>	O \$800 O \$1000
ROUTE GUIDANCE	O Would not pay for	O <b>\$200</b>	O <b>\$400</b>	O <b>\$600</b>	O \$800 O \$1000
UP-TO-DATE TRAFFIC INFORMATION	O Would not pay for	O <b>\$200</b>	O <b>\$400</b>	O <b>\$600</b>	O <b>\$800</b> O <b>\$1000</b>
Comments:					

	Navigation Plus			Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard	Number	Mean	Standard
Services/attractions	159	88.05	158.46	127	103.94	163.01	49	69.39	126.17
Navigation	164	263.41	265.62	134	285.07	290.58	49	212.24	239.47
Route Guidance	164	293.90	300.04	133	288.72	288.58	50	212.00	256.86
UP-to-date info.	162	179.63	234.09	129	179.84	227.55	48	166.67	207.65

	Navigation +	Navigation	Services
\$0	109	77	35
\$200	36	41	12
\$400	11	4	1
\$600	1	4	1
\$800-\$1000	2	1	0
Total	159	127	49

#### Frequency for "Services/Attractions Directory"

	Navigation +	Navigation	Services
\$0	78	44	19
\$200	44	37	17
\$400	34	27	27
\$600	18	14	2
\$800-\$1000	II	12	3
Total	164	134	49

Frequency for "Navigation"

#### Frequency for "Route Guidance"

	Navigation +	Navigation	Services
\$0	56	41	22
\$200	41	40	14
\$400	31	26	8
\$600	17	14	2
\$800-\$1000	19	12	4
Total	164	133	50

#### Frequency for "Up-to-date Traffic Information"

	Navigation § Plus	Navigation	Services
\$0	78	58	23
\$200	49	45	16
\$400	19	16	4
\$600	8	5	4
\$800-\$1000	8	5	11
Total	162	129	48

#### How much <u>extra per week</u> would you be willing to pay for the following features <u>AS AN</u> <u>OPTION ON A RENTAL CAR?</u> (Please indicate with an X on the lines below the price that best represents what you' d be willing to pay.)

Services/ Attractions Directory	\$0	\$5	\$10	\$15	\$20	\$25
Navigation	\$0	\$5	\$10	\$15	\$20	\$25
Route Guidance	↓ \$0	\$5	\$10	 \$15	\$20	\$25
Up-to-date Traffic Information	↓ \$0	\$5	\$10	\$15	\$20	
Total TravTek With All Features	\$0	\$2	5	\$50	\$75	 \$100

## Comments:

	N	lavigation I	Plus	Navigation			Services		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Services/attractions	178	7.63	5.88	79	6.80	6.38	7	8.71	3.64
Navigation	176	11.02	7.10	80	10.49	8.19	8	10.75	6.11
Route guidance	180	11.47	7.18	82	12.20	8.24	8	10.88	7.10
Up-to-date info.	174	7.01	5.84	78	7.45	7.54	6	6.67	2.58
Total TravTek	202	36.12	19.98	97	35.70	23.58	9	32.22	11.21

	Navigation +	Navigation	Services
\$0	19	13	0
\$1-\$5	81	40	2
\$6-\$10	47	15	4
\$11-\$15	14	4	1
\$16-\$20	12	2	0
\$21-\$25	5	5	0
<b>T</b> ( 1	170	70	7
Total	178	79	7

## Frequency for "Services/Attraction Directory"

	Navigation +	Navigation	Services
\$0	9	8	0
\$1-\$5	50	28	2
\$6-\$10	56	18	4
\$11-\$15	22	7	0
\$16-\$20	20	6	2
\$21-\$25	19	13	0
_			
Total	176	80	8

## Frequency for "Navigation"

## Frequency for "Route Guidance"

#### Frequency for "Up-to-date TravTek Information"

	Navigation +	Navigation	Services
\$0	6	5	1
\$1-\$5	53	24	1
\$6-\$10	55	21	3
\$11-\$15	21	7	1
\$16-\$20	24	8	2
\$21-\$25	21	17	0
Total	180	82	8

	Navigation +	Navigation	Services
\$0	26	16	0
\$1-\$5	79	34	4
\$6-\$10	42	13	2
\$11-\$15	12	4	0
\$16-\$20	11	3	0
\$21-\$25	4	8	0
Total	174	78	6

N/V3/D3c

S/V3/D3c

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	Navigation +	Navigation	Services
\$0	5	5	0
\$1-\$5	2	3	0
\$6-\$10	5	3	0
\$11-\$15	8	4	0
\$16-\$20	15	9	0
\$21-\$25	69	27	6
\$26-\$30	9	5	0
\$31-\$35	8	3	0
\$36-\$40	10	6	1
\$41-\$45	4	1	0
\$46-\$50	44	19	2
\$51-\$55	0	0	0
\$56-\$60	2	0	0
\$61-\$65	2	1	0
\$66-\$70	1	0	0
\$71-\$75	13	6	0
\$76-\$80	0	0	0
\$81-\$85	1	0	0
\$86-\$90	0	0	0
\$91-\$95	0	0	0
\$96-\$100	4	5	0
Total	202	97	9

## Frequency for "Total TravTek With All Features"

## How much <u>extra per week</u> would you be willing to pay for the following features <u>ASAN</u> <u>OPTION ON A RENTAL CAR?</u> (Please indicate with an X on the lines below the price that best represents what you'd be willing to pay.)

Services/Attractions Directory	\$5	\$10	\$15	\$20	\$25
Navigation	\$ <b>5</b>	\$10	\$15	\$20	\$25
Route Guidance	\$5	\$10	\$15	\$20	\$25
Up-to-date TravTek Information	\$5	\$10	\$15	\$20	\$25
Total TravTek With All Features	ş10	\$ <b>2</b> 5	<del> </del> \$50	\$75	\$100

Comments: \_\_\_\_\_

	Ν	Vavigation Plu	S	Navigation		Services			
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Services/attractions	331	9.13	4.65	264	8.88	4.98	48	7.37	3.13
Navigation	358	12.47	6.29	288	11.54	5.99	61	11.90	6.65
Route guidance	359	13.10	6.26	288	11.90	6.18	59	11.83	6.35
Up-to-date info.	319	9.49	5.23	256	9.48	5.42	46	9.76	4.99
Total TravTek	416	36.42	19.35	327	35.12	19.36	66	31.82	18.86

	Navigation +	Navigation	Services
\$1-\$5	130	124	30
\$6-\$10	136	91	13
\$11-\$15	42	31	3
\$16-\$20	16	8	2
\$21-\$25	7	10	0
Total	331	264	48

#### Frequency for "Services/Attractions Directory"

Frequency for "Navigation"

	Navigation +	Navigation	Services
\$1-\$5	82	78	18
\$6-\$10	118	101	20
\$11-\$15	73	61	10
\$16-\$20	49	25	5
\$21-\$25	36	23	8
Total	358	288	61

#### Frequency for "Route Guidance"

	Navigation +	Navigation	Services
\$1-\$5	61	72	17
<b>\$6-\$</b> 10	126	105	18
\$11-\$15	82	54	12
\$16-\$20	47	30	6
\$21-\$25	43	27	6
Total	359	288	59

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#### Frequency for "Up-to-date TravTek Information"

|            | Navigation<br>Plus | Navigation | Services |
|------------|--------------------|------------|----------|
| \$1-\$5    | 61                 | 72         | 17       |
| \$6-\$10   | 126                | 105        | 18       |
| \$1 1-\$15 | 82                 | 54         | 12       |
| \$16-\$20  | 47                 | 30         | 6        |
| \$21-\$25  | 43                 | 27         | 61       |
| Total      | 359                | 288        | 59       |

S/V3/D3c

(Continued)

|            | Navigation + | Navigation | Services |
|------------|--------------|------------|----------|
| \$10-\$15  | 58           | 60         | 16       |
| \$16-\$20  | 21           | 10         | 1        |
| \$21-\$25  | 119          | 98         | 24       |
| \$26-\$30  | 15           | 7          | 3        |
| \$31-\$35  | 26           | 18         | 0        |
| \$36-\$40  | 16           | 9          | 0        |
| \$41-\$45  | 7            | 2          | 0        |
| \$46-\$50  | 112          | 92         | 17       |
| \$51-\$55  | 1            | 2          | 0        |
| \$56-\$60  | 5            | 4          | 0        |
| \$61-\$65  | 4            | 2          | 1        |
| \$66-\$70  | 1            | 0          | 0        |
| \$71-\$75  | 23           | 18         | 3        |
| \$76-\$80  | 0            | 1          | 1        |
| \$81-\$85  | 0            | 0          | 0        |
| \$86-\$90  | 0            | 0          | 0        |
| \$91-\$95  | 0            | 0          | 0        |
| \$96-\$100 | 8            | 4          | 0        |
| Total      | 416          | 327        | 66       |

## Frequency for "Total TravTek With All Features"

| SERVICES/   |                     |              |               |               |               |   |
|-------------|---------------------|--------------|---------------|---------------|---------------|---|
| ATTRACTIONS |                     |              |               |               |               |   |
| DIRECTORY   | O Would not pay for | O <b>\$5</b> | O <b>\$10</b> | O <b>\$15</b> | O <b>\$20</b> | C |
| NAVIGATION  | O Would not pay for | O <b>\$5</b> | O \$10        | O <b>\$15</b> | O <b>\$20</b> | C |
| ROUTE       |                     |              |               |               | 0.000         |   |
| GUIDANCE    | O Would not pay for | O <b>\$5</b> | O \$10        | O <b>\$15</b> | O <b>\$20</b> | C |
| UP-TO-DATE  |                     |              |               |               |               |   |
| TRAFFIC     |                     |              |               |               | 0.444         |   |
| INFORMATION | O Would not pay for | O \$5        | O <b>\$10</b> | O \$15        | O \$20        | ( |

|                      |        | Navigation Plu |                       | *****  | Navigation |                       |        | Services |                       |
|----------------------|--------|----------------|-----------------------|--------|------------|-----------------------|--------|----------|-----------------------|
|                      | Number | Mcan           | Standard<br>Deviation | Number | Mcan       | Standard<br>Deviation | Number | Mcan     | Standard<br>Deviation |
| Services/attractions | 173    | 7.98           | 6.92                  | 134    | 7.80       | 6.59                  | 47     | 6.60     | 5.81                  |
| Navigation           | 175    | 10.60          | 7.12                  | 137    | 11.06      | 7.58                  | 50     | 9.00     | 7.28                  |
| Route Guidance       | 175    | 11.26          | 7.34                  | 137    | 11.09      | 7.71                  | 50     | 8.60     | 6.70                  |
| Up-to-date info.     | 170    | 6.88           | 6.48                  | 137    | 7.26       | 6.99                  | 48     | 6.15     | 6.12                  |

#### Frequency for "Services/Attraction Directory"

|       | Navigation<br>Plus | Navigation | Services |
|-------|--------------------|------------|----------|
| \$0   | 38                 | 31         | 11       |
| \$5   | 58                 | 40         | 19       |
| \$10  | 43                 | 39         | 13       |
| \$15  | 16                 | 11         | 0        |
| \$20  | 6                  | 7          | 3        |
| \$25  | 12                 | 6          | 1        |
| Total | 173                | 134        | 47       |

#### Navigation Plus Navigation Services \$0 8 18 17 \$5 29 46 16 \$10 57 45 17 \$15 23 19 1 \$20 3 13 8 \$25 18 19 5 Total 175 137 50

#### Frequency for "Route Guidance"

|       | Navigation<br>Plus | Navigation | Services |
|-------|--------------------|------------|----------|
| \$0   | 16                 | 19         | 8        |
| \$5   | 45                 | 28         | 17       |
| \$10  | 50                 | 41         | 15       |
| \$15  | 28                 | 20         | 4        |
| \$20  | 15                 | 11         | 3        |
| \$25  | 21                 | 18         | 3        |
|       |                    | 107        |          |
| Total | 175                | 137        | 50       |

#### Frequency for "Up-to-date Traffic Information"

|       | Navigation<br>Plus | Navigation | Services |
|-------|--------------------|------------|----------|
| \$0   | 46                 | 38         | 13       |
| \$5   | 62                 | 45         | 21       |
| \$10  | 34                 | 31         | 10       |
| \$15  | 16                 | 9          | 0        |
| \$20  | 4                  | 5          | 2        |
| \$25  | 8                  | 9          | 2        |
| Total | 170                | 137        | 48       |

#### (As of November 16, 1993)

Frequency for "Navigation"

The purpose of the four TravTek functions described in D3 is to help drivers reach their destinations safely and efficiently. in order to successfully do so, structures must be in place to provide the different types of information.

SERVICES/ATTRACTIONS DIRECTORY is a computer file that contains addresses and phone numbers of the various hotels, restaurants, and attractions. The information comes from the yellow pages of telephone directories or travel publications such as the AAA Tour Book.

NAVIGATION utilizes detailed computer maps to display position information that is provided by a satellite or an internal position device.

ROUTE GUIDANCE utilizes computer files of detailed maps to calculate your route, distance, and trip times to your destination. The trip time information can be located in the car or transmitted to the car from a traffic management center.

UP-TO-DATE TRAFFIC INFORMATION is broadcasted from a traffic management center, which collects traffic information from police or other emergency services computers, remote cameras, aircraft, etc.

Who should <u>provide</u> these types of information? (Check all you think apply)

| a. SERVICES/ATTRACTIONS DIRECTORY | 0 Government<br>0 Private Enterprise                        | O Manufacturers<br>O Auto Clubs                        |
|-----------------------------------|-------------------------------------------------------------|--------------------------------------------------------|
| b. NAVIGATION                     | <ul><li>O Government</li><li>O Private Enterprise</li></ul> | O Manufacturers<br>O Auto Clubs                        |
| c. ROUTE GUIDANCE                 | <ul><li>O Government</li><li>O Private Enterprise</li></ul> | <ul><li>O Manufacturers</li><li>O Auto Clubs</li></ul> |
| d. UP-TO-DATE TRAFFIC INFORMATION | <ul><li>O Government</li><li>O Private Enterprise</li></ul> | 0 Manufacturers<br>0 Auto Clubs                        |
|                                   |                                                             |                                                        |

| Item # N+/V | '3/D4 | N/V3/D4 | S/V3/D4 |
|-------------|-------|---------|---------|
| N+/         | V2/D4 | N/V2/D4 | S/V2/D4 |
| N+/         | V1/D4 | N/V1/D4 | S/V1/D4 |

#### Frequency for "Services/Attractions Directory"

#### Frequency for "Navigation"

|               | Navigation + | Navigation | Services |
|---------------|--------------|------------|----------|
| Government    | 112          | 71         | 17       |
| Private ent.  | 663          | 458        | 92       |
| Manufacturers | 142          | 111        | 23       |
| Auto clubs    | 501          | 364        | 94       |
| Total         | 1418         | 904        | 226      |

|              | Navigation + | Navigation | Services |
|--------------|--------------|------------|----------|
| Government   | 353          | 232        | 42       |
| Private ent. | 475          | 297        | 71       |
| Manufactures | 265          | 189        | 44       |
| Auto clubs   | 358          | 300        | 82       |
| Total        | 1451         | 1018       | 239      |

#### Frequency for "Route Guidance"

|               | Navigaiton | Navigation | Services |
|---------------|------------|------------|----------|
| Government    | 293        | 180        | 37       |
| Private ent.  | 491        | 313        | 78       |
| Manufacturers | 221        | 172        | 33       |
| Auto clubs    | 442        | 347        | 89       |
| Total         | 1447       | 1012       | 237      |

#### Frequency for "Up-to-date Traffic Information"

|               | Navigation<br>Plus | Navigation | Services |
|---------------|--------------------|------------|----------|
| Government    | 532                | 333        | 61       |
| Private ent.  | 366                | 262        | 63       |
| Manufacturers | 82                 | 70         | 16       |
| Auto clubs    | 323                | 275        | 67       |
| Total         | 1303               | 940        | 209      |

| Item # N+/V3/D5 | N/V3/D5 | S/V3/D5 |
|-----------------|---------|---------|
| N+/V2/D5        | N/V2/D5 | S/V2/D5 |
| N+/V1/D5        | N/V1/D5 | S/V1/D5 |

Given that TravTek's purpose is to help drivers reach their destinations safely and efficiently, how important do you feel each of the following factors are in the development of systems such as TravTek? (Rank each from 1 to 4 with 1 being the most important and 4 being the least important.)

#### Rank

| Energy Conservation             |  |
|---------------------------------|--|
| Environmental Quality           |  |
| Highway/Traffic Safety          |  |
| Relief of Highway<br>Congestion |  |

#### Frequency for "Energy Conservation"

|       | Navigation<br>Plus | Navigation | Services |
|-------|--------------------|------------|----------|
| 1     | 134                | 115        | 23       |
| 2     | 197                | 158        | 32       |
| 3     | 320                | 195        | 45       |
| 4     | 168                | 116        | 34       |
| Total | 819                | 584        | 134      |

#### Frequency for "Highway/Traffic Safety"

|       | Navigation<br>Plus | Navigation | Services |
|-------|--------------------|------------|----------|
| 1     | 478                | 380        | 77       |
| 2     | 204                | 144        | 34       |
| 3     | 70                 | 40         | 14       |
| 4     | 68                 | 51         | 10       |
| Total | 820                | 585        | 135      |

#### Frequency for "Environmental Quality"

|   | Navigation<br>Plus | Navigation | Services |
|---|--------------------|------------|----------|
| 1 | 103                | 88         | 27       |
| 2 | 127                | 100        | 25       |
| 3 | 273                | 159        | 30       |
| 4 | 313                | 233        | 51       |
|   | 816                | 580        | 133      |

#### Frequency for "Relief of Highway Congestion"

|       | Navigation<br>Plus | Navigation | Services |
|-------|--------------------|------------|----------|
| 1     | 319                | 217        | 48       |
| 2     | 310                | 216        | 47       |
| 3     | 81                 | 71         | 14       |
| 4     | 111                | 82         | 25       |
| Total | 821                | 586        | 134      |