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The FAST-TRAC Natural Use Leased-Car Study: An Evaluation of User Perceptions and Behaviors of Ali-Scout by Age and Gender

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16. Abstract

The FAST-TRAC project is a multiyear implementation and evaluation of an Intelligent Transportation System (ITS) in Oakland County located in southeastern Michigan. The FAST-TRAC system is composed of two main components: an advanced traffic-management system called SCATS that optimizes network-wide signal timing based on real-time traffic conditions and two in-vehicle advanced traveler-information systems (ATIS). The purpose of the present study was to understand better how people use and what they think about the Ali-Scout ATIS system when they use it in their normal, everyday driving; that is, in a natural use setting. We examined Ali-Scout use by three age groups (19-to-29, 30-to-64, and 65-to-80) and gender by analyzing the self-reported uses and perceptions of subjects who drove a project-owned vehicle equipped with the system for their everyday driving for one month.

Overall, this study showed that the Ali-Scout system was received positively by the majority of drivers. Subjects were generally happy with the system's attributes and performance and used the system frequently for a variety of trip purposes. They reported that, in general, Ali-Scout improved their driving experience and seemed to reduce the congestion that they encountered. The system's features receiving the worst assessment were generally related to autonomous-mode guidance. The study showed few differences in Ali-Scout uses and perceptions between genders or between the two youngest age-groups. There were, however, several differences between the oldest age group and the other two age groups. Older drivers used the system more frequently but had greater problems learning, understanding, and using the system than younger drivers.

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INTRODUCTION

The FAST-TRAC project is a multiyear implementation and evaluation of an Intelligent Transportation System (ITS) in Oakland County, located in southeastern Michigan. The FAST-TRAC system is composed of two main components: an advanced traffic-management system called SCATS, which optimizes network-wide signal timing based on real-time traffic conditions, and two in-vehicle advanced traveler information systems (ATIS). These systems are Ali-Scout and TetraStar, both made by Siemens Corporation. The purpose of the User Perceptions and Behaviors element of FAST-TRAC is to understand how users perceive and value the ATIS equipment, and to determine how they use the system in their everyday driving in Oakland County. Specifically we wanted to know if drivers perceived any advantages or disadvantages of the ATIS systems in their everyday driving; that is, whether they experienced more or less stress, or changes in travel times. We also wanted to know if the users liked these systems well enough to desire to purchase them and, if so, what would they be willing to pay.

Four studies were conducted as part of this evaluation. In one study people drove, under identical conditions, between origin-destination pairs while using either Ali-Scout, TetraStar, or written instruction as a source of navigation assistance information. The three types of navigation assistance were compared by analyzing records of each vehicle's position, speed and heading and by analyzing questionnaire responses. In a second study, several hundred Oakland County community members volunteered to have an Ali-Scout system installed in their vehicles and to use the system for up to one year. During this time, they were surveyed about their use and opinions of the system. In the two remaining studies, we examined the TetraStar and Ali-Scout ATIS, respectively, by analyzing the self-reported uses and perceptions of subjects who drove a project-owned vehicle equipped with the ATIS system for their everyday driving for one month. The age and gender of the people recruited to drive the project-owned vehicles were

carefully controlled to get the desired range of subject demographics. This report documents the fourth study, the uses and perceptions of the Ali-Scout system in natural use. The purpose of the present study was to understand better how people use and what they think about the Ali-Scout system when they use the system in their normal, everyday driving; that is, in natural use.

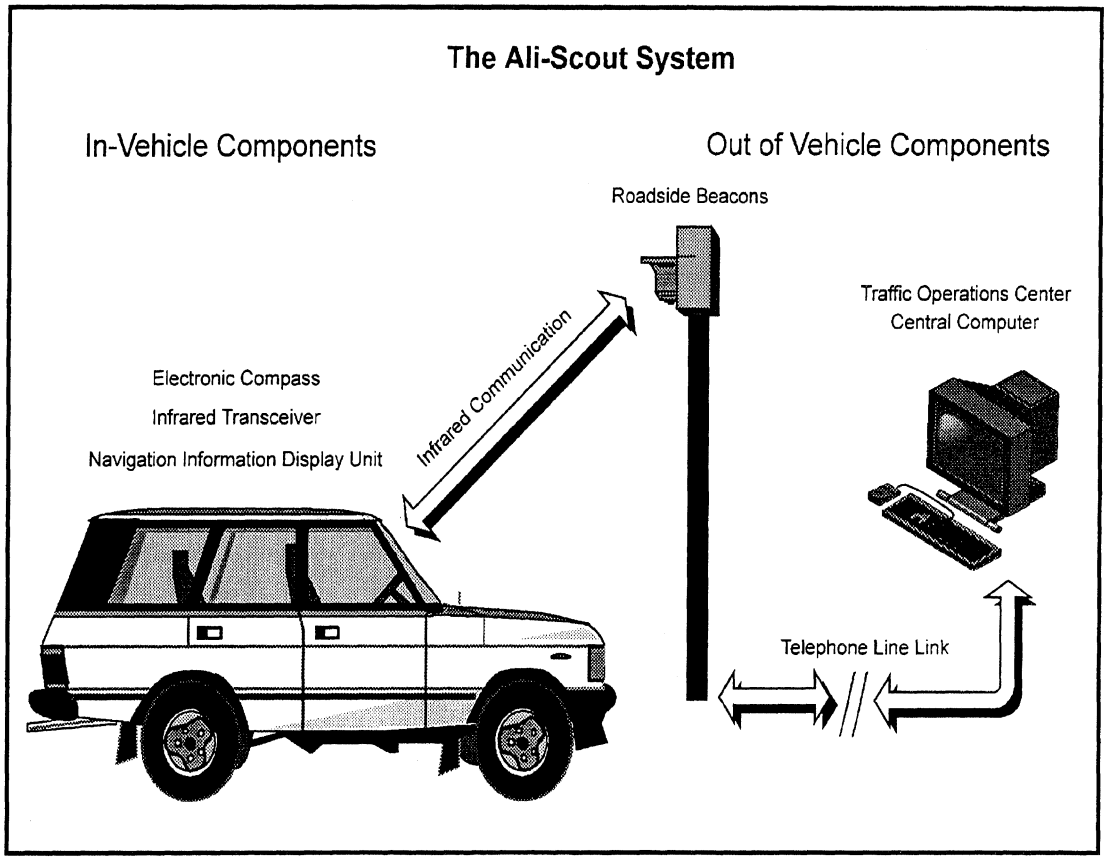


Figure 1: Schematic depiction of the FAST-TRAC system showing the interrelationship between the various components.

Ali-Scout is an in-vehicle navigation assistance system (INAS) designed to determine the fastest route between a vehicle's current position and a user-entered destination and to guide the driver with turn-by-turn instructions to the destination. As shown in figure 1, the Ali-Scout system consists of both in-vehicle and out-of-vehicle components. The in-vehicle components include an electronic compass for

determining the vehicle's heading, an infrared transceiver for receiving route information and broadcasting information on travel time along road segments (links), and an information display unit for visually and verbally giving driving maneuver instructions and for accepting destination information from the user. The out-of-vehicle components include beacons placed strategically at intersections for receiving vehicle link travel times and broadcasting calculated routes, and a central computer located at a traffic-operations center (run by the Road Commission for Oakland County) for performing route calculations and maintenance of a link travel-time data base. Communication between the beacons and the central computer is through dedicated telephone lines. A map of the FAST-TRAC project area and beacon locations can be found in figure 2.

Both the in-vehicle and out-of-vehicle components work together to provide users with the fastest route. With the Ali-Scout system, the fastest route can be determined by using speed limits and distances (static route guidance) or by using this information combined with information about recurrent traffic congestion (dynamic route guidance). New information about travel times on specific road links at specific times is uploaded to the central computer from Ali-Scout-equipped vehicles each time one of these vehicles passes a beacon. The link travel times are averaged into the link travel time data base to be used in the calculation of routes for vehicles traveling the same link at the same day of week and time. Thus, if there is a pattern of recurring traffic congestion on certain road segments, that pattern is incorporated into the Ali-Scout system data as a moving average of travel times reported on the links on similar days and at similar times. Ali-Scout cannot determine nonrecurrent congestion.

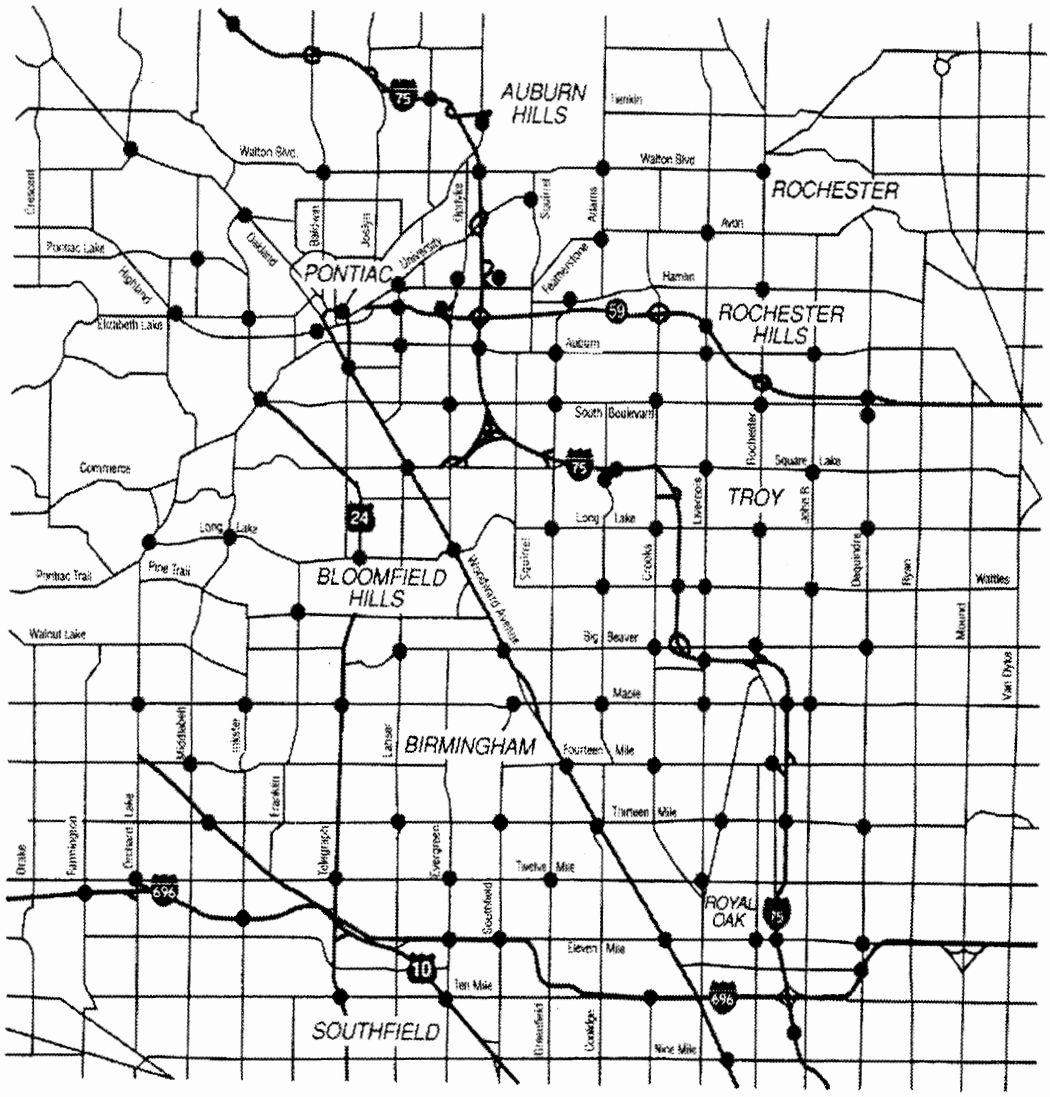


Figure 2: FAST-TRAC study area in Oakland County, Michigan showing beacon locations (●). North is up in this figure.

Ali-Scout can store up to 80 destinations in memory. Previously entered destinations can be used by simply scrolling through a list and selecting one. New destinations are programmed into the Ali-Scout unit using an alphanumeric keyboard that swings down from the bottom of the unit. The destination location is defined using latitude and longitude coordinates. Coordinates for locations within the FAST-TRAC project area can be obtained in several ways. If the user knows the address of the destination, he or she can obtain the coordinates by looking them up in a list of address ranges in the Ali-Scout manual. This list shows streets and addresses with their corresponding latitude and longitude coordinates. If the user wants to go to a public place such as a restaurant, bank, or store, he or she can look up its coordinates in a list of points of interest. Users can also obtain a destination's coordinates by locating it on a map in the Ali-Scout manual and then reading the latitude and longitude off the ordinate and abscissa of a grid drawn over the map. Finally, Ali-Scout allows users to assign their current location as a destination. In this case, the coordinates are already known by Ali-Scout and only a name for the destination is entered. For convenience, the Ali-Scout unit, with the attached keyboard, can be removed from the vehicle and programmed elsewhere.

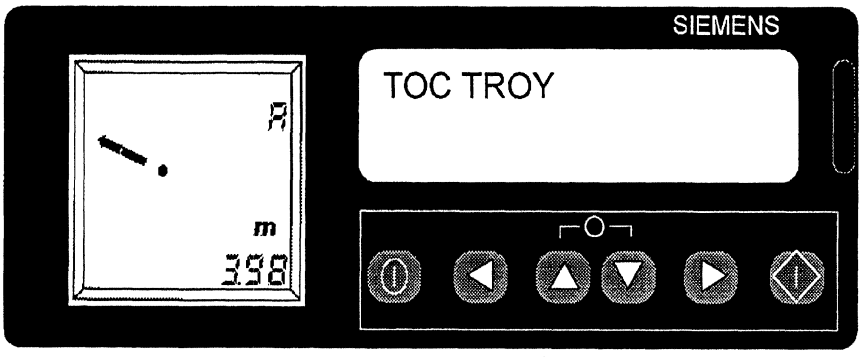


Figure 3: Ali-Scout unit in "autonomous mode" showing distance and direction to destination (TOC TROY).

For every trip taken with Ali-Scout, two conceptually distinct kinds of guidance are used. After a destination is entered into the Ali-Scout unit, guidance begins in what Siemens Corporation calls "autonomous mode." In this mode, only Euclidean distance and direction-to-the-destination information is displayed (i.e., straight line, "as the crow flies" information) without any turn recommendations. Figure 3 shows an example autonomous-mode guidance display. As drivers proceed towards their destinations, they eventually pass a roadside beacon where communications take place and calculated routes are downloaded by Ali-Scout. The system then changes to "guided mode," and the drivers are given turn-by-turn instructions as they drive. An example driving maneuver icon for Ali-Scout is shown in figure 4. The turn-by-turn instructions guide the drivers to within about one-half mile of the destination, at which point the Ali-Scout reverts back to autonomous-mode guidance and the driver must look for the exact destination. Ali-Scout will also revert to autonomous-mode guidance if the driver does not make a recommended maneuver or communication at a beacon is disrupted (e.g., the beacon is not functioning or the infrared signal was blocked). When this occurs, Ali-Scout stays in autonomous mode until another beacon is passed.

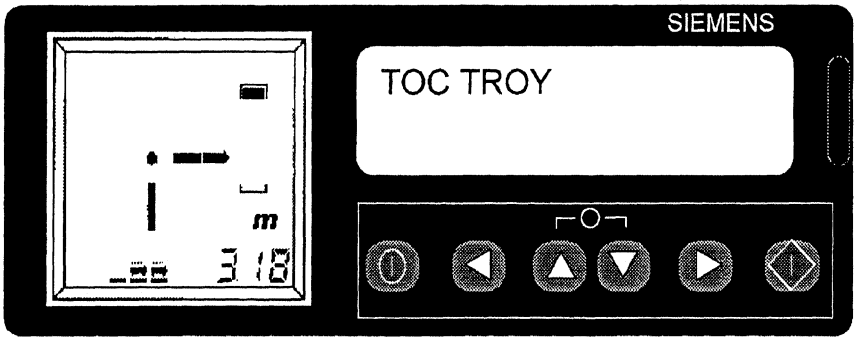


Figure 4: Ali-Scout unit showing a right-turn maneuver icon, recommended lane, distance, and countdown-bar showing relative distance to the maneuver.

METHODS

Design

There were two independent variables in the study: gender (Male and Female) and age group (19-to-29, 30-to-64, and 65-to-80 years of age). The age groups were selected to represent distinct groups of potential users of in-vehicle navigation assistance systems. Drivers under the age of 19 and over the age of 80 were excluded from participation because of their elevated crash risk. Participants were given a project-leased vehicle to drive as their own for a one-month period. During this period, subjects maintained a log of their trips and completed a questionnaire.

Subjects

One hundred and two subjects (i.e., 17 subjects in each of the six cells of the experiment) volunteered to participate in this study and were recruited from the general population of drivers in the Oakland County study area (figure 2). In order to obtain the widest range of subject demographics as possible among licensed drivers, subjects were recruited at a Michigan Secretary of State (SOS) office in Troy, Michigan. As people stopped by the SOS office to take care of matters concerning their driver licenses or vehicles, they could stop by a booth staffed by our research team. Here they could obtain information concerning the experiment and see a video presentation that explained the FAST-TRAC project and the features of Ali-Scout. Interested persons completed a short questionnaire on the amount of driving they did in the study area and their history of crashes and convictions (see appendix A for the complete recruitment questionnaire). Potential subjects who indicated that they either did less than one-half of their driving in the study area; had a drunk driving conviction; had a conviction related to use, distribution, or transportation of a controlled substance; more than six points on their driving record; more than one at-fault crash; or were serving a criminal/traffic sentence were excluded from participation. The driving records of the rest of the potential participants were checked through the SOS office. Again, those subjects

not meeting the above criteria were excluded. Because of a lack of both younger and older people at the SOS office, the recruitment efforts were supplemented at Oakland University and Beaumont Hospital as necessary.

The average age of study participants for the males was 24.2 (*sd*=3.7) for the 19-to-29 year old age group, 46.1 (*sd*=9.5) for the 30-to-64 year old age group, and 70.9 (*sd*=4.0) for the 65-to-80 year old age group. The average age of the female participants was 21.1 (*sd*=3.1) for the 19-to-29 year old age group, 42.6 (*sd*=8.1) for the 30-to-64 year old age group, and 71.8 (*sd*=4.5) for the 65 to 80 year old age group. Table 1 shows the distribution of self-reported household income as a function of the six conditions in the study and table 2 shows the distribution of self-reported highest level of education completed. Table 3 shows self-reported current employment status of study participants. Note that the numbers of respondents in each condition do not always add to 17 because some people declined to give us income, education level, and employment status. In addition, five of the women in the 65-to-80 year old age group started the study and then dropped out in less than 48 hours. All of these women cited dissatisfaction with the Ali-Scout system and none were willing to complete the study instruments.

Table 1: Percentage and Number of Respondents (n) of Self-Reported Household Income by Gender and Age Group

	Male			Female		
	19-29	30-64	64-80	19-29	30-64	64-80
Less than $15,000	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
$15,000-$24,999	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	11.8 (2)	22.2 (2)
$25,000-$34,999	21.4 (3)	6.3 (1)	26.7 (4)	6.3 (1)	17.6 (3)	11.1 (1)
$35,000-$44,999	0.0 (0)	6.3 (1)	20.0 (3)	18.8 (3)	5.9 (1)	22.2 (2)
$45,000-$54,999	7.1 (1)	12.5 (2)	26.7 (4)	12.5 (2)	11.8 (2)	33.3 (3)
$55,000-$64,999	14.3 (2)	6.3 (1)	6.7 (1)	18.8 (3)	23.5 (4)	0.0 (0)
$65,000-$79,999	14.3 (2)	18.8 (3)	6.7 (1)	12.5 (2)	17.6 (3)	11.1 (1)
$80,000-$99,999	7.1 (1)	31.3 (5)	0.0 (0)	6.3 (1)	5.9 (1)	0.0 (0)
$100,000 or more	28.6 (4)	18.8 (3)	6.7 (1)	25.0 (4)	5.9 (1)	0.0 (0)

Table 2: Percentage and Number of Respondents (n) of Self-Reported Highest Level of Education Completed by Gender and Age Group						
	Male			Female		
	19-29	30-64	64-80	19-29	30-64	64-80
Less than a High School Diploma	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
High School Diploma or Equivalent	6.3 (1)	5.9 (1)	13.3 (2)	18.8 (3)	23.5 (4)	30.0 (3)
Some College	43.8 (7)	23.5 (4)	53.3 (8)	75.0 (12)	47.1 (8)	20.0 (2)
Bachelor's Degree	43.8 (7)	29.4 (5)	26.7 (4)	0.0 (0)	17.6 (3)	10.0 (1)
Some Graduate School	0.0 (0)	23.5 (4)	6.7 (1)	6.3 (1)	5.9 (1)	20.0 (2)
Graduate School	6.3 (1)	11.8 (2)	0.0 (0)	0.0 (0)	0.0 (0)	20.0 (0)

Table 3: Percentage and Number of Respondents (n) of Self-Reported Current Employment Status by Gender and Age Group						
	Male			Female		
	19-29	30-64	64-80	19-29	30-64	64-80
Employed Full-Time	47.1 (8)	94.1 (16)	14.3 (2)	26.7 (4)	68.8 (11)	10.0 (1)
Employed Part-Time	11.8 (2)	0.0 (0)	7.1 (1)	46.7 (7)	18.8 (3)	80.0 (8)
Full-Time Student	35.3 (6)	0.0 (0)	0.0 (0)	20.0 (3)	0.0 (0)	0.0 (0)
Retired	0.0 (0)	5.9 (1)	78.6 (11)	0.0 (0)	0.0 (0)	0.0 (0)
Unemployed	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)
Other	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (0)	0.0 (0)	10.0 (1)

Procedure

The study took place in twelve monthly cycles from October 1995 through October 1996. During each cycle, five to eleven subjects were given a project-leased, 1995 Mercury Sable equipped with the Ali-Scout system to use in their everyday driving for 28 days. During each cycle, at least one equipped vehicle was held in reserve in case a subject's vehicle needed to be replaced because of vehicle or Ali-Scout malfunction.

The following procedure was used for every subject in each cycle. Subjects passing all recruitment criteria were contacted, scheduled into a cycle, and given a day, time, and location for an orientation meeting where they would learn about Ali-Scout and get their test vehicle (i.e., the handoff meeting). To ensure that all the subjects' questions could be answered and paperwork easily completed, no more than six subjects attended a handoff meeting at one time. Therefore, on days in which a cycle was to begin, two or more handoff meetings were conducted.

Several activities took place at the handoff meeting. The meeting commenced with a welcome, an introduction of research staff, and a brief overview of the FAST-TRAC project. Subjects were then shown a video entitled, "An Introduction to Ali-Scout" produced by the Social and Behavioral Analysis group at UMTRI. This video provided subjects with a discussion of the FAST-TRAC project and a tutorial on how to use Ali-Scout. Subjects were given a copy of the video to keep. The video was followed by an Ali-Scout training session. The overheads used for training can be found in appendix B. This session included an overview of Ali-Scout infrastructure and concepts, a description of how to program destinations, a discussion of the types of guidance available, and a discussion of the various parts of the navigation assistance screens.

After Ali-Scout training, subjects were told about the various research instruments they would be asked to complete. The first instrument was a

questionnaire. Subjects were told that during their third week of participation, a questionnaire would be mailed to them. Survey questions were grouped into seven categories that focused on the characteristics of the subject and his or her attitudes towards and use of the Ali-Scout system. These categories were driving and commuting, use of technology, Ali-Scout operation and displays, the Ali-Scout system as a whole, use of the Ali-Scout system, valuation, and subject demographics. The complete study questionnaire can be found in appendix C.

The second study instrument was driver log in which subjects kept a detailed record of driving behaviors and experiences with Ali-Scout for all 28 days of participation. Study participants were asked to keep a record of all trips in which they drove the Ali-Scout equipped vehicle. To do this, subjects were given a three-ring binder that contained instructions for completing the driver logs, 28 driver log sheets, and three stamped envelopes addressed to the authors. The complete text of the driver log instructions and a single driver log sheet can be found in appendix D. Subjects were instructed to complete one driver log sheet for each day of participation in the study. At the end of each week they were requested to mail in that week's completed driver log sheets using the stamped and addressed envelopes that we provided. For the last week of participation, the remaining driver log sheets were returned with the vehicle.

On each daily driver log sheet, the subject was requested to record information about each trip taken. For each trip the subject recorded the origin, destination, trip purpose, trip length in miles, and time of day. So that we could assess use of Ali-Scout independent of vehicle use for each trip taken in the vehicle, subjects were also asked to record whether Ali-Scout was used and whether it went into "guided mode" indicating that turn-by-turn instructions were received. The subjects were also asked to record any unusual driving experiences and other comments on a daily basis.

The next activity in the handoff meeting was a review of the study's administrative procedures. All subjects who participated were required to sign two documents. The first document was an informed consent form which told the subject about the study activities and described his or her rights as an experimental subject, as required by the University of Michigan Institutional Review Board. The second document was a vehicle use agreement. The complete text of the agreement can be found in appendix E. This agreement was developed in conjunction with the University of Michigan's Risk Management Department. The agreement stated that only the subject would be allowed to drive the test-vehicle; the vehicle should be operated in accordance with Michigan traffic laws; the vehicle should not be used for illegal activity; the subject was responsible for traffic and parking violations incurred with the vehicle; and the subject was responsible for all fuel purchase during the test period. The agreement stated that the subject was responsible for contacting the researchers in the event of a crash or problems with the test-vehicle. So that the vehicle would not be used unreasonably out of the study area, the agreement also stated that the vehicle could not be used for extended trips or taken out of the state or country. The agreement limited the number of miles that the subject could put on the vehicle to 1,000, and stated that the subject agreed to pay $0.15 per mile over the limit if the 1,000-mile limit was exceeded. Finally, the agreement stated that the vehicle must be returned at the specified time and if the subject chose to stop participating by not completing the driver logs or other study instruments, the subject agreed to return the vehicle immediately. Once the forms were signed, the researcher leading the handoff meeting reviewed the procedures to follow if there was a crash. Since the University of Michigan is self-insured, these procedures were set up by the University of Michigan Risk Management Department.

The meeting ended with all subjects programming an Ali-Scout unit with a destination. The researcher went through the steps of programming an example destination (the Troy Public Library) verbally using coordinates shown on an

overhead projector while the subjects performed the steps on an Ali-Scout unit. Each unit came preprogrammed with ten destinations, which included shopping centers and restaurants in the area. This part of the handoff meeting continued until all subjects had successfully programmed the Troy Library into their Ali-Scout units.

After the meeting, subjects were brought to a vehicle parking area and assigned a test vehicle. The subject was requested to complete a vehicle inspection, much like one does when renting a car. The vehicle check-out form used for the inspection can be found in appendix F. On this form the subject indicated any vehicle damage, any missing equipment, and noted the mileage on the vehicle. After double-checking the vehicle mileage, the subject signed the form and was free to take the vehicle.

Once the subject had driven for ten days or their first week's worth of driver logs were received, he or she was contacted by a researcher to ensure that the vehicle and the Ali-Scout system were functioning properly. Those subjects who had incorrectly completed driver logs were again instructed on their use. Those who had not returned the logs were asked if they still wished to continue in the experiment and, if so, reminded that driver log completion was a requirement of continued participation. During the third week of participation, the survey was mailed to study participants. Subjects were asked to complete the survey and bring it back when they turned in the vehicle. They were also reminded of the time and place for vehicle return.

On the day scheduled for vehicle return, subjects were met by a researcher who performed a vehicle check-in (appendix F). The researcher collected the survey, the last week of driver logs, and the removable part of the Ali-Scout unit. Those subjects who had not yet completed the survey were asked to do so before leaving. If a subject had driven more than the 1,000 miles allowed for their

participation, the amount owed was calculated and they were requested to remit payment. Once the vehicle check-in was completed and the materials gathered, the subject was thanked and allowed to leave.

Between each monthly cycle, all vehicles were fueled, cleaned, given a detailed test of function, and scheduled maintenance was performed if necessary. All destinations placed in Ali-Scout memory by the subject were recorded and deleted except for the ten entered by the researchers.

RESULTS

Static versus Dynamic Route Guidance

As discussed earlier, the Ali-Scout system can generate recommended routes by considering only distance and road classification (static route guidance) or by using this information combined with information about recurrent traffic congestion (dynamic route guidance). The original FAST-TRAC implementation plan called for the present study to be run entirely with dynamic route guidance available. However, due to implementation delays and an unknown date for dynamic guidance availability, the experiment commenced in static guidance. As implementation challenges were resolved, dynamic route guidance became possible during the seventh cycle of the study. At this time, the FAST-TRAC evaluation subcommittee decided to switch over to dynamic so that it would be available for other evaluation activities and available for all users of the system in a timely matter. Therefore, the first six cycles of the study were run with static route guidance and the last six were run with dynamic guidance. Because of scheduling and subject availability, 67.7 percent of all subjects and the majority of middle age group subjects were run during the first half of the study, which used static route guidance.

While type of guidance was not a factor in the study, it was possible to assess the effects of static versus dynamic route guidance by selecting gender and age group matched pairs of subjects who used each type of guidance. There were 21 such pairs in this study. The responses of the static and dynamic groups of subjects were compared on several survey questions related to system performance such as frequency of use, ease of use, amount of congestion encountered, reasons for not following route recommendations, perceived improvement in travel time over driving without the Ali-Scout, perceived safety, system accuracy, overall impression of system, and willingness to pay. Analysis of variance tests showed no statistical difference between responses of subjects who used Ali-Scout with static guidance

and subjects who had dynamic guidance on any of the measures tested. We conclude, therefore, that there was no advantage of dynamic information over static information on self-reported use or perceptions of Ali-Scout in the present study. Further, these findings show that the fact that the system used two types of guidance during the course of the study does not confound the age group and gender factors investigated in the study.

User Survey

As mentioned previously, the user survey was divided into seven parts: driving and commuting, use of technology, Ali-Scout operation and displays, the Ali-Scout system as a whole, use of the Ali-Scout system, valuation, and subject demographics. The complete univariate results for each question, except for subject demographics, can be found in appendix G. Demographic information was reported earlier.

Driving and Commuting

Overall, 86.5 percent of the respondents' households contained two or more vehicles that were owned or leased, and 55.6 of the respondents percent lived in the Oakland County study area (Troy, Rochester Hills, Auburn Hills, Pontiac, Bloomfield Hills, and Birmingham). Of those who lived in the study area, most were long-term residents. All subjects were asked how frequently they drove in the Oakland County study area in the past month. Subjects answered this question using a seven-point scale anchored by the labels "5 times a week or more" for one and "once a month or less" for seven. Overall, subjects indicated that they drove frequently in the study area during the last month (means were 19-to-29 male=1.5; 19-to-29 female=2.1; 30-to-64 male=1.6; 30-to-64 female=1.8; 65-to-80 male=3.4; 65-to-80 female=1.5). A three by two (age category by gender) analysis of variance (two-way ANOVA) revealed that there were no significant differences between age groups or genders, but there was a significant interaction between these two variables [$F(2,83)=4.08$; $p<.05$]. This interaction resulted from the fact that males

in the oldest age group (64-to-80) and females in the youngest age group (19-to-29) reported significantly less driving in the study area than the other groups. Subjects judged their familiarity with the road network in the Oakland County study area using a seven-point scale anchored with the labels "very unfamiliar" for one and "very familiar" for seven. As expected, the majority of subjects indicated some level of familiarity with the road network (means were: 19-to-29 male=5.7; 19-to-29 female=4.9; 30-to-64 male=4.6; 30-to-64 female=4.2; 65-to-80 male=5.3; 65-to-80 female=5.8). There were no significant differences between age groups or genders.

Subjects were asked several questions about their employment (or school) status and driving behaviors related to employment (or school). Subjects were asked if they currently worked in the Oakland County study area. A two-way ANOVA revealed a significant main effect of age group [$F(83,2)=15.25$; $p<.0001$]. As expected, this resulted from the fact that very few men and women in the oldest age group reported working in the study area as compared to the two other groups, because nearly 80 percent were retired. When asked about current employment status, nearly all people in the two younger age groups indicated they were either employed full-time, employed part-time, or were full-time students. Those subjects who were not retired or unemployed were asked how many routes in the past three months they had driven from home to work (or school) during their morning commute, how many minutes their commute generally took, whether they listened to traffic reports, how often they encountered congestion and traffic incidents, their willingness to divert to avoid traffic problems, and their opinion of the general traffic congestion level in the Oakland County study area. The majority of respondents indicated that they had driven less than five routes in the past three months. A two-way ANOVA showed that the number of routes driven varied significantly between age groups [$F(2,64)=4.00$; $p<.05$], with respondents in the oldest age group reporting significantly fewer routes driven. On the average, subjects reported a commute trip duration of about 25 minutes (means in minutes were: 19-to-29 male=23.5; 19-to-29 female=22.9; 30-to-64 male=28.4; 30-to-64 female=27.5; 65-

to-80 male=21.4; 65-to-80 female=15.7) with no significant differences between age groups or genders. Overall, 54.4 percent indicated that they listened to traffic reports during their commute. A two-way ANOVA showed that the tendency to listen to traffic reports differed significantly by age group [$F(2,62)=9.38$; $p<.0005$] with members of the youngest age group less likely to listen than members of the other two age groups. Subjects judged the frequency of encountering heavy traffic congestion and traffic incidents using a scale anchored by the labels "5 times a week or more" for one and "once a month or less" for seven. Overall, subjects reported fairly frequent encounters with heavy traffic congestion (means were: 19-to-29 male=4.6; 19-to-29 female=4.7; 30-to-64 male=3.0; 30-to-64 female=3.3; 65-to-80 male=3.6; 65-to-80 female=5.0). A two-way ANOVA revealed a significant main effect of age group [$F(2,63)=5.06$; $p<.01$], with respondents in the youngest age group reporting significantly fewer encounters with heavy congestion than members of the other two age groups. Subjects reported a low frequency of encountering traffic incidents such as crashes (means were: 19-to-29 male=5.4; 19-to-29 female=6.4; 30-to-64 male=5.3; 30-to-64 female=5.1; 65-to-80 male=3.0; 65-to-80 female=6.5). There was little difference between age groups and genders. Nearly all subjects reported that they would be willing to divert from their normal commute route to avoid congestion or a traffic incident with no statistical difference on this measure for the study variables. Subjects indicated their opinion of the level of traffic congestion in the Oakland County study area using a scale anchored by the labels "no congestion" for one and "heavy congestion" for seven. Overall, subjects indicated that the study area had moderate levels of congestion (means were: 19-to-29 male=4.5; 19-to-29 female=4.2; 30-to-64 male=5.2; 30-to-64 female=5.3; 65-to-80 male=5.0; 65-to-80 female=5.0), with no statistically significant differences between age groups or genders.

Subjects were asked several questions about their frequency of taking out-of-town vacation and business trips, their confidence wayfinding in unfamiliar environments, how frequently they used road maps, and whether they had ever

used an electronic in-vehicle navigation assistance system prior this study. Subjects indicated the number of out-of-town vacation and business trips in the past year by indicating either 0, 1, 2, 3, 4, or 5 or more. Nearly all respondents had taken at least one out-of-town vacation trip in the past year, with 27.8 percent reporting five or more vacations. There were no significant differences between age groups or genders. Subjects reported taking very few out-of-town business trips in the past twelve months, with 60.9 percent indicating that they had taken zero out-of-town business trips in the last year. A two-way ANOVA revealed that the number of out-of-town business trips differed significantly by gender [$F(1,81)=11.61$; $p<.001$], with males reporting more business trips than females. Subjects indicated their level of confidence in finding their way around while driving in an unfamiliar area using a scale anchored by the labels "very unconfident" for one and "very confident" for seven. The study showed that, generally, people reported that they were confident in their abilities to wayfind in an unfamiliar environment (means were 19-to-29 male=5.0; 19-to-29 female=3.7; 30-to-64 male=5.1; 30-to-64 female=4.1; 65-to-80 male=4.7; 65-to-80 female=4.6). A two-way ANOVA showed that men reported greater confidence in their ability to find their way around unfamiliar areas than did women [$F(1,84)=5.14$; $p<.05$]. Subjects indicated their frequency of road map use by indicating one of the following: "at least once a week"; "1-3 times per month"; "once every 2-6 months"; "once a year"; "less than once a year." Overall, subjects reported infrequent map use with 29.7 percent reporting map use once a year or less. There were no significant differences between age groups or genders. Finally, subjects were asked if they had ever driven a vehicle equipped with an electronic route-guidance system. Overall, 95.6 percent had no prior experience with electronic route-guidance.

Technology

The Ali-Scout system is a new technology. Since people's comfort with and ability to use technology may influence how readily they use and accept Ali-Scout, subjects were asked a series of questions about their experience with current

technology and their interest level, ease of use, and enjoyment of new technology. Subjects indicated their level of experience with personal computers, VCRs, electronic pagers, cellular car phones, FAX machines, and pocket calculators using a seven-point scale anchored by the labels "none" for one and "extensive" for seven. Generally, the subjects reported considerable experience with pocket calculators and VCRs with an average ratings of 6.2 and 5.5, respectively. Subject experience with computers and fax machines was somewhat lower, with average ratings of 4.9 and 4.5 respectively. The lowest experience was reported for cellular phones and electronic pagers, with average ratings of 3.9 and 3.8. Two-way ANOVAs calculated on each type of current technology showed significant effects of age group [$F(2,87)=19.03$; $p<.0001$ for personal computers, $F(2,88)=11.12$; $p<.0001$ for VCRs, $F(2,83)=14.91$; $p<.0001$ for electronic pagers, $F(2,91)=5.95$; $p<.005$ for cellular phones; $F(2,86)=12.57$; $p<.0001$ for fax machines; and $F(2,86)=9.01$; $p< .0005$ for pocket calculators]. *Post hoc* analyses revealed that for each technology, the significant effect of age resulted from respondents in the oldest age group reporting less experience with the technology than respondents in the other two age groups. There were no significant effects of gender.

Subjects indicated their interest in news items concerning new technology by indicating that they were: "not at all interested"; "not very interested"; "somewhat interested"; or "very interested." Nearly all respondents reported that they were either somewhat or very interested in new technology. There were no significant differences between age groups or genders on this measure. Subjects indicated their level of difficulty in using new technology by selecting one of the following: "very difficult"; "somewhat difficult"; "neither difficult nor easy"; "somewhat easy"; or "very easy." In general, subjects found new technology neither difficult nor easy to use. There were no significant differences between age groups or genders, but there was a significant interaction between these two variables [$F(2,89)=3.18$; $p<.05$]. This difference resulted from the fact that women in the oldest age group found new technology significantly more difficult to use than subjects in other study

groups. Subjects indicated their enjoyment of using new technology by selecting one of the following: "not at all enjoyable"; "not very enjoyable"; "somewhat enjoyable"; or "very enjoyable." Nearly 98 percent reported that they found new technology either somewhat or very enjoyable to use. There were no significant differences between age groups or genders.

Ali-Scout Operation and Displays

Frequency of Use

Subjects were asked to indicate how often they used Ali-Scout for trips in the Oakland County study area, using a scale anchored by the labels "never" for one and "always" for seven, with a response of four indicating that they used Ali-Scout about half of the time. Overall, subjects reported frequent use of Ali-Scout (means were 19-to-29 male=5.9; 19-to-29 female=5.7; 30-to-64 male=6.1; 30-to-64 female=6.4; 65-to-80 male=6.0; 65-to-80 female=5.7). All subjects answering this question responded with a value or three or greater, with over one-third reporting that they "always" used Ali-Scout. There were no significant differences between age groups or genders. Subjects who reported using Ali-Scout less than "always" for trips in the Oakland County study area were asked to explain why they sometimes did not use the system. Overall, the most frequently cited reason was that "many trips were short" (27.9 percent of 37 people answering this question), followed by "I knew the way" (18.9 percent) and "I did not think Ali-Scout provided accurate guidance" (18.9 percent).

Entering and Selecting Destinations

As mentioned previously, there are four ways of entering destinations into Ali-Scout memory: a list of address ranges, a list of points of interest, an Ali-Scout map, and assigning the vehicle's current location as a destination. Destinations can also be selected prior to a trip by scrolling through a list of destinations in Ali-Scout memory and selecting one. Subjects were asked several questions about their preferences for and difficulty using the various methods for entering and selecting

destinations. Subjects were asked to rank the four methods of entering new destinations in order of how frequently they were used. Overall, the Ali-Scout map was used most frequently with 44.6 percent of respondents giving it a ranking of one, followed by the list of points of interest (27.3 percent ranked it first). The other two methods were ranked about equal in frequency of use. There were no significant differences between age groups or genders on rankings for any of these methods. Subjects indicated how often they entered a destination already in memory by placing a mark on an analog scale from zero to 100 percent of the time. Overall, subjects indicated using destinations already in memory on roughly 66 percent of their trips (means percents by group were: 19-to-29 male=64.5; 19-to-29 female=78.8; 30-to-64 male=61.8; 30-to-64 female=73.5; 65-to-80 male=61.3; 65-to-80 female=44.0). There were no significant differences between age groups or genders. Subjects indicated their level of difficulty in selecting destinations from memory and using each of the four destination entry methods on a scale anchored by the labels "very difficult to use" for one and "very easy to use" for seven. Subjects could also indicate that they did not use the method. Subjects reported that the destination memory feature was fairly easy to use (means were 19-to-29 male=4.9; 19-to-29 female=6.8; 30-to-64 male=5.8; 30-to-64 female=5.4; 65-to-80 male=5.8; 65-to-80 female=5.1) with no significant differences between age groups or genders. The average responses for the four destination entry methods is shown in table 4. Overall, respondents found the points-of-interest method the easiest to use, followed by the map. Two-way ANOVAs, calculated on each entry method separately, showed no significant main effects for any method and only one significant interaction for the points of interest method [$F(2,64)=3.91$; $p<.05$]. This interaction resulted from the women in the oldest age group judging the points of interest method to be more difficult to use than did members of the other groups.

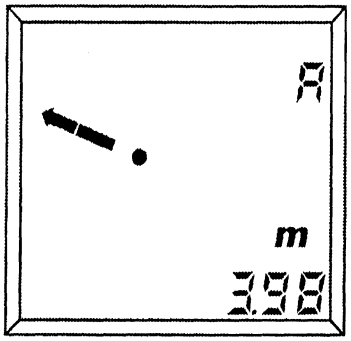
Table 4: Average Rating of Ease of Use for the Destination Entry Methods by Age Group and Gender (1=very difficult to use; 7=very easy to use)						
Destination Entry Method	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Points of Interest	5.9	5.3	6.1	6.6	6.2	4.6
Map	4.8	5.4	4.6	5.0	5.7	5.4
Address Ranges	5.0	5.3	5.4	5.1	4.7	5.0
Current Location	5.1	4.8	5.6	3.7	5.5	5.6

Keyboard

Subjects answered several questions related to the Ali-Scout alphanumeric keyboard. On seven-point scales, subjects were asked to indicate their level of difficulty in learning and using the keyboard, its frequency of functioning properly, and their overall impression. Level of difficulty in learning and using the keyboard was rated using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects generally found the keyboard easy to learn (means were 19-to-29 male=5.8; 19-to-29 female=5.5; 30-to-64 male=4.9; 30-to-64 female=5.6; 65-to-80 male=4.7; 65-to-80 female=4.0). A two-way ANOVA revealed, however, that those in the oldest age group had more difficulty learning the keyboard than those in the youngest age group [$F(2,84)=4.31$; $p<.05$]. Overall, subjects found the keyboard somewhat easy to use (means were 19-to-29 male=5.3; 19-to-29 female=5.7; 30-to-64 male=4.8; 30-to-64 female=5.4; 65-to-80 male=4.4; 65-to-80 female=5.2), with no significant differences between age groups or genders. Subjects indicated the frequency of proper function using a scale anchored by the labels "never" for one and "always" for seven. In general, subjects reported that the keyboard functioned properly roughly two-thirds of the time (means were 19-to-29 male=6.3; 19-to-29 female=6.0; 30-to-64 male=4.9; 30-to-64 female=6.2; 65-to-80 male=4.5; 65-to-80 female=4.8). A two-way ANOVA showed a significant main

effect of age group [F(2,84)=7.64; $p<.001$]. *Post hoc* analyses showed that this effect resulted from members of the oldest age group reporting less frequent proper function than members of the youngest age group. There were no other significant effects or interactions. Finally, subjects indicated their overall impression of the keyboard using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. The study results showed that, overall, subjects had slightly more positive impressions of the keyboard than neutral (means were 19-to-29 male=4.6; 19-to-29 female=5.3; 30-to-64 male=4.1; 30-to-64 female=5.3; 65-to-80 male=4.3; 65-to-80 female=4.4). There were no significant differences between the age groups or genders on this measure.

Autonomous Mode

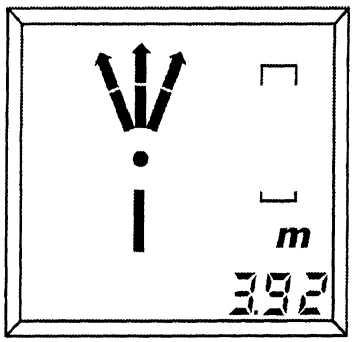


Subjects were asked several questions about the Ali-Scout system's autonomous, or "crow-fly," navigation feature. When asked what the display to the left was indicating, 95.5 percent correctly answered that the autonomous-mode display indicates the distance and direction to the destination you entered. On seven-point scales, subjects were asked to rate their level of difficulty in understanding the display, level of distraction while driving, accuracy of guidance provided, frequency of proper function, and their overall impression. Level of difficulty in understanding the autonomous-mode display was rated using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Overall, people found the display to be easy to understand (means were: 19-to-29 male=6.7; 19-to-29 female=5.9; 30-to-64 male=6.3; 30-to-64 female=6.4; 65-to-80 male=5.7; 65-to-80 female=4.6). A two-way ANOVA revealed a significant main effect of age group [F(2,85)=7.17; $p<.005$]. *Post hoc* analyses showed that this main effect resulted from respondents in the oldest age group having significantly more difficulty understanding the autonomous-mode display than respondents in either of the other

two age groups. Level of distraction while driving caused by the autonomous-mode display was indicated using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. In general, subjects found the autonomous-mode display produced little distraction while driving (means were 19-to-29 male=6.0; 19-to-29 female=5.8; 30-to-64 male=6.0; 30-to-64 female=6.2; 65-to-80 male=5.3; 65-to-80 female=5.0), with no significant differences between age groups or genders.

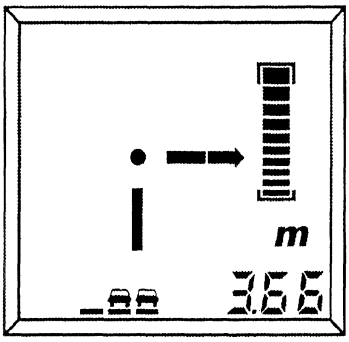
Subjects rated the accuracy of guidance provided by the autonomous-mode display using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. The study showed that subjects thought the display was generally more accurate than inaccurate (means were 19-to-29 male=4.8; 19-to-29 female=5.0; 30-to-64 male=4.9; 30-to-64 female=5.3; 65-to-80 male=3.9; 65-to-80 female=4.1), with a significant main effect of age group [$F(2,83)=4.08$; $p<.05$]. *Post hoc* analyses showed that this effect resulted from the fact that people in the oldest age group perceived significantly less accuracy with the display than members of the middle age group. Subjects rated the frequency of proper function using a scale anchored by the labels "never" for one and "always" for seven, with a response of four indicating proper function about one-half of the time. Subjects reported that the autonomous-mode display functioned properly slightly more than one-half of the time (means were 19-to-29 male=5.1; 19-to-29 female=5.6; 30-to-64 male=5.1; 30-to-64 female=5.4; 65-to-80 male=4.9; 65-to-80 female=4.5). There were no significant differences between age groups or genders. Finally, subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported that their impressions of the autonomous-mode display were slightly more positive than neutral (means were 19-to-29 male=5.1; 19-to-29 female=5.1; 30-to-64 male=4.8; 30-to-64 female=5.1; 65-to-80 male=4.6; 65-to-80 female=3.9), with no significant differences between age groups or genders.

Follow-Main-Road Display



Subjects were asked several questions about the Ali-Scout *follow-main-road display.* When asked what information the display to the left was showing, only 80.2 percent could correctly identify that the display indicates that you should continue in the direction you are going. On seven-point scales, subjects judged the level of difficulty in understanding, accuracy of guidance, and overall impression of the follow-main-road display. Subjects indicated level of difficulty in understanding the follow-main-road display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. In general, respondents found the display quite easy to understand (means were 19-to-29 male=6.5; 19-to-29 female=6.6; 30-to-64 male=6.4; 30-to-64 female=6.1; 65-to-80 male=6.4; 65-to-80 female=5.6), with no statistical differences between age groups or genders. Subjects rated the accuracy of guidance provided by the display using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. Generally, respondents found the display to be accurate (means were 19-to-29 male=5.5; 19-to-29 female=5.6; 30-to-64 male=5.3; 30-to-64 female=5.9; 65-to-80 male=5.3; 65-to-80 female=4.8), with no differences between study variables. Finally, subjects indicated their overall impression of the follow-main-road display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. Averaged across all variables, subjects tended to rate the display positively (means were 19-to-29 male=5.3; 19-to-29 female=5.1; 30-to-64 male=5.5; 30-to-64 female=5.6; 65-to-80 male=5.0; 65-to-80 female=4.4), with no differences found between age groups or genders.

Prepare-Maneuver Display

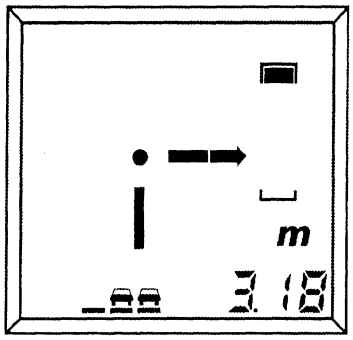


Subjects were asked several questions about the Ali-Scout *prepare-maneuver* display. When asked what information the display to the left was showing, 93.1 percent correctly identified that the display indicates that you should move to the right lanes; you will be turning to the right soon. On seven-point scales, subjects judged the level of difficulty in understanding, the sufficiency of detail shown, the amount of advanced warning provided, the level of distraction while driving, the accuracy of guidance, and the overall impression of the prepare-maneuver display. Subjects indicated level of difficulty in understanding the prepare-maneuver display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects found the display quite easy to understand (means were 19-to-29 male=6.6; 19-to-29 female=6.6; 30-to-64 male=6.3; 30-to-64 female=6.4; 65-to-80 male=6.1; 65-to-80 female=5.6), with no statistical difference between age groups or genders. Subjects rated the sufficiency of detail shown using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. Subjects reported that the amount of detail was reasonably sufficient (means were 19-to-29 male=5.8; 19-to-29 female=6.5; 30-to-64 male=6.7; 30-to-64 female=6.5; 65-to-80 male=6.3; 65-to-80 female=5.9).

Subjects reported the amount of advance warning provided using a scale anchored by the labels "not enough" for one and "too much" for seven, with a response of four indicating the advance warning was just right. Subjects indicated that the warning was just about right (means were 19-to-29 male=4.3; 19-to-29 female=3.9; 30-to-64 male=4.9; 30-to-64 female=4.3; 65-to-80 male=4.9; 65-to-80 female=4.4), with no statistical difference between age groups or genders. Level of distraction while driving caused by the prepare-maneuver display was indicated using a scale anchored by the labels "very distracting" for one and "not at all

distracting" for seven. In general, subjects found the display produced little distraction while driving (means were 19-to-29 male=5.7; 19-to-29 female=5.7; 30-to-64 male=6.5; 30-to-64 female=5.8; 65-to-80 male=5.3; 65-to-80 female=5.2), with no significant differences between age groups or genders. Subjects rated the accuracy of guidance provided by the prepare-maneuver display using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. The study showed that subjects thought the display was fairly accurate (means were 19-to-29 male=5.4; 19-to-29 female=5.0; 30-to-64 male=5.5; 30-to-64 female=5.5; 65-to-80 male=5.5; 65-to-80 female=4.1), with no significant main effects of age group or gender. Finally, subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported that their impressions of the prepare-maneuver display were fairly positive (means were 19-to-29 male=5.2; 19-to-29 female=5.8; 30-to-64 male=5.6; 30-to-64 female=5.6; 65-to-80 male=5.1; 65-to-80 female=3.9), with no significant differences between age groups or genders.

Execute-Maneuver Display



Subjects answered several questions about the Ali-Scout *execute-maneuver* display. When asked what information the display to the left was showing, 83.5 percent correctly identified that the display indicated you should make a right turn now. On seven-point scales, subjects judged the level of difficulty in understanding, the sufficiency of detail shown and advanced warning provided, the level of distraction while driving, the accuracy of guidance, and the overall impression of the execute-maneuver display. Subjects indicated level of difficulty in understanding the execute-maneuver display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects found the display quite easy to understand (means were 19-to-29 male=6.7; 19-to-29 female=6.7; 30-to-64

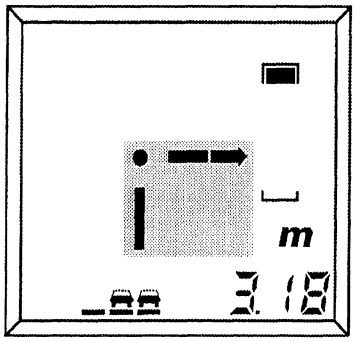
male=6.4; 30-to-64 female=6.4; 65-to-80 male=6.4; 65-to-80 female=5.5), with no statistical difference between age groups or genders. Subjects rated the sufficiency of detail shown and advance warning provided using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. Subjects reported that the amount of detail was sufficient generally (means were 19-to-29 male=5.9; 19-to-29 female=6.4; 30-to-64 male=6.4; 30-to-64 female=6.5; 65-to-80 male=6.3; 65-to-80 female=6.1), with no statistical difference between study variables. Subject indicated that the level of detail was sufficient generally (means were 19-to-29 male=5.9; 19-to-29 female=5.6; 30-to-64 male=5.6; 30-to-64 female=6.1; 65-to-80 male=5.5; 65-to-80 female=5.5), with no statistical difference between age groups or genders.

Level of distraction while driving caused by the execute-maneuver display was indicated using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. In general, subjects found the display produced little distraction while driving (means were 19-to-29 male=5.8; 19-to-29 female=5.9; 30-to-64 male=6.3; 30-to-64 female=5.9; 65-to-80 male=5.4; 65-to-80 female=5.4), with no significant differences between age groups or genders. Subjects rated the accuracy of guidance provided by the execute maneuver display using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. The study showed that subjects thought the display was fairly accurate (means were 19-to-29 male=5.7; 19-to-29 female=5.7; 30-to-64 male=5.6; 30-to-64 female=5.9; 65-to-80 male=5.1; 65-to-80 female=4.1). A two-way ANOVA revealed a significant main effect of age group, with respondents in the oldest age group judging the accuracy to be lower than respondent judgments in other age groups [$F(2,80)=3.56$; $p<.05$]. Finally, subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported that their impressions of the execute-maneuver display were fairly positive (means were 19-to-29 male=5.3; 19-to-29 female=5.8; 30-to-64 male=5.4; 30-to-64 female=5.8; 65-to-80 male=5.4; 65-to-80

female=3.9), with no statistical differences between age groups or genders.

Turn-Arrow Display

Subjects were asked several questions about the Ali-Scout *turn-arrow* display. On seven-point scales, subjects judged the level of difficulty in understanding, the sufficiency of detail shown, the amount of advance warning provided, level of distraction while driving, accuracy of guidance, and overall impression of the turn arrow display. Subjects indicated level of difficulty in understanding the turn-arrow display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects found the display quite easy to understand (means were 19-to-29 male=6.6; 19-to-29 female=6.7; 30-to-64 male=6.6; 30-to-64 female=6.6; 65-to-80 male=6.5; 65-to-80 female=6.0), with no statistical difference between age groups or genders. Subjects rated the sufficiency of detail shown using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. Generally, subjects reported that the amount of detail was sufficient (means were 19-to-29 male=5.9; 19-to-29 female=6.6; 30-to-64 male=6.6; 30-to-64 female=6.5; 65-to-80 male=6.6; 65-to-80 female=5.6). A two-way ANOVA calculated on this measure showed a significant interaction between age group and gender [$F(2,80)=3.78$; $p<.05$], with older women respondents judging the sufficiency of detail lower than the judgments of subjects in other groups.

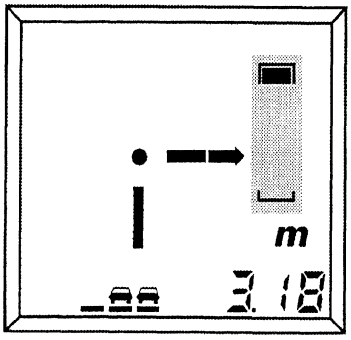


Subjects reported the amount of advance warning provided using a scale anchored by the labels "not enough" for one and "too much" for seven, with a response of four indicating the warning was just right. Subjects reported that the amount of advance warning was slightly too much (means were 19-to-29 male=4.6; 19-to-29 female=4.0; 30-to-64 male=4.9; 30-to-64 female=4.6; 65-to-80 male=5.3; 65-to-80 female=4.0). A two-way ANOVA showed a significant difference between

genders on this measure, with women rating the advance warning to be closer to just right than did men [F(1,79)=6.66; $p<.02$]. Level of distraction while driving caused by the turn-arrow display was indicated using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. In general, subjects found the display produced little distraction while driving (means were 19-to-29 male=5.8; 19-to-29 female=6.1; 30-to-64 male=6.3; 30-to-64 female=5.9; 65-to-80 male=5.5; 65-to-80 female=5.6), with no significant differences between age groups or genders. Subjects rated the accuracy of guidance provided by the turn arrow display using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. The study showed that subjects thought the display was fairly accurate (means were 19-to-29 male=5.3; 19-to-29 female=5.9; 30-to-64 male=5.7; 30-to-64 female=5.8; 65-to-80 male=5.6; 65-to-80 female=4.1). A two-way ANOVA revealed a significant interaction between age group and gender, with respondents in the older women's group rating the accuracy as significantly lower than did subjects in the other groups [F(2,80)=3.80; $p<.05$]. Finally, subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported impressions of the turn arrow display were fairly positive (means were 19-to-29 male=5.3; 19-to-29 female=5.7; 30-to-64 male=5.4; 30-to-64 female=5.7; 65-to-80 male=5.6; 65-to-80 female=3.9), with no significant differences between age groups or genders.

Countdown-Bar Display

Subjects were asked several questions about the Ali-Scout *countdown-bar* display. When asked what information the display to the left was showing, 92.9 percent correctly identified that the display indicated the relative distance to the right turn. On seven-point scales, subjects judged the level of difficulty in understanding, the amount of detail shown, the

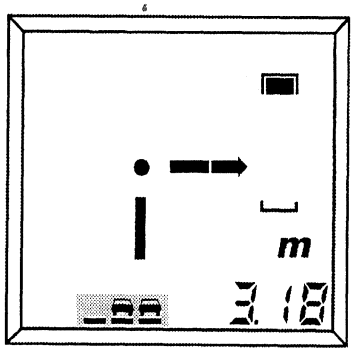


amount of advance warning provided, level of distraction while driving, accuracy of guidance, and overall impression of the countdown-bar display. Subjects indicated level of difficulty in understanding the countdown-bar display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects found the display quite easy to understand (means were 19-to-29 male=6.5; 19-to-29 female=6.4; 30-to-64 male=6.7; 30-to-64 female=6.7; 65-to-80 male=6.3; 65-to-80 female=5.7), with no statistical difference between age groups or genders. Subjects rated the sufficiency of detail shown using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. Subjects reported that the amount of detail was generally quite sufficient (means were 19-to-29 male=5.8; 19-to-29 female=6.5; 30-to-64 male=6.6; 30-to-64 female=6.7; 65-to-80 male=6.3; 65-to-80 female=5.3). A two-way ANOVA calculated on this measure showed a significant main effect of age group [$F(2,81)=3.22$; $p<.05$] and a significant interaction between age group and gender [$F(2,81)=4.08$; $p<.05$]. *Post hoc* comparisons showed that the main effect of age group resulted from the fact that members of the oldest age group reported lower sufficiency of detail than members of the other age groups and that older women and young men both had judgments that were lower than judgments of subjects in other groups.

Subjects reported the amount of advance warning provided using a scale anchored by the labels "not enough" for one and "too much" for seven, with a response of four indicating the advance warning was just right. Subject indicated that the amount of advance warning was slightly more than was preferred (means were 19-to-29 male=4.7; 19-to-29 female=3.9; 30-to-64 male=4.9; 30-to-64 female=4.6; 65-to-80 male=5.0; 65-to-80 female=3.8). A two-way ANOVA showed a main effect of gender with women reporting the level of detail to be closer to the preferred level than did men [$F(1,81)=6.38$; $p<.02$]. Level of distraction while driving caused by the countdown-bar display was indicated using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. In general, subjects found the display to produce little distraction while driving (means were 19-

to-29 male=6.1; 19-to-29 female=5.8; 30-to-64 male=5.4; 30-to-64 female=5.8; 65-to-80 male=4.9; 65-to-80 female=5.6), with no significant differences between age groups or genders. Subjects rated the accuracy of guidance provided by the countdown-bar display using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. The study showed that subjects thought the display was fairly accurate (means were 19-to-29 male=5.5; 19-to-29 female=5.9; 30-to-64 male=6.1; 30-to-64 female=5.9; 65-to-80 male=5.3; 65-to-80 female=3.6). A two-way ANOVA showed a significant main effect of gender [$F(1,81)=5.37$; $p<.01$] and an interaction between age group and gender [$F(2,81)=4.10$; $p<.05$]. *Post hoc* analyses revealed that the main effect and interaction resulted from women in the oldest age group judging the accuracy of the countdown-bar to be far lower than the judgments of members in other groups. Finally, subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported that their impressions of the countdown-bar display were positive (means were 19-to-29 male=5.5; 19-to-29 female=5.6; 30-to-64 male=5.4; 30-to-64 female=5.7; 65-to-80 male=4.9; 65-to-80 female=4.4), with no significant differences between age groups or genders.

Lane-Recommendation Display



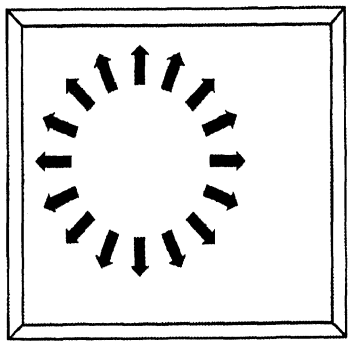
Subjects were asked several questions about the Ali-Scout *lane-recommendation* display. When asked what information the display to the left was showing, 88.5 percent correctly identified that the display indicated that you should move into one of the right lanes. On seven-point scales, subjects judged the level of difficulty in understanding, the amount of detail shown, the amount of advance warning provided, level of distraction while driving, accuracy of guidance, and

overall impression of the lane recommendation display. Subjects indicated level of difficulty in understanding the lane recommendation display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects found the display to be quite easy to understand (means were 19-to-29 male=6.5; 19-to-29 female=6.6; 30-to-64 male=6.1; 30-to-64 female=6.6; 65-to-80 male=6.4; 65-to-80 female=5.6), with no statistical difference between age groups or genders. Subjects rated the sufficiency of detail shown using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. Generally, subjects reported that the amount of detail was sufficient (means were: 19-to-29 male=6.1; 19-to-29 female=6.5; 30-to-64 male=6.3; 30-to-64 female=6.6; 65-to-80 male=6.5; 65-to-80 female=5.6), with no statistical difference between the means by age group or gender.

Subjects reported the amount of advance warning provided using a scale anchored by the labels "not enough" for one and "too much" for seven, with a response of four indicating the advance warning was just right. Subjects indicated that the amount of advance warning was slightly more than was preferred (means were 19-to-29 male=4.4; 19-to-29 female=4.0; 30-to-64 male=4.9; 30-to-64 female=4.4; 65-to-80 male=5.2; 65-to-80 female=3.9). A two-way ANOVA showed a significant main effect of gender, with women reporting the amount of advance warning to be closer to that preferred than reports by men [$F(1,79)=7.12$; $p<.01$]. Level of distraction while driving caused by the lane-recommendation display was indicated using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. In general, subjects found the display to produce little distraction while driving (means were 19-to-29 male=5.9; 19-to-29 female=6.2; 30-to-64 male=6.0; 30-to-64 female=5.4; 65-to-80 male=5.1; 65-to-80 female=5.7), with no significant differences between age groups or genders. Subjects rated the accuracy of guidance provided by the lane-recommendation display using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. The study showed that subjects thought the display was fairly accurate (means were 19-

to-29 male=5.8; 19-to-29 female=5.6; 30-to-64 male=5.9; 30-to-64 female=5.8; 65-to-80 male=5.6; 65-to-80 female=5.1), with no significant main effects of age group or gender. Finally, subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported that their impressions of the lane-recommendation display were positive (means were 19-to-29 male=5.8; 19-to-29 female=5.6; 30-to-64 male=5.2; 30-to-64 female=5.5; 65-to-80 male=5.2; 65-to-80 female=4.0), with no significant differences between age groups or genders.

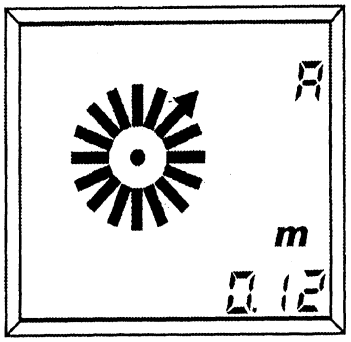
Left-Recommended-Route Display



Subjects were asked several questions about the Ali-Scout *left-recommended-route* display. On seven-point scales, subjects judged the level of difficulty in understanding, level of distraction while driving, and overall impression of the left recommended route display. Subjects indicated level of difficulty in understanding the left-recommended-route display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects found the display quite easy to understand (means were 19-to-29 male=5.8; 19-to-29 female=5.8; 30-to-64 male=6.4; 30-to-64 female=6.4; 65-to-80 male=5.1; 65-to-80 female=1.8). A two-way ANOVA revealed a significant effect of age group [$F(2,81)=13.21$; $p<.0001$] and an interaction between age group and gender [$F(2,81)=8.33$; $p<.0005$]. *Post hoc* analyses showed that the age group effect resulted from members of the oldest age group reporting significantly more difficulty understanding the left-recommended route-display than members of the other age groups. The significant interaction resulted from the women in the oldest age group having more difficulty than members in any of the other subject groups.

Level of distraction while driving caused by the display was indicated using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. In general, subjects found the display produced little distraction while driving (means were 19-to-29 male=4.9; 19-to-29 female=4.9; 30-to-64 male=6.3; 30-to-64 female=5.3; 65-to-80 male=4.4; 65-to-80 female=4.5). A two-way ANOVA showed that there was a significant main effect of age group [$F(2,80)=3.27$; $p<.05$]. *Post hoc* analyses showed that this effect resulted from the fact that respondents in the middle age group judged the display to be significantly less distracting than respondents in the other two age groups. Finally, subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported that their impressions of the left-recommended-route display were neutral (means were 19-to-29 male=4.4; 19-to-29 female=4.8; 30-to-64 male=4.4; 30-to-64 female=4.7; 65-to-80 male=4.2; 65-to-80 female=2.6), with no significant differences between age groups or genders.

Destination-Zone Display



Subjects answered several questions about the Ali-Scout *destination-zone* display shown to the left. On seven-point scales, subjects judged the level of difficulty in understanding, the accuracy of guidance, and the overall impression of the destination-zone display. Subjects indicated level of difficulty in understanding the display using a scale anchored by the labels "very difficult" for one and "very easy" for seven. Subjects found the display somewhat easy to understand (means were 19-to-29 male=5.6; 19-to-29 female=6.4; 30-to-64 male=6.2; 30-to-64 female=5.8; 65-to-80 male=5.3; 65-to-80 female=5.3), with no statistical difference between age groups or genders. Accuracy of guidance was indicated using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. In

general, subjects found the display to be somewhat accurate (means were 19-to-29 male=5.1; 19-to-29 female=5.8; 30-to-64 male=4.9; 30-to-64 female=5.6; 65-to-80 male=4.7; 65-to-80 female=4.1), with no significant differences between age groups or genders. Subjects indicated their overall impression of the display using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. In general, subjects reported that their impressions of the destination-zone display were slightly more positive than neutral (means were 19-to-29 male=4.8; 19-to-29 female=5.4; 30-to-64 male=4.6; 30-to-64 female=5.0; 65-to-80 male=4.3; 65-to-80 female=3.8), with no significant differences between age groups or genders.

Subjects were also asked to report the frequency with which they felt that they were close enough to their destination when Ali-Scout switched over from guided instructions to autonomous-mode guidance and how frequently they had difficulty finding their final destinations. Subjects indicated this frequency using a scale anchored by the labels "always" for one and "never" for seven, with a response of four indicating they were close enough about half the time. The study showed that, in general, respondents thought the switch over was close enough about two-thirds of the time (means were 19-to-29 male=3.5; 19-to-29 female=3.3; 30-to-64 male=2.9; 30-to-64 female=3.7; 65-to-80 male=3.1; 65-to-80 female=3.0), with no significant differences between age groups or gender. Subjects indicated how frequently they had difficulty finding their destinations using a scale anchored by the labels "always had difficulty" for one and "never had difficulty" for seven. In general, respondents reported finding their destinations without difficulty most of the time (means were 19-to-29 male=61; 19-to-29 female=6.2; 30-to-64 male=6.5; 30-to-64 female=6.2; 65-to-80 male=5.3; 65-to-80 female=5.8). A two-way ANOVA revealed a significant main effect of age group [$F(2,83)=4.93$; $p<.01$]. *Post hoc* analyses showed that this main effect resulted from respondents in the oldest age group reporting significantly more difficulty finding destinations than members of the middle age group.

The Ali-Scout System as a Whole

Visual Displays

Subjects were asked several questions about Ali-Scout visual displays as a whole. On seven-point scales, subjects were asked to rate their level of difficulty reading the displays while driving and while the vehicle was stationary; their level of difficulty understanding the visual displays; the sufficiency of advance warning provided by the visual displays; the accuracy of guidance; whether they thought the visual displays helped them find their way; their overall impression; and whether the visual displays were distracting at night, during daylight hours, in heavy traffic, in light traffic, when traveling along freeways, or when traveling along other roads. The scale for rating the level of difficulty for reading and understanding the visual displays was anchored by the labels "very difficult" for one and "very easy" for seven. Responses showed that most subjects thought the visual displays were easy to read while driving (means were 19-to-29 male=5.4; 19-to-29 female=5.8; 30-to-64 male=5.8; 30-to-64 female=6.1; 65-to-80 male=5.7; 65-to-80 female=4.6) and while not driving (means were 19-to-29 male=6.5; 19-to-29 female=6.7; 30-to-64 male=6.5; 30-to-64 female=6.5; 65-to-80 male=6.3; 65-to-80 female=6.1), and were easy to understand (means were 19-to-29 male=6.0; 19-to-29 female=6.3; 30-to-64 male=5.9; 30-to-64 female=6.3; 65-to-80 male=5.7; 65-to-80 female=4.4). There were no statistically significant differences between age groups or genders on these measures. Sufficiency of advance warning and guidance accuracy were rated using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. The study showed that, generally, subjects thought the advance warning provided was more sufficient than insufficient (means were 19-to-29 male=5.0; 19-to-29 female=5.1; 30-to-64 male=5.6; 30-to-64 female=5.4; 65-to-80 male=5.2; 65-to-80 female=4.2) and that guidance accuracy was more sufficient than insufficient (means were 19-to-29 male=4.7; 19-to-29 female=5.1; 30-to-64 male=5.1; 30-to-64 female=5.1; 65-to-80 male=4.7; 65-to-80 female=3.4). There were no statistically significant differences between age groups or genders.

Subjects judged whether the visual displays helped them find their way using a scale anchored by "always" for one and "never" for seven. Responses showed that people generally thought that Ali-Scout helped them find their way about one-half of the time (means were 19-to-29 male=3.6; 19-to-29 female=3.9; 30-to-64 male=4.1; 30-to-64 female=3.7; 65-to-80 male=3.7; 65-to-80 female=5.9). There were no statistically significant differences between study groups. Finally, subjects judged their overall impression of the Ali-Scout displays using a seven-point scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. Responses showed that subject's overall impressions of the visual displays tended to be slightly more positive than neutral (means were 19-to-29 male=4.7; 19-to-29 female=4.9; 30-to-64 male=5.0; 30-to-64 female=5.2; 65-to-80 male=4.8; 65-to-80 female=4.4). Again, there were no significant differences between age groups or genders on this measure.

Subjects reported their level of distraction with the Ali-Scout displays in various scenarios using a seven-point scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. Subjects generally reported little distraction from Ali-Scout visual displays at night (means were 19-to-29 male=5.9; 19-to-29 female=6.6; 30-to-64 male=6.4; 30-to-64 female=5.8; 65-to-80 male=5.6; 65-to-80 female=5.9), during daylight hours (means were: 19-to-29 male=6.2; 19-to-29 female=6.5; 30-to-64 male=6.4; 30-to-64 female=6.2; 65-to-80 male=6.0; 65-to-80 female=5.9), in heavy traffic (means were 19-to-29 male=5.7; 19-to-29 female=6.6; 30-to-64 male=6.0; 30-to-64 female=6.1; 65-to-80 male=5.4; 65-to-80 female=5.1), in light traffic (means were 19-to-29 male=6,1; 19-to-29 female=6.4; 30-to-64 male=6.2; 30-to-64 female=6.3; 65-to-80 male=5.6; 65-to-80 female=5.7), when traveling along freeways (means were: 19-to-29 male=6.2; 19-to-29 female=6.1; 30-to-64 male=6.4; 30-to-64 female=6.4; 65-to-80 male=6.1; 65-to-80 female=5.9), or when traveling along other roads (means were 19-to-29 male=6.0; 19-to-29 female=6.5; 30-to-64 male=6.2; 30-to-64 female=6.3; 65-to-80 male=5.7; 65-to-80 female=5.7). There were no statistically significant differences

between genders or age groups on any of these measures.

Voice Guidance

Subjects were asked several questions about the Ali-Scout voice-guidance feature. On seven-point scales, subjects were asked to rate their level of difficulty for hearing and understanding the voice commands, the sufficiency of information and advanced warning provided, the level of distraction while driving, and their impressions of the sound of the voice and overall voice guidance feature. The scale for rating level of difficulty was anchored by the labels "very difficult" for one and "very easy" for seven. Average responses showed that subjects thought the voice was quite easy to hear (means were 19-to-29 male=6.3; 19-to-29 female=6.4; 30-to-64 male=6.8; 30-to-64 female=6.6; 65-to-80 male=6.1; 65-to-80 female=6.6) and understand (means were 19-to-29 male=6.2; 19-to-29 female=6.8; 30-to-64 male=6.8; 30-to-64 female=6.5; 65-to-80 male=6.3; 65-to-80 female=6.0). There were no statistically significant differences between age groups or genders for either measure. Sufficiency of information and advance warning provided was judged using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. Subjects generally reported that the amount of information given was sufficient (means were 19-to-29 male=5.3; 19-to-29 female=5.8; 30-to-64 male=6.1; 30-to-64 female=5.9; 65-to-80 male=5.9; 65-to-80 female=4.6) and was provided with enough warning (means were 19-to-29 male=5.0; 19-to-29 female=5.2; 30-to-64 male=6.1; 30-to-64 female=5.2; 65-to-80 male=5.8; 65-to-80 female=4.8). Again, there were no statistically significant differences between the study variables.

Level of distraction was rated using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. Responses showed that the voice feature was generally not distracting to respondents (means were 19-to-29 male=5.3; 19-to-29 female=5.3; 30-to-64 male=6.4; 30-to-64 female=5.6; 65-to-80 male=5.9; 65-to-80 female=5.6) with no significant differences between groups. The sound of the voice and overall impression of the voice guidance feature was

judged using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. Generally, responses showed that the sound of the voice was liked (means were 19-to-29 male=5.0; 19-to-29 female=5.8; 30-to-64 male=4.7; 30-to-64 female=4.9; 65-to-80 male=6.1; 65-to-80 female=6.1). A two-way ANOVA calculated on this measure showed a significant main effect of age group [$F(1,82)=4.45$; $p<.02$]. *Post hoc* tests revealed that this main effect resulted from the fact that respondents in the middle age group liked the sound of the voice less than those in the other age groups. No other effects or interactions were significant. The subjects also reported fairly positive overall impressions of the overall voice guidance feature (means were 19-to-29 male=5.1; 19-to-29 female=5.5; 30-to-64 male=5.5; 30-to-64 female=5.4; 65-to-80 male=5.9; 65-to-80 female=6.1), with no significant differences between study groups.

Ali-Scout Recommendations to Turn

Subjects were asked several questions about the turn recommendations (both visual and voice) of Ali-Scout. Using seven-point scales, subjects judged their frequency of following the recommendations, their reasons for not following the recommendations, and their preference for voice and/or visual recommendations. Respondents judged the frequency of following turn recommendations using a scale anchored by the labels "never" for one and "always" for seven. The study showed that subjects followed the recommendations more than one-half of the time (means were 19-to-29 male=4.9; 19-to-29 female=5.0; 30-to-64 male=4.6; 30-to-64 female=4.9; 65-to-80 male=4.9; 65-to-80 female=3.6) with no significant difference on this measure for age group or gender. Subjects were then asked to consider all the times they did not follow a recommendation and indicate how frequently various factors were part of their reason not to follow the recommendation using a scale anchored by "never" for one and "always" for seven. Table 5 shows the mean response for each factor by age group and gender. Within each factor, there were no significant differences between age groups or genders.

Table 5: Average Responses to How Frequently Each Factor was at Least Partially a Reason for not Following a Recommended Turn						
Factor	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Knew of a faster route	5.4	6.1	5.3	4.9	5.4	6.0
Thought turn would take them away from destination	3.2	3.9	3.8	4.1	4.2	4.0
Needed to make stops along the way	4.2	4.0	2.8	3.7	3.6	4.2
Thought that turn would lead into congestion	3.1	3.4	2.4	2.7	3.3	2.8
Recommendation provided too late	2.5	1.9	3.1	2.5	3.1	2.3
Recommendation not clear	2.1	1.9	2.6	2.3	1.9	3.1
Not enough room to merge	2.5	2.1	2.6	3.0	2.9	2.2
Other	4.6	4.2	3.3	4.3	3.5	2.7

Subjects were asked to think about the visual and voice displays used by the Ali-Scout system and indicate their preferred way for getting Ali-Scout recommendations. The results showed that the vast majority of respondents (83.9 percent) indicated a preference for voice and visual together over either the voice alone or visual alone. There were no significant differences between age groups or genders on this measure.

Achievement of System Wide Goals

Subjects were asked several questions about how they thought the Ali-Scout system changed their travel times, congestion avoidance, safety of driving, and fuel consumption. Subjects judged these items using a seven-point scale anchored by

the labels "reduced" for one and "increased" for seven, with a response of four indicating that Ali-Scout produced no change. The study showed that subjects perceived little change in their travel times (means were 19-to-29 male=4.1; 19-to-29 female=3.8; 30-to-64 male=4.1; 30-to-64 female=3.7; 65-to-80 male=3.4; 65-to-80 female=4.0), a slight reduction in congestion (means were 19-to-29 male=3.9; 19-to-29 female=3.6; 30-to-64 male=3.7; 30-to-64 female=3.7; 65-to-80 male=3.6; 65-to-80 female=3.7), little difference in safe driving (means were 19-to-29 male=3.8; 19-to-29 female=4.4; 30-to-64 male=4.5; 30-to-64 female=3.7; 65-to-80 male=3.7; 65-to-80 female=3.9), and no change in fuel consumption (means were 19-to-29 male=4.2; 19-to-29 female=3.6; 30-to-64 male=4.1; 30-to-64 female=3.9; 65-to-80 male=3.9; 65-to-80 female=4.3). There were no statistically significant differences between age groups or genders for any of these measures.

Ali-Scout Characteristics as a Whole

Subjects were asked several questions about the characteristics of Ali-Scout as a whole. On seven-point scales, subjects were asked to rate their level of difficulty for learning and understanding Ali-Scout, sufficiency of information and advance warning, the accuracy of guidance, whether they thought Ali-Scout helped them find their way, reduced their travel time and functioned properly, their level of distraction while driving, and their overall impression. The scale for rating the level of difficulty in learning and understanding Ali-Scout was anchored by the labels "very difficult" for one and "very easy" for seven. The study showed that subjects found the system fairly easy to learn (means were 19-to-29 male=5.7; 19-to-29 female=5.9; 30-to-64 male=5.5; 30-to-64 female=5.6; 65-to-80 male=4.9; 65-to-80 female=4.0). A two-way ANOVA showed that there was a significant main effect of age group [$F(2,82)=4.69$; $p<.02$]. *Post hoc* comparisons on this factor showed that the main effect resulted from respondents in the older age group reporting significantly more difficulty in learning the system than those in the other two age groups. There were no other significant effects on this measure. Respondents also reported that the Ali-Scout system was generally easy to understand (means were:

19-to-29 male=5.9; 19-to-29 female=6.7; 30-to-64 male=5.8; 30-to-64 female=6.1; 65-to-80 male=5.4; 65-to-80 female=4.8). A two-way ANOVA calculated on this measure showed that there was a significant main effect of age group [$F(2,81)=6.08$; $p<.005$]. *Post hoc* analyses showed that this effect resulted from the fact that the subjects in the 64-80 year old age group reported significantly more difficulty understanding Ali-Scout than subjects in the 19-to-29 year old age group. There were no other significant effects.

Sufficiency of information and advance warning was rated using a scale anchored by the labels "insufficient" for one and "sufficient" for seven. The results showed that respondents generally thought the amount of information given was sufficient (means were 19-to-29 male=4.9; 19-to-29 female=6.1; 30-to-64 male=6.2; 30-to-64 female=5.8; 65-to-80 male=5.2; 65-to-80 female=4.7) and that the advance warning was generally sufficient (means were 19-to-29 male=4.9; 19-to-29 female=5.3; 30-to-64 male=5.7; 30-to-64 female=5.6; 65-to-80 male=5.2; 65-to-80 female=4.7). There were no significant differences between age groups or genders on this measure. Accuracy of guidance was rated using a scale anchored by the labels "very inaccurate" for one and "very accurate" for seven. The results showed that subjects generally thought the system was accurate, but not overwhelmingly so (means were 19-to-29 male=4.0; 19-to-29 female=4.9; 30-to-64 male=4.6; 30-to-64 female=4.7; 65-to-80 male=4.5; 65-to-80 female=4.3). There were no statistically significant differences between genders or age groups on this measure.

Subjects judged whether the Ali-Scout system as a whole helped them find their way, reduced their travel time, and functioned properly by indicating their level of agreement with the statements: "the Ali-Scout system as a whole helped me find my way"; "the Ali-Scout system as a whole reduced my travel time"; and "the Ali-Scout system as a whole functioned properly." These scales were anchored by the labels "strongly disagree" for one and "strongly agree" for seven with a response of four indicating neither agreement nor disagreement. The results showed that

subjects neither agreed nor disagreed with the statement about Ali-Scout helping them find their way (means were 19-to-29 male=4.0; 19-to-29 female=4.7; 30-to-64 male=3.7; 30-to-64 female=4.4; 65-to-80 male=3.8; 65-to-80 female=2.9) with no significant differences between study groups. Subjects generally disagreed with the statement about Ali-Scout reducing travel times (means were 19-to-29 male=3.4; 19-to-29 female=4.0; 30-to-64 male=3.1; 30-to-64 female=3.6; 65-to-80 male=2.8; 65-to-80 female=2.1). A two-way ANOVA calculated on this measure revealed a significant main effect of age group [$F(2,81)=3.23$; $p<.05$). *Post hoc* analyses showed that this main effect resulted from the fact that subjects in the 65-to-80 year old age group disagreed more strongly that Ali-Scout reduced travel time than respondents in the youngest age group. There were no other significant effects. Subjects generally agreed with the statement that Ali-Scout functioned properly (means were 19-to-29 male=4.3; 19-to-29 female=4.9; 30-to-64 male=4.3; 30-to-64 female=5.2; 65-to-80 male=5.1; 65-to-80 female=4.0), with no significant differences between study groups.

Subjects judged the level of distraction while driving caused by the Ali-System as a whole using a scale anchored by the labels "very distracting" for one and "not at all distracting" for seven. Overall, subjects thought that the system was not distracting while driving (means were 19-to-29 male=5.4; 19-to-29 female=5.6; 30-to-64 male=6.0; 30-to-64 female=5.9; 65-to-80 male=5.6; 65-to-80 female=5.0). There were no significant differences on this measure between age groups or genders. Finally, subjects reported their overall impression of the Ali-Scout system using a scale anchored by the labels "strongly disliked" for one and "strongly liked" for seven. The study showed that, overall, subjects tended to like the system but not to a strong degree (means were 19-to-29 male=4.4; 19-to-29 female=5.3; 30-to-64 male=4.6; 30-to-64 female=5.1; 65-to-80 male=4.9; 65-to-80 female=4.4), with no significant differences between either of the study independent variables.

Beacon Coverage

Subjects were asked about their thoughts on the size of the beacon coverage area, the spacing between the beacons in the coverage area, and the frequency of beacon malfunction. Subjects judged the size of the beacon coverage area using a scale anchored by the labels "coverage area too small" for one and "coverage area too large" for seven, with a response of four indicating that the size of the coverage area was just right. The results showed that subjects thought the beacon coverage area was too small (means were 19-to-29 male=2.1; 19-to-29 female=2.8; 30-to-64 male=2.0; 30-to-64 female=2.0; 65-to-80 male=2.1; 65-to-80 female=2.6), with no differences observed between study groups. Respondents judged the beacon spacing using a scale anchored by the labels "beacons too far apart" for one and "beacons too close together" for seven, with a response of four indicating that the spacing was just right. Respondents reported that generally the beacons were spaced too far apart (means were 19-to-29 male=3.3; 19-to-29 female=3.1; 30-to-64 male=2.7; 30-to-64 female=2.9; 65-to-80 male=3.0; 65-to-80 female=3.8), with no statistical difference between age groups or genders. Finally, subjects judged the frequency of beacon malfunction using a scale anchored by the labels "never" for one and "always" for seven. The study showed that subjects experienced only infrequent beacon malfunction (means were 19-to-29 male=2.7; 19-to-29 female=3.3; 30-to-64 male=2.4; 30-to-64 female=2.6; 65-to-80 male=3.1; 65-to-80 female=2.9). There were no statistically significant differences between age groups or genders on this variable.

Use of the Ali-Scout System

Use by Type of Trip

Subjects were asked to rate how frequently they used Ali-Scout for their work commute, other work-related trips, recreational trips, and other personal trips. Subjects reported this frequency on a seven-point scale, anchored by labels "never" for one and "always" for seven. The average ratings by age group and gender are shown in table 6. A two-way ANOVA calculated on each variable separately

showed a significant main effect of age group for commuting [$F(2,76)=17.80$; $p<.0001$] and noncommuting work-trips [$F(2,71)=14.66$; $p<.0001$] and a significant interaction for noncommuting work-trips [$F(2,71)=5.57$; $p<.01$]. As expected, *post hoc* analyses showed that the age group effects resulted from members of the middle age group reporting more frequent use of Ali-Scout for work-related trips than members of the other age groups. The significant interaction resulted from the fact that all women in the oldest age group reported "never" using Ali-Scout for noncommuting work trips. There were no other significant main effects or interactions.

Table 6: Average Responses to How Frequently Ali-Scout was Used for Each Type of Trip by Age Group and Gender

Type of Trip	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Commuting to Work/School	6.1	5.9	3.4	5.8	7.0	2.7
Work-Related (Non-Commuting)	3.9	4.3	2.5	2.9	6.4	1.0
Recreational	5.6	4.8	4.5	5.0	4.1	5.1
Other Personal	5.5	5.2	5.6	4.7	4.8	6.3

Ali-Scout Driving Compared to Driving Without the Ali-Scout

Subjects answered several questions in which they were asked to rate the extent to which Ali-Scout changed their attention to various driving-related factors, changed various emotions while driving, and changed the frequency of certain driving experiences as compared to their driving without Ali-Scout. Subjects indicated their change in attention to various traffic-related factors using a scale anchored by the labels "much less attention" for one and "much more attention" for seven, with a response of four indicating no change. Table 7 shows the average

responses on these measures for each factor by age group and gender. In general, subjects reported no change in their attention to any of the factors investigated. Two-way ANOVAs calculated on each factor separately showed no significant differences between age groups or genders on any factor, except for attention to mirrors. This factor showed a main effect of gender [$F(1,82)=4.41$; $p<.05$], with women reporting that Ali-Scout slightly decreased their attention, and men reporting that Ali-Scout slightly increased their attention to mirrors.

Table 7: Average Responses to How Frequently Ali-Scout Changed their Attention to Several Driving-Related Factors as Compared to Driving Without Ali-Scout (1=much less; 7=much more)

Factor	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Traffic Conditions	4.0	4.2	4.5	4.4	4.6	4.1
Traffic Signals	4.2	4.0	4.4	4.8	4.5	3.8
Traffic (Road) Signs	4.2	3.9	4.3	4.2	4.3	4.1
Street Signs	4.2	4.2	3.9	4.3	4.1	4.0
Street Addresses	4.3	4.3	3.6	4.1	4.1	3.6
Speedometer	4.2	3.8	4.7	4.2	3.9	3.8
Mirrors	4.4	4.1	4.5	4.1	3.5	4.0
Fuel Gauge	4.2	3.9	3.9	4.1	3.8	3.2

Subjects indicated the extent to which Ali-Scout changed their emotions while driving, as compared to driving without Ali-Scout. Respondents indicated changes in level of several different emotions using a scale anchored by the labels "always less with Ali-Scout" for one and "always more with Ali-Scout" for seven, with a response of four indicating no change. Table 8 shows the average responses for each emotion as a function of age group and gender. Overall, subjects reported that the Ali-Scout system slightly decreased their nervousness, feelings of

confusion, levels of stress, and feelings of frustration while driving. The Ali-Scout system slightly increased respondent's feelings of confidence, attentiveness, feelings of safety, and feelings of relaxation while driving. Two-way ANOVAs calculated on each emotion showed several significant effects. First, there was a significant effect of gender for changes in nervousness, with women reporting a greater decrease in feelings of nervousness while driving than did men [$F(1,83)=4.57$; $p<.05$]. There was a significant main effect of gender [$F(1,82)=5.05$; $p<.05$] and age group [$F(2,82)=3.29$; $p<.05$] for feelings of attentiveness, with women reporting a greater increase in attentiveness when using Ali-Scout than the increase in attentiveness reported by men. *Post hoc* comparisons showed that the age group effect resulted from respondents in the youngest age group reporting less increase in attentiveness than respondents in the other two age groups. Finally, there was a significant interaction between gender and age group for feelings of safety [$F(2,81)=3.30$; $p<.05$], with 19-to-29 year old men and 65-to-80 year old women reporting slight decreased feelings of safety, and all other groups showing slight increased feelings of safety. No other effects were significant.

Table 8: Average Responses to How Frequently Ali-Scout Changed Several Emotions as Compared to Driving Without Ali-Scout (1=always less with Ali-Scout; 7=always more with Ali-Scout)

Factor	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Nervous	3.8	4.0	3.8	3.3	2.9	4.0
Confident	4.4	4.5	4.1	5.1	4.6	4.1
Confused	3.9	4.1	3.6	4.1	3.3	3.1
Attentive	4.1	4.8	4.9	4.8	5.4	5.1
Safe	3.9	4.5	4.5	4.5	4.7	3.7
Stressed	3.9	3.8	3.4	4.1	3.3	4.0
Relaxed	4.3	4.0	4.1	4.6	4.1	3.7
Frustrated	4.1	3.9	3.5	4.4	3.2	3.9

Again, subjects were asked to compare their driving with Ali-Scout to their driving without Ali-Scout and to indicate the extent to which various traffic-safety-related incidents occurred. Respondents indicated this extent using a scale anchored by the labels "always less with Ali-Scout" for one and "always more with Ali-Scout" for seven, with a response of four indicating no change. Table 9 shows the average ratings for traffic-safety-related incidents by age group and gender. As can be seen in this table, respondents tended to report slight decreases in all traffic-safety-related incidents when using Ali-Scout. Two-way ANOVAs calculated separately on each incident, showed no significant main effect or interactions except for a significant main effect of gender for the frequency of running a red light [$F(1,77)=5.19$; $p<.05$]. In this case, women reported a greater decrease in the occurrence of this event than did men.

Table 9: Average Responses to How Frequently Ali-Scout Changed the Occurrence of Various Traffic-Safety-Related Incidents as Compared to Driving without Ali-Scout (1=always less with Ali-Scout; 7=always more with Ali-Scout)

Factor	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Crashes	3.2	3.6	3.5	3.4	2.4	3.0
Missed Stop Signs	3.4	3.7	3.5	3.5	2.4	3.0
Ran Red Light	3.6	3.8	3.4	3.3	2.6	3.0
Ran Off Road	3.6	3.8	3.5	3.5	2.6	3.0
Crossed Lane Marker	3.7	3.8	3.5	3.9	2.6	3.0

Crashes and Near Crashes

None of the subjects reported being in a crash while driving the Ali-Scout-equipped vehicle in this study. Overall, six subjects (5.9 percent) reported experiencing a near-crash. These subjects were asked about the extent of Ali-

Scout involvement in that incident. One subject reported that Ali-Scout was "the main factor," one subject reported the Ali-Scout was "a contributing factor" and the other four subjects reported that Ali-Scout was "not at all a factor."

Valuation

Ali-Scout as a Source of Route-Guidance Information

Subjects were asked to rate several sources of route-guidance information, including Ali-Scout, on quality of the source and whether they would like to use it while driving in an unfamiliar area. Subjects rated the quality of several route-guidance sources using a scale anchored by the labels "poor" for one and "excellent" for seven. Table 10 shows the average ratings for each source by age group and gender. As shown in this table, all sources of route-guidance information are generally rated positively (i.e., greater than four), with written instructions and standard road maps being the most positively rated. A two-way ANOVA calculated on each source separately, showed that there was a significant main effect of age group for verbal directions from a passenger [$F(2,83)=3.36$; $p<.05$], with respondents in the oldest age group rating this source to be of lower quality than those in the youngest age group. All other effects were nonsignificant.

Table 10: Average Ratings of the Quality of Several Sources of Route-Guidance Information by Gender and Age Group (1=poor; 7=excellent)

Factor	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Standard Road Map	5.2	6.3	5.9	5.8	5.0	6.2
Verbal Directions from a Passenger	5.6	5.0	4.1	4.8	4.6	4.4
Verbal Directions from Other People	4.8	4.6	4.0	4.3	4.3	3.5
Written Directions	5.3	5.8	5.4	5.6	6.0	5.5
Ali-Scout	4.7	5.4	5.0	5.3	5.3	3.7

Subjects were asked to indicate which of the same sources of route-guidance information they would like to use while diving in an unfamiliar area. Subjects made this judgment using a scale anchored by the labels "definitely would not like" for and "definitely would like" for seven. Table 11 shows the average judgments for each source by age group and gender. As shown in this table, all sources of route-guidance information were liked by respondents at least to some degree (i.e., greater than four), with written instructions and standard road maps being the most positively rated. There were no significant effects of gender or age groups.

Table 11: Average Judgments of Desire to Use Several Sources of Route-Guidance Information While Driving in an Unfamiliar Area by Gender and Age Group (1=definitely would not use; 7=definitely would use)

Factor	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Standard Road Map	5.6	6.4	6.1	5.5	5.2	6.6
Verbal Directions from a Passenger	5.2	5.4	3.6	5.2	4.9	5.3
Verbal Directions from Other People	5.0	4.9	3.6	4.4	4.3	4.8
Written Directions	5.6	6.1	5.3	6.2	5.6	6.2
Ali-Scout	5.1	5.9	5.3	5.3	5.5	5.8

Willingness to Pay

Subjects were asked several questions related to the valuation of the Ali-Scout system. For the purpose of answering the questions, subjects were asked to assume that the Ali-Scout system was available nationwide. Given this scenario, subjects rated how useful they thought the Ali-Scout system would be for various

types of trips and how much they would be willing to pay for the system. Subjects indicated how useful they thought Ali-Scout would be for various trip types using a scale anchored by the labels "not at all useful" for one and "extremely useful" for seven. Table 12 shows the average responses for the four types of trips by age group and gender. As shown in this table, respondents thought that Ali-Scout would be most useful for out-of-town vacation and business trips. Subjects also tended to report that Ali-Scout would not be useful for local nonwork driving. There were no significant differences between age groups and genders.

Table 12: Average Ratings of Ali-Scout Usefulness for Various Trip Types by Gender and Age Group (1=not at all useful; 7=extremely useful)

Trip Type	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Commuting	4.1	4.2	4.7	4.3	4.8	4.4
Out-of-Town Vacation	5.5	5.9	5.6	6.3	5.5	4.7
Out-of-Town Business	5.8	5.9	5.6	6.2	5.5	4.7
Local Nonwork Driving	3.8	3.1	3.6	3.8	4.8	3.2

Next, subjects were asked to assume that they had $2,500 to spend on options for a new vehicle. They were presented with a list of options and costs for the options and asked to identify which options they would purchase without exceeding their allotment. Table 13 shows the percentages of respondents who selected each option as a function of age group and gender.

Table 13: Percentages of People within Each Age Group and Gender who Selected the Various Options for A new Car						
Trip Type	Male			Female		
	19-29	30-64	65-80	1929	30-64	65-80
Air Conditioning ($650)	87.5	88.2	100.0	87.5	94.1	66.7
Driver Air Bag ($400)	81.3	82.4	66.7	87.5	76.5	66.7
Power Locks ($250)	50.0	82.4	86.7	81.3	76.5	66.7
Power Windows ($300)	56.3	70.6	86.7	75.0	70.6	58.3
Power Mirrors ($100)	31.3	41.2	66.7	25.0	41.2	50.0
CD Player ($250)	75.0	41.2	6.7	43.8	35.3	16.7
Power Sunroof ($500)	31.3	23.5	0.0	31.3	11.8	0.0
Cassette Player ($150)	12.5	41.2	53.3	62.5	23.5	41.7
Ali-Scout ($500)	43.8	29.4	40.0	43.8	52.9	16.7
Car Alarm ($300)	37.5	35.3	53.3	25.0	41.2	25.0
Cellular Phone ($500)	31.3	17.6	40.0	25.0	35.3	50.0
Inter. Child Seat ($150)	37.3	35.3	13.3	12.5	11.8	8.3
Passenger Air Bag ($400)	3.8	3.1	3.6	3.8	4.8	3.2
Trip Computer ($1,000)	0.0	0.0	0.0	0.0	0.0	0.0

Subjects were asked to indicate how much they would be willing to pay for Ali-Scout as an option on new car, to add to their present car, and per day for the system on a rental car by writing a dollar amount for each situation. Table 14 shows the average dollar amounts indicated by age groups and gender. Overall, subjects were willing to pay about $256 to have Ali-Scout on a new car, with no significant differences between age groups or genders. Subjects were willing to pay about $181 to have Ali-Scout added to their present car, with no significant differences between study groups. Finally, men were willing to pay only $3.70 for Ali-Scout as

an option on a rental car, whereas women were willing to pay $7.40. This difference was statistically significant [F(1,73)=4.24; $p<.05$].

Table 14: Average Dollar Amount Respondents were Willing to Pay for Ali-Scout by Age Group and Gender

Situation	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Option on a New Car	294	416	183	285	267	89
To Add to Present Car	182	294	57	223	203	72
Per Day as Option on Rental Car	4	3	4	10	8	1

Who Should Pay for Ali-Scout Infrastructure?

In order to function properly, Ali-Scout requires two additional components to support the in-vehicle equipment. As discussed previously, these out of vehicle components, which comprise the system's infrastructure, are roadside beacons for communications between Ali-Scout and the traffic operations center and a central computer to receive information, maintain and update the network travel time data base, and calculate Ali-Scout routes. Installation, operation, and maintenance of this infrastructure require financial investment above the price of the in-vehicle Ali-Scout system. Subjects were asked to indicate who they thought should pay these costs. They indicated their choices by selecting from a list all those entities who they thought should pay at least part of the infrastructure cost. Table 15 shows the percentage of respondents who selected each entity by age group and gender. The entities are ordered by frequency of selection. There were no significant differences by age group or gender for any entity. Subjects were then asked to indicate, of the entities they selected, which entity they thought should bear the primary cost. Of those answering this question, the majority indicated that manufacturers of products like Ali-Scout should bear the primary cost of infrastructure.

Table 15: Percentages of People Selecting an Entity as at Least Partially Responsible for Financially Supporting Ali-Scout-Like Infrastructure by Age Group and Gender

Entity	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Individual Users	56.3	76.5	73.3	68.8	58.8	66.7
Manufactures of Ali-Scout-Like Products	62.5	64.7	80.0	62.5	35.5	50.0
Commercial Users	31.3	64.7	66.7	50.0	52.9	66.7
State Government	43.8	29.4	73.3	25.0	47.1	33.3
County Government	25.0	17.6	6.7	31.3	47.1	16.7
Car Manufactures	18.8	23.5	20.0	25.0	23.5	16.7
Federal Government	25.0	11.8	13.3	6.3	35.3	16.7
City Government	12.5	17.6	0.0	37.5	23.5	8.3
Some Other Entity	6.3	0.0	0.0	6.3	0.0	0.0

One option for funding the installation, operation, and maintenance of the Ali-Scout infrastructure is to charge users a monthly user fee for service. Subjects were asked to indicate how much they would be willing to pay per month for such a service by writing a dollar amount. The results showed that, overall, subjects were willing to pay about $11 per month for this service (means were 19-to-29 male=$9.20; 19-to-29 female=$14.10; 30-to-64 male=$7.10; 30-to-64 female=$17.40; 65-to-80 male=$8.10; 65-to-80 female=$12.50). A two-way ANOVA showed a significant main effect of gender, with women willing to pay significantly more for the service than were men [$F(1,84)=5.72$; $p<.05$].

Importance of Potential Benefits from Systems Like Ali-Scout

Subjects were asked to consider the operation of systems like Ali-Scout and rate the importance of such systems on fuel savings, reduced air pollution, traffic safety, reduced highway congestion, accurate route guidance, diverting traffic into neighborhoods, ease of use, and quick updates of road conditions. Subjects rated these factors using a scale anchored by the labels "not at all important" for one and "extremely important" for seven, with a response of four indicating that it is neither important nor unimportant. The average importance rating for each factor by age group and gender is shown in Table 16. The factors are listed in order of highest to least importance. Two-way ANOVAs calculated on each factor separately revealed several significant effects. First, there were significant main effects of gender for ease of use [$F(1,83)=6.06$; $p<.02$], relief of highway congestion [$F(1,83)=8.23$; $p<.01$], traffic safety [$F(1,83)=10.42$; $p<.005$], and reduced air pollution [$F(1,81)=5.61$; $p<.05$]. In all cases, the significant effect resulted from women rating the factor significantly more important than men. Second, there were significant main effects of age group for ease of use [$F(2,83)=4.24$; $p<.05$], quick updates of road conditions [$F(2,82)=3.92$; $p<.05$], traffic safety [$F(2,83)=4.46$; $p<.02$], and reduced air pollution [$F(2,81)=3.88$; $p<.05$]. *Post hoc* analyses showed that in all cases the significant effect resulted from the fact the respondents in the oldest age group rated that factor to be lower in importance than those in the middle age group, except for ease of use, which the respondents in the oldest age group rated to be lower in importance than did both other age groups. There were no significant interactions.

Table 16: Average Ratings of Importance for Factors in the Operation of Ali-Scout-Like Systems by Age Group and Gender						
Entity	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Ease of Use	6.2	6.1	5.1	6.5	6.6	6.1
Quick Update of Road Conditions	6.3	6.2	5.0	6.3	6.6	6.2
Accurate Route Guidance	6.1	5.9	5.6	6.4	6.5	5.4
Relief of Highway Congestion	5.6	5.6	4.6	6.1	6.6	6.0
Traffic Safety	4.8	5.3	3.8	5.7	6.5	5.3
Traffic Diverted into Neighborhoods	4.2	4.3	4.9	4.6	4.8	4.1
Reduced Air Pollution	3.3	4.4	2.6	4.8	5.0	3.6
Fuel Savings	3.6	4.1	2.8	5.0	4.5	3.4

Destinations Entered in Ali-Scout Memory

After a vehicle was returned by the subject, all destinations left in Ali-Scout's memory were recorded and erased (except for the ten the unit started with). For each subject, the number of entered destinations was tallied. It is possible that subjects erased destinations before giving back the Ali-Scout unit even though they received no instructions to do so. Only one subject reported erasing destinations (because he did not like scrolling though a long list of destinations). Table 17 shows the average number of entered destinations as a function of both age group and gender. A two-way ANOVA showed that there was a significant main effect of age group [$F(1,80)=3.64$; $p<.05$]. All other effects and interactions were nonsignificant. *Post hoc* analyses showed that the age group effect resulted from the fact that people in the 65-to-80 year old age group entered significantly more destinations than did those in the 19-to-29 year old group. There were no statistically significant differences between the 30-to-64 year old group and the other two groups. Note in table 17, that women in the 65-88 year old age group, on average, entered more destinations than any other group. Debriefing at vehicle return revealed that most of the subjects in this category worked with their spouses as a team using Ali-Scout.

Table 17: Average Number and Standard Deviation (sd) of Destinations Left in Ali-Scout Memory by Age Group and Gender.

		Age Group		
		19-to-29	**30-64**	**65-80**
Gender	**Male**	11.9 (7.5)	11.4 (6.5)	14.0 (11.4)
	Female	7.1 (7.6)	8.8 (7.2)	18.5 (18.2)

Driver Logs

Study participants were asked to keep records of all trips in which they drove the test vehicle. As mentioned previously, subjects were given a package containing a three-ring binder with driver log instructions, a driver log sheet for each of the 28 days of participation, and three stamped, addressed envelopes for the weekly return of driver log sheets (see appendix D). Participants were asked to mail the completed driver log sheets to UMTRI weekly for the first three weeks and to turn in the log sheets for the fourth week when they returned the vehicle. For each trip in the Ali-Scout vehicle, subjects were asked to record the city, town, or village of the origin and destination, trip purpose, time of day of the start of the trip, the trip length in miles, whether or not the Ali-Scout was used, and whether or not Ali-Scout went into guided mode (indicating that a beacon was passed and turn-by-turn instructions were received). In addition, subjects were asked to record any unusual driving experiences and problems using Ali-Scout.

Counting all driver logs received, a total of 7,257 trips were recorded. Table 18 shows the average number of trips per person and the number of study participants reporting trips in the test vehicle for each of the four weeks of participation by gender and age group. Overall, the average number of trips driven with the test vehicle was 22.9 per week. A two-by-three-by-four (gender- by-age group-by week number analysis of variance (three-way ANOVA) revealed that subjects reported significantly more trips in the first week than they did in the fourth week of participation [$F(3,316)=3.15$; $p<.05$]. This same analysis also showed that drivers in the oldest age group generally reported more trips per week than did the drivers in the youngest age group [$F(2,316)=3.67$; $p<.05$]. There was no significant difference in the number of trips per week by gender.

Table 18: Average Number of Reported Trips by Week and Number of Respondents (n) by Gender and Age Group						
	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Week 1	24.6 (15)	27.9 (16)	24.7 (13)	23.1 (16)	26.7 (13)	23.1 (10)
Week 2	21.1 (14)	21.1 (15)	22.8 (13)	20.9 (15)	20.8 (12)	24.3 (9)
Week 3	19.5 (15)	23.4 (15)	25.8 (13)	23.4 (15)	23.3 (12)	32.3 (8)
Week 4	17.8 (13)	20.3 (15)	24.5 (13)	16.3 (15)	22.4 (14)	21.7 (8)

There are at least two possible explanations for the significant effect of week number. It may be that people simply got tired of recording trips as the experiment progressed and recorded fewer trips as the weeks passed. An alternative explanation is that during the first week of participation, there was a novelty effect of having a system designed for navigation assistance. This novelty led to people taking extra trips during the first week to try out the system. Support for this latter explanation comes from the comments made on the driver logs, where the majority of comments related to testing the system were written on driver log sheets for the first week.

We explored the time of day when subjects drove the Ali-Scout equipped vehicles by categorizing the reported time of trips into periods of time that are associated with different levels of traffic. These periods were: 6:31 AM to 8:30 AM (AM peak period); 8:31 AM to 11:30 AM (AM base period); 11:31 AM to 1:30 PM (noon); 1:31 PM to 4:30 PM (PM base period); 4:31 PM to 6:30 PM (PM peak period); 6:31 PM to 11:30 PM (evening); and 11:31 PM to 6:30 AM (night). The distribution of the trips made with the Ali-Scout vehicle by gender and age group is shown in figure 5. As can be seen in this figure, there is a clear difference in the

frequency of trip-taking by time of day between age groups, with drivers in the younger two age groups tending to drive at times different than the times of drivers in the oldest age group; that is, drivers in the younger two age groups make a greater percentage of trips during later time periods and a lesser percentage of trips during the morning time periods than drivers in the oldest age group. These patterns of trip making by time of day are ones that would be expected if subjects used the vehicles in their everyday, natural driving.

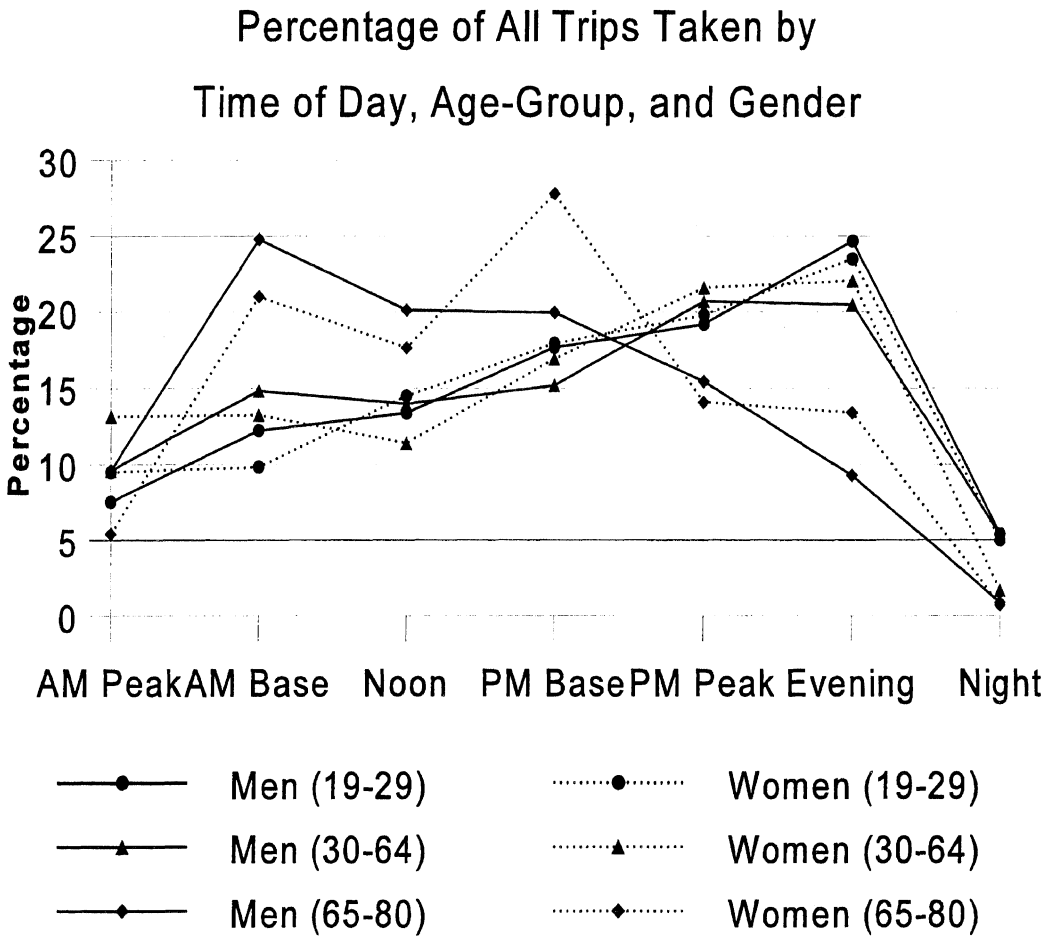


Figure 5: Frequency distribution of times in which trips were taken with the Ali-Scout vehicle by age group and gender.

We also examined the type of trips for which the Ali-Scout vehicle was used by gender and age group. The distribution of trip purposes by gender and age group is shown in table 19, sorted from most to least frequent. As expected, the largest percentage of trips made by all subjects was to go home, which represents the return part of their travels during each day. The next most common trip purposes, work and shopping, were also not surprising. Looking at the trip purposes by age group, we find little difference between the two youngest age groups and interesting differences between these two age groups and the older group. After the trip purpose of going home, the second and third most common purposes for those in the oldest age group were personal business and shopping. Considering frequency of trip purposes by gender we find that women made a higher percentage of trips for shopping and serving passengers than did men. The patterns of trip purpose by gender and age groups found here are similar to those typically observed and supports the contention that the subjects used the test-vehicle and Ali-Scout system in a natural way.

Table 19: Trip Purpose as Percentage of Reported Trips by Gender and Age Group						
Trip Purpose	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Home	35.3	35.4	37.9	31.8	33.8	32.4
Work	16.2	24.3	7.3	15.6	24.5	1.6
Shopping	8.3	12.9	14.6	10.9	13.8	20.7
Personal Business	6.0	10.2	16.2	7.1	7.1	14.6
Social/Recreational	13.1	5.0	7.7	11.2	8.2	11.7
Eat Meal	7.1	5.6	8.4	6.3	5.0	7.3
School	10.2	0.7	0.2	10.3	0.5	0.1
Serve Passenger	0.6	3.0	1.7	4.8	3.4	4.3
Church	1.5	1.0	3.3	0.4	1.9	2.3
Medical	0.4	1.3	1.8	0.7	1.0	2.2
Unknown	0.6	0.1	0.2	0.6	0.3	1.7
Other	0.6	0.6	0.8	0.4	0.5	1.1

For each trip taken, subjects were asked to report if the Ali-Scout unit was used and whether or not it went into guided mode. Table 20 shows the number of reported trips in which Ali-Scout was used and the total number of reported trips by week number, gender, and age group. A three-way ANOVA revealed that the drivers in the oldest age group reported a significantly greater percentage of trips in which Ali-Scout was used than drivers in the youngest age group [$F(2,310)=6.77$; $p<.005$]. No other effects or interactions were significant. Table 21 shows the percentage of reported trips in which Ali-Scout went into guided mode (indicating that turn-by-turn instructions were received for some part of the trip) and the total number of trips in which drivers answered the guided mode question by week

number, gender and age group. A three-way ANOVA found that drivers in the oldest age group also reported a significantly greater percentage of trips in which turn-by-turn instructions were received when compared to drivers in the youngest age group [$F(2,300)=3.75$; $p<.05$]. Collectively these results suggest that drivers in the oldest age group may have made more trips within the test-area and therefore used Ali-Scout more frequently, or that drivers in this age group found Ali-Scout navigation assistance to be more useful than younger drivers.

Table 20: Percentage of Trips where Ali-Scout was Used and Total Trips Reported (n) by Week Number, Gender, and Age Group

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Week 1	80.8 (364)	80.5 (406)	76.5 (307)	67.8 (366)	75.8 (343)	81.9 (226)
Week 2	77.6 (295)	80.1 (342)	84.4 (289)	64.1 (309)	71.1 (249)	85.2 (216)
Week 3	74.1 (290)	79.1 (339)	77.7 (328)	68.2 (349)	71.2 (278)	93.3 (254)
Week 4	76.2 (227)	79.6 (299)	74.8 (314)	71.2 (243)	68.5 (311)	90.0 (170)

Table 21: Percentage and Number (n) of Trips in Guided Mode by Week Number, Gender, and Age Group						
	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Week 1	65.0 (317)	68.9 (354)	61.8 (272)	53.4 (322)	60.6 (284)	43.5 (200)
Week 2	61.4 (264)	65.5 (304)	59.6 (255)	44.8 (279)	69.0 (187)	47.5 (200)
Week 3	69.1 (243)	74.7 (301)	60.9 (279)	54.8 (314)	67.8 (230)	55.4 (242)
Week 4	63.9 (208)	78.1 (256)	56.6 (274)	59.4 (219)	56.9 (248)	54.1 (157)

As a way of further examining the use of the test vehicles and the Ali-Scout system in the study area, we investigated the reported origins and destinations of trips to determine their location relative to the study area, as well as whether or not the trip was reported to have been at least partially guided (i.e., went into guided mode). As part of the trip reports on the daily driver log sheets, subjects were asked to record the city, town, or village of the origin and destination of their trips. The origins and destinations of the reported trips were categorized by whether both the origin and destination were in the study area, either the origin or destination were in the study area but not both, or neither the origin nor the destination were in the study area. For the latter case, it is possible to get turn-by-turn guidance if the trip goes through the study area.

Origin and destination information was available for 5,405 trips. Table 22 shows the percentage of trips for which Ali-Scout was reportedly used (the top number in each cell), the percentage of trips for which turn-by-turn instructions were reported to have been received (the middle number in each cell), and the total number of reported trips in which origins and destinations were reported (the bottom

number in each cell) by gender, age group, and origin-destination location. As can be seen in this table, for trips in which either the origin or destination or both were in the study area, Ali-Scout was used on a high percentage of trips (86 percent) and turn-by-turn instructions were received on a high percentage of trips (61 percent of trips). When neither the origin nor destination were in the study area, Ali-Scout was used on only about 41 percent of trips and turn-by-turn instructions were reported on a very small percentage of trips (18 percent). Comparing across age groups we find little difference, except for the trips in which either the origin or destination were in the study area for youngest age group, where these drivers reported using Ali-Scout less often and receiving turn-by-turn instructions less often than drivers in the other age groups. Finally, comparing across genders shows that female drivers reported using Ali-Scout more frequently on trips in which both the origin and destination were out of the study area, but little difference on receiving turn-by-turn instructions for trips with these origins and destinations.

Table 22: Percentage of Trips where Ali-Scout was Used, Percentage of Trips in Guided Mode, and Total Trips by Gender, Age Group, and O-D Location

O-D Location	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Both Origin and Destination in Study Area	85.9 64.7 (788)	87.8 64.2 (843)	92.7 74.5 (770)	78.2 71.5 (629)	94.0 65.1 (519)	95.9 48.8 (391)
Either Origin or Destination in Study Area	78.0 39.9 (168)	85.9 72.9 (192)	82.4 36.1 (108)	68.3 55.2 (268)	89.0 62.5 (283)	92.1 72.7 (88)
Neither Origin nor Destination in Study Area	40.9 18.2 (22)	18.9 5.4 (37)	36.7 30.0 (30)	59.5 3.9 (153)	22.4 8.2 (85)	64.5 40.0 (31)
Total	83.5 64.5 (978)	85.1 71.8 (1072)	89.7 60.5 (908)	73.0 53.1 (1050)	85.6 62.6 (887)	93.3 51.5 (510)

Study participants were asked to indicate in the appropriate blank space on the daily driver log sheet any unusual driving experiences or problems that they had with the Ali-Scout system. In all, there were 763 comments recorded. These comments were analyzed for content and sorted into categories. The verbatim responses can be found in appendix H. Table 23 contains the frequency and percentage of each type of comment sorted by gender and age group. The comments are listed from most frequent to least frequent. Overall, the most frequent comment was that the subject did not believe the route selected by Ali-Scout was the best route to the destination. The majority of comments in this category were related to the fact that Ali-Scout instructed them to a make a turn that they believed would take them in the wrong direction, into congestion or traffic, or onto a closed road. Several others commented that the Ali-Scout route was not the fastest route.

The second most frequent comment for subjects was that they lost guidance despite following Ali-Scout's instructions. In many of these cases, the person got the left-recommended-route display when they believed that they were following the recommendations. The next most frequent type of comment was that a beacon was not functioning properly. Subjects were asked, in particular, to report these occurrences so that nonfunctioning beacons could be repaired quickly. Subjects also indicated frequently that they thought the system was inaccurate. Most of these comments were related to the fact that Ali-Scout showed a destination to be still some distance away when the subject had already arrived at the destination. Such problems can occur when errors build up in the Ali-Scout's dead-reckoning calculation of vehicle position between beacons.

About 7 percent of the comments were reports of a positive experience with Ali-Scout, such as everything working perfectly. This is a high percentage since people generally have a tendency to make few comments when they are happy with something while making many comments when they are not.

Table 23: Frequency and Percentage (%) of Driver Log Comments by Category, Gender and Age Group						
	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Did not agree with Ali-Scout selected route	20 (13.7)	29 (19.9)	20 (16.4)	13 (12.6)	27 (17.3)	12 (13.3)
Lost guidance despite following instructions	28 (19.2)	20 (13.7)	23 (18.9)	16 (15.5)	8 (5.1)	8 (8.9)
Thought beacon not working	13 (8.9)	14 (9.6)	15 (12.3)	11 (10.7)	14 (9.0)	9 (10.0)
Thought system was inaccurate	7 (4.8)	12 (8.2)	3 (2.5)	8 (7.8)	11 (7.1)	18 (20.0)
Reported positive experience	6 (4.1)	15 (10.3)	10 (8.2)	8 (7.8)	8 (5.1)	7 (7.8)
Difficulty programming destination	7 (4.8)	7 (4.8)	2 (1.6)	7 (6.8)	10 (6.4)	5 (5.6)
Display unit not working properly	3 (2.1)	2 (1.4)	11 (9.0)	4 (3.9)	8 (5.1)	3 (3.3)
Difficulty finding destination	7 (4.8)	6 (4.1)	5 (4.1)	2 (1.9)	9 (5.8)	1 (1.1)
Trip mostly in autonomous-mode	10 (6.8)	5 (3.4)	4 (3.3)	2 (1.9)	4 (2.3)	2 (2.2)
Confused by non-driving related message	12 (8.2)	5 (3.4)	0 (0.0)	0 (0.0)	6 (3.8)	0 (0.0)
Inaccurate guidance	3 (2.1)	4 (2.7)	5 (4.1)	8 (7.8)	1 (0.6)	0 (0.0)
Autonomous mode information incorrect	6 (4.1)	1 (0.7)	3 (2.5)	1 (1.0)	1 (0.6)	3 (3.3)
Suggestions	4 (2.7)	0 (0.0)	1 (0.8)	3 (2.9)	0 (0.0)	2 (2.2)
Vehicle problems	1 (0.7)	1 (0.7)	0 (0.0)	1 (1.0)	1 (0.6)	1 (1.1)
Other	19 (13.0)	25 (17.1)	20 (16.4)	19 (18.4)	48 (30.8)	19 (21.1)
Total	146 (100)	146 (100)	122 (100)	103 (100)	156 (100)	90 (100)

The remaining comments are self-explanatory except for comments about confusing messages that were displayed by the Ali-Scout. These were FAST-TRAC project-level messages, occasionally broadcast by the traffic-operations center, which could not be understood by those using the system. For example, as new Ali-Scout guidance software became available subjects received a message that a new program version was available and a farewell message was sent to all Ali-Scout units when a high-level FAST-TRAC participant retired from the project. This same capability was used to let drivers know when dynamic guidance became available and when severe weather watches were in effect.

SUMMARY AND DISCUSSION

The purpose of the study was to determine how people use, what they think about, and what they would be willing to pay for the Ali-Scout in-vehicle navigation system. This study investigated these factors as a function of both gender and three age groups (19-to-29, 30-to-64, and 65-to-80 years old) by loaning volunteers test vehicles to use in their everyday driving for one month. One hundred and two people participated (17 in each gender and age group category). Volunteers completed a questionnaire and maintained a daily record of their driving and experiences with Ali-Scout.

Ali-Scout Operation and Displays

Overall, people were generally satisfied with the operation and displays of Ali-Scout. All subjects reported fairly frequent use of Ali-Scout, with one-third reporting that they used Ali-Scout for every trip taken with the test vehicle. Subjects reported that all four destination entry methods were easy to use, with the list of points of interest the easiest to use. Women in the oldest age group, however, thought the points-of-interest list was the most difficult to use. When asked about frequency of use, subjects reported that the map was used most frequently followed by the list of points of interest. All subjects also reported frequent use of destinations already in memory and found that this feature was fairly easy to use.

When asked about the Ali-Scout keyboard, subjects reported that it was easy to learn, somewhat easy to use, functioned properly the majority of the time, and left them with a generally positive impression. However, we also found that members of the oldest age group had more difficulty learning the keyboard and reported more lack of proper function than those in the youngest age group. This age group difference probably resulted from the fact that members of the oldest age group had less experience with technology, in particular computers (which use a keyboard), than members of the other age groups. We also noticed in the training that the

older volunteers had a tendency to keep keyboard buttons depressed for too long causing the character to repeat, which could be attributed to lack of experience with technology or an age-related reduction in manual dexterity.

The study showed that subjects understood the information contained in the displays very well. Surprisingly, however, only about eight in every ten people correctly understood the information in the follow-main-road display. This was surprising because it is the most commonly shown display when subjects were receiving the turn-by-turn instructions. This difficulty arose, undoubtedly, from the fact that the icon for this screen shows three arrows (to distinguish it from the single arrow used in autonomous guidance) instead of one. The present results suggest that a change in this icon may be beneficial.

Subjects also reported that the autonomous-mode, follow-main-road, prepare-maneuver, execute-maneuver, turn-arrow, countdown-bar, lane-recommendation, left-recommended-route, and destination-zone displays were all easy or somewhat easy to understand. However, those in the oldest age group had more difficulty understanding the autonomous-mode and the left-recommended-route displays than other respondents. Women reported more difficulty than men in understanding the left-recommended-route display and women in the oldest age group had significantly more difficulty understanding this display than those in any other group.

Subjects reported that the sufficiency of detail in the prepare-maneuver, execute-maneuver, turn-arrow, countdown-bar, and left-recommended-route displays were generally sufficient. Again, women in the oldest age group reported that the detail in the turn-arrow and countdown-bar display was less sufficient than those in the other age group and gender categories. Respondents in the oldest age group also reported that the detail in the countdown-bar display was significantly less sufficient than those in other age groups.

When asked about the amount of advance warning, subjects reported that prepare-maneuver and execute-maneuver displays provided warnings that were close to what was preferred with no difference between age groups or genders. Subjects reported that the turn-arrow, countdown-bar, and lane-recommendation parts of the execute-maneuver display provided advance warning that was generally more than preferred, with women reporting the advance warning to be closer to what was preferred than what men reported.

The study showed that the autonomous-mode, prepare-maneuver, execute-maneuver, turn-arrow, countdown-bar, lane-recommendation, and left-recommended-route displays caused little distraction to drivers. There was a significant effect of age group for the latter display showing that respondents in the middle age group reported less distraction for the left-recommended-route display than those of other age groups.

Overall, people reported that the follow-main-road, prepare-maneuver, execute-maneuver, turn-arrow, countdown-bar, and lane-recommendation displays were generally accurate. The autonomous-mode and destination-zone displays were judged to be only somewhat accurate. Since both of these displays show "crow-fly" information, this latter result indicates the lack of trust respondents had in this type of information. As with other measures, members of the oldest age group reported less accuracy for the autonomous-mode, execute-maneuver, and countdown-bar displays than members of the other age groups. Further, older women reported less accuracy for the countdown-bar and turn-arrow displays than did those in other study groups.

For all of the displays, subjects indicated their overall impressions. Impressions were fairly positive for all displays except for the autonomous-mode, left-recommended-route, and destination-zone displays. For these displays, overall impressions were just slightly more positive than neutral. There were no impression

differences between age groups or genders. The fact that all of these displays are related to autonomous-mode guidance (and the autonomous-mode and destination-zone displays were judged to be least accurate), suggests that people had a difficult time using autonomous or "crow-fly" guidance information. This may have been because of the actual display method or it may simply be that this type of information is difficult for people to process and understand.

Finally, subjects reported that they were close enough to final destinations when Ali-Scout switched over to autonomous-mode about two-thirds of the time, and that they could find their destinations without difficulty most of the time. However, those in the oldest age group reported significantly more difficulty finding destinations than those in the middle age group. This age effect again points out the fact that older users of systems similar to Ali-Scout may need information that is different or presented in a different form than younger users.

The Ali-Scout System as a Whole

As might be expected from the responses for the individual displays, subjects reported that the visual displays as a whole were easy to read under a variety of conditions, provided advance warning that was generally sufficient, and were fairly accurate with no differences between age groups or genders. Subjects also indicated that the displays helped them find their way about one-half of the time, that their overall impressions were positive, and that the displays caused little distraction while driving, again with no gender or age differences.

Subjects were also fairly positive in their assessment of the voice guidance feature of Ali-Scout. Respondents reported that the voice was quite easy to understand, the information and advance warning were sufficient, the voice was not distracting, the sound of the voice was generally liked, and the overall impressions were fairly positive. There were no differences between age groups or genders

except for opinions of the sound of the voice. Those in the middle age group reported liking the voice less than those in the other age groups.

Considering both the visual displays and the voice guidance, subjects reported following Ali-Scout recommendations about one-half of the time, with no differences between age groups or genders. Of those not following the recommendations all of the time, subjects reported that the most common reason for not following a recommendation was that they "knew of a faster route," followed by "need to make stops along the way." The first reason suggests a lack confidence in Ali-Scout's ability to provide the fastest route (whether it is true or not). This contention is supported by the fact that the largest percentage of driver log comments were related to the fact the people did not believe Ali-Scout was recommending the best route. The second reason suggests that people either do not plan their trips in advance, do not want to take the time to program into Ali-Scout all of their trips, or both.

Subjects reported that the Ali-Scout system did not produce a change in the system-wide variables of travel time, driving safety, and fuel consumption. Ali-Scout did, however, seem to produce a slight perceived reduction in traffic congestion. There were no differences between ages or genders on these measures.

When the entire Ali-Scout system was considered as a whole, again subjects' responses were generally positive. Subjects found the system to be easy to learn, easy to understand, the amount of information was generally sufficient, the amount of advance warning was generally sufficient, the system was fairly accurate, produced little distraction while driving, and the system was generally liked to some degree. Again, older respondents reported significantly more difficulty learning and understanding the system than younger respondents. This age effect highlights the importance of remembering that older users of ATIS do not have the previous experience with computers and other electronic technology that younger drivers

can use as a framework to help learn and understand new electronic technology. Subjects also tended to think that the Ali-Scout system as a whole functioned properly. Subjects were less enthusiastic in their opinions about how well Ali-Scout helped in wayfinding and reducing travel times.

Subjects thought that the beacon coverage area was too small. This was not surprising, since, as a test system, the area was limited in size. Subjects also reported that the spacing between beacons was generally too large. The spacing was a factor in the amount of time a subject spent in autonomous-mode at the start of a trip and when a subject left the recommended route or passed a beacon that was not functioning. The tested beacon density was roughly a beacon every two miles (or every other intersection) on the major roads in the test-area (see Figure 2). Subjects seemed to think that a beacon at every intersection would be optimal.

Use of the Ali-Scout System

As shown by the driver logs, subjects used the Ali-Scout system quite frequently during their month of participation and frequently received turn-by-turn instructions. Drivers in the oldest age group reported significantly more use and left significantly more destinations in memory than drivers in the other age groups. Driver log data also showed that drivers in the oldest age group tended to use the test vehicle and Ali-Scout at times of day that were different from the times of drivers in the other age groups. Collectively, these results highlight the fact that older drivers have distinctly different travel patterns and were quite willing to use Ali-Scout to assist their travel.

Subjects used Ali-Scout for trips that varied by age group. The two younger age groups used Ali-Scout for school or work commuting most frequently, and those in the older age group used the system most frequently for personal and recreational trips. These results were confirmed by the driver log data, which also showed that Ali-Scout was used frequently for shopping trips by the oldest age

group members and by women drivers. Subjects reported that, when compared to their non-Ali-Scout driving, their use of the Ali-Scout system produced little to no change in their attention to traffic conditions, traffic signals, road signs, street signs, street addresses, speedometer, mirrors, or fuel gauge. Subjects also reported that the Ali-Scout system slightly increased their feelings of confidence, attentiveness, safety, and relaxation while driving, while decreasing their feelings of nervousness, confusion, stress, and frustration. Women reported a greater decrease in nervousness than did men and a greater increase in attentiveness than did men. Those in the youngest age group reported a lesser increase in attentiveness than those in the other age groups. Thus, the Ali-Scout system, in general, seemed to improve the general driving situation for users.

Finally, as judged by self-report, the Ali-Scout system was safe for drivers to use. Subjects reported that Ali-Scout produced slight decreases in the frequency of several crash-related incidents, and no subject reported being in a crash. Of the few subjects that reported a near-crash (5.9 percent), three-fourths reported that Ali-Scout was not a contributing factor in the near-crash.

Valuation

In general, subjects rated Ali-Scout as both a good source of route-guidance information and one they would use in a unfamiliar area, but gave standard road maps and written instructions higher ratings. When asked about the usefulness of Ali-Scout for various types of trips, subjects indicated that Ali-Scout would be most useful for out-of-town vacation and business trips. They rated commuting and local nonwork driving lowest. These results point out the fact that the majority of users do not perceive great benefit of a route-guidance system in familiar, everyday trips. Rather, they want guidance in areas that are visited less often or with which they are completely unfamiliar. When asked about willingness to pay, we found that subjects were willing to pay only a limited amount of money to have the system placed in a new car, to add it to their present car, or to have it as an option on a rental car.

In order to function properly, the Ali-Scout system must have beacons and a traffic operations center. These components must be funded and maintained. We found that subjects generally thought that individual users, commercial users, and manufacturers of products like Ali-Scout should pay to support the infrastructure. Subjects also indicated that they would be willing to pay about $11 per month to support the infrastructure.

Subjects were asked to consider the potential benefits of systems like Ali-Scout. Subjects reported that the most important benefit would be a system that is easy to use. Next is the ability for quick update reports of road conditions. Least important are the society-wide benefits of reduced air-pollution and fuel savings. Thus, subjects in this study placed the highest importance of ITS benefits on factors related to themselves rather than factors related to the community in which they drove.

Conclusions

Overall, this study showed that the Ali-Scout system was received positively by the majority of drivers. Subjects were generally happy with the system's attributes and performance, and they used the system frequently for a variety of trip purposes. They reported that, in general, Ali-Scout improved their driving experience and seemed to reduce the traffic congestion that they encountered. The features receiving the worst assessment were generally related to autonomous-mode guidance. People simply had a difficult time using this type of information, did not trust this information, and did not like having to use autonomous-mode information when they left the recommended route or to find their final destinations. The study showed that there were few differences between genders or between the two youngest age groups. However, there were frequent differences between the oldest age group members and the other two age groups. Few of the oldest drivers were employed and consequently had different travel patterns than younger drivers.

They used the system more frequently and for different types of trips than did the drivers in the younger two age groups. More importantly, drivers in the oldest age group had greater problems in learning, understanding, and using the system. These problems were magnified in the women of this group, where several discontinued participation in the study because of difficulties in learning and using the system. These results show clearly that older drivers form a distinct group of potential ATIS users. In order to market ITS to this group, their unique travel patterns and level of experience with technology should be considered.

Appendix A:
Subject Recruitment Questionnaire

UMTRI
Social and Behavioral Analysis Division

FAST-TRAC Participation Survey

The University of Michigan
Transportation Research Institute

What is your full name? _____

What is your daytime phone number? _____

What is your home address? _____

_____

_____

What is the name and address of your workplace?

_____

_____

_____

Please write your date of birth in the space provided.

Month _____ Day _____ Year _____

Please indicate your gender by placing an *X* in the appropriate box.

☐ Male ☐ Female

Do you currently have a valid Michigan Driver License?

☐ Yes ☐ No

Please write your full *Driver License Number* in the space provided:

____ - _____-_____-_____-_____

How many years of driving experience do you have?

_____ years

Approximately how many miles do you drive in a year?

_____ miles

Do you currently own or lease your own vehicle?

☐ Yes ☐ No

What percent of your driving is within the FAST-TRAC study area (see map)?
Please circle the most appropriate point on the scale below.

0% 50% 100%

|_____|_____|_____|_____|_____|_____|_____|_____|_____|_____|_____|

How many points do you currently have on your driving record?

_____ points

In the last seven years, have you been convicted of an alcohol-related driving offense?

☐ Yes ☐ No

Have you ever been convicted of any crimes related to the use, distribution, or transportation of a controlled substance?

☐ Yes ☐ No

In the last seven years, have you been involved in a crash that was your fault?

☐ Yes ☐ No

Are you currently completing a sentence for a criminal and/or traffic offense (e.g., on parole, on probation, finishing community service)?

☐ Yes ☐ No

Appendix B:
Training Session Graphics

FAST-TRAC

*F*aster *A*nd *S*afer *T*ravel through *T*raffic *R*outing and *A*dvanced *C*ontrols

The University of Michigan
Transportation Research Institute

ALI-SCOUT

- Beacon-based, Dead-reckoning navigation system.
- System works only in beaconed area.
- Calculates “fastest” route.
- Presently takes into account road closures and major traffic problems.

ALI-SCOUT
Programming Destinations

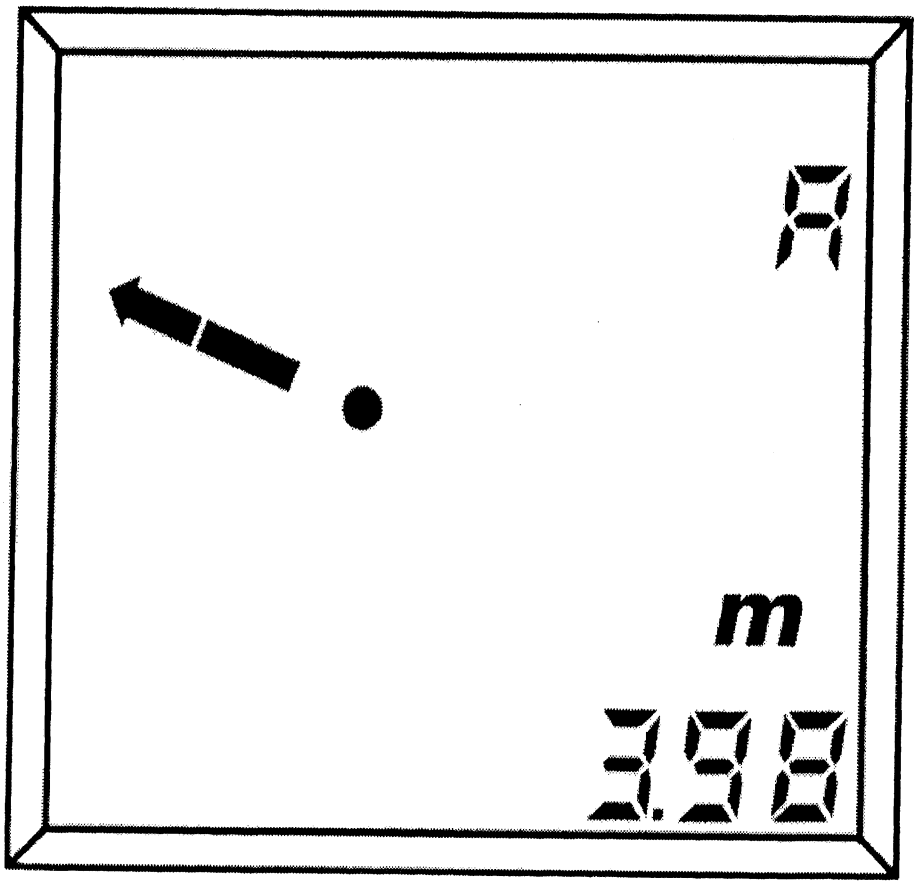
- Need to obtain coordinates of desired destination
  - Address ranges
  - Points of interest
  - Map
  - Current location
- Destination and coordinates are typed into the display unit.

ALI-SCOUT
Guidance Information

- Two types of guidance information
  - Autonomous (crow-fly)
  - Guided (turn-by-turn)

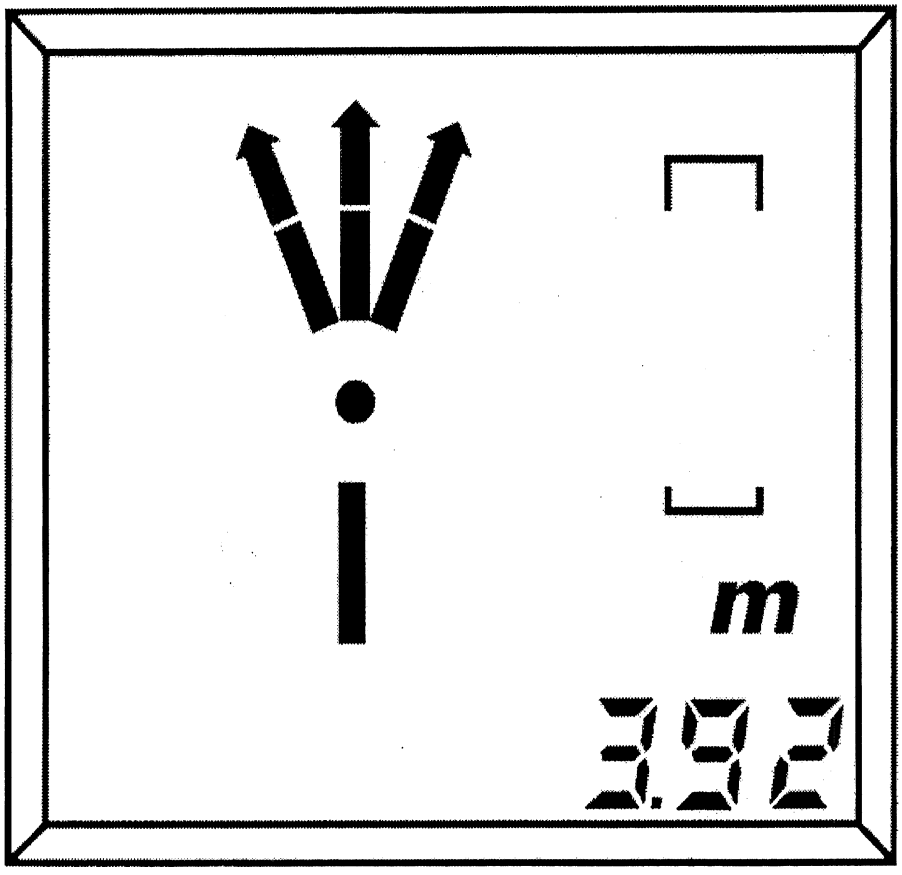
ALI-SCOUT
Guidance Information

Autonomous Mode:



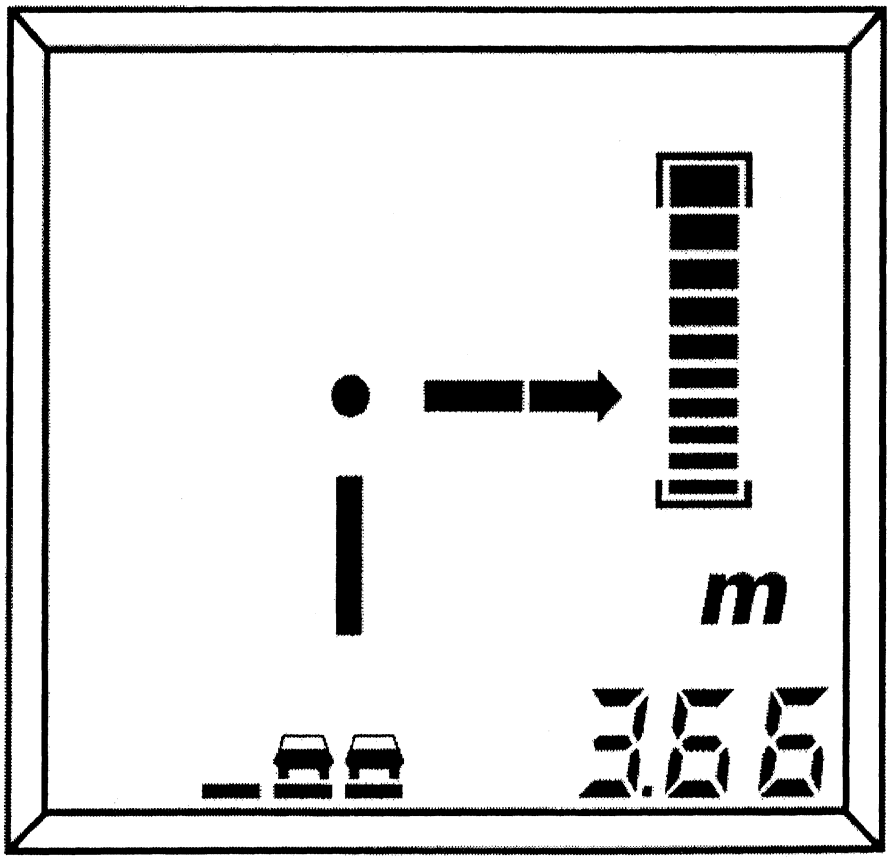
ALI-SCOUT
Guidance Information

Follow main road:



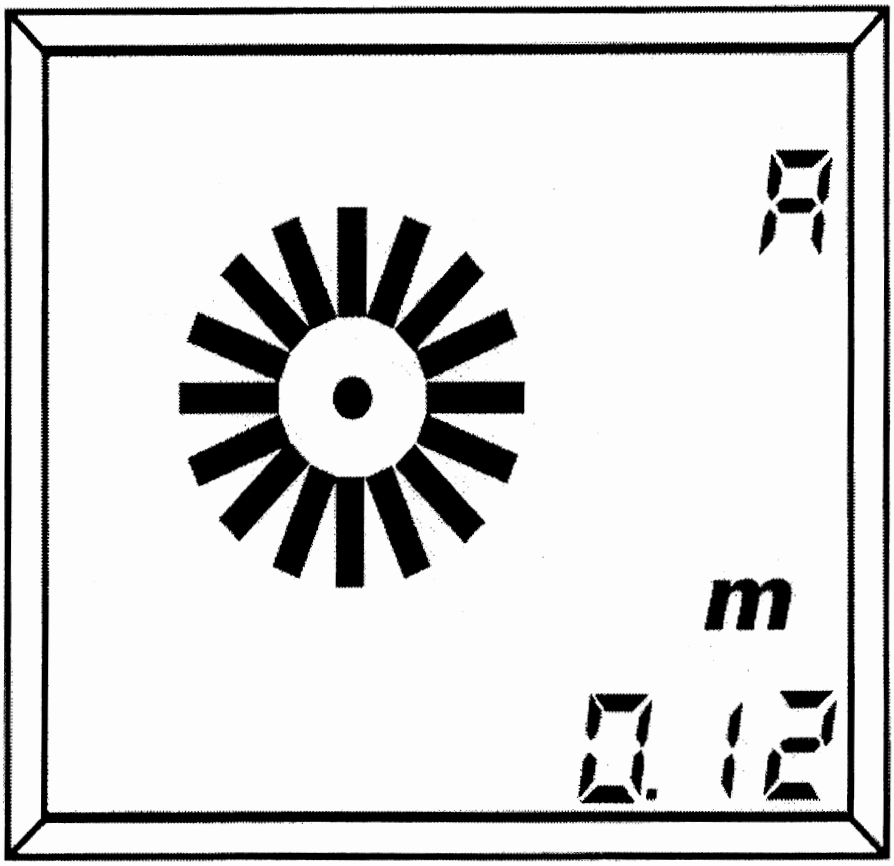
ALI-SCOUT
Guidance Information

Prepare/Execute Maneuver:



ALI-SCOUT
Guidance Information

Destination Area:



Evaluation Activities

- Two surveys
- Group Interview
- Daily Driver Log
  - 28 sheets, one for each day of participation.
  - First sheet filled out today.
  - Mail sheets to us every seven days.
  - Bring back last week's logs with vehicle.

Entering a Destination:

Library (Troy Public Library)

0830912W 423344N

Appendix C:
Ali-Scout Questionnaire

ALI-SCOUT USER SURVEY

FAST-TRAC PROJECT
OAKLAND COUNTY, MICHIGAN

NAME:_____

DATE: _____

A. Driving and Commuting

In this section, we would like to learn about your familiarity with the Oakland County Study Area, your driving experience, and your commuting patterns.

A1. How many vehicles does your household own or lease?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more

The FAST-TRAC Project, in which you are a participant, has been implemented in the following Oakland County communities: Troy, Rochester Hills, Auburn Hills, Pontiac, Bloomfield Hills, and Birmingham. In the following questions, the Oakland County Study Area refers to these communities.

A2. Do you live in the Oakland County Study Area?

☐ Yes ☐ No

If yes, how long _____ year(s) and _____ month(s)

A3. In the last one month, how regularly did you drive within the Oakland County Study Area? Please circle the most appropriate number on the scale provided.

5 times a week or more						**Once a month or less**
1	2	3	4	5	6	7

A4. How familiar are you with the road network in the Oakland County Study Area?

Very unfamiliar						**Very familiar**
1	2	3	4	5	6	7

A5. Do you currently work in the Oakland County Study Area?

☐ Yes ☐ No

A6. What is the postal zip code of your workplace? _____

A7. Please place an *X* in the box that best describes your **current employment status**.

☐ Employed full-time ☐ Retired

☐ Employed part-time ☐ Unemployed

☐ Full-time student ☐ Other (please specify) _____

*(If you answered **retired, unemployed** or **other** please skip to question **A14.**)*

A8. In the past three months, how many routes have you driven from your home to work (or school)?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more

A9. On average how many minutes does it take you to drive from home to work (or school) during your morning commute?

_____ minutes

A10. During your morning commute, do you generally listen to traffic reports?

☐ Yes ☐ No

A11. In general, how often do you encounter heavy traffic congestion during your morning commute?

5 times a week or more						**Once a month or less**
1	2	3	4	5	6	7

A12. In general, how often do you encounter traffic incidents (like accidents) during your morning commute?

5 times a week or more						**Once a month or less**
1	2	3	4	5	6	7

A13. Are you willing to divert from the route that you normally use to commute from home to work (or school) to avoid congestion or a traffic incident?

☐ Yes ☐ No

A14. In your opinion, what is the general level of traffic congestion in the Oakland County Study Area during your morning commute?

No Congestion						**Heavy Congestion**
1	2	3	4	5	6	7

A15. How many out-of-town vacation trips did you make in the last 12 months?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more

A16. How many out-of-town business trips did you make in the last 12 months?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more

A17. When driving in unfamiliar areas, are you generally confident or unconfident in finding your way around?

Very unconfident						**Very confident**
1	2	3	4	5	6	7

A18. How frequently do you use road maps?

☐ At least once a week ☐ Once a year

☐ 1-3 times per month ☐ Less than once a year

☐ Once every 2-6 months

A19. Prior to your experience with ALI-SCOUT, had you ever before driven a vehicle equipped with an electronic route-guidance system?

☐ Yes ☐ No *(If no, please skip to question **B1.**)*

A20. Which system did you use?

_____

B. Technology

FAST-TRAC represents a test of new technology. In the following questions, we would like to learn about your experience with and interest in new technology.

B1. Indicate the amount of experience that you have had using the following technologies by circling the most appropriate number on the scale provided. On this scale, 1 means none and 7 means extensive experience.

	None						Extensive
a. Personal Computers	1	2	3	4	5	6	7
b. VCRs	1	2	3	4	5	6	7
c. Electronic Pager	1	2	3	4	5	6	7
d. Cellular Car Phones	1	2	3	4	5	6	7
e. Fax Machines	1	2	3	4	5	6	7
f. Pocket Calculator	1	2	3	4	5	6	7

B2. In general, how interested are you in news items concerning new technology?

- ☐ Not at all interested
- ☐ Not very interested
- ☐ Somewhat interested
- ☐ Very interested

B3. In general, do you find new technology easy or difficult to use?

- ☐ Very difficult
- ☐ Somewhat difficult
- ☐ Neither difficult nor easy
- ☐ Somewhat easy
- ☐ Very easy

B4. In general, how enjoyable do you find using new technology?

- ☐ Not at all enjoyable
- ☐ Not very enjoyable
- ☐ Somewhat enjoyable
- ☐ Very enjoyable

C. Ali-Scout Operation and Displays

As a participant in the FAST-TRAC Project, you have been driving a vehicle equipped with an electronic route-guidance system called ALI-SCOUT. In this section, we would like to learn what you think about the different parts of the system.

C1. Since you have had an ALI-SCOUT equipped vehicle, how often have you used ALI-SCOUT for trips in which you drove in the Oakland County Study Area? Please circle the most appropriate number on the scale provided.

Never						**Always**
1	2	3	4	5	6	7

If you did not answer always, we would like to learn why you sometimes did not use the system.

- ☐ Many trips are very short.
- ☐ Too much trouble to program the destinations.
- ☐ I did not think ALI-SCOUT provided the fastest route.
- ☐ I did not think ALI-SCOUT provided accurate guidance.
- ☐ I knew the way.
- ☐ Other, please specify _____

*(If you **never** used ALI-SCOUT, please skip to question **F1,** page 27).*

C2. The ALI-SCOUT system offers several options for entering new destinations. These options are:

Address Ranges--obtaining coordinates by using the address ranges section of the Ali-Scout manual,

Points of Interest--obtaining coordinates by using the points of interest section of the ALI-SCOUT manual,

Map--obtaining coordinates by referring to the map included in the ALI-SCOUT manual, and

Current Location--entering the current location of your vehicle.

We are interested in knowing which of these options you used most often for entering new destinations. Please rank them from one (most frequent) to four (least frequent) according to how often you used them.

Address Ranges _____
Points of Interest _____
Map _____
Current Location _____

C3. ALI-SCOUT stores up to 80 destinations in memory. Of all the trips that you took with ALI-SCOUT, how often did you select a destination from ALI-SCOUT's memory? Please circle the most appropriate point on the scale below.

0% 50% 100%

|_____|_____|_____|_____|_____|_____|_____|_____|_____|_____|

C4. Entering and Selecting Destinations

We also are interested in knowing how easy or difficult you found each method of entering and selecting destinations. Please rate each of the five methods by circling the most appropriate number on the scales provided. *(If you did not use a particular method, then place an X in the box.)*

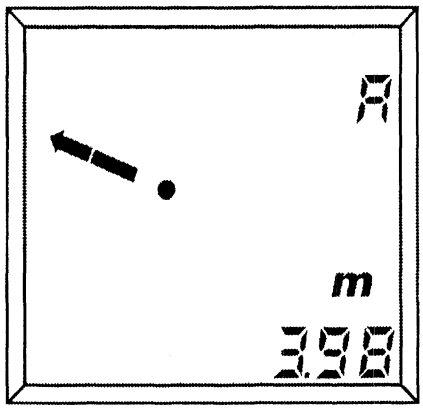
	Did not use	Very difficult to use						Very easy to use
a. Destination Memory	☐	1	2	3	4	5	6	7
b. Address Ranges	☐	1	2	3	4	5	6	7
c. Points of Interest	☐	1	2	3	4	5	6	7
d. Map	☐	1	2	3	4	5	6	7
e. Current Location	☐	1	2	3	4	5	6	7

C5. In order to enter and select destinations using ALI-SCOUT, you must use the system's keyboard. Please rate the following characteristics of the ALI-SCOUT system's **Input Keyboard** by circling the most appropriate number on the scales provided.

	Very difficult						**Very easy**
a. Easy or Difficult to Learn	1	2	3	4	5	6	7
b. Easy or Difficult to Use	1	2	3	4	5	6	7
	Never						**Always**
c. Functioned Properly	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
d. Overall Impression	1	2	3	4	5	6	7

C6. This is an example of the ALI-SCOUT system's **Autonomous Mode** (crow-fly direction) display. What information is this display showing (select only one answer by placing an *X* in the box provided)?

- ☐ The distance and direction to the destination you entered
- ☐ Get ready to turn left
- ☐ Continue in the direction you are going
- ☐ You are near your destination

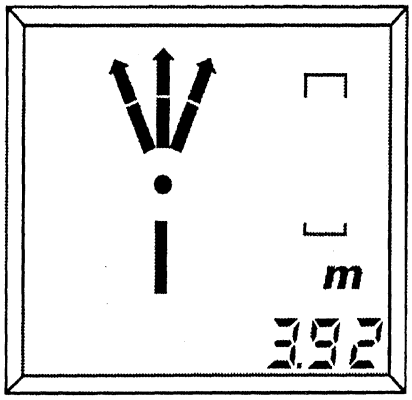


C7. Please rate the following characteristics of the ALI-SCOUT system's **Autonomous Mode** (crow-fly direction) by circling the most appropriate number on the scales provided.

	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
b. Distraction While Driving	1	2	3	4	5	6	7
	Very inaccurate						**Very accurate**
c. Accuracy of Guidance	1	2	3	4	5	6	7
	Never						**Always**
d. Functioned Properly	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
e. Overall Impression	1	2	3	4	5	6	7

C8. The following is an example of the ALI-SCOUT system's **Follow Main Road** display. What information is this display showing (select only one answer by placing an *X* in the box provided)?

- ☐ Take one of these three roads
- ☐ Continue in the direction you are going
- ☐ You are near your destination
- ☐ The distance and direction to the destination you entered

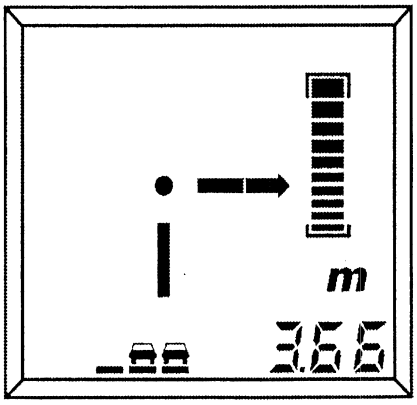


C9. Please rate the following characteristics of the ALI-SCOUT system's **Follow Main Road** display by circling the most appropriate number on the scales provided.

	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Very Inaccurate						**Very accurate**
b. Accuracy of Guidance	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
c. Overall Impression	1	2	3	4	5	6	7

C10. The following is an example of the ALI-SCOUT system's **Prepare Maneuver** display. What information is this display showing (select only one answer by placing an *X* in the box provided)?

- ☐ Make a right turn now
- ☐ Final destination is nearby and to the right
- ☐ Move into the right lanes, you will be turning to the right soon
- ☐ Distance and direction to the destination you entered

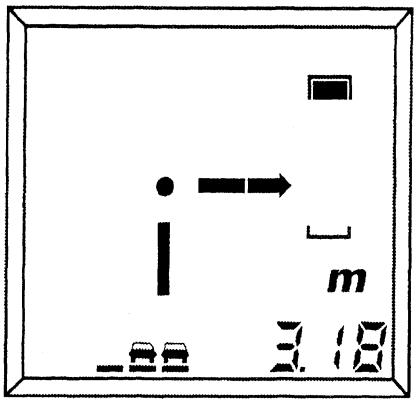


C11. Please rate the following characteristics of the ALI-SCOUT system's **Prepare Maneuver** display.

a. Easy or Difficult to Understand	**Very difficult** 1	2	3	4	5	6	**Very easy** 7
b. Amount of Detail Shown	**Insufficient** 1	2	3	4	5	6	**Sufficient** 7
c. Advance Warning Provided	**Not enough** 1	2	3	4	5	6	**Too much** 7
d. Distraction While Driving	**Very distracting** 1	2	3	4	5	6	**Not at all distracting** 7
e. Accuracy of Guidance	**Very inaccurate** 1	2	3	4	5	6	**Very accurate** 7
f. Overall Impression	**Strongly disliked** 1	2	3	4	5	6	**Strongly liked** 7

C12. The following is an example of the ALI-SCOUT system's **Execute Maneuver** display. What information is this display showing (select only one answer by placing an *X* in the box provided)?

- ☐ Make a right turn now
- ☐ Final destination is nearby and to the right
- ☐ Move into the right lanes, you will be turning to the right in 3.18 miles
- ☐ Distance and direction to the destination you entered

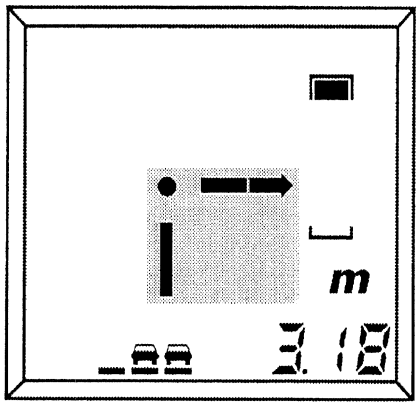


C13. Please rate the following characteristics of the ALI-SCOUT system's **Execute Maneuver** display.

	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Insufficient						**Sufficient**
b. Amount of Detail Shown	1	2	3	4	5	6	7
c. Advance Warning Provided	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
d. Distraction While Driving	1	2	3	4	5	6	7
	Very inaccurate						**Very accurate**
e. Accuracy of Guidance	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
f. Overall Impression	1	2	3	4	5	6	7

The Prepare Maneuver and Execute Maneuver displays contain several components, including a turn arrow, a countdown bar, and a lane recommendation. In the next few items, we would like to learn what you thought of each of these components.

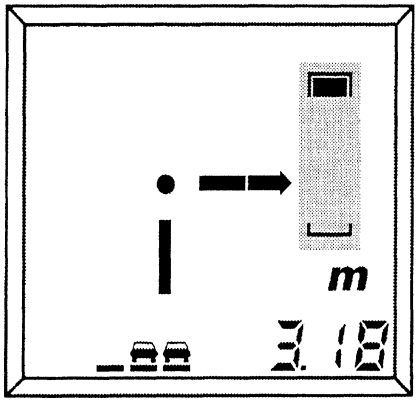
C14. Please rate the following characteristics of the Turn Arrow information (the shaded region in the figure below) provided by ALI-SCOUT.



	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Insufficient						**Sufficient**
b. Amount of Detail Shown	1	2	3	4	5	6	7
	Not enough						**Too much**
c. Advance Warning Provided	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
d. Distraction While Driving	1	2	3	4	5	6	7
	Very inaccurate						**Very accurate**
e. Accuracy of Guidance	1	2	3	4	5	6	7
	Disliked						**Liked**
f. Overall Impression	1	2	3	4	5	6	7

C15. The Countdown Bar of the Prepare Maneuver and Execute Maneuver displays is shaded in the figure below. What information is the shaded portion of the display showing (select only one answer by placing an *X* in the box provided)?

- ☐ Relative distance to the right turn
- ☐ Amount of fuel in the gas tank
- ☐ Distance and direction to the destination you entered
- ☐ Shows the portion of trip completed

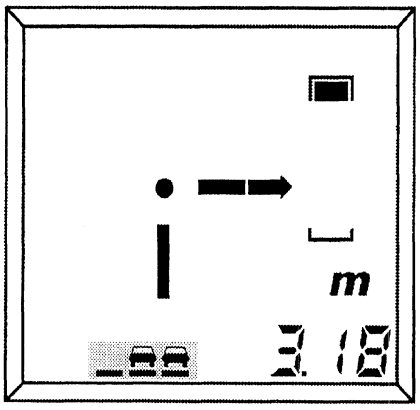


C16. Please rate the following characteristics of the Countdown Bar information provided by ALI-SCOUT.

	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Insufficient						**Sufficient**
b. Amount of Detail Shown	1	2	3	4	5	6	7
	Not enough						**Too much**
c. Advance Warning Provided	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
d. Distraction While Driving	1	2	3	4	5	6	7
	Very inaccurate						**Very accurate**
e. Accuracy of Guidance	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
f. Overall Impression	1	2	3	4	5	6	7

C17. The Lane Recommendation portion of the Prepare Maneuver and Execute Maneuver displays is shaded in the figure below. What information is the shaded portion of the display showing (select only one answer by placing an *X* in the box provided)?

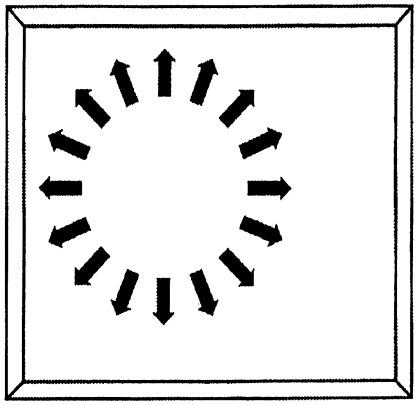
- ☐ Make a right turn now
- ☐ Move into one of the two right lanes
- ☐ There are two cars to your right
- ☐ Move into the left lane



C18. Please rate the following characteristics of the Lane Recommendation information provided by ALI-SCOUT.

	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Insufficient						**Sufficient**
b. Amount of Detail Shown	1	2	3	4	5	6	7
	Not enough						**Too much**
c. Advance Warning Provided	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
d. Distraction While Driving	1	2	3	4	5	6	7
	Very inaccurate						**Very accurate**
e. Accuracy of Guidance	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
f. Overall Impression	1	2	3	4	5	6	7

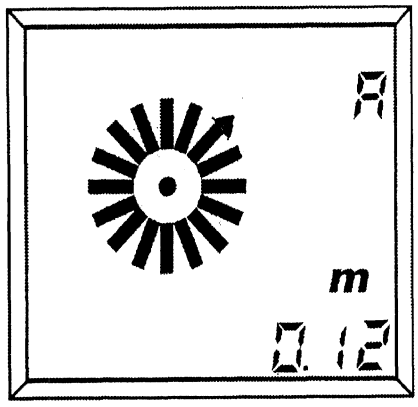
C19. During normal use of ALI-SCOUT, you may leave guided mode (for example, if you ignore a route instruction or if you pass a beacon that is not operating). In such situations, ALI-SCOUT displays the **Left Recommended Route** display shown on the figure below.



Please rate the following characteristics of the ALI-SCOUT system's **Left Recommended Route** display.

	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
b. Distraction While Driving	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
c. Overall Impression	1	2	3	4	5	6	7

C20. When you get close to your destination, ALI-SCOUT enters the destination zone and returns to autonomous-mode. At that time the ALI-SCOUT displays a **Switch over to Autonomous Mode in the Destination Zone** display, shown below.



Please rate the following characteristics of the ALI-SCOUT system's **Switch over to Autonomous Mode in the Destination Zone** display.

	Very difficult						**Very easy**
a. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Very inaccurate						**Very accurate**
b. Accuracy of Guidance	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
c. Overall Impression	1	2	3	4	5	6	7

C21. In general, how often did you feel that you were close enough to your final destination when ALI-SCOUT switched to the autonomous-mode in the destination zone? Circle the most appropriate number on the scale provided.

Always						**Never**
1	2	3	4	5	6	7

C22. After entering the destination zone, how often did you have difficulty finding your final destination?

Always had difficulty						**Never had difficulty**
1	2	3	4	5	6	7

D. The ALI-SCOUT System

In this set of questions we would like to know what you think of the ALI-SCOUT system overall.

D1. Visual Displays and Concepts

We would like to know your overall assessment of ALI-SCOUT's **visual displays and concepts**. Please rate the listed characteristics of ALI-SCOUT by circling the most appropriate number on the scales provided.

	Very difficult						**Very easy**
a. Easy or Difficult to Read (Driving)	1	2	3	4	5	6	7
b. Easy or Difficult to Read (Still)	1	2	3	4	5	6	7
c. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Insufficient						**Sufficient**
d. Advance Warning Provided	1	2	3	4	5	6	7
e. Accuracy of Guidance	1	2	3	4	5	6	7
	Always						**Never**
f. Helped Me Find My Way	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
g. Overall Impression	1	2	3	4	5	6	7

D2. In general, were ALI-SCOUT's visual displays distracting:

	Very distracting						**Not at all distracting**
a. At night	1	2	3	4	5	6	7
b. During daylight hours	1	2	3	4	5	6	7
c. In heavy traffic	1	2	3	4	5	6	7
d. In light traffic	1	2	3	4	5	6	7
e. When traveling along freeways	1	2	3	4	5	6	7
f. Traveling along other roads	1	2	3	4	5	6	7

D3. Voice Guidance

For this question, we would like to know your overall assessment of the ALI-SCOUT system's Voice Guidance feature. Please circle the most appropriate number on the scale provided.

	Very difficult						**Very easy**
a. Easy or Difficult to Hear	1	2	3	4	5	6	7
b. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Insufficient						**Sufficient**
c. Amount of Information Given	1	2	3	4	5	6	7
d. Advance Warning Provided	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
e. Distraction While Driving	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
f. Sound of the Voice	1	2	3	4	5	6	7
g. Overall Impression	1	2	3	4	5	6	7

D4. Considering both visual and verbal information, how often did you follow ALI-SCOUT's recommendations to turn?

Never						**Always**
1	2	3	4	5	6	7

*(If always, please skip to question **D6.**)*

D5. ALI-SCOUT Recommendations

Considering all of the times that you **did not take the recommended turn**, how often were each of the following items part of your reason not to follow the recommended turn? (Answer by circling the most appropriate number on the scale provided just below each item.)

a. I knew of a faster route:

Never						**Always**
1	2	3	4	5	6	7

b. I believed that the recommended turn would take me away from my destination:

Never						Always
1	2	3	4	5	6	7

c. I needed to make stops along the way to my destination:

Never						Always
1	2	3	4	5	6	7

d. I believed that the recommended turn would lead me into traffic congestion:

Never						Always
1	2	3	4	5	6	7

e. Ali-Scout provided the suggested turn too late:

Never						Always
1	2	3	4	5	6	7

f. The recommended turn was not clear to me:

Never						Always
1	2	3	4	5	6	7

g. Not enough room to merge:

Never						Always
1	2	3	4	5	6	7

h. Other (please write in): _____

Never						Always
1	2	3	4	5	6	7

D6. Which was your preferred way for receiving ALI-SCOUT's route guidance information?

☐ Voice alone ☐ Voice and visual together

☐ Visual alone ☐ No preference

D8. In your opinion, how did the ALI-SCOUT system change the following factors of your driving in the Oakland County Study Area?

	Reduced						Increased
a. Travel time	1	2	3	4	5	6	7
b. Congestion Avoidance	1	2	3	4	5	6	7
c. Driving safety	1	2	3	4	5	6	7
d. Fuel consumption	1	2	3	4	5	6	7

D9. Please rate the following characteristics of the **ALI-SCOUT** system as a whole.

	Very difficult						Very easy
a. Easy or Difficult to Learn	1	2	3	4	5	6	7
b. Easy or Difficult to Understand	1	2	3	4	5	6	7
	Insufficient						**Sufficient**
c. Amount of Information Given	1	2	3	4	5	6	7
d. Advance Warning Provided	1	2	3	4	5	6	7
	Very inaccurate						**Very accurate**
e. Accuracy of Guidance	1	2	3	4	5	6	7
	Strongly disagree						**Strongly agree**
f. Helped Me Find My Way	1	2	3	4	5	6	7
g. Reduced My Travel Time	1	2	3	4	5	6	7
h. Functioned Properly	1	2	3	4	5	6	7
	Very distracting						**Not at all distracting**
I. Distraction While Driving	1	2	3	4	5	6	7
	Strongly disliked						**Strongly liked**
j. Overall Impression	1	2	3	4	5	6	7

The next few questions are concerned with roadside beacons. In order to operate properly, the in-vehicle components of ALI-SCOUT, must communicate with roadside beacons. As a result, the system cannot guide you to destinations beyond the beacon coverage area.

D10. In your use of the ALI-SCOUT system, what did you think of the size of the beacon coverage area for your driving needs?

Coverage area too small						**Coverage area too large**
1	2	3	4	5	6	7

D11. Thinking only of the area in which beacons were installed, what did you think of the spacing between the beacons?

Beacons too far apart						**Beacons too close**
1	2	3	4	5	6	7

D12. How often did you notice that the beacons did not function properly?

Never						**Always**
1	2	3	4	5	6	7

E. Use of the ALI-SCOUT System

In this section, we would like to know how you used ALI-SCOUT as part of your driving and trip-making.

E1. How often did you use ALI-SCOUT for the following types of trips? Circle the most appropriate number in the scales provided.

	Never						Always
a. Commuting to work	1	2	3	4	5	6	7
b. Work-related trips (non-commuting)	1	2	3	4	5	6	7
c. Recreational trips	1	2	3	4	5	6	7
d. Other personal trips	1	2	3	4	5	6	7

For the next few questions, please compare your driving <u>without</u> an ALI-SCOUT system to your driving <u>with</u> the ALI-SCOUT system.

E2. Please indicate the extent to which driving with ALI-SCOUT changed your attention to:

	Much less attention						Much more attention
a. Traffic Conditions	1	2	3	4	5	6	7
b. Traffic Signals	1	2	3	4	5	6	7
c. Road Signs (such as 55 MPH)	1	2	3	4	5	6	7
d. Street Signs (such as Main St.)	1	2	3	4	5	6	7
e. Street Addresses	1	2	3	4	5	6	7
f. Speedometer	1	2	3	4	5	6	7
g. Mirrors (such as Rearview)	1	2	3	4	5	6	7
h. Fuel Gauge	1	2	3	4	5	6	7

E3. Please indicate the extent to which driving with the ALI-SCOUT system, compared to driving without ALI-SCOUT, made you feel:

	Always less with ALI-SCOUT						Always more with ALI-SCOUT
a. Nervous	1	2	3	4	5	6	7
b. Confident	1	2	3	4	5	6	7
c. Confused	1	2	3	4	5	6	7
d. Attentive	1	2	3	4	5	6	7
e. Safe	1	2	3	4	5	6	7
f. Stressed	1	2	3	4	5	6	7
g. Relaxed	1	2	3	4	5	6	7
h. Frustrated	1	2	3	4	5	6	7

E4. Again, compared to driving without ALI-SCOUT, please indicate the extent to which you had the following experiences while driving with ALI-SCOUT:

	Always less with ALI-SCOUT						**Always more with ALI-SCOUT**
a. Crashes	1	2	3	4	5	6	7
b. Missed Stop Signs	1	2	3	4	5	6	7
c. Ran Red Light	1	2	3	4	5	6	7
d. Ran Off Road	1	2	3	4	5	6	7
e. Crossed Lane Marker	1	2	3	4	5	6	7

The next few questions deal with your crash and near-crash involvement while driving the ALI-SCOUT equipped vehicle. These questions are only for analytical purposes, and your responses will be held in the strictest confidence.

E5. Were you involved in any crashes while driving with the ALI-SCOUT system?

☐ Yes ☐ No (If no, please skip ahead to question **E8.**)

E6. In your opinion, did ALI-SCOUT contribute to this (these) crash(es)?

☐ Not at all

☐ Contributing factor

☐ The main factor

E7. If ALI-SCOUT was a contributing or main factor in this (these) crashes, please explain how ALI-SCOUT contributed to the crash.

_____

_____

E8. Were you ever involved in what you consider to be a near-crash while driving with the ALI-SCOUT system?

☐ Yes ☐ No

*(If **no**, please skip ahead to question **F1.**)*

E9. In your opinion, to what extent was ALI-SCOUT a contributing factor to this (these) near-crash(es)?

☐ Not at all

☐ The main factor

☐ A contributing factor

E10. In the space provided, please explain how ALI-SCOUT did or did not contribute to this (these) near-crash(es).

_____

_____

F. Valuation

In the following questions, we would like to learn how much you, an experienced user, value the ALI-SCOUT system.

F1. For assistance in reaching your destinations, how do you rate the following sources of route-guidance information?

	Poor						**Excellent**
a. Standard road map	1	2	3	4	5	6	7
b. Verbal directions from passenger	1	2	3	4	5	6	7
c. Verbal directions from other people	1	2	3	4	5	6	7
d. Written directions	1	2	3	4	5	6	7
e. ALI-SCOUT	1	2	3	4	5	6	7

F2. If you were about to drive to an unfamiliar area, which of the following sources of route-guidance information would you like to use?

	Definitely would not like						**Definitely would like**
a. Standard road map	1	2	3	4	5	6	7
b. Verbal directions from passenger	1	2	3	4	5	6	7
c. Verbal directions from other people	1	2	3	4	5	6	7
d. Written directions	1	2	3	4	5	6	7
e. ALI-SCOUT	1	2	3	4	5	6	7

F3. For the following items, assume that the ALI-SCOUT system was available nationwide. Given this scenario, how useful do you think the ALI-SCOUT system would be for:

	Not at all useful						**Extremely useful**
a. The commuting trip?	1	2	3	4	5	6	7
b. Out-of-town vacation trips?	1	2	3	4	5	6	7
c. Out-of-town business trips?	1	2	3	4	5	6	7
d. Local driving (non-work, e.g., for shopping)?	1	2	3	4	5	6	7

F4. If you had $2,500 to spend on options for a new car, how would you allocate your budget? Please place an *X* in the box(es) next to the option(s) that you would purchase. (Remember, you have only $2,500 to spend.)

- ☐ Car Alarm ($300)
- ☐ Cellular Phone ($500)
- ☐ Sunroof, Power ($500)
- ☐ Power Windows ($300)
- ☐ Cassette Player ($150)
- ☐ Air Conditioning ($650)
- ☐ Air Bag, Driver's Side ($400)
- ☐ Trip Computer ($1,000)
- ☐ Power Mirror ($100)
- ☐ ALI-SCOUT ($500)
- ☐ Power Locks ($250)
- ☐ CD Player ($250)
- ☐ Integrated Child Safety Seat ($150)
- ☐ Air Bag, Passenger's Side ($400)

F5. How much would you be willing to pay for the ALI-SCOUT system as an option on a new car?

$_____

F6. How much would you be willing to pay to add the ALI-SCOUT system to your present car?

$_____

F7. How much extra per day would you be willing to pay for the ALI-SCOUT system as an option on a rental car?

$_____

F8. In order to function properly, ALI-SCOUT requires two additional components to support the in-vehicle equipment. These out-of-vehicle components are:

(1) Roadside Beacons

Each beacon consists of a transmitter, receiver, and control unit for communicating with ALI-SCOUT's in-vehicle equipment. Beacons are located at selected intersections.

(2) Central Computer

Located in a traffic control facility, the central computer is the brain of the system--receiving, transmitting, and integrating information from throughout the study area. Each beacon is linked to the central computer.

Installation, operation, and maintenance of these out-of-vehicle components will require financial investment above and beyond the price of the in-vehicle devices. In your opinion, who should pay to install, operate, and maintain the beacons and central computer? (Place an *X* in the box next to all entities that you think should pay at least a part of this cost.)

- ☐ Federal government
- ☐ State government
- ☐ Individual users of ALI-SCOUT
- ☐ Commercial users of ALI-SCOUT
- ☐ Manufacturers of products such as ALI-SCOUT
- ☐ County government
- ☐ City government
- ☐ Car manufacturers
- ☐ Other (please specify): _____

F9. Of those entities that you marked in question **F8**, we are interested in knowing who you think should bear the <u>primary cost</u>. In the space provided, write in the entity that you think should pay the primary cost.

_____

F10. One option for funding the installation, operation, and maintenance of the beacons and central computer is to charge users a monthly fee to receive information (such as route guidance) from the system. This monthly fee would cover both services received and maintenance of the system. If you owned an ALI-SCOUT in-vehicle device, how much **per month** would you be willing to pay to receive the information provided by the beacons and central computer?

$_____

F11. In your opinion, how important are each of the following factors to the operation of systems such as ALI-SCOUT?

	Not at all important						**Extremely important**
a. Fuel savings	1	2	3	4	5	6	7
b. Reduced air pollution	1	2	3	4	5	6	7
c. Traffic safety	1	2	3	4	5	6	7
d. Relief of highway congestion	1	2	3	4	5	6	7
e. Accurate route guidance	1	2	3	4	5	6	7
f. Traffic diverted into neighborhoods	1	2	3	4	5	6	7
g. Ease of use	1	2	3	4	5	6	7
h. Quick updates of road conditions	1	2	3	4	5	6	7

F12. We are interested in knowing how you would like to see ALI-SCOUT improved. In the space provided, please tell us two changes that you would like to see made in the system.

1. _____

_____

2. _____

_____

G. Demographics

To help us analyze the results of this survey, please answer the following questions about your background. Your answers to these questions will be kept strictly confidential.

G1. Please write your date of birth in the space provided.

Month _____ Day _____ Year _____

G2. Please indicate your gender by placing an *X* in the appropriate box.

☐ Male ☐ Female

G3. What is the highest level of education that you have completed? (Place an *X* in the most appropriate box.)

☐ Less Than High School Diploma (or equivalent)

☐ High School Diploma (or equivalent)

☐ Some College

☐ Bachelor's Degree

☐ Some Graduate School

☐ Graduate Degree

G4. Including yourself, how many people live in your household?

_____ People Living in Household

G5. Including yourself, how many licensed drivers live in your household?

_____ Licensed Drivers

G6. What was your household's income last year (before taxes)? (Place an *X* in the most appropriate box.)

- ☐ Less than $15,000
- ☐ $ 15,000 to $ 24,999
- ☐ $ 25,000 to $ 34,999
- ☐ $ 35,000 to $ 44,999
- ☐ $ 45,000 to $ 54,999
- ☐ $ 55,000 to $ 64,999
- ☐ $ 65,000 to $ 79,999
- ☐ $ 80,000 to $ 99,999
- ☐ $ 100,000 or more

☺ *Thank you for participating in this survey. The information that you have provided will be of great value in our efforts to measure how the technologies involved in the FAST-TRAC Project have affected the transportation system in Oakland County and how they might affect the future of transportation in Oakland County and beyond. Please use the remainder of this page for any additional comments that you would like to make about the ALI-SCOUT system or the FAST-TRAC Project.*

Appendix D:
Driver Log Instructions and Example Driver Log Sheet

THE FAST-TRAC PROJECT

Instructions for Completing Driver Log Sheets

Hello, and welcome to the FAST-TRAC project. In order to evaluate fully the ALI-SCOUT system we are asking you to maintain a driving log (or diary) of your travels over the next month. You should begin filling out the driver log on the day you get the ALI-SCOUT device.

You have a driver log form for each of the first twenty-eight days, including weekends, that you will be using the ALI-SCOUT device. For each day that you drive the ALI-SCOUT-equipped car, please record information about every trip that you take and indicate all unusual driving experiences and problems you have with the ALI-SCOUT system. Only you, the designated ALI-SCOUT user, should fill out the driver log for the ALI-SCOUT-equipped car. For the days that the car is not driven by you, please write "NO TRIPS TAKEN" on the driver log sheet for that day and return it to us with the rest of the completed forms. *Please remember to use a different driver log sheet for each day.* This will help us keep track of how your car is being used and will assure us that no forms have been misplaced. Note that we also have included five extra sheets in case you need them.

Trips Taken

For our purposes, a trip is anytime you start the car, drive somewhere, and then turn the car off. This means that, for example, if you were to go from your house to a shopping center, then to a friend's house, and then back home, this would be three trips. The first trip was from your house to the store, the second was from the store to your friend's house, and the third was from your friend's house back home.

At the end of each trip you take as the driver of the ALI-SCOUT-equipped car, please record the following information directly on the driving log.

Origin: Record the type of place and city where the trip began. For example, 7-Eleven in Troy. If the trip begins in a township, then record the township name instead of a city. Also, if the trip begins out of Michigan, please indicate the state.

Destination: Record the type of place and city where the trip ended following the instructions for recording the origin.

Trip Purpose: Record the purpose of the trip in the space provided. Example purposes are: home, work, personal business, medical, social/recreational, eat meal, shopping, school, church, or to serve a passenger.

Length of trip in miles: Record your estimate of the trip length in miles and tenths of miles. For example, a trip length of one and one-half miles would recorded as "1.5" miles.

Time of day that the trip took place: Record the hour and minutes of the day in which the trip began and indicate whether it was AM or PM. For example, a trip that started at 1:30 in the afternoon would be recorded as "1:30 pm." It is important that you remember to indicate AM or PM.

Was ALI-SCOUT used during the trip? Indicate whether or not you used ALI-SCOUT for the trip by circling "Y" for yes or "N" for no. If ALI-SCOUT was not used, then the next question does not need to be answered.

Did ALI-SCOUT go into Guided Mode during this trip? Indicate whether or not ALI-SCOUT went into Guided Mode during this trip by circling "Y" for yes and "N" for no. Guided Mode means that ALI-SCOUT gave you turn-by-turn directions during at least some of the trip.

If you take more than 10 trips in a single day, then continue your record of the trips on the back of the driving log. Remember that trips taken by others in the ALI-SCOUT-equipped vehicle, or trips taken by you in some other vehicle, should *not* be recorded on the driver log.

Finally, many of the trip origins will be the same as the preceding trip's destination. In these cases you may write "SAME" in the origin box to indicate that the origin of the trip is the same as the destination from the previous trip.

Unusual Driving Experiences, Problem with ALI-SCOUT, or Other Comments:

In this section we want you to record any driving-related experiences that happen to you that were out of the ordinary, any problems that you had with the ALI-SCOUT system (e.g., entering information into ALI-SCOUT, understanding the ALI-SCOUT display or voice commands, problems with getting to a destination, or problems in receiving information from a beacon after it is passed), or any other comments that you might have. While we want you to record any unusual driving experience, we are particularly interested in any collisions (e.g., crashes, fender-benders, bumps) or near-collisions you may have experienced, unsafe driving (e.g., running off the road, failing to stop at stop sign), and any tickets or warnings from law enforcement that you may have received. It is important that you include as much detail about the incident as you can and that you record the number of the trip during which the incident occurred. The trip number can be found to the left of each origin box on the driver log form. Use the back of the form if you need more space. If you are unsure whether a certain incident should be recorded, go ahead and record that incident.

While we know that much of this information is sensitive, these data are extremely important in allowing us to assess the Ali-Scout system. The information you provide us will be kept in the strictest confidence and will not impact your driving record.

Sending the logs back to us

At the end of each week, please remove the completed driver logs, place them in one of the provided envelopes, and mail. It is important that you check and make sure that you have completed a driver log for each day. If the envelopes are misplaced the driver logs should be mailed to:

The University of Michigan
Transportation Research Institute
Social and Behavioral Analysis Division
Attn: FAST-TRAC project
2901 Baxter Rd., Ann Arbor, MI 48109-2150

Final Information

If you have any questions about the driver logs, contact the FAST-TRAC coordinator at 313/763-2466 (phone), 313/936-1076 (fax) , or FAST-TRAC@umich.edu (internet).

Thank you for participating in the FAST-TRAC project and remember to buckle up and drive safely.

DRIVER LOG SHEET: CONFIDENTIAL

(Note: Complete only one driver log sheet for each day)

Name:_____ **Date:**_____

Log-number:_____ **Code:**_____

Trips Taken

Trip	Origin (e.g., Home, Pontiac)	Destination (e.g., Bank, Troy)	Trip Purpose	Length of trip in miles	Time of day for trip	Was ALI-SCOUT used?	ALI-SCOUT go into *Guided Mode?*
1						Y N	Y N
2						Y N	Y N
3						Y N	Y N
4						Y N	Y N
5						Y N	Y N
6						Y N	Y N
7						Y N	Y N
8						Y N	Y N
9						Y N	Y N
10						Y N	Y N

Note: If necessary, continue your trip records on the back.

Please note any unusual driving experiences, problems using ALI-SCOUT, or any other comments. If the comment refers to a specific trip, please indicate the corresponding trip number:

Appendix E:
Text of Test-Vehicle Agreement

Agreement between The University of Michigan and person volunteering to participate as a subject in the Test-Vehicle Natural Use Study of the FAST-TRAC Project

A person, the subject, selected as a participant for the Test-Vehicle Natural Use Study of the FAST-TRAC project will be given a car to use as a personal vehicle for one month. The vehicle is a 1995 Mercury Sable, leased by the University of Michigan for the FAST-TRAC project. The requirements for participation in the experiment are detailed in the Informed Consent Form and consist of filling out a driver log, participating in several surveys and a group interview. The following is a set of conditions, specific to the test-vehicle, that the you must agree to before becoming a subject in the study and receiving the test-vehicle. Your participation in the study and the use of the test-vehicle will be terminated for failure to follow the terms in this agreement.

CONDITIONS FOR USE OF THE TEST-CAR

1. The subject may not let anyone else drive the test-vehicle.

2. The subject must operate the test-vehicle in accordance with the traffic laws of the State of Michigan.

3. The subject and all passengers in the test-vehicle must use seat belts.

4. The subject cannot drive the test-vehicle while impaired by alcohol or controlled substances.

5. The subject and all occupants cannot use the test-vehicle for illegal activities.

6. The subject is fully responsible for his/her driving. The ALI-SCOUT is simply a supplemental navigation device.

7. The subject may not drive the test-vehicle in excess of 1000 miles in one month. If this mileage is exceeded, the subject must pay $0.15 per mile over the 1000 mile limit. If the subject has the vehicle for less than one month, the allowable mileage will be pro-rated.

8. The subject is to use the test-vehicle in the local area only and may not use the test-vehicle for extended trips, vacations, or take the test-vehicle out-of-state or out of the country.

9. The subject is responsible for fuel purchase during the time they have the test-vehicle.

10. The subject is responsible for paying all parking tickets issued to the test-vehicle during the time the test-vehicle is in the subject's possession.

11. The subject is to keep the test-vehicle clean and not damage the interior.

12. The subjects is responsible for reporting any problems with the test-vehicle to the FAST-TRAC Project Coordinator at the Social and Behavioral Analysis Division of the University of Michigan Transportation Research Institute at (313) 763-2466, as soon as possible.

13. In case of an accident involving the test-vehicle, the subject must notify the FAST-TRAC Project Coordinator at the Social and Behavioral Analysis Division of the University of Michigan at (313) 763-2466 as soon as possible.

14. The subject must return the test-vehicle at the end of the time specified.

15. If the subject chooses to stop participating in the experiment by not completing the driver logs, surveys and other experimental procedures, he/she must return the test-vehicle.

I have read and understand the conditions listed above and agree to abide by them.

_____

Signature of Subject

_____

Date

Appendix F:
Vehicle Checkout Form

THE UNIVERSITY OF MICHIGAN
TRANSPORTATION RESEARCH INSTITUTE
2901 BAXTER RD.
ANN ARBOR, MI 48109-2150

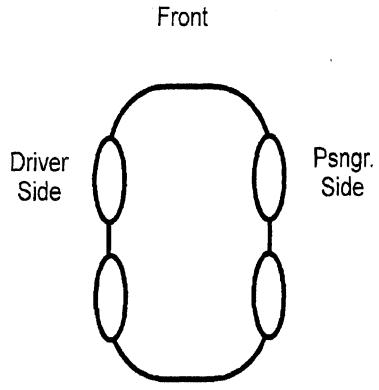
VEHICLE CONDITION REPORT

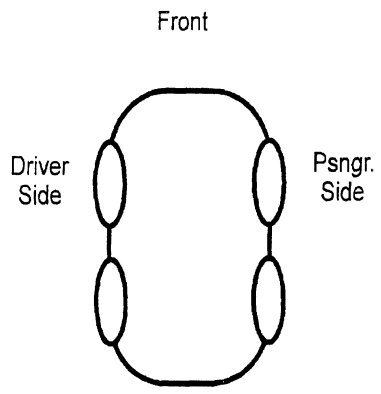
VIN	License plate #	Miles In
UMTRI ID -	1995 Mercury Sable - white, 4 door	Miles Out
		Miles Used

Circle area of damage and/or describe below.

OUTGOING INSPECTION **INCOMING INSPECTION**

signature date signature
date





Description of interior (if any) damage and other comments:

Check glove box for:	Check interior for:	Check trunk for:
owners manual	Ali-Scout display unit	spare tire
warranty card	Ali-Scout transmitter unit	jack
roadside assistance card	Ali-Scout compass	
registration	Ali-Scout speaker	
proof of insurance	Ali-Scout manual	
certificate	Ali-Scout video	
accident report package	windshield scraper/snow brush	

Report any missing items before leaving with your vehicle.

Appendix G:
Complete Univariate Results of Ali-Scout Questionnaire

A. Driving and Commuting

In this section, we would like to learn about your familiarity with the Oakland County Study Area, your driving experience, and your commuting patterns.

A1. How many vehicles does your household own or lease?

Number of Vehicles	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	18.8 (3)	0.0 (0)	28.6 (4)	6.3 (1)	6.3 (1)	30.0 (3)
2	31.3 (5)	70.6 (12)	57.1 (8)	12.5 (2)	56.3 (9)	50.0 (5)
3	12.5 (2)	5.9 (1)	14.3 (2)	12.5 (2)	18.8 (3)	20.0 (2)
4	31.3 (5)	17.6 (3)	0.0 (0)	43.8 (7)	18.8 (3)	0.0 (0)
5 or more	6.3 (1)	5.9 (1)	0.0 (0)	25.0 (4)	0.0 (0)	0.0 (0)

The FAST-TRAC Project, in which you are a participant, has been implemented in the following Oakland County communities: Troy, Rochester Hills, Auburn Hills, Pontiac, Bloomfield Hills, and Birmingham. In the following questions, the Oakland County Study Area refers to these communities.

A2. Do you live in the Oakland County Study Area?

Live in Oakland County	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	75.0 (12)	70.6 (12)	42.9 (6)	37.5 (6)	35.3 (6)	80.0 (8)
No	25.0 (4)	29.4 (5)	57.1 (8)	62.5 (10)	64.7 (11)	20.0 (2)

A2. If yes, how long have you lived in the Oakland County study area?

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Less than 1 year	16.7 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
1	0.0 (0)	16.7 (1)	8.3 (1)	33.4 (2)	0.0 (0)	0.0 (0)
2	8.3 (1)	0.0 (0)	8.3 (1)	16.7 (1)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
5	16.7 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
6	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
7	8.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
8	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
9	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	14.3 (1)	0.0 (0)
10 or more years	50.0 (6)	83.3 (5)	58.2 (7)	50.0 (3)	85.7 (6)	100.0 (8)

A3. In the last one month, how regularly did you drive within the Oakland County Study Area? Please circle the most appropriate number on the scale provided.

5 times a week or more — Once a month or less

1 2 3 4 5 6 7

Frequency of Driving in Oakland County Study Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	80.0 (12)	76.5 (13)	42.9 (6)	56.3 (9)	82.4 (14)	70.0 (7)
2	6.7 (1)	5.9 (1)	7.1 (1)	6.3 (1)	0.0 (0)	10.0 (1)
3	0.0 (0)	5.9 (1)	0.0 (0)	25.0 (4)	0.0 (0)	20.0 (2)
4	13.3 (2)	0.0 (0)	14.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)
5	0.0 (0)	11.8 (2)	7.1 (1)	12.5 (2)	11.8 (2)	0.0 (0)
6	0.0 (0)	0.0 (0)	14.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	14.3 (2)	0.0 (0)	5.9 (1)	0.0 (0)

A4. How familiar are you with the road network in the Oakland County Study Area? Please circle the most appropriate number on the scale provided.

Very unfamiliar — Very familiar

1 2 3 4 5 6 7

Familiarity with Road Network in Oakland County Study Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	23.5 (4)	7.1 (1)	12.5 (2)	18.8 (3)	0.0 (0)
2	6.7 (1)	5.9 (1)	0.0 (0)	6.3 (1)	18.8 (3)	0.0 (0)
3	6.7 (1)	0.0 (0)	0.0 (0)	12.5 (2)	12.5 (2)	20.0 (2)
4	6.7 (1)	11.8 (2)	21.4 (3)	6.3 (1)	0.0 (0)	0.0 (0)
5	6.7 (1)	11.8 (2)	21.4 (3)	6.3 (1)	12.5 (2)	10.0 (1)
6	0.0 (0)	11.8 (2)	21.4 (3)	18.8 (3)	0.0 (0)	20.0 (2)
7	66.7 (10)	35.3 (6)	28.6 (4)	37.5 (6)	37.5 (6)	50.0 (5)

A5. Do you currently work in the Oakland County Study Area?

Currently Work in Oakland County Study Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	73.3 (11)	64.7 (11)	14.3 (2)	75.0 (12)	82.4 (14)	20.0 (2)
No	26.7 (4)	35.3 (6)	85.7 (12)	25.0 (4)	17.6 (3)	80.0 (8)

A6. What is the postal zip code of your workplace?

Workplace Zip Code	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
48000- 48099	57.1 (8)	71.4 (10)	80.0 (4)	40.0 (4)	100.0 (13)	66.6 (2)
48100-48199	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
48200-48299	0.0 (0)	14.2 (2)	20.0 (1)	0.0 (0)	0.0 (0)	0.0 (0)
48300-48399	43.9 (6)	7.1 (1)	0.0 (0)	40.0 (4)	0.0 (0)	33.3 (1)
Above 48400	0.0 (0)	0.0 (0)	0.0 (0)	20.0 (2)	0.0 (0)	0.0 (0)

A7. Please place an X in the box that best describes your current employment status.

Current Employment Status	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Employed full-time	50.0 (8)	94.1 (16)	14.3 (2)	26.7 (4)	68.8 (11)	10.0 (1)
Employed part-time	12.5 (2)	0.0 (0)	7.1 (1)	46.7 (7)	18.8 (3)	0.0 (0)
Full-time student	37.5 (6)	0.0 (0)	0.0 (0)	20.0 (3)	0.0 (0)	0.0 (0)
Retired	0.0 (0)	5.9 (1)	78.6 (11)	0.0 (0)	0.0 (0)	80.0 (8)
Unemployed	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)
Other	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	10.0 (1)

(If you answered retired, unemployed, or other please skip to question A14.)

A8. In the past three months, how many routes have you driven from your home to work (or school)?

Number of Routes Driven to Work or School	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	12.5 (2)	6.3 (1)	16.7 (1)	13.3 (2)	0.0 (0)	66.7 (2)
2	18.8 (3)	18.8 (3)	16.7 (1)	40.0 (6)	28.6 (4)	33.3 (1)
3	12.5 (2)	25.0 (4)	33.3 (2)	26.7 (4)	35.7 (5)	0.0 (0)
4	25.0 (4)	12.5 (2)	0.0 (0)	6.7 (1)	14.3 (2)	0.0 (0)
5 or more	31.3 (5)	37.5 (6)	16.7 (1)	13.3 (2)	21.4 (3)	0.0 (0)

A9. On average how many minutes does it take you to drive from home to work (or school) during your morning commute?

Average Minutes to Work or School for Morning Commute	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0-9	6.7 (1)	6.3 (1)	0.0 (0)	6.7 (1)	6.7 (1)	33.3 (1)
10-14	6.7 (1)	0.0 (0)	40.0 (2)	13.3 (2)	6.7 (1)	0.0 (0)
15-19	40.0 (6)	6.3 (1)	0.0 (0)	6.7 (1)	26.7 (4)	0.0 (0)
20-24	6.7 (1)	18.8 (3)	20.0 (1)	33.3 (5)	13.3 (2)	66.7 (2)
25-29	6.7 (1)	18.8 (3)	0.0 (0)	13.3 (2)	0.0 (0)	0.0 (0)
30-34	13.3 (2)	18.8 (3)	20.0 (1)	13.3 (2)	6.7 (1)	0.0 (0)
35-39	6.7 (1)	6.3 (1)	20.0 (1)	6.7 (1)	6.7 (1)	0.0 (0)
40-44	0.0 (0)	18.8 (3)	0.0 (0)	0.0 (0)	20.0 (3)	0.0 (0)
45-49	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
50-54	0.0 (0)	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)
55-59	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
60 or more	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)

A10. During your morning commute, do you generally listen to traffic reports?

Listen to Traffic Reports During Morning Commute	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	37.5 (6)	62.5 (10)	80.0 (4)	20.0 (3)	85.7 (12)	100.0 (2)
No	62.5 (10)	37.5 (6)	20.0 (1)	80.0 (12)	14.3 (2)	0.0 (0)

A11. In general, how often do you encounter heavy traffic congestion during your morning commute?

5 times a week or more — Once a month or less

1 2 3 4 5 6 7

Ratings for Encounters With Traffic Congestion During Morning Commute	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	37.5 (6)	0.0 (0)	6.7 (1)	21.4 (3)	33.3 (1)
2	6.3 (1)	6.3 (1)	0.0 (0)	6.7 (1)	14.3 (2)	0.0 (0)
3	18.8 (3)	12.5 (2)	60.0 (3)	6.7 (1)	21.4 (3)	0.0 (0)
4	12.5 (2)	12.5 (2)	20.0 (1)	26.7 (4)	21.4 (3)	0.0 (0)
5	18.8 (3)	25.0 (4)	20.0 (1)	13.3 (2)	7.1 (1)	0.0 (0)
6	18.8 (3)	6.3 (1)	0.0 (0)	26.7 (4)	7.1 (1)	0.0 (0)
7	18.8 (3)	0.0 (0)	0.0 (0)	13.3 (2)	7.1 (1)	66.7 (2)

A12. In general, how often do you encounter traffic incidents (like accidents) during your morning commute?

5 times a week or more 1 2 3 4 5 Once a month or less 6 7

Ratings for Encounters with Traffic Incidents During Morning Commute	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	12.5 (2)	25.0 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	50.0 (2)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	21.4 (3)	0.0 (0)
4	43.8 (7)	0.0 (0)	0.0 (0)	6.7 (1)	21.4 (3)	0.0 (0)
5	12.5 (2)	31.3 (5)	0.0 (0)	0.0 (0)	14.3 (2)	0.0 (0)
6	0.0 (0)	12.5 (2)	0.0 (0)	40.0 (6)	14.3 (2)	50.0 (1)
7	43.8 (7)	37.5 (6)	25.0 (1)	53.3 (8)	28.6 (4)	50.0 (1)

A13. Are you willing to divert from the route that you normally use to commute from home to work (or school) to avoid congestion or a traffic incident?

Willing to Divert to Avoid Traffic Congestion or Incident	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	93.8 (15)	93.8 (15)	85.7 (6)	93.3 (14)	92.9 (13)	100.0 (2)
No	6.3 (1)	6.3 (1)	14.3 (1)	6.7 (1)	7.1 (1)	0.0 (0)

A14. In your opinion, what is the general level of traffic congestion in the Oakland County Study Area during your morning commute?

No Congestion 1 2 3 4 5 6 Heavy Congestion 7

Ratings for Level of Traffic Congestion in Oakland County Study Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	11.1 (1)
2	6.7 (1)	6.3 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)
3	6.7 (1)	6.3 (1)	16.7 (2)	21.4 (3)	0.0 (0)	11.1 (1)
4	13.3 (2)	25.0 (4)	33.3 (4)	21.4 (3)	26.7 (4)	11.1 (1)
5	46.7 (7)	12.5 (2)	8.3 (1)	21.4 (3)	33.3 (5)	22.2 (2)
6	13.3 (2)	25.0 (4)	16.7 (2)	7.1 (1)	20.0 (3)	11.1 (1)
7	6.7 (1)	25.0 (4)	25.0 (3)	14.3 (2)	20.0 (3)	33.3 (3)

A15. How many out-of-town vacation trips did you make in the last 12 months?

Number of Out-of-Town Vacation Trips in Last 12 Months	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	10.0 (1)
1	6.3 (1)	5.9 (1)	6.7 (1)	25.0 (4)	0.0 (0)	0.0 (0)
2	12.5 (2)	17.6 (3)	20.0 (3)	25.0 (4)	31.3 (5)	30.0 (3)
3	31.3 (5)	17.6 (3)	26.7 (4)	12.5 (2)	31.3 (5)	20.0 (2)
4	12.5 (2)	17.6 (3)	20.0 (3)	12.5 (2)	25.0 (4)	0.0 (0)
5 or more	31.3 (5)	41.2 (7)	26.7 (4)	18.8 (3)	12.5 (2)	40.0 (4)

A16. How many out-of-town business trips did you make in the last 12 months?

Number of Out-of-Town Business Trips in Last 12 Months	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	43.8 (7)	29.4 (5)	80.0 (12)	60.0 (9)	80.0 (12)	88.9 (8)
1	0.0 (0)	5.9 (1)	0.0 (0)	26.7 (4)	6.7 (1)	0.0 (0)
2	0.0 (0)	23.5 (4)	13.3 (2)	13.3 (2)	0.0 (0)	0.0 (0)
3	25.0 (4)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
4	6.3 (1)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
5 or more	25.0 (4)	29.4 (5)	6.7 (1)	0.0 (0)	6.7 (1)	11.1 (1)

A17. When driving in unfamiliar areas, are you generally confident or unconfident in finding your way around?

Very Unconfident 1 2 3 4 5 6 Very Confident 7

Ratings for Confidence in Finding Way in Unfamiliar Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	5.9 (1)	20.0 (3)	12.5 (2)	6.3 (1)	0.0 (0)
2	0.0 (0)	5.9 (1)	0.0 (0)	18.8 (3)	12.5 (2)	10.0 (1)
3	0.0 (0)	11.8 (2)	13.3 (2)	12.5 (2)	18.8 (3)	30.0 (3)
4	25.0 (4)	0.0 (0)	6.7 (1)	25.0 (4)	31.3 (5)	10.0 (1)
5	31.3 (5)	23.5 (4)	13.3 (2)	12.5 (2)	6.3 (1)	10.0 (1)
6	25.0 (4)	29.4 (5)	13.3 (2)	12.5 (2)	12.5 (2)	20.0 (2)
7	12.5 (2)	23.5 (4)	33.3 (5)	6.3 (1)	12.5 (2)	20.0 (2)

A18. How frequently do you use road maps?

Frequency of Road Map Use	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
At least once a week	6.3 (1)	11.8 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
1-3 times per month	31.3 (5)	17.6 (3)	26.7 (4)	31.3 (5)	12.5 (2)	0.0 (0)
Once every 2-6 months	25.0 (4)	64.7 (11)	46.7 (7)	37.5 (6)	62.5 (10)	40.0 (4)
Once a year	25.0 (5)	0.0 (0)	13.3 (2)	12.5 (2)	12.5 (2)	30.0 (3)
Less than once a year	12.5 (2)	5.9 (1)	13.3 (2)	18.8 (3)	12.5 (2)	30.0 (3)

A19. Prior to your experience with Ali-Scout, had you ever before driven a vehicle equipped with an electronic route-guidance system?

Prior Experience with Electronic Guidance System	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	6.3 (1)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	20.0 (2)
No	93.8 (15)	94.1 (16)	100.0 (15)	100.0 (16)	100.0 (17)	80.0 (8)

A20. If yes, which system did you use?

No responses

B. Technology

FAST-TRAC represents a test of new technology. In the following questions, we would like to learn about your experience with and interest in new technology.

B1. Indicate the amount of experience that you have had using the following technologies by circling the most appropriate number on the scale provided. On this scale, 1 means none and 7 means extensive experience.

Personal Computers

None Extensive

1 2 3 4 5 6 7

Rating for Amount of Experience Using Personal Computers	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	6.3 (1)	14.3 (2)	0.0 (0)	6.3 (1)	77.8 (7)
2	0.0 (0)	12.5 (2)	21.4 (3)	0.0 (0)	12.5 (2)	0.0 (0)
3	6.3 (1)	12.5 (2)	7.1 (1)	0.0 (0)	12.5 (2)	11.1 (1)
4	0.0 (0)	0.0 (0)	14.3 (2)	18.8 (3)	0.0 (0)	0.0 (0)
5	12.5 (2)	12.5 (2)	28.6 (4)	18.8 (3)	12.5 (2)	0.0 (0)
6	25.0 (4)	18.8 (3)	7.1 (1)	18.8 (3)	18.8 (3)	0.0 (0)
7	56.3 (9)	37.5 (6)	7.1 (1)	43.8 (7)	37.5 (6)	11.1 (1)

VCRs

None Extensive

1 2 3 4 5 6 7

Rating for Amount of Experience Using VCR	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	11.1 (1)
2	0.0 (0)	0.0 (0)	26.7 (4)	0.0 (0)	0.0 (0)	22.2 (2)
3	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	11.1 (1)
4	0.0 (0)	0.0 (0)	13.3 (2)	12.5 (2)	0.0 (0)	33.3 (3)
5	25.0 (4)	25.0 (4)	6.7 (1)	12.5 (2)	25.0 (4)	0.0 (0)
6	25.0 (4)	12.5 (2)	26.7 (4)	25.0 (4)	12.5 (2)	0.0 (0)
7	50.0 (8)	56.3 (9)	20.0 (3)	50.0 (8)	56.3 (9)	22.2 (2)

Electronic Pager

None Extensive

1 2 3 4 5 6 7

Rating for Amount of Experience Using Electronic Pagers	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	18.8 (3)	13.3 (2)	75.0 (9)	25.0 (4)	13.3 (2)	100.0 (8)
2	6.3 (1)	20.0 (3)	8.3 (1)	12.5 (2)	20.0 (3)	0.0 (0)
3	12.5 (2)	0.0 (0)	0.0 (0)	18.8 (3)	0.0 (0)	0.0 (0)
4	0.0 (0)	6.7 (1)	16.7 (2)	0.0 (0)	6.7 (1)	0.0 (0)
5	0.0 (0)	13.3 (2)	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)
6	6.3 (1)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)
7	56.3 (9)	46.7 (7)	0.0 (0)	31.3 (5)	46.7 (7)	0.0 (0)

Cellular Car Phones

None Extensive
1 2 3 4 5 6 7

Rating for Amount of Experience Using Cellular Car Phones	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	25.0 (4)	31.3 (5)	53.8 (7)	12.5 (2)	31.3 (5)	66.7 (6)
2	0.0 (0)	12.5 (2)	7.7 (1)	12.5 (2)	12.5 (2)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	11.1 (1)
4	12.5 (2)	6.3 (1)	15.4 (2)	12.5 (2)	6.3 (1)	0.0 (0)
5	6.3 (1)	18.8 (3)	23.1 (3)	0.0 (0)	18.8 (3)	11.1 (1)
6	6.3 (1)	0.0 (0)	0.0 (0)	18.8 (3)	0.0 (0)	0.0 (0)
7	50.0 (8)	31.3 (5)	0.0 (0)	31.3 (5)	31.3 (5)	11.1 (1)

Fax Machines

None Extensive
1 2 3 4 5 6 7

Rating for Amount of Experience Using Fax Machines	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	6.3 (1)	61.5 (8)	18.8 (3)	6.3 (1)	66.7 (6)
2	12.5 (2)	6.3 (1)	7.7 (1)	6.3 (1)	6.3 (1)	11.1 (1)
3	12.5 (2)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
4	12.5 (2)	6.3 (1)	0.0 (0)	12.5 (2)	6.3 (1)	0.0 (0)
5	6.3 (1)	12.5 (2)	0.0 (0)	12.5 (2)	12.5 (2)	11.1 (1)
6	6.3 (1)	18.8 (3)	23.1 (3)	12.5 (2)	18.8 (3)	0.0 (0)
7	50.0 (8)	50.0 (8)	7.7 (1)	31.3 (5)	50.0 (8)	11.1 (1)

Pocket Calculator

None Extensive
1 2 3 4 5 6 7

Rating for Amount of Experience Using Pocket Calculators	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	37.5 (3)
2	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.3 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	12.5 (1)
4	0.0 (0)	6.3 (1)	14.3 (2)	0.0 (0)	6.3 (1)	0.0 (0)
5	0.0 (0)	18.8 (3)	21.4 (3)	0.0 (0)	18.8 (3)	0.0 (0)
6	12.5 (2)	0.0 (0)	21.4 (3)	6.3 (1)	0.0 (0)	12.5 (1)
7	75.0 (12)	75.0 (12)	35.7 (5)	93.8 (15)	75.0 (12)	37.5 (3)

B2. In general, how interested are you in news items concerning new technology?

Level of Interest in News Items About Technology	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Not at all interested	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Not very interested	0.0 (0)	11.8 (2)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
Somewhat interested	26.7 (4)	11.8 (2)	40.0 (6)	43.8 (7)	52.9 (9)	50.0 (5)
Very interested	73.3 (11)	76.5 (13)	53.3 (8)	56.3 (9)	47.1 (8)	50.0 (5)

B3. In general, do you find new technology easy or difficult to use?

Ease or Difficulty of Using of New Technology	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Very difficult	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Somewhat difficult	6.7 (1)	11.8 (2)	13.3 (2)	0.0 (0)	5.9 (1)	60.0 (6)
Neither difficult nor easy	53.3 (8)	29.4 (5)	33.3 (5)	56.3 (9)	52.9 (9)	10.0 (1)
Somewhat easy	33.3 (5)	17.6 (3)	0.0 (0)	6.3 (1)	5.9 (1)	10.0 (1)
Very easy	6.7 (1)	41.2 (7)	53.3 (8)	37.5 (6)	35.3 (6)	20.0 (2)

B4. In general, how enjoyable do you find using new technology?

Enjoyment in Using New Technology	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Not at all enjoyable	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
Not very enjoyable	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Somewhat enjoyable	31.3 (5)	47.1 (8)	53.3 (8)	56.3 (9)	52.9 (9)	80.0 (8)
Very enjoyable	68.8 (11)	47.1 (8)	40.0 (6)	43.8 (7)	47.1 (8)	20.0 (2)

C. Ali-Scout Operation and Displays

As a participant in the FAST-TRAC Project, you have been driving a vehicle equipped with an electronic route-guidance system called Ali-Scout. In this section, we would like to learn what you think about the different parts of the system.

C1. Since you have had an Ali-Scout equipped vehicle, how often have you used Ali-Scout for trips in which you drove in the Oakland County Study Area? Please circle the most appropriate number on the scale provided.

Never Always
1 2 3 4 5 6 7

Ratings for Frequency of Use of Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	5.9 (1)	6.7 (1)	0.0 (0)	5.9 (1)	0.0 (0)
4	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	10.0 (1)
5	37.5 (6)	5.9 (1)	13.3 (2)	37.5 (6)	0.0 (0)	40.0 (4)
6	37.5 (6)	52.9 (9)	26.7 (4)	37.5 (6)	41.2 (7)	20.0 (2)
7	25.0 (4)	35.3 (6)	46.7 (7)	18.8 (3)	52.9 (9)	30.0 (3)

C1A. If you did not answer always, we would like to learn why you sometimes did not use the system.

Frequency of Reasons Given	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Many trips are very short	50.0 (1)	30.0 (3)	33.3 (3)	20.0 (1)	20.0 (1)	33.3 (2)
Too much trouble to program the destinations	0.0 (0)	20.0 (2)	0.0 (0)	20.0 (1)	0.0 (0)	0.0 (0)
I did not think Ali-Scout provided fastest route	0.0 (0)	10.0 (1)	11.1 (1)	20.0 (1)	20.0 (1)	16.7 (1)
I did not think Ali-Scout provided accurate guidance	0.0 (0)	20.0 (2)	11.1 (1)	20.0 (1)	40.0 (2)	16.7 (1)
I knew the way	50.0 (1)	10.0 (1)	22.2 (2)	20.0 (1)	20.0 (1)	16.7 (1)
Other	0.0 (0)	10.0 (1)	22.2 (2)	0.0 (0)	0.0 (0)	16.7 (1)

C2. The Ali-Scout system offers several options for entering new destinations. These options are:

Address Ranges--obtaining coordinates by using the address ranges section of the Ali-Scout manual,

Points of Interest--obtaining coordinates by using the points of interest section of the Ali-Scout manual,

Map--obtaining coordinates by referring to the map included in the Ali-Scout manual, and

Current Location--entering the current location of your vehicle.

We are interested in knowing which of these options you used most often for entering new destinations. Please rank them from one (most frequent) to four (least frequent) according to how often you used them.

Address Ranges

Most Frequent 1 2 3 Least Frequent 4

Ratings for Frequency of Use of Address Range	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	23.1 (3)	13.3 (2)	30.3 (3)	0.0 (0)	36.4 (4)	25.0 (2)
2	23.1 (3)	33.3 (5)	40.0 (4)	21.4 (3)	18.2 (2)	12.5 (1)
3	7.7 (1)	13.3 (2)	20.0 (2)	50.0 (7)	18.2 (2)	37.5 (3)
4	46.2 (6)	40.0 (6)	10.0 (1)	28.6 (4)	27.3 (3)	25.0 (2)

Points of Interest

Most Frequent 1 2 3 Least Frequent 4

Ratings for Frequency of Use of Points of Interest	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	15.4 (2)	33.3 (4)	25.0 (2)	50.0 (7)	27.3 (3)	0.0 (0)
2	38.5 (5)	25.0 (3)	12.5 (1)	35.7 (5)	27.3 (3)	50.0 (4)
3	30.8 (4)	16.7 (2)	50.0 (4)	7.1 (1)	27.3 (3)	25.0 (2)
4	15.4 (2)	25.0 (3)	12.5 (1)	7.1 (1)	18.2 (2)	25.0 (2)

Map

Most Frequent 1 2 3 Least Frequent 4

Ratings for Frequency of Use of Map	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	30.8 (4)	71.4 (10)	33.3 (3)	46.2 (6)	54.5 (6)	33.3 (3)
2	23.1 (3)	0.0 (0)	33.3 (3)	38.5 (5)	27.3 (3)	33.3 (3)
3	30.8 (4)	14.3 (2)	22.2 (2)	7.7 (1)	9.1 (1)	11.1 (1)
4	15.4 (2)	14.3 (2)	11.1 (1)	7.7 (1)	9.1 (1)	22.2 (2)

Current Location

Most Frequent 1 2 3 Least Frequent 4

Ratings for Frequency of Use of Current Location	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	30.8 (4)	15.4 (2)	0.0 (0)	7.7 (1)	30.0 (3)	42.9 (3)
2	15.4 (2)	23.1 (3)	11.1 (1)	0.0 (0)	20.0 (2)	0.0 (0)
3	30.8 (4)	38.5 (5)	22.2 (2)	23.1 (3)	30.0 (3)	0.0 (0)
4	23.1 (3)	23.1 (3)	66.7 (6)	69.2 (9)	20.0 (2)	57.1 (4)

C3. Ali-Scout stores up to 80 destinations in memory. Of all the trips that you took with Ali-Scout, how often did you select a destination from Ali-Scout's memory? Please circle the most appropriate point on the scale below.

0% 50% 100%
|_____|_____|_____|_____|_____|_____|_____|_____|_____|_____|

Percent of Destinations Selected from Ali-Scout Memory	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0-10	0.0 (0)	11.8 (2)	6.7 (1)	0.0 (0)	0.0 (0)	40.0 (4)
11-20	0.0 (0)	17.7 (3)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
21-30	12.5 (2)	0.0 (0)	13.4 (2)	0.0 (0)	0.0 (0)	10.0 (1)
31-40	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
41-50	18.8 (3)	5.9 (1)	6.7 (1)	18.8 (3)	11.8 (2)	10.0 (1)
51-60	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
61-70	6.3 (1)	0.0 (0)	26.7 (4)	12.5 (2)	23.5 (4)	10.0 (1)
71-80	25.0 (4)	35.2 (6)	26.6 (4)	25.0 (4)	29.4 (5)	10.0 (1)
81-90	18.8 (3)	23.5 (4)	13.3 (2)	18.8 (3)	17.6 (3)	0.0 (0)
91-100	6.3 (1)	5.9 (1)	0.0 (0)	25.0 (4)	11.8 (2)	20.0 (2)

C4. We also are interested in knowing how easy or difficult you found each method of entering and selecting destinations. Please rate each of the five methods by circling the most appropriate number on the scales provided.

Destination Memory

Did not use 0 | Very Difficult to Use 1 2 3 4 5 6 | Very Easy to Use 7

Ratings for Difficulty of Entering and Selecting Destination Memory	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	18.8 (3)	12.5 (2)	14.3 (2)	0.0 (0)	11.8 (2)	20.0 (2)
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
4	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
5	0.0 (0)	6.3 (1)	0.0 (0)	12.5 (2)	11.8 (2)	20.0 (2)
6	18.8 (3)	18.8 (3)	21.4 (3)	0.0 (0)	17.6 (3)	10.0 (1)
7	50.0 (8)	62.5 (10)	64.3 (9)	87.5 (14)	47.1 (8)	50.0 (5)

Address Ranges

Did Not Use 0 — Very Difficult to Use 1 2 3 4 5 6 — Very Easy to Use 7

Ratings for Difficulty of Entering and Selecting Address Ranges	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	12.5 (2)	37.5 (6)	7.7 (1)	25.0 (4)	12.5 (2)	40.0 (4)
1	12.5 (2)	0.0 (0)	7.7 (1)	6.3 (1)	6.3 (1)	10.0 (1)
2	0.0 (0)	6.3 (1)	0.0 (0)	6.3 (1)	6.3 (1)	0.0 (0)
3	12.5 (2)	6.3 (1)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)
4	0.0 (0)	6.3 (1)	15.4 (2)	6.3 (1)	6.3 (1)	20.0 (2)
5	12.5 (2)	12.5 (2)	15.4 (2)	12.5 (2)	25.0 (4)	0.0 (0)
6	25.0 (4)	6.3 (1)	23.1 (3)	31.3 (5)	12.5 (2)	0.0 (0)
7	25.0 (4)	25.0 (4)	30.8 (4)	12.5 (2)	18.8 (3)	30.0 (3)

Points of Interest

Did not Use 0 — Very Difficult to Use 1 2 3 4 5 6 — Very Easy to Use 7

Ratings for Difficulty of Entering and Selecting Points of Interest	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	6.3 (1)	29.4 (5)	14.3 (2)	6.3 (1)	26.7 (4)	50.0 (5)
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
2	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
3	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.3 (1)	11.8 (2)	14.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)
5	18.8 (3)	17.6 (3)	7.1 (1)	6.3 (1)	20.0 (3)	0.0 (0)
6	18.8 (3)	17.6 (3)	21.4 (3)	25.0 (4)	20.0 (3)	10.0 (1)
7	43.8 (7)	17.6 (3)	42.9 (6)	62.5 (10)	33.3 (5)	20.0 (2)

Map

Did Not Use 0 | Very Difficult to Use 1 2 3 4 5 6 | Very Easy to Use 7

Ratings for Difficulty of Entering and Selecting Map	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	25.0 (4)	12.5 (2)	0.0 (0)	12.5 (0)	5.9 (1)	0.0 (0)
1	0.0 (0)	0.0 (0)	14.3 (2)	6.3 (1)	5.9 (1)	10.0 (1)
2	12.5 (2)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.3 (1)	6.3 (1)	14.3 (2)	6.3 (1)	0.0 (0)	0.0 (0)
4	6.3 (1)	12.5 (2)	35.7 (5)	18.8 (3)	11.8 (2)	20.0 (2)
5	18.8 (3)	31.3 (5)	14.3 (2)	18.8 (3)	17.6 (3)	20.0 (2)
6	18.8 (3)	18.8 (3)	14.3 (2)	18.8 (3)	17.6 (3)	0.0 (0)
7	12.5 (2)	18.8 (3)	14.3 (2)	18.8 (3)	41.2 (7)	50.0 (5)

Current Location

Did Not Use 0 | Very Difficult to Use 1 2 3 4 5 6 | Very Easy to Use 7

Ratings for Difficulty of Entering and Selecting Current Location	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	18.8 (3)	23.5 (4)	42.9 (6)	56.3 (9)	25.0 (4)	50.0 (5)
1	0.0 (0)	5.9 (1)	7.1 (1)	6.3 (1)	6.3 (1)	0.0 (0)
2	0.0 (0)	5.9 (1)	0.0 (0)	12.5 (2)	6.3 (1)	10.0 (1)
3	31.3 (5)	17.6 (3)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
4	6.3 (1)	5.9 (1)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
5	0.0 (0)	5.9 (1)	0.0 (0)	6.3 (1)	18.8 (3)	10.0 (1)
6	12.5 (2)	0.0 (0)	14.3 (2)	6.3 (1)	6.3 (1)	0.0 (0)
7	31.3 (5)	35.3 (6)	28.6 (4)	6.3 (1)	37.5 (6)	30.0 (3)

C5. In order to enter and select destinations using Ali-Scout, you must use the system's keyboard. Please rate the following characteristics of the Ali-Scout system's Input Keyboard by circling the most appropriate number on the scales provided.

Ease or Difficulty of Learning Input Keyboard

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Learning Keyboard	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	22.2 (2)
2	0.0 (0)	11.8 (2)	0.0 (0)	0.0 (0)	0.0 (0)	11.1 (1)
3	6.3 (1)	11.8 (2)	20.0 (3)	12.5 (2)	0.0 (0)	0.0 (0)
4	18.8 (3)	11.8 (2)	33.3 (5)	12.5 (2)	17.6 (3)	22.2 (2)
5	6.3 (1)	29.4 (5)	13.3 (2)	12.5 (2)	11.8 (2)	11.1 (1)
6	25.0 (4)	11.8 (2)	26.7 (4)	37.5 (6)	29.4 (5)	22.2 (2)
7	43.8 (7)	23.5 (4)	6.7 (1)	25.0 (4)	35.3 (6)	11.1 (1)

Ease or Difficulty of Using Keyboard

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Using Keyboard	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	10.0 (1)
2	0.0 (0)	11.8 (2)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)
3	12.5 (2)	17.6 (3)	20.0 (3)	0.0 (0)	13.3 (2)	0.0 (0)
4	25.0 (4)	11.8 (2)	40.0 (6)	7.1 (1)	6.7 (1)	10.0 (1)
5	18.8 (3)	23.5 (4)	20.0 (3)	14.3 (2)	13.3 (2)	30.0 (3)
6	6.3 (1)	11.8 (2)	20.0 (3)	42.9 (6)	20.0 (3)	30.0 (3)
7	37.5 (6)	23.5 (4)	0.0 (0)	28.6 (4)	40.0 (6)	20.0 (2)

Keyboard Functioned Properly

Never Always
1 2 3 4 5 6 7

Ratings for Keyboard Functioned Properly	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
2	0.0 (0)	12.5 (2)	13.3 (2)	0.0 (0)	5.9 (1)	0.0 (0)
3	6.3 (1)	6.3 (1)	20.0 (3)	6.3 (1)	0.0 (0)	0.0 (0)
4	0.0 (0)	18.8 (3)	13.3 (2)	0.0 (0)	0.0 (0)	40.0 (4)
5	6.3 (1)	25.0 (4)	20.0 (3)	25.0 (4)	11.8 (2)	20.0 (2)
6	31.3 (5)	12.5 (2)	20.0 (3)	25.0 (4)	29.4 (5)	0.0 (0)
7	56.3 (9)	25.0 (4)	13.3 (2)	43.8 (7)	52.9 (9)	30.0 (3)

Overall Impression

Strongly Disliked Strongly Liked
1 2 3 4 5 6 7

Ratings for Overall Impression of Keyboard	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	5.9 (1)	13.3 (2)	0.0 (0)	5.9 (1)	10.0 (1)
2	6.3 (1)	17.6 (3)	6.7 (1)	18.8 (3)	0.0 (0)	0.0 (0)
3	0.0 (0)	11.8 (2)	6.7 (1)	0.0 (0)	5.9 (1)	10.0 (1)
4	37.5 (6)	23.5 (4)	26.7 (4)	6.3 (1)	23.5 (4)	40.0 (4)
5	18.8 (3)	17.6 (3)	6.7 (1)	6.3 (1)	17.6 (3)	10.0 (1)
6	18.8 (3)	11.8 (2)	33.3 (5)	50.0 (8)	5.9 (1)	20.0 (2)
7	12.5 (2)	11.8 (2)	6.7 (1)	18.8 (3)	41.2 (7)	10.0 (1)

C6. This is an example of the Ali-Scout system's Autonomous Mode (crow-fly direction) display. What information is this display showing (select only one answer by placing an X in the box provided)? The correct answer is "The distance and direction to the destination you entered."

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Distance and direction to the destination you entered	100.0 (16)	100.0 (17)	93.3 (14)	100.0 (15)	87.5 (14)	90.0 (9)
Get ready to turn left	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	10.0 (1)
Continue in the direction you are going	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)
You are near your destination	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

C7. Please rate the following characteristics of the Ali-Scout system's Autonomous Mode (crow-fly direction) display by circling the most appropriate number on the scales provided.

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Understanding Autonomous Mode Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	10.0 (1)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	30.0 (3)
4	0.0 (0)	0.0 (0)	13.3 (2)	6.3 (1)	5.9 (1)	10.0 (1)
5	0.0 (0)	17.6 (3)	20.0 (3)	18.8 (3)	5.9 (1)	10.0 (1)
6	31.3 (5)	35.3 (6)	6.7 (1)	50.0 (8)	29.4 (5)	10.0 (1)
7	68.8 (11)	47.1 (8)	53.3 (8)	25.0 (4)	58.8 (10)	30.0 (3)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction by Autonomous Mode Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	20.0 (2)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.7 (1)	5.9 (1)	20.0 (3)	12.5 (2)	5.9 (1)	0.0 (0)
4	6.7 (1)	5.9 (1)	6.7 (1)	6.3 (1)	5.9 (1)	10.0 (1)
5	13.3 (2)	5.9 (1)	0.0 (0)	12.5 (2)	5.9 (1)	10.0 (1)
6	26.7 (4)	47.1 (8)	33.3 (5)	25.0 (4)	23.5 (4)	30.0 (3)
7	46.7 (7)	35.3 (6)	33.3 (5)	43.8 (7)	58.8 (10)	30.0 (3)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Guidance by Autonomous Mode Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	7.1 (1)	6.3 (1)	5.9 (1)	0.0 (0)
2	6.3 (1)	11.8 (2)	14.3 (2)	6.3 (1)	0.0 (0)	11.1 (1)
3	12.5 (2)	0.0 (0)	14.3 (2)	0.0 (0)	11.8 (2)	22.2 (2)
4	12.5 (2)	17.6 (3)	14.3 (2)	0.0 (0)	0.0 (0)	33.3 (3)
5	43.8 (7)	35.3 (6)	42.9 (6)	56.3 (9)	29.4 (5)	22.2 (2)
6	18.8 (3)	23.5 (4)	7.1 (1)	18.8 (3)	29.4 (5)	0.0 (0)
7	6.3 (1)	11.8 (2)	0.0 (0)	12.5 (2)	23.5 (4)	11.1 (1)

Never Always
1 2 3 4 5 6 7

Ratings for Autonomous Mode Display Functioned Properly	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	10.0 (1)
2	0.0 (0)	11.8 (2)	6.7 (1)	0.0 (0)	5.9 (1)	0.0 (0)
3	12.5 (2)	23.5 (4)	20.0 (3)	0.0 (0)	0.0 (0)	0.0 (0)
4	18.8 (3)	17.6 (3)	13.3 (2)	12.5 (2)	11.8 (2)	30.0 (3)
5	18.8 (3)	23.5 (4)	20.0 (3)	43.8 (7)	17.6 (3)	50.0 (5)
6	43.8 (7)	23.5 (4)	13.3 (2)	12.5 (2)	23.5 (4)	0.0 (0)
7	6.3 (1)		26.7 (4)	31.3 (5)	35.3 (6)	10.0 (1)

Strongly Disliked Strongly Liked
1 2 3 4 5 6 7

Ratings for Autonomous Mode Display Overall Impression	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	6.7 (1)	0.0 (0)	5.9 (1)	20.0 (2)
2	6.3 (1)	5.9 (1)	13.3 (2)	18.8 (3)	0.0 (0)	10.0 (1)
3	6.3 (1)	5.9 (1)	6.7 (1)	0.0 (0)	0.0 (0)	10.0 (1)
4	18.8 (3)	23.5 (4)	13.3 (2)	6.3 (1)	35.3 (6)	20.0 (2)
5	18.8 (3)	17.6 (3)	13.3 (2)	18.8 (3)	17.6 (3)	10.0 (1)
6	37.5 (6)	23.5 (4)	40.0 (6)	43.8 (7)	5.9 (1)	20.0 (2)
7	12.5 (2)	17.6 (3)	6.7 (1)	12.5 (2)	35.3 (6)	10.0 (1)

C8. This is an example of the Ali-Scout system's Follow Main Road display. What information is this display showing (select only one answer by placing an X in the box provided)? The correct answer is "Continue in the direction you are going."

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Take one of these three roads	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
Continue in the direction you are going	93.8 (15)	68.8 (11)	80.0 (12)	100.0 (15)	81.3 (13)	37.5 (3)
You are near your destination	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
The distance and direction to the destination	6.3 (1)	31.3 (5)	20.0 (3)	0.0 (0)	18.8 (3)	50.0 (4)

C9. Please rate the following characteristics of the Ali-Scout system's Follow Main Road display by circling the most appropriate number on the scales provided.

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Understanding Main Road Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	12.5 (1)
4	6.3 (1)	0.0 (0)	6.7 (1)	6.3 (1)	5.9 (1)	25.0 (2)
5	6.3 (1)	6.3 (1)	6.7 (1)	6.3 (1)	5.9 (1)	0.0 (0)
6	18.8 (3)	43.8 (7)	26.7 (4)	12.5 (2)	11.8 (2)	12.5 (1)
7	68.8 (11)	50.0 (8)	60.0 (9)	75.0 (12)	64.7 (11)	50.0 (4)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Guidance for Main Road Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.7 (1)	6.3 (1)	6.7 (1)	6.3 (1)	0.0 (0)	12.5 (1)
3	13.3 (2)	0.0 (0)	0.0 (0)	12.5 (2)	11.8 (2)	0.0 (0)
4	13.3 (2)	12.5 (2)	20.0 (3)	0.0 (0)	5.9 (1)	50.0 (4)
5	13.3 (2)	25.0 (4)	33.3 (5)	12.5 (2)	11.8 (2)	0.0 (0)
6	0.0 (0)	50.0 (8)	20.0 (3)	31.3 (5)	23.5 (4)	12.5 (1)
7	53.3 (8)	6.3 (1)	20.0 (3)	37.5 (6)	47.1 (8)	25.0 (2)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Main Road Display Overall Impression	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)	5.9 (1)	12.5 (1)
2	6.7 (1)	0.0 (0)	6.7 (1)	18.8 (3)	0.0 (0)	12.5 (1)
3	6.7 (1)	0.0 (0)	0.0 (0)	6.3 (1)	5.9 (1)	12.5 (1)
4	26.7 (4)	12.5 (2)	13.3 (2)	6.3 (1)	5.9 (1)	12.5 (1)
5	13.3 (2)	12.5 (2)	20.0 (3)	12.5 (2)	17.6 (3)	12.5 (1)
6	6.7 (1)	50.0 (8)	46.7 (7)	25.0 (4)	23.5 (4)	12.5 (1)
7	40.0 (6)	18.8 (3)	6.7 (1)	31.3 (5)	41.2 (7)	25.0 (2)

C10. This is an example of the Ali-Scout system's Prepare Maneuver display. What information is this display showing (select only one answer by placing an X in the box provided)? The correct answer is "Move into the right lanes, you will be turning to the right soon."

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Make a right turn now	0.0 (0)	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)
Final destination is nearby and to the right	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	5.9 (1)	11.1 (1)
Move into the right lanes, you will be turning to the right soon	100.0 (16)	86.7 (13)	93.3 (14)	93.3 (14)	94.1 (16)	88.9 (8)
The distance and direction to the destination	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)

C11. Please rate the following characteristics of the Ali-Scout system's Prepare Maneuver display.

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Understanding Prepare Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
3	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	6.3 (1)	25.0 (2)
5	0.0 (0)	6.7 (1)	20.0 (3)	12.5 (2)	12.5 (2)	0.0 (0)
6	43.8 (7)	26.7 (4)	26.7 (4)	18.8 (3)	18.8 (3)	0.0 (0)
7	56.3 (9)	60.0 (9)	46.7 (7)	68.8 (11)	62.5 (10)	62.5 (5)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for Amount of Detail on Prepare Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.3 (1)	0.0 (0)	6.7 (1)	6.3 (1)	6.3 (1)	37.5 (3)
5	6.3 (1)	0.0 (0)	20.0 (3)	6.3 (1)	6.3 (1)	0.0 (0)
6	25.0 (4)	33.3 (5)	26.7 (4)	18.8 (3)	18.8 (3)	0.0 (0)
7	50.0 (8)	66.7 (10)	46.7 (7)	68.8 (11)	68.8 (11)	62.5 (5)

Not Enough 1 2 3 4 5 6 Too Much 7

Ratings for Amount of Advance Warning Provided by Prepare Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	6.3 (1)	0.0 (0)
2	6.3 (1)	6.7 (1)	0.0 (0)	18.8 (3)	18.8 (3)	12.5 (1)
3	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	6.3 (1)	12.5 (1)
4	37.5 (6)	33.3 (5)	46.7 (7)	31.3 (5)	25.0 (4)	12.5 (1)
5	25.0 (4)	26.7 (4)	20.0 (3)	25.0 (4)	6.3 (1)	50.0 (4)
6	12.5 (2)	26.7 (4)	33.3 (5)	12.5 (2)	31.3 (5)	12.5 (1)
7	6.3 (1)	6.7 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction by Prepare Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	6.3 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	16.7 (1)
3	6.3 (1)	0.0 (0)	6.7 (1)	18.8 (3)	6.3 (1)	0.0 (0)
4	18.8 (3)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	16.7 (1)
5	6.3 (1)	6.7 (1)	20.0 (3)	12.5 (2)	12.5 (2)	16.7 (1)
6	37.5 (6)	33.3 (5)	26.7 (4)	31.3 (5)	18.8 (3)	16.7 (1)
7	31.3 (5)	60.0 (9)	33.3 (5)	37.5 (6)	50.0 (8)	33.3 (7)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Guidance of Prepare Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	12.5 (1)
3	12.5 (2)	6.7 (1)	6.7 (1)	12.5 (2)	12.5 (2)	12.5 (1)
4	12.5 (2)	20.0 (3)	13.3 (2)	12.5 (2)	0.0 (0)	37.5 (3)
5	12.5 (2)	6.7 (1)	13.3 (2)	0.0 (0)	12.5 (2)	25.0 (2)
6	50.0 (8)	46.7 (7)	53.3 (8)	37.5 (6)	43.8 (7)	12.5 (1)
7	12.5 (2)	20.0 (3)	13.3 (2)	25.0 (4)	25.0 (4)	0.0 (0)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Prepare Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	13.3 (2)	6.3 (1)	6.3 (1)	12.5 (1)
2	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	25.0 (2)
3	12.5 (2)	0.0 (0)	0.0 (0)	6.3 (1)	6.3 (1)	0.0 (0)
4	12.5 (2)	20.0 (3)	13.3 (2)	6.3 (1)	6.3 (1)	12.5 (1)
5	31.3 (5)	0.0 (0)	20.0 (3)	0.0 (0)	25.0 (4)	25.0 (2)
6	31.3 (5)	46.7 (7)	26.7 (4)	37.5 (6)	12.5 (2)	25.0 (2)
7	12.5 (2)	26.7 (4)	26.7 (4)	43.8 (7)	43.8 (7)	0.0 (0)

C12. This is an example of the Ali-Scout system's Execute Maneuver display. What information is this display showing (select only one answer by placing an X in the box provided)? The correct answer is "Make a right turn now."

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Make a right turn now	100.0 (16)	87.5 (14)	64.3 (9)	92.9 (13)	88.2 (15)	50.0 (4)
Final destination is nearby and to the right	0.0 (0)	6.3 (1)	14.3 (2)	0.0 (0)	11.8 (2)	25.0 (2)
Move into the right lanes, you will be turning to the right soon	0.0 (0)	6.3 (1)	14.3 (2)	7.1 (1)	0.0 (0)	25.0 (2)
The distance and direction to the destination	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)

C13. Please rate the following characteristics of the Ali-Scout system's Execute Maneuver display.

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Understanding Execute Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
4	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	11.8 (2)	12.5 (1)
5	0.0 (0)	18.8 (3)	14.3 (2)	6.7 (1)	5.9 (1)	0.0 (0)
6	31.3 (5)	18.8 (3)	35.7 (5)	20.0 (3)	11.8 (2)	0.0 (0)
7	68.8 (11)	62.5 (10)	50.0 (7)	73.3 (11)	70.6 (12)	62.5 (5)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for Amount of Detail on Execute Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
4	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	5.9 (1)	0.0 (0)
5	6.3 (1)	12.5 (2)	14.3 (2)	6.7 (1)	5.9 (1)	12.5 (1)
6	37.5 (6)	31.3 (5)	42.9 (6)	26.7 (4)	17.6 (3)	12.5 (1)
7	43.8 (7)	56.3 (9)	42.9 (6)	60.0 (9)	70.6 (12)	62.5 (5)

Insufficient Sufficient
1 2 3 4 5 6 7

Ratings for Sufficiency of Advance Warning Provided by Execute Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.3 (1)	12.5 (2)	7.7 (1)	7.1 (1)	5.9 (1)	12.5 (1)
4	6.3 (1)	18.8 (3)	23.1 (3)	0.0 (0)	11.8 (2)	12.5 (1)
5	18.8 (3)	0.0 (0)	15.4 (2)	28.6 (4)	5.9 (1)	25.0 (2)
6	31.3 (5)	31.3 (5)	23.1 (3)	14.3 (2)	17.6 (3)	12.5 (1)
7	37.5 (6)	37.5 (6)	30.8 (4)	42.9 (6)	58.8 (10)	37.5 (3)

Very Distracting Not at all Distracting
1 2 3 4 5 6 7

Ratings for Distraction by Execute Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	5.9 (1)	14.3 (1)
3	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	14.3 (1)
4	6.3 (1)	6.3 (1)	14.3 (2)	6.7 (1)	5.9 (1)	0.0 (0)
5	18.8 (3)	12.5 (2)	7.1 (1)	26.7 (4)	11.8 (2)	0.0 (0)
6	43.8 (7)	31.3 (5)	28.6 (4)	33.3 (5)	11.8 (2)	28.6 (2)
7	25.0 (4)	50.0 (8)	35.7 (5)	33.3 (5)	58.8 (10)	42.9 (3)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Execute Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)
2	0.0 (0)	6.3 (1)	7.1 (1)	0.0 (0)	5.9 (1)	12.5 (1)
3	6.3 (1)	0.0 (0)	7.1 (1)	6.7 (1)	5.9 (1)	12.5 (1)
4	12.5 (2)	12.5 (2)	21.4 (3)	6.7 (1)	0.0 (0)	37.5 (3)
5	6.3 (1)	12.5 (2)	14.3 (2)	0.0 (0)	11.8 (2)	0.0 (0)
6	56.3 (6)	50.0 (8)	28.6 (4)	40.0 (6)	35.3 (6)	25.0 (2)
7	18.8 (3)	18.8 (3)	21.4 (3)	40.0 (6)	41.2 (7)	12.5 (1)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Execute Maneuver Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	7.1 (1)	6.7 (1)	5.9 (1)	25.0 (2)
2	6.3 (1)	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
3	0.0 (0)	6.3 (1)	0.0 (0)	6.7 (1)	5.9 (1)	0.0 (0)
4	12.5 (2)	12.5 (2)	14.3 (2)	0.0 (0)	0.0 (0)	12.5 (1)
5	37.5 (6)	18.8 (3)	28.6 (4)	13.3 (2)	17.6 (3)	25.0 (2)
6	31.3 (5)	31.3 (5)	21.4 (3)	26.7 (4)	29.4 (5)	12.5 (1)
7	12.5 (2)	25.0 (4)	28.6 (4)	46.7 (7)	41.2 (7)	12.5 (1)

C14. Please rate the following characteristics of the Turn Arrow information (the shaded region in the figure below) provided by Ali-Scout.

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Understanding Turn Arrow Information	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.3 (1)	0.0 (0)	0.0 (0)	6.7 (1)	5.9 (1)	0.0 (0)
5	0.0 (0)	0.0 (0)	14.3 (2)	0.0 (0)	0.0 (0)	12.5 (1)
6	25.0 (4)	43.8 (7)	21.4 (3)	6.7 (1)	23.5 (4)	12.5 (1)
7	68.8 (11)	56.3 (9)	64.3 (9)	86.7 (13)	70.6 (12)	62.5 (5)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for the Amount of Detail on Turn Arrow Information	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
3	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	12.5 (1)
5	6.3 (1)	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	12.5 (1)
6	31.3 (5)	31.3 (5)	35.7 (5)	26.7 (4)	29.4 (5)	12.5 (1)
7	50.0 (8)	62.5 (10)	64.3 (9)	66.7 (10)	64.7 (11)	50.0 (4)

Not Enough 1 2 3 4 5 6 Too Much 7

Ratings for Amount of Advance Warning Provided by Turn Arrow Information	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)
2	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	12.5 (1)
3	0.0 (0)	6.3 (1)	0.0 (0)	13.3 (2)	12.5 (2)	37.5 (3)
4	31.3 (5)	37.5 (6)	14.3 (2)	53.3 (8)	31.3 (5)	0.0 (0)
5	18.8 (3)	12.5 (2)	42.9 (6)	20.0 (3)	12.5 (2)	37.5 (3)
6	37.5 (6)	43.8 (7)	42.9 (6)	6.7 (1)	37.5 (6)	12.5 (1)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction by Turn Arrow Information	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.3 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	12.5 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	11.8 (2)	25.0 (2)
4	12.5 (2)	6.3 (1)	7.1 (1)	6.7 (1)	11.8 (2)	25.0 (2)
5	6.3 (1)	6.3 (1)	21.4 (3)	20.0 (3)	5.9 (1)	25.0 (2)
6	37.5 (6)	37.5 (6)	7.1 (1)	33.3 (5)	17.6 (3)	0.0 (0)
7	37.5 (6)	50.0 (8)	50.0 (7)	40.0 (6)	52.9 (9)	12.5 (1)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Guidance by Turn Arrow Information	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)
2	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)
3	12.5 (2)	0.0 (0)	7.1 (1)	6.7 (1)	5.9 (1)	25.0 (2)
4	12.5 (2)	6.3 (1)	7.1 (1)	0.0 (0)	17.6 (3)	25.0 (2)
5	18.8 (3)	18.8 (3)	28.6 (4)	0.0 (0)	11.8 (2)	25.0 (2)
6	43.8 (7)	43.8 (7)	28.6 (4)	40.0 (6)	23.5 (4)	0.0 (0)
7	12.5 (2)	25.0 (4)	28.6 (4)	46.7 (7)	41.2 (7)	12.5 (1)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Turn Arrow Information	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	25.0 (2)
2	6.3 (1)	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	12.5 (1)
3	6.3 (1)	6.3 (1)	7.1 (1)	6.7 (1)	5.9 (1)	12.5 (1)
4	6.3 (1)	18.8 (3)	14.3 (2)	13.3 (2)	5.9 (1)	12.5 (1)
5	31.3 (5)	6.3 (1)	21.4 (3)	6.7 (1)	17.6 (3)	0.0 (0)
6	31.3 (5)	37.5 (6)	28.6 (4)	20.0 (3)	17.6 (3)	12.5 (1)
7	18.8 (3)	25.0 (4)	28.6 (4)	46.7 (7)	47.1 (8)	25.0 (2)

C15. The countdown bar of the Prepare Maneuver and Execute Maneuver displays is shaded in the figure below. What information is the shaded portion of the display showing (select only one answer by placing an X in the box provided)? The correct answer is "relative distance to the right turn."

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Relative distance to the right turn	100.0 (16)	100.0 (16)	80.0 (12)	100.0 (14)	93.3 (14)	75.0 (6)
Amount of fuel in the gas tank	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Distance and direction to the destination you entered	0.0 (0)	0.0 (0)	20.0 (3)	0.0 (0)	0.0 (0)	0.0 (0)
Portion of the trip completed	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	25.0 (2)

C16. Please rate the following characteristics of the Countdown Bar information provided by Ali-Scout.

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Understanding Countdown Bar	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	14.3 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
5	6.3 (1)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	28.6 (2)
6	18.8 (3)	31.3 (5)	26.7 (4)	25.0 (4)	29.4 (5)	0.0 (0)
7	68.8 (11)	68.8 (11)	60.0 (9)	62.5 (10)	70.6 (12)	57.1 (4)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for Amount of Detail on Countdown Bar	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	14.3 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	12.5 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	28.6 (2)
5	18.8 (3)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
6	18.8 (3)	37.5 (6)	33.3 (5)	37.5 (6)	29.4 (5)	14.3 (1)
7	43.8 (7)	62.5 (10)	60.0 (9)	56.3 (9)	70.6 (12)	42.9 (3)

Not Enough 1 2 3 4 5 6 Too Much 7

Ratings for Amount of Advance Warning Provided by Countdown Bar	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	12.5 (1)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	6.3 (1)	12.5 (1)
3	0.0 (0)	6.3 (1)	0.0 (0)	25.0 (4)	12.5 (2)	12.5 (1)
4	37.5 (6)	37.5 (6)	13.3 (2)	37.5 (6)	31.3 (5)	25.0 (2)
5	25.0 (4)	18.8 (3)	46.7 (7)	25.0 (4)	18.8 (3)	25.0 (2)
6	31.3 (5)	37.5 (6)	33.3 (5)	6.3 (1)	25.0 (4)	12.5 (1)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction by Countdown Bar	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	12.5 (2)	13.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	14.3 (1)
3	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	5.9 (1)	0.0 (0)
4	6.3 (1)	12.5 (2)	0.0 (0)	18.8 (3)	5.9 (1)	0.0 (0)
5	12.5 (2)	6.3 (1)	20.0 (3)	6.3 (1)	11.8 (2)	28.6 (2)
6	50.0 (8)	31.3 (5)	26.7 (4)	31.3 (5)	23.5 (4)	14.3 (1)
7	31.3 (5)	37.5 (6)	26.7 (4)	37.5 (6)	47.1 (8)	42.9 (3)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Countdown Bar	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
2	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)	5.9 (1)	28.6 (2)
3	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	5.9 (1)	14.3 (1)
4	18.8 (3)	0.0 (0)	13.3 (2)	0.0 (0)	0.0 (0)	28.6 (2)
5	25.0 (4)	12.5 (2)	13.3 (2)	6.3 (1)	5.9 (1)	28.6 (2)
6	43.8 (7)	37.5 (6)	40.0 (6)	37.5 (6)	41.2 (7)	0.0 (0)
7	12.5 (2)	43.8 (7)	20.0 (3)	43.8 (7)	41.2 (7)	0.0 (0)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Countdown Bar	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	5.9 (1)	0.0 (0)
2	0.0 (0)	6.3 (1)	0.0 (0)	6.3 (1)	0.0 (0)	28.6 (2)
3	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
4	18.8 (3)	12.5 (2)	20.0 (3)	12.5 (2)	0.0 (0)	28.6 (2)
5	18.8 (3)	6.3 (1)	13.3 (2)	25.0 (4)	17.6 (3)	0.0 (0)
6	56.3 (9)	50.0 (8)	40.0 (6)	25.0 (4)	35.3 (6)	28.6 (2)
7	6.3 (1)	18.8 (3)	13.3 (2)	31.3 (7)	35.3 (6)	14.3 (1)

C17. The lane recommendation portion of the Prepare maneuver and Execute maneuver displays is shaded in the figure below. What information is this display showing (select only one answer by placing an X in the box provided)? The correct answer is "Move into one of the two right lanes."

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Make a right turn now	0.0 (0)	6.3 (1)	20.0 (3)	0.0 (0)	20.0 (3)	22.2 (2)
Move into one of the two right lanes	100.0 (16)	87.5 (14)	80.0 (12)	100.0 (16)	80.0 (12)	77.8 (7)
There are two cars to your right	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Move into the left lane	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

C18. Please rate the following characteristics of the Lane Recommendation information provided by Ali-Scout.

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Understanding Lane Recommendation	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	14.3 (1)
3	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	14.3 (1)
4	6.3 (1)	0.0 (0)	6.7 (1)	12.5 (2)	0.0 (0)	0.0 (0)
5	0.0 (0)	18.8 (3)	6.7 (1)	0.0 (0)	5.9 (1)	0.0 (0)
6	31.3 (5)	25.0 (4)	26.7 (4)	6.3 (1)	23.5 (4)	14.3 (1)
7	62.5 (10)	50.0 (8)	60.0 (9)	81.3 (13)	70.6 (12)	57.1 (4)

Insufficient 1 2 3 4 5 6 7 Sufficient

Ratings for Amount of Detail on Lane Recommendation	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	14.3 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	14.3 (1)
4	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
5	6.3 (1)	18.8 (3)	6.7 (1)	12.5 (2)	5.9 (1)	0.0 (0)
6	31.3 (5)	31.3 (5)	20.0 (3)	25.0 (4)	29.4 (5)	14.3 (1)
7	50.0 (8)	50.0 (8)	66.7 (10)	62.5 (10)	64.7 (11)	57.1 (4)

Not Enough 1 2 3 4 5 6 Too Much 7

Ratings for Amount of Warning Provided by Lane Recommendation	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	5.9 (1)	0.0 (0)
2	13.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	14.3 (1)
3	6.7 (1)	6.7 (1)	13.3 (2)	12.5 (2)	5.9 (1)	14.3 (1)
4	33.3 (5)	33.3 (5)	6.7 (1)	62.5 (10)	41.2 (7)	42.9 (3)
5	26.7 (4)	20.0 (3)	26.7 (4)	12.5 (2)	11.8 (2)	28.6 (2)
6	13.3 (2)	40.0 (6)	53.3 (8)	0.0 (0)	29.4 (3)	0.0 (0)
7	6.7 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction by Lane Recommendation	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	6.7 (1)	13.3 (2)	0.0 (0)	5.9 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	14.3 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	17.6 (3)	0.0 (0)
4	6.3 (1)	6.7 (1)	6.7 (1)	6.3 (1)	5.9 (1)	0.0 (0)
5	18.8 (3)	0.0 (0)	20.0 (3)	18.8 (3)	11.8 (2)	14.3 (1)
6	50.0 (8)	40.0 (6)	13.3 (2)	25.0 (4)	17.6 (3)	28.6 (2)
7	25.0 (4)	46.7 (7)	40.0 (6)	50.0 (8)	41.2 (7)	42.9 (3)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Lane Recommendation	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
2	0.0 (0)	6.7 (1)	0.0 (0)	6.3 (1)	5.9 (1)	14.3 (1)
3	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	5.9 (1)	0.0 (0)
4	18.8 (3)	6.7 (1)	13.3 (2)	6.3 (1)	11.8 (2)	14.3 (1)
5	18.8 (3)	20.0 (3)	6.7 (1)	18.8 (3)	5.9 (1)	28.6 (2)
6	25.0 (4)	40.0 (6)	33.3 (5)	12.5 (2)	23.5 (4)	14.3 (1)
7	37.5 (6)	33.3 (5)	33.3 (5)	50.0 (8)	47.1 (8)	28.6 (2)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Lane Recommendation	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	5.9 (1)	12.5 (1)
2	0.0 (0)	6.7 (1)	0.0 (0)	6.3 (1)	5.9 (1)	25.0 (2)
3	0.0 (0)	13.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
4	12.5 (2)	6.7 (1)	20.0 (3)	18.8 (3)	5.9 (1)	0.0 (0)
5	25.0 (4)	13.3 (2)	6.7 (1)	18.8 (3)	17.6 (3)	12.5 (1)
6	37.5 (6)	46.7 (7)	26.7 (4)	18.8 (3)	29.4 (5)	25.0 (2)
7	25.0 (4)	13.3 (2)	33.3 (5)	37.5 (6)	35.3 (6)	12.5 (1)

C19. During normal use of Ali-Scout, you may leave guided mode (for example, if you ignore a route instruction or if you pass a beacon that is not operating). In such situations, Ali-Scout displays the Left Recommended Route display. Please rate the following characteristics of the Ali-Scout system's Left Recommended Route display.

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Understanding Left Recommended Route Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	13.3 (2)	6.3 (1)	0.0 (0)	33.3 (2)
2	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	50.0 (3)
3	18.8 (3)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	16.7 (1)
4	6.3 (1)	11.8 (2)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
5	6.3 (1)	5.9 (1)	13.3 (2)	18.8 (3)	0.0 (0)	0.0 (0)
6	12.5 (2)	11.8 (2)	6.7 (1)	12.5 (2)	41.2 (7)	0.0 (0)
7	56.3 (9)	70.6 (12)	46.7 (7)	56.3 (9)	52.9 (9)	0.0 (0)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction of Left Recommended Route Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	12.5 (2)	0.0 (0)	21.4 (3)	18.8 (3)	11.8 (2)	16.7 (1)
2	6.33 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	7.1 (1)	6.3 (1)	5.9 (1)	0.0 (0)
4	12.5 (2)	11.8 (2)	14.3 (2)	6.3 (1)	17.6 (3)	33.3 (2)
5	25.0 (4)	5.9 (1)	7.1 (1)	6.3 (1)	0.0 (0)	16.7 (1)
6	18.8 (3)	23.5 (4)	7.1 (1)	43.8 (7)	23.5 (4)	16.7 (1)
7	25.0 (4)	58.8 (10)	35.7 (5)	18.8 (3)	41.2 (7)	16.7 (1)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Left Recommended Route Display	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	17.6 (3)	13.3 (2)	18.8 (3)	17.6 (3)	28.6 (2)
2	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	5.9 (1)	14.3 (1)
3	25.0 (4)	17.6 (3)	6.7 (1)	0.0 (0)	5.9 (1)	28.6 (2)
4	25.0 (4)	11.8 (2)	20.0 (3)	25.0 (4)	5.9 (1)	28.6 (2)
5	6.3 (1)	17.6 (3)	20.0 (3)	6.3 (1)	17.6 (3)	0.0 (0)
6	31.3 (5)	17.6 (3)	6.7 (1)	25.0 (4)	17.6 (3)	0.0 (0)
7	6.3 (1)	17.6 (3)	20.0 (3)	25.0 (4)	29.4 (5)	0.0 (0)

C20. When you get close to your destination, Ali-Scout enters the destination zone and returns to autonomous-mode. Please rate the following characteristics of the Ali-Scout system's Switch over to Autonomous Mode in the Destination Zone display.

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Understanding Switch to Autonomous Mode	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	14.3 (1)
3	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	14.3 (1)
4	12.5 (2)	11.8 (2)	13.3 (2)	0.0 (0)	23.5 (4)	0.0 (0)
5	25.0 (4)	11.8 (2)	6.7 (1)	6.3 (1)	0.0 (0)	14.3 (1)
6	18.8 (3)	17.6 (3)	13.3 (2)	43.8 (7)	23.5 (4)	14.3 (1)
7	37.5 (6)	58.8 (10)	46.7 (7)	50.0 (8)	47.1 (8)	42.9 (3)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Switch to Autonomous Mode	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	11.8 (2)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.3 (1)	0.0 (0)	13.3 (2)	6.3 (1)	5.9 (1)	28.6 (2)
3	6.3 (1)	0.0 (0)	13.3 (2)	0.0 (0)	5.9 (1)	28.6 (2)
4	18.8 (3)	23.5 (4)	6.7 (1)	6.3 (1)	11.8 (2)	0.0 (0)
5	31.3 (5)	23.5 (4)	20.0 (3)	18.8 (3)	11.8 (2)	14.3 (1)
6	12.5 (2)	23.5 (4)	13.3 (2)	37.5 (6)	23.5 (4)	0.0 (0)
7	25.0 (4)	17.6 (3)	26.7 (4)	31.3 (5)	41.2 (7)	28.6 (2)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Switch to Autonomous Mode	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	11.8 (2)	13.3 (2)	0.0 (0)	11.8 (2)	12.5 (1)
2	0.0 (0)	0.0 (0)	20.0 (3)	0.0 (0)	5.9 (1)	25.0 (2)
3	12.5 (2)	11.8 (2)	0.0 (0)	6.3 (1)	5.9 (1)	12.5 (1)
4	31.3 (5)	17.6 (3)	13.3 (2)	18.8 (3)	11.8 (2)	25.0 (2)
5	12.5 (2)	17.6 (3)	20.0 (3)	18.8 (3)	17.6 (3)	0.0 (0)
6	18.8 (3)	29.4 (5)	13.3 (2)	37.5 (6)	5.9 (1)	0.0 (0)
7	18.8 (3)	11.8 (2)	20.0 (3)	18.8 (3)	41.2 (7)	25.0 (2)

C21. In general, how often did you feel that you were close enough to your final destination when Ali-Scout switched to the autonomous-mode in the destination zone? Circle the most appropriate number on the scale provided.

Always 1 2 3 4 5 6 Never 7

Ratings for Close Enough to Final Destination	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	12.5 (2)	23.5 (4)	26.7 (4)	12.5 (2)	5.9 (1)	12.5 (1)
2	12.5 (2)	29.4 (5)	13.3 (2)	12.5 (2)	23.5 (4)	25.0 (2)
3	37.5 (6)	11.8 (2)	13.3 (2)	43.8 (7)	17.6 (3)	37.5 (3)
4	12.5 (2)	17.6 (3)	26.7 (4)	0.0 (0)	17.6 (3)	12.5 (1)
5	6.3 (1)	5.9 (1)	13.3 (2)	31.3 (5)	23.5 (4)	0.0 (0)
6	12.5 (2)	11.8 (2)	6.7 (1)	0.0 (0)	5.9 (1)	12.5 (1)
7	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)

C22. After entering the destination zone, how often did you have difficulty finding your final destination?

Always had Difficulty 1 2 3 4 5 6 Never had Difficulty 7

Ratings for Difficulty Finding Destination When Destination Zone Reached	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	20.0 (3)	6.3 (1)	0.0 (0)	12.5 (1)
4	12.5 (2)	5.9 (1)	13.3 (2)	6.3 (1)	5.9 (1)	12.5 (1)
5	6.3 (1)	0.0 (0)	6.7 (1)	6.3 (1)	11.8 (2)	0.0 (0)
6	37.5 (6)	29.4 (5)	40.0 (6)	25.0 (4)	35.3 (6)	37.5 (3)
7	43.8 (7)	64.7 (11)	20.0 (3)	56.3 (9)	47.1 (8)	37.5 (3)

D. The Ali-Scout System as a Whole

In this set of questions, we would like to learn what you think of the Ali-Scout system as a whole.

D1. We would like to know your overall assessment of Ali-Scout's visual displays and concepts. Please rate the listed characteristics of Ali-Scout by circling the most appropriate number on the scales provided.

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Reading Visual Display (Driving)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	11.1 (1)
2	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)
3	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	22.2 (2)
4	0.0 (0)	5.9 (1)	6.7 (1)	12.5 (2)	11.8 (2)	11.1 (1)
5	33.3 (5)	35.3 (6)	26.7 (4)	18.8 (3)	11.8 (2)	22.2 (2)
6	26.7 (4)	29.4 (5)	26.7 (4)	18.8 (3)	35.3 (6)	11.1 (1)
7	26.7 (4)	0.0 (0)	33.3 (5)	43.8 (7)	41.2 (7)	22.2 (2)

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty of Reading Visual Display (Still)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	12.5 (1)
5	6.7 (1)	11.8 (2)	20.0 (3)	0.0 (0)	0.0 (0)	25.0 (2)
6	33.3 (5)	23.5 (4)	13.3 (2)	31.3 (5)	35.3 (6)	0.0 (0)
7	60.0 (9)	64.7 (11)	60.0 (9)	68.8 (11)	58.8 (10)	62.5 (5)

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Understanding Visual Displays and Concepts	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	12.5 (1)
3	6.7 (1)	5.9 (1)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
4	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	5.9 (1)	50.0 (4)
5	13.3 (2)	11.8 (2)	26.7 (4)	12.5 (2)	0.0 (0)	25.0 (2)
6	46.7 (7)	47.1 (8)	20.0 (3)	43.8 (7)	52.9 (9)	0.0 (0)
7	33.3 (5)	29.4 (5)	40.0 (6)	43.8 (7)	41.2 (7)	12.5 (1)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for Sufficiency of Advance Warning Provided	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	5.9 (1)	0.0 (0)	6.3 (1)	6.3 (1)	11.1 (1)
2	6.7 (1)	0.0 (0)	20.0 (3)	12.5 (2)	6.3 (1)	0.0 (0)
3	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	33.3 (3)
4	13.3 (2)	0.0 (0)	6.7 (1)	12.5 (2)	12.5 (2)	11.1 (1)
5	13.3 (2)	23.5 (4)	20.0 (3)	12.5 (2)	12.5 (2)	22.2 (2)
6	60.0 (9)	35.3 (6)	20.0 (3)	25.0 (4)	31.3 (5)	0.0 (0)
7	0.0 (0)	29.4 (5)	33.3 (5)	31.3 (5)	31.3 (5)	22.2 (2)

Insufficient Sufficient
1 2 3 4 5 6 7

Ratings for Sufficiency of Accuracy of Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	5.91 (1)	6.7 (1)	6.3 (1)	6.3 (1)	0.0 (0)
2	0.0 (0)	5.91 (1)	6.7 (1)	0.0 (0)	6.3 (1)	12.5 (1)
3	13.3 (2)	5.91 (1)	0.0 (0)	0.0 (0)	6.3 (1)	50.0 (4)
4	13.3 (2)	0.0 (0)	33.3 (5)	25.0 (4)	18.8 (3)	25.0 (2)
5	33.3 (5)	41.2 (7)	20.0 (3)	18.8 (3)	6.3 (1)	12.5 (1)
6	26.7 (4)	17.6 (3)	20.0 (3)	43.8 (7)	31.3 (5)	0.0 (0)
7	6.7 (1)	23.5 (4)	13.3 (2)	6.3 (1)	25.0 (4)	0.0 (0)

Always Never
1 2 3 4 5 6 7

Ratings for Helped Me Find My Way	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	13.3 (2)	0.0 (0)	20.0 (3)	6.7 (1)	17.6 (3)	0.0 (0)
2	20.0 (3)	35.3 (6)	13.3 (2)	33.3 (5)	23.5 (4)	11.1 (1)
3	13.3 (2)	5.9 (1)	20.0 (3)	13.3 (2)	5.9 (1)	0.0 (0)
4	20.0 (3)	17.6 (3)	6.7 (1)	6.7 (1)	11.8 (2)	0.0 (0)
5	20.0 (3)	17.6 (3)	20.0 (3)	13.3 (2)	17.6 (3)	11.1 (1)
6	6.7 (1)	5.9 (1)	6.7 (1)	0.0 (0)	11.8 (2)	33.3 (3)
7	6.7 (1)	17.6 (3)	13.3 (2)	26.7 (4)	11.8 (2)	44.4 (4)

Strongly Disliked — Strongly Liked

1 2 3 4 5 6 7

Ratings for Overall Impression	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	5.9 (1)	13.3 (2)	6.3 (1)	5.9 (1)	11.1 (1)
2	6.7 (1)	5.9 (1)	0.0 (0)	12.5 (2)	5.9 (1)	0.0 (0)
3	13.3 (2)	5.9 (1)	0.0 (0)	6.3 (1)	5.9 (1)	11.1 (1)
4	13.3 (2)	17.6 (3)	33.3 (5)	18.8 (3)	17.6 (3)	22.2 (2)
5	13.3 (2)	17.6 (3)	6.7 (1)	0.0 (0)	5.9 (1)	22.2 (2)
6	40.0 (6)	23.5 (4)	26.7 (4)	31.3 (5)	23.5 (4)	33.3 (3)
7	6.7 (1)	23.5 (4)	20.0 (3)	25.0 (4)	35.3 (6)	0.0 (0)

D2. In general, were Ali-Scout's visual displays distracting:

Very Distracting — Not at all Distracting

1 2 3 4 5 6 7

Ratings for Distraction by Visual Display at Night	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	12.5 (2)	0.0 (0)
4	6.7 (1)	0.0 (0)	13.3 (2)	0.0 (0)	12.5 (2)	11.1 (1)
5	13.3 (2)	11.8 (2)	6.7 (1)	0.0 (0)	12.5 (2)	22.2 (2)
6	33.3 (5)	41.2 (7)	26.7 (4)	37.5 (6)	12.5 (2)	33.3 (3)
7	40.0 (6)	47.1 (8)	40.0 (6)	62.5 (10)	50.0 (8)	33.3 (3)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction by Visual Display During Daylight Hours	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)
4	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	6.3 (1)	11.1 (1)
5	13.3 (2)	11.8 (2)	6.7 (1)	0.0 (0)	0.0 (0)	22.2 (2)
6	26.7 (4)	41.2 (7)	33.3 (5)	31.3 (5)	37.5 (6)	33.3 (3)
7	53.3 (8)	47.1 (8)	46.7 (7)	62.5 (10)	50.0 (8)	33.3 (3)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction of Visual Display in Heavy Traffic	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	5.9 (1)	6.7 (1)	0.0 (0)	0.0 (0)	11.1 (1)
2	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	11.1 (1)
4	0.0 (0)	0.0 (0)	20.0 (3)	0.0 (0)	18.8 (3)	11.1 (1)
5	13.3 (2)	17.6 (3)	6.7 (1)	6.3 (1)	12.5 (2)	11.1 (1)
6	26.7 (4)	29.4 (5)	20.0 (3)	31.3 (5)	12.5 (2)	22.2 (2)
7	46.7 (7)	47.1 (8)	40.0 (6)	62.5 (10)	56.3 (9)	33.3 (3)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction of Visual Display in Light Traffic	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	5.9 (1)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	11.1 (1)
4	0.0 (0)	0.0 (0)	20.0 (3)	6.3 (1)	12.5 (2)	11.1 (1)
5	6.7 (1)	5.9 (1)	0.0 (0)	6.3 (1)	6.3 (1)	11.1 (1)
6	33.3 (5)	41.2 (7)	20.0 (3)	25.0 (4)	25.0 (4)	33.3 (3)
7	53.3 (8)	47.1 (8)	46.7 (7)	62.5 (10)	56.3 (9)	33.3 (3)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction of Visual Display on Freeways	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.7 (1)	0.0 (0)	21.4 (3)	12.5 (2)	6.3 (1)	11.1 (1)
5	6.7 (1)	11.8 (2)	7.1 (1)	6.3 (1)	6.3 (1)	22.2 (2)
6	20.0 (3)	41.2 (7)	14.3 (2)	37.5 (6)	31.3 (5)	33.3 (3)
7	60.0 (6)	47.1 (8)	57.1 (8)	43.8 (7)	56.3 (9)	33.3 (3)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction of Visual Display on Other Roads	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)
4	0.0 (0)	5.9 (1)	20.0 (3)	0.0 (0)	6.3 (1)	22.2 (2)
5	26.7 (4)	17.6 (3)	6.7 (1)	6.3 (1)	0.0 (0)	22.2 (2)
6	13.3 (2)	29.4 (5)	20.0 (3)	37.5 (6)	25.0 (4)	22.2 (2)
7	53.3 (8)	47.1 (8)	46.7 (7)	56.3 (9)	62.5 (10)	33.3 (3)

D3. For this question, we would like to know your overall assessment of the Ali-Scout system's Voice Guidance feature. Please circle the most appropriate number on the scale provided.

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Hearing Voice Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	13.3 (2)	6.3 (1)	0.0 (0)	0.0 (0)
4	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	0.0 (0)
5	6.7 (1)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)
6	6.7 (1)	17.6 (3)	6.7 (1)	18.8 (3)	17.6 (3)	37.5 (3)
7	73.3 (11)	82.4 (14)	66.7 (10)	68.8 (11)	76.5 (13)	62.5 (5)

Very Difficult 1 2 3 4 5 6 Very Easy 7

Ratings for Difficulty of Understanding Voice Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	12.5 (1)
2	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
5	13.3 (2)	0.0 (0)	13.3 (2)	6.7 (1)	0.0 (0)	0.0 (0)
6	0.0 (0)	23.5 (4)	20.0 (3)	6.7 (1)	17.6 (3)	25.0 (2)
7	73.3 (11)	76.5 (13)	60.0 (9)	86.7 (13)	76.5 (13)	62.5 (5)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for Amount of Information Given by Voice Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	12.5 (1)
2	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	12.5 (1)
3	0.0 (0)	0.0 (0)	0.0 (0)	18.8 (3)	0.0 (0)	0.0 (0)
4	6.7 (1)	11.8 (2)	6.7 (1)	6.3 (1)	5.9 (1)	25.0 (2)
5	26.7 (4)	17.6 (3)	13.3 (2)	12.5 (2)	17.6 (3)	0.0 (0)
6	20.0 (3)	11.8 (2)	26.7 (4)	6.3 (1)	23.5 (4)	25.0 (2)
7	33.3 (5)	58.8 (10)	46.7 (7)	56.3 (9)	47.1 (8)	25.0 (2)

Insufficient Sufficient
1 2 3 4 5 6 7

Ratings for Sufficiency of Advance Warning Provided by Voice Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	12.5 (1)
2	13.3 (2)	0.0 (0)	7.1 (1)	0.0 (0)	17.6 (3)	12.5 (1)
3	0.0 (0)	5.9 (1)	0.0 (0)	13.3 (2)	11.8 (2)	0.0 (0)
4	6.7 (1)	11.8 (2)	7.1 (1)	20.0 (3)	0.0 (0)	12.5 (1)
5	26.7 (4)	11.8 (2)	21.4 (3)	6.7 (1)	11.8 (2)	12.5 (1)
6	20.0 (3)	11.8 (2)	21.4 (3)	13.3 (2)	23.5 (4)	25.0 (2)
7	26.7 (4)	58.8 (8)	42.9 (6)	40.0 (6)	35.3 (6)	25.0 (2)

Very Distracting Not at all Distracting
1 2 3 4 5 6 7

Ratings for Distraction by Voice Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	7.1 (1)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	12.5 (1)
2	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)
3	7.1 (1)	0.0 (0)	0.0 (0)	6.3 (1)	5.9 (1)	0.0 (0)
4	14.3 (2)	5.9 (1)	13.3 (2)	18.8 (3)	5.9 (1)	0.0 (0)
5	7.1 (1)	5.9 (1)	0.0 (0)	6.3 (1)	23.5 (4)	12.5 (1)
6	42.9 (6)	35.3 (6)	33.3 (5)	12.5 (2)	17.6 (3)	37.5 (3)
7	21.4 (3)	52.9 (9)	46.7 (7)	43.8 (7)	41.2 (7)	37.5 (3)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Sound of the Voice in Voice Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	5.9 (1)	0.0 (0)	6.3 (1)	5.9 (1)	0.0 (0)
2	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
3	6.7 (1)	11.8 (2)	6.7 (1)	6.3 (1)	5.9 (1)	0.0 (0)
4	0.0 (0)	35.3 (6)	6.7 (1)	12.5 (2)	5.9 (1)	12.5 (1)
5	40.0 (6)	17.6 (3)	13.3 (2)	0.0 (0)	41.2 (7)	12.5 (1)
6	20.0 (3)	5.9 (1)	13.3 (2)	25.0 (4)	17.6 (3)	25.0 (2)
7	20.0 (3)	23.5 (4)	60.0 (9)	50.0 (8)	17.6 (3)	50.0 (4)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Voice Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	13.3 (2)	0.0 (0)	0.0 (0)	13.3 (2)	5.9 (1)	0.0 (0)
3	0.0 (0)	11.8 (2)	6.7 (1)	0.0 (0)	5.9 (1)	0.0 (0)
4	6.7 (1)	0.0 (0)	0.0 (0)	13.3 (2)	17.6 (3)	12.5 (1)
5	40.0 (6)	23.5 (4)	6.7 (1)	13.3 (2)	17.6 (3)	12.5 (1)
6	26.7 (4)	17.6 (3)	26.7 (4)	13.3 (2)	17.6 (3)	25.0 (2)
7	13.3 (2)	41.2 (7)	53.3 (8)	46.7 (7)	35.3 (6)	50.0 (4)

D4. Considering both visual and verbal information, how often did you follow Ali-Scout's recommendations to turn?

Never Always
1 2 3 4 5 6 7

Ratings for Following Recommendation to Turn	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	5.9 (1)	6.7 (1)	0.0 (0)	0.0 (0)	11.1 (1)
3	13.3 (2)	11.8 (2)	0.0 (0)	18.3 (3)	12.5 (2)	44.4 (4)
4	20.0 (3)	17.6 (3)	13.3 (2)	6.3 (1)	18.8 (3)	22.2 (2)
5	46.7 (7)	47.1 (8)	33.3 (5)	31.3 (5)	37.5 (6)	22.2 (2)
6	6.7 (1)	11.8 (2)	26.7 (4)	43.8 (7)	25.0 (4)	0.0 (0)
7	13.3 (2)	5.9 (1)	13.3 (2)	0.0 (0)	6.3 (1)	0.0 (0)

(If always, please skip to question D6.)

D5. Considering all of the times that you did not take the recommended turn, how often were each of the following items part of your reason not to follow the recommended turn? (Answer by circling the most appropriate number on the scale provided just below each item.)

Never Always
1 2 3 4 5 6 7

Ratings for Knew of Faster Route	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
2	0.0 (0)	5.9 (1)	7.7 (1)	6.3 (1)	6.7 (1)	0.0 (0)
3	7.7 (1)	0.0 (0)	7.7 (1)	6.3 (1)	6.7 (1)	11.1 (1)
4	7.7 (1)	0.0 (0)	15.4 (2)	18.8 (3)	6.7 (1)	0.0 (0)
5	30.8 (4)	17.6 (3)	15.4 (2)	18.8 (3)	20.0 (3)	11.1 (1)
6	46.2 (6)	29.4 (5)	23.1 (3)	18.8 (3)	40.6 (6)	33.3 (3)
7	7.7 (1)	47.1 (8)	30.8 (4)	25.0 (4)	20.0 (3)	44.4 (4)

Never Always
1 2 3 4 5 6 7

Ratings for Believed Recommended Turn Went Away From Destination	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	15.4 (2)	31.3 (5)	16.7 (2)	31.3 (5)	25.0 (4)	11.1 (1)
2	38.5 (5)	12.5 (2)	16.7 (2)	6.3 (1)	6.3 (1)	11.1 (1)
3	7.7 (1)	0.0 (0)	8.3 (1)	6.3 (1)	6.3 (1)	11.1 (1)
4	15.4 (2)	6.3 (1)	16.7 (2)	6.3 (1)	0.0 (0)	22.2 (2)
5	0.0 (0)	6.3 (1)	16.7 (2)	6.3 (1)	18.8 (3)	33.3 (3)
6	15.4 (2)	31.3 (5)	25.0 (3)	12.5 (2)	37.5 (6)	0.0 (0)
7	7.7 (1)	12.5 (2)	0.0 (0)	31.3 (5)	6.3 (1)	11.1 (1)

Never Always
1 2 3 4 5 6 7

Ratings for Needed To Make Stops Along Way	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	15.4 (2)	6.3 (1)	33.3 (4)	26.7 (4)	12.5 (2)	11.1 (1)
2	38.5 (5)	12.5 (2)	16.7 (2)	0.0 (0)	25.0 (4)	22.2 (2)
3	7.7 (1)	18.8 (3)	8.3 (1)	20.0 (3)	6.3 (1)	11.1 (1)
4	15.4 (2)	31.3 (5)	25.0 (3)	20.0 (3)	18.8 (3)	0.0 (0)
5	0.0 (0)	0.0 (0)	16.7 (2)	6.7 (1)	25.0 (4)	22.2 (2)
6	15.4 (2)	31.3 (5)	0.0 (0)	13.3 (2)	12.5 (2)	11.1 (1)
7	7.7 (1)	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	22.2 (2)

Never Always
1 2 3 4 5 6 7

Ratings for Believed Recommended Turn Would Lead Into Traffic Congestion	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	23.1 (3)	17.6 (3)	41.7 (5)	53.3 (8)	37.5 (6)	33.3 (3)
2	38.5 (5)	17.6 (3)	25.0 (3)	13.3 (2)	12.5 (2)	22.2 (2)
3	0.0 (0)	11.8 (2)	8.3 (1)	0.0 (0)	0.0 (0)	22.2 (2)
4	7.7 (1)	17.6 (3)	0.0 (0)	6.7 (1)	12.5 (2)	0.0 (0)
5	15.4 (2)	23.5 (4)	25.0 (3)	6.7 (1)	18.8 (3)	0.0 (0)
6	7.7 (1)	11.8 (2)	0.0 (0)	13.3 (2)	12.5 (2)	22.2 (2)
7	7.7 (1)	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)

Never Always
1 2 3 4 5 6 7

Ratings for Ali-Scout Provided Suggested Turn Too Late	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	46.2 (6)	56.3 (9)	15.4 (2)	46.7 (7)	37.5 (6)	33.3 (3)
2	15.4 (2)	12.5 (2)	23.1 (3)	20.0 (3)	18.8 (3)	33.3 (3)
3	7.7 (1)	12.5 (2)	15.4 (2)	6.7 (1)	0.0 (0)	11.1 (1)
4	15.4 (2)	18.8 (3)	30.8 (4)	0.0 (0)	0.0 (0)	11.1 (1)
5	0.0 (0)	0.0 (0)	15.4 (2)	20.0 (3)	31.3 (5)	11.1 (1)
6	15.4 (2)	0.0 (0)	0.0 (0)	6.7 (1)	12.5 (2)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Never Always
1 2 3 4 5 6 7

Ratings for Recommended Turn Not Clear	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	46.2 (6)	60.0 (9)	33.3 (4)	53.3 (8)	56.3 (9)	11.1 (1)
2	23.1 (3)	13.3 (2)	33.3 (4)	20.0 (3)	25.0 (4)	22.2 (2)
3	15.4 (2)	20.0 (3)	8.3 (1)	0.0 (0)	6.3 (1)	33.3 (3)
4	7.7 (1)	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	11.1 (1)
5	7.7 (1)	0.0 (0)	16.7 (2)	0.0 (0)	6.3 (1)	22.2 (2)
6	0.0 (0)	6.7 (1)	8.3 (1)	13.3 (2)	6.3 (1)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Never Always
1 2 3 4 5 6 7

Ratings for Not Enough Room To Merge	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	46.2 (6)	53.3 (8)	23.1 (3)	20.0 (3)	43.8 (7)	44.4 (4)
2	15.4 (2)	20.0 (3)	38.5 (5)	26.7 (4)	6.3 (1)	11.1 (1)
3	7.7 (1)	0.0 (0)	15.4 (2)	13.3 (2)	0.0 (0)	22.2 (2)
4	15.4 (2)	20.0 (3)	15.4 (2)	20.0 (3)	12.5 (2)	22.2 (2)
5	0.0 (0)	6.7 (1)	0.0 (0)	13.3 (2)	37.5 (6)	0.0 (0)
6	15.4 (2)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	7.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)

Never Always
1 2 3 4 5 6 7

Ratings for Other Category	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	16.7 (1)	0.0 (0)	0.0 (0)	25.0 (1)	0.0 (0)
2	20.0 (1)	16.7 (1)	50.0 (2)	33.3 (2)	25.0 (1)	66.7 (2)
3	20.0 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	0.0 (0)	16.7 (1)	25.0 (1)	0.0 (0)	0.0 (0)	33.3 (1)
5	20.0 (1)	0.0 (0)	25.0 (1)	50.0 (3)	25.0 (1)	0.0 (0)
6	20.0 (1)	33.3 (2)	0.0 (0)	0.0 (0)	25.0 (1)	0.0 (0)
7	20.0 (1)	16.7 (1)	0.0 (0)	16.7 (1)	0.0 (0)	0.0 (0)

D6. Which was your preferred way for receiving Ali-Scout route guidance information?

Route Guidance Information Preference	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Voice Alone	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Visual Alone	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	5.9 (1)	0.0 (0)
Voice and Visual	92.9 (13)	94.1 (16)	92.9 (13)	68.8 (11)	82.4 (14)	66.7 (6)
No Preference	0.0 (0)	5.9 (1)	7.1 (1)	25.0 (4)	11.8 (2)	33.3 (3)

D8. In your opinion, how often did the Ali-Scout system help you achieve the following in the Oakland County Study Area?

Reduced 1 2 3 4 5 6 7 Increased

Ratings for How Ali-Scout Changed Travel Time	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	6.3 (1)	0.0 (0)
2	0.0 (0)	6.7 (1)	21.4 (3)	6.3 (1)	6.3 (1)	0.0 (0)
3	13.3 (2)	0.0 (0)	28.6 (4)	18.8 (3)	25.0 (4)	14.3 (1)
4	73.3 (11)	86.7 (13)	42.9 (6)	43.8 (7)	50.0 (8)	71.4 (5)
5	6.7 (1)	0.0 (0)	0.0 (0)	25.0 (4)	6.3 (1)	14.3 (1)
6	6.7 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
7	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)

Reduced 1 2 3 4 5 6 7 Increased

Ratings for How Ali-Scout Changed Congestion Avoidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	6.7 (1)	0.0 (0)	6.3 (1)	13.3 (2)	14.3 (1)
2	0.0 (0)	6.7 (1)	21.4 (3)	18.8 (3)	6.7 (1)	0.0 (0)
3	20.0 (0)	0.0 (0)	7.1 (1)	6.3 (1)	13.3 (2)	0.0 (0)
4	66.7 (10)	80.0 (12)	64.3 (9)	56.3 (9)	40.0 (6)	71.4 (5)
5	13.3 (2)	6.7 (1)	0.0 (0)	0.0 (0)	20.0 (3)	14.3 (1)
6	0.0 (0)	0.0 (0)	7.1 (1)	12.5 (2)	6.7 (1)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Reduced Increased
1 2 3 4 5 6 7

Ratings for How Ali-Scout Changed Driving Safety	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	21.4 (3)	6.3 (1)	7.1 (1)	0.0 (0)
3	6.7 (1)	6.7 (1)	7.1 (1)	0.0 (0)	14.3 (2)	14.3 (1)
4	80.0 (12)	60.0 (9)	64.3 (9)	68.8 (11)	57.1 (8)	85.7 (6)
5	6.7 (1)	20.0 (3)	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)
6	0.0 (0)	6.7 (1)	0.0 (0)	18.8 (3)	7.1 (1)	0.0 (0)
7	0.0 (0)	6.7 (1)	7.1 (1)	6.3 (1)	0.0 (0)	0.0 (0)

Reduced Increased
1 2 3 4 5 6 7

Ratings for How Ali-Scout Changed Fuel Consumption	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)
2	0.0 (0)	6.7 (1)	14.3 (2)	0.0 (0)	14.3 (2)	0.0 (0)
3	6.7 (1)	6.7 (1)	7.1 (1)	6.3 (1)	7.1 (1)	0.0 (0)
4	73.3 (11)	73.3 (11)	64.3 (9)	81.3 (13)	71.4 (10)	71.4 (5)
5	13.3 (2)	6.7 (1)	7.1 (1)	0.0 (0)	0.0 (0)	28.6 (2)
6	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
7	0.0 (0)	6.7 (1)	7.1 (1)	0.0 (0)	7.1 (1)	0.0 (0)

D9. Please rate the following characteristics of the Ali-Scout system as a whole.

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty Learning Ali-Scout Characteristics	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
2	0.0 (0)	11.8 (2)	0.0 (0)	0.0 (0)	0.0 (0)	11.1 (1)
3	6.7 (1)	5.9 (1)	35.7 (5)	12.5 (2)	5.9 (1)	22.2 (2)
4	13.3 (2)	5.9 (1)	7.1 (1)	0.0 (0)	11.8 (2)	44.4 (4)
5	6.7 (1)	5.9 (1)	7.1 (1)	25.0 (4)	11.8 (2)	11.1 (1)
6	46.7 (7)	35.3 (6)	28.6 (4)	6.3 (1)	17.6 (3)	0.0 (0)
7	26.7 (4)	35.3 (6)	21.4 (3)	56.3 (9)	47.1 (8)	11.1 (1)

Very Difficult 1 2 3 4 5 6 7 Very Easy

Ratings for Difficulty Understanding Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (1)
3	6.7 (1)	0.0 (0)	28.6 (4)	0.0 (0)	0.0 (0)	12.5 (1)
4	6.7 (1)	17.6 (3)	7.1 (1)	0.0 (0)	11.8 (2)	12.5 (1)
5	6.7 (1)	11.8 (2)	7.1 (1)	6.3 (1)	17.6 (3)	25.0 (2)
6	46.7 (7)	41.2 (7)	14.3 (2)	18.8 (3)	17.6 (3)	25.0 (2)
7	33.3 (5)	29.4 (5)	42.9 (6)	75.0 (12)	52.9 (9)	12.5 (1)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for Amount of Information Given by Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	14.3 (2)	0.0 (0)	5.9 (1)	22.2 (2)
3	14.3 (2)	0.0 (0)	14.3 (2)	12.5 (2)	0.0 (0)	0.0 (0)
4	7.1 (1)	5.9 (1)	0.0 (0)	0.0 (0)	11.8 (2)	22.2 (2)
5	28.6 (4)	11.8 (2)	7.1 (1)	6.3 (1)	23.5 (4)	22.2 (2)
6	28.6 (4)	41.2 (7)	35.7 (5)	25.0 (4)	5.9 (1)	11.1 (1)
7	14.3 (2)	41.2 (7)	28.6 (4)	56.3 (9)	52.9 (9)	22.2 (2)

Insufficient 1 2 3 4 5 6 Sufficient 7

Ratings for Sufficiency of Advance Warning Provided by Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
2	6.7 (1)	0.0 (0)	7.1 (1)	12.5 (2)	0.0 (0)	11.1 (1)
3	13.3 (2)	5.9 (1)	7.1 (1)	0.0 (0)	17.6 (3)	11.1 (1)
4	6.7 (1)	17.6 (3)	21.4 (3)	12.5 (2)	5.9 (1)	22.2 (2)
5	13.3 (2)	5.9 (1)	7.1 (1)	12.5 (2)	11.8 (2)	22.2 (2)
6	40.0 (6)	41.2 (7)	35.7 (5)	12.5 (2)	29.4 (5)	22.2 (2)
7	13.3 (2)	29.4 (5)	21.4 (3)	43.8 (7)	35.3 (6)	11.1 (1)

Very Inaccurate 1 2 3 4 5 6 Very Accurate 7

Ratings for Accuracy of Guidance of Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	13.3 (2)	11.8 (2)	0.0 (0)	0.0 (0)	11.8 (2)	0.0 (0)
2	0.0 (0)	5.9 (1)	21.4 (3)	6.3 (1)	0.0 (0)	0.0 (0)
3	20.0 (3)	7.1 (1)	0.0 (0)	6.3 (1)	17.6 (3)	22.2 (2)
4	33.3 (5)	11.8 (2)	21.4 (3)	18.8 (3)	5.9 (1)	33.3 (3)
5	6.7 (1)	23.5 (4)	28.6 (4)	31.3 (5)	11.8 (2)	33.3 (3)
6	26.7 (4)	29.4 (5)	21.4 (3)	31.3 (5)	47.1 (8)	11.1 (1)
7	0.0 (0)	11.8 (2)	7.1 (1)	6.3 (1)	5.9 (1)	0.0 (0)

Strongly Disagree 1 2 3 4 5 6 Strongly Agree 7

Ratings for Ali-Scout Helped Me Find My Way	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	20.0 (3)	23.5 (4)	21.4 (3)	0.0 (0)	17.6 (3)	33.3 (3)
2	0.0 (0)	11.8 (2)	28.6 (4)	28.6 (4)	5.9 (1)	11.1 (1)
3	13.3 (2)	11.8 (2)	0.0 (0)	0.0 (0)	17.6 (3)	22.2 (2)
4	20.0 (3)	17.6 (3)	0.0 (0)	14.3 (2)	0.0 (0)	11.1 (1)
5	26.7 (4)	5.9 (1)	21.4 (3)	7.1 (1)	11.8 (2)	11.1 (1)
6	13.3 (2)	17.6 (3)	7.1 (1)	28.6 (4)	29.4 (5)	11.1 (1)
7	6.7 (1)	11.8 (2)	21.4 (3)	21.4 (3)	17.6 (3)	0.0 (0)

Strongly Disagree 1 2 3 4 5 6 Strongly Agree 7

Ratings for Ali-Scout Reduced My Travel Time	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	20.0 (3)	23.5 (4)	28.6 (4)	0.0 (0)	25.0 (4)	44.4 (4)
2	13.3 (2)	23.5 (4)	21.4 (3)	18.8 (3)	12.5 (2)	11.1 (1)
3	0.0 (0)	5.9 (1)	21.4 (3)	25.0 (4)	6.3 (1)	33.3 (3)
4	40.0 (6)	29.5 (5)	14.3 (2)	18.8 (3)	12.5 (2)	11.1 (1)
5	26.7 (4)	5.9 (1)	7.1 (1)	18.8 (3)	31.3 (5)	0.0 (0)
6	0.0 (0)	5.9 (1)	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)
7	0.0 (0)	5.9 (1)	7.1 (1)	6.3 (1)	12.5 (2)	0.0 (0)

Strongly Disagree 1 2 3 4 5 6 Strongly Agree 7

Ratings for Ali-Scout Functioned Properly	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	11.8 (2)	7.1 (1)	0.0 (0)	5.9 (1)	11.1 (1)
2	6.7 (1)	5.9 (1)	7.1 (1)	6.3 (1)	5.9 (1)	0.0 (0)
3	33.3 (5)	17.6 (3)	7.1 (1)	12.5 (2)	5.9 (1)	11.1 (1)
4	6.7 (1)	17.6 (3)	7.1 (1)	25.0 (4)	17.6 (3)	55.6 (5)
5	13.3 (2)	5.9 (1)	14.3 (2)	12.5 (2)	11.8 (2)	0.0 (0)
6	13.3 (2)	35.3 (6)	35.7 (5)	31.3 (5)	17.6 (3)	22.2 (2)
7	20.0 (3)	5.9 (1)	21.4 (3)	12.5 (2)	35.3 (6)	0.0 (0)

Very Distracting 1 2 3 4 5 6 Not at all Distracting 7

Ratings for Distraction by Ali-Scout While Driving	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	11.1 (1)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	11.1 (1)
3	0.0 (0)	5.9 (1)	0.0 (0)	6.3 (1)	11.8 (2)	0.0 (0)
4	13.3 (2)	11.8 (2)	28.6 (4)	18.8 (3)	11.8 (2)	11.1 (1)
5	20.0 (3)	0.0 (0)	0.0 (0)	12.5 (2)	5.9 (1)	22.2 (2)
6	40.0 (6)	41.2 (7)	14.3 (2)	31.3 (5)	17.6 (3)	0.0 (0)
7	20.0 (3)	41.2 (7)	50.0 (7)	31.3 (5)	52.9 (9)	44.4 (4)

Strongly Disliked 1 2 3 4 5 6 Strongly Liked 7

Ratings for Overall Impression of Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	7.1 (1)	5.9 (1)	7.1 (1)	0.0 (0)	5.9 (1)	11.1 (1)
2	14.3 (2)	5.9 (1)	0.0 (0)	12.5 (2)	5.9 (1)	0.0 (0)
3	7.1 (1)	11.8 (2)	7.1 (1)	6.3 (1)	5.9 (1)	22.2 (2)
4	7.1 (1)	23.5 (4)	35.7 (5)	12.5 (2)	17.6 (3)	11.1 (1)
5	35.7 (5)	17.6 (3)	0.0 (0)	6.3 (1)	17.6 (3)	22.2 (2)
6	28.6 (4)	17.6 (3)	28.6 (4)	37.5 (6)	11.8 (2)	22.2 (2)
7	0.0 (0)	17.6 (3)	21.4 (3)	25.0 (4)	35.3 (6)	11.1 (1)

The next few questions are concerned with roadside beacons. In order to operate properly, the in-vehicle components of Ali-Scout must communicate with roadside beacons. As a result, the system cannot guide you to destinations beyond the beacon coverage area.

D10. In your use of the Ali-Scout system, what did you think of the size of the beacon coverage area for your driving needs?

Coverage area too small 1 2 3 4 5 6 7 Coverage area too large

Ratings for Coverage Area of Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	53.3 (8)	52.9 (9)	46.7 (7)	31.3 (5)	56.3 (9)	22.2 (2)
2	13.3 (2)	5.9 (1)	20.0 (3)	12.5 (2)	18.8 (3)	22.2 (2)
3	6.7 (1)	29.4 (5)	13.3 (2)	18.8 (3)	0.0 (0)	33.3 (3)
4	26.7 (4)	11.8 (2)	13.3 (2)	25.0 (4)	18.8 (3)	22.2 (2)
5	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	6.3 (1)	0.0 (0)
6	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Thinking only of the area in which beacons were installed, what did you think of the spacing between the beacons?

Beacons too far apart 1 2 3 4 5 6 7 Beacons too close

Ratings for Spacing of Ali-Scout Beacons	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	13.3 (2)	23.5 (4)	20.0 (3)	12.5 (2)	23.5 (4)	11.1 (1)
2	13.3 (2)	17.6 (3)	20.0 (3)	18.8 (3)	23.5 (4)	11.1 (1)
3	26.7 (4)	23.5 (4)	13.3 (2)	25.0 (4)	17.6 (3)	11.1 (1)
4	40.0 (6)	35.3 (6)	33.3 (5)	37.5 (6)	23.5 (4)	44.4 (4)
5	0.0 (0)	0.0 (0)	13.3 (2)	6.3 (1)	0.0 (0)	11.1 (1)
6	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	11.8 (2)	0.0 (0)
7	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	11.1 (1)

D12. How often did you notice that the beacons did not function properly?

Ratings for Frequency of Beacons Not Functioning Properly	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	20.0 (3)	23.5 (4)	33.3 (5)	18.8 (3)	35.3 (6)	33.3 (3)
2	40.0 (6)	41.2 (7)	13.3 (2)	25.0 (4)	23.5 (4)	11.1 (1)
3	6.7 (1)	17.6 (3)	13.3 (2)	12.5 (2)	11.8 (2)	22.2 (2)
4	26.7 (4)	11.8 (2)	6.7 (1)	12.5 (2)	11.8 (2)	11.1 (1)
5	0.0 (0)	0.0 (0)	26.7 (4)	25.0 (4)	11.8 (2)	11.1 (1)
6	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	5.9 (1)	11.1 (1)
7	6.7 (1)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)

E. Use of the Ali-Scout System

In this section, we would like to know how you used Ali-Scout as part of your driving and trip-making.

E1. How often did you use Ali-Scout for the for the following types of trips? Circle the most appropriate number in the scales provided.

Never 1 2 3 4 5 6 7 Always

Ratings for Frequency of Ali-Scout Use for Work Commute	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	7.1 (1)	11.8 (2)	53.8 (7)	12.5 (2)	0.0 (0)	71.4 (5)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	7.1 (1)	0.0 (0)	7.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)
5	7.1 (1)	5.9 (1)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
6	7.1 (1)	23.5 (4)	15.4 (2)	12.5 (2)	0.0 (0)	0.0 (0)
7	71.4 (10)	58.8 (10)	23.1 (3)	62.5 (10)	100.0 (15)	28.6 (2)

Never Always
1 2 3 4 5 6 7

Ratings for Frequency of Ali-Scout Use for Other Work-related Trips	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	30.8 (4)	23.5 (1)	61.5 (8)	50.0 (7)	0.0 (0)	100.0 (6)
2	0.0 (0)	11.8 (2)	0.0 (0)	7.1 (1)	7.1 (1)	0.0 (0)
3	0.0 (0)	5.9 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)
4	23.1 (3)	5.9 (1)	7.7 (1)	7.1 (1)	0.0 (0)	0.0 (0)
5	15.4 (2)	0.0 (0)	23.1 (3)	7.1 (1)	7.1 (1)	0.0 (0)
6	23.1 (3)	29.4 (5)	7.7 (1)	7.1 (1)	7.1 (1)	0.0 (0)
7	7.7 (1)	23.5 (4)	0.0 (0)	14.3 (2)	78.6 (11)	0.0 (0)

Never Always
1 2 3 4 5 6 7

Ratings for Ali-Scout Use for Recreational Trips	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	12.5 (2)	21.4 (3)	6.7 (1)	18.8 (3)	11.1 (1)
2	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)	12.5 (2)	11.1 (1)
3	6.7 (1)	0.0 (0)	7.1 (1)	13.3 (2)	12.5 (2)	0.0 (0)
4	6.7 (1)	18.8 (3)	14.3 (2)	20.0 (3)	6.3 (1)	0.0 (0)
5	20.0 (3)	31.3 (5)	7.1 (1)	13.3 (2)	12.5 (2)	22.2 (2)
6	53.3 (8)	0.0 (0)	35.7 (5)	20.0 (3)	18.8 (3)	22.2 (2)
7	13.3 (2)	25.0 (4)	14.3 (2)	26.7 (4)	18.8 (3)	33.3 (3)

Never Always
1 2 3 4 5 6 7

Ratings for Ali-Scout Use for Other Personal Trips	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	11.8 (2)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	11.8 (2)	0.0 (0)
3	0.0 (0)	0.0 (0)	7.1 (1)	18.8 (3)	11.8 (2)	0.0 (0)
4	13.3 (2)	11.8 (2)	7.1 (1)	18.8 (3)	11.8 (2)	10.0 (1)
5	26.7 (4)	23.5 (4)	28.6 (4)	18.8 (3)	11.8 (2)	10.0 (1)
6	60.0 (9)	29.4 (5)	35.7 (5)	31.3 (5)	23.5 (4)	20.0 (2)
7	0.0 (0)	23.5 (4)	21.4 (3)	6.3 (1)	23.5 (4)	60.0 (6)

For the next few questions, please compare your driving without an Ali-Scout system to your driving with the Ali-Scout system.

E2. Please indicate the extent to which driving with Ali-Scout changed your attention to:

Much less Attention Much more Attention
1 2 3 4 5 6 7

Ratings for Ali-Scout Changed Your Attention to Traffic Conditions	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
3	13.3 (2)	11.8 (2)	13.3 (2)	6.3 (1)	6.7 (1)	0.0 (0)
4	73.3 (11)	64.7 (11)	46.7 (7)	68.8 (11)	33.3 (5)	60.0 (6)
5	13.3 (2)	0.0 (0)	20.0 (3)	6.3 (1)	26.7 (4)	30.0 (3)
6	0.0 (0)	5.9 (1)	13.3 (2)	12.5 (2)	20.0 (3)	0.0 (0)
7	0.0 (0)	11.8 (2)	6.7 (1)	6.3 (1)	6.7 (1)	0.0 (0)

Much less Attention 1 2 3 4 5 6 7 Much more Attention

Ratings for Ali-Scout Changed Your Attention to Traffic Signals	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	20.0 (2)
3	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
4	93.3 (14)	82.4 (14)	64.3 (9)	56.3 (9)	53.3 (8)	60.0 (6)
5	0.0 (0)	5.9 (1)	14.3 (2)	18.8 (3)	13.3 (2)	20.0 (2)
6	0.0 (0)	5.9 (1)	14.3 (2)	18.8 (3)	20.0 (3)	0.0 (0)
7	6.7 (1)	0.0 (0)	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)

Much less Attention 1 2 3 4 5 6 7 Much more Attention

Ratings for Ali-Scout Changed Your Attention to Road Signs	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	10.0 (1)
3	0.0 (0)	5.9 (1)	6.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)
4	93.3 (14)	82.4 (14)	73.3 (11)	75.0 (12)	60.0 (9)	70.0 (7)
5	0.0 (0)	0.0 (0)	6.7 (1)	12.5 (2)	6.7 (1)	10.0 (1)
6	0.0 (0)	5.9 (1)	13.3 (2)	6.3 (1)	6.7 (1)	10.0 (1)
7	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)

Much less Attention 1 2 3 4 5 6 Much more Attention 7

Ratings for Ali-Scout Changed Your Attention to Street Signs	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	14.3 (2)	0.0 (0)	6.7 (1)	0.0 (0)
2	6.7 (1)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	10.0 (1)
3	13.3 (2)	5.9 (1)	0.0 (0)	12.5 (2)	6.7 (1)	10.0 (1)
4	53.3 (8)	52.9 (9)	57.1 (8)	62.5 (10)	60.0 (9)	60.0 (6)
5	13.3 (2)	11.8 (2)	21.4 (3)	12.5 (2)	6.7 (1)	10.0 (1)
6	6.7 (1)	11.8 (2)	7.1 (1)	12.5 (2)	0.0 (0)	10.0 (1)
7	6.7 (1)	5.9 (1)	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)

Much less Attention 1 2 3 4 5 6 Much more Attention 7

Ratings for Ali-Scout Changed Your Attention to Street Addresses	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	14.3 (2)	0.0 (0)	13.3 (2)	0.0 (0)
2	6.7 (1)	0.0 (0)	7.1 (1)	0.0 (0)	6.7 (1)	20.0 (2)
3	0.0 (0)	0.0 (0)	0.0 (0)	18.8 (3)	6.7 (1)	10.0 (1)
4	73.3 (11)	70.6 (12)	57.1 (8)	68.8 (11)	40.0 (6)	60.0 (6)
5	6.7 (1)	5.9 (1)	21.4 (3)	0.0 (0)	13.3 (2)	10.0 (1)
6	6.7 (1)	11.8 (2)	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)
7	6.7 (1)	5.9 (1)	0.0 (0)	6.3 (1)	13.3 (2)	0.0 (0)

Much less Attention 1 2 3 4 5 6 Much more Attention 7

Ratings for Ali-Scout Changed Your Attention to Speedometer	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	20.0 (2)
3	6.7 (1)	11.8 (2)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
4	80.0 (12)	76.5 (13)	66.7 (10)	75.0 (12)	66.7 (10)	60.0 (6)
5	6.7 (1)	0.0 (0)	6.7 (1)	12.5 (2)	13.3 (2)	20.0 (2)
6	0.0 (0)	5.9 (1)	20.0 (3)	6.3 (1)	6.7 (1)	0.0 (0)
7	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)

Much less Attention 1 2 3 4 5 6 Much more Attention 7

Ratings for Ali-Scout Changed Your Attention to Mirrors	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	13.3 (2)	20.0 (2)
3	0.0 (0)	70.6 (12)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	80.0 (12)	70.6 (12)	73.3 (11)	87.5 (14)	80.0 (12)	50.0 (5)
5	6.7 (1)	5.9 (1)	13.3 (2)	12.5 (2)	0.0 (0)	20.0 (2)
6	6.7 (1)	11.8 (2)	6.7 (1)	0.0 (0)	0.0 (0)	10.0 (1)
7	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)

Much less Attention — Much more Attention

1 2 3 4 5 6 7

Ratings for Ali-Scout Changed Your Attention to Fuel Gauge	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	6.7 (1)	10.0 (1)
2	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	6.7 (1)	20.0 (2)
3	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	10.0 (1)
4	93.3 (14)	88.2 (15)	73.3 (11)	93.8 (15)	80.0 (12)	60.0 (6)
5	0.0 (0)	0.0 (0)	13.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)
6	0.0 (0)	5.9 (1)	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)
7	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

E3. Please indicate the extent to which driving with the Ali-Scout system, compared to driving without Ali-Scout, made you feel:

Always less with Ali-Scout — Always more with Ali-Scout

1 2 3 4 5 6 7

Ratings for Feeling Nervous with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	6.3 (1)	6.7 (1)	6.3 (1)	35.3 (6)	10.0 (1)
2	0.0 (0)	0.0 (0)	20.0 (3)	18.8 (3)	11.8 (2)	0.0 (0)
3	6.7 (1)	0.0 (0)	60.0 (9)	18.8 (3)	11.8 (2)	0.0 (0)
4	80.0 (12)	87.5 (14)	60.0 (9)	50.0 (8)	23.5 (4)	70.0 (7)
5	6.7 (1)	0.0 (0)	6.7 (1)	6.3 (1)	11.8 (2)	10.0 (1)
6	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)	10.0 (1)
7	0.0 (0)	6.3 (1)	20.0 (3)	0.0 (0)	5.9 (1)	0.0 (0)

Always less with Ali-Scout — Always more with Ali-Scout

1 2 3 4 5 6 7

Ratings for Feeling Confident with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
2	6.7 (1)	0.0 (0)	60.0 (9)	0.0 (0)	0.0 (0)	10.0 (1)
3	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)
4	46.7 (7)	70.6 (12)	66.7 (10)	31.3 (5)	46.7 (7)	70.0 (7)
5	40.0 (6)	11.8 (2)	13.3 (2)	18.8 (3)	20.0 (3)	10.0 (1)
6	6.7 (1)	11.8 (2)	6.7 (1)	31.3 (5)	20.0 (3)	10.0 (1)
7	0.0 (0)	5.9 (1)	0.0 (0)	12.5 (2)	6.7 (1)	0.0 (0)

Always less with Ali-Scout — Always more with Ali-Scout

1 2 3 4 5 6 7

Ratings for Feeling Confused with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)	25.0 (4)	20.0 (2)
2	0.0 (0)	0.0 (0)	13.3 (2)	6.3 (1)	6.3 (1)	20.0 (2)
3	20.0 (3)	6.3 (1)	6.7 (1)	18.8 (3)	12.5 (2)	0.0 (0)
4	73.3 (11)	62.5 (10)	60.0 (9)	37.5 (6)	37.5 (6)	50.0 (5)
5	0.0 (0)	18.8 (3)	13.3 (2)	37.5 (6)	12.5 (2)	10.0 (1)
6	6.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Feeling Attentive with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	13.3 (3)	6.3 (1)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
4	66.7 (10)	43.8 (7)	40.0 (6)	50.0 (8)	31.3 (5)	50.0 (5)
5	20.0 (3)	31.3 (5)	40.0 (6)	12.5 (2)	25.0 (4)	10.0 (1)
6	0.0 (0)	6.3 (1)	13.3 (2)	25.0 (6)	18.8 (3)	20.0 (2)
7	0.0 (0)	12.5 (2)	6.7 (1)	6.3 (1)	25.0 (4)	20.0 (2)

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Feeling Safe with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
3	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	0.0 (0)	10.0 (1)
4	80.0 (12)	75.0 (12)	60.0 (9)	50.0 (8)	40.0 (6)	80.0 (8)
5	13.3 (2)	6.3 (1)	13.3 (2)	31.3 (5)	26.7 (4)	0.0 (0)
6	0.0 (0)	12.5 (2)	13.3 (2)	12.5 (2)	13.3 (2)	0.0 (0)
7	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)	13.3 (2)	0.0 (0)

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Feeling Stressed with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	6.3 (1)	6.7 (1)	0.0 (0)	33.3 (5)	10.0 (1)
2	0.0 (0)	0.0 (0)	26.7 (4)	18.8 (3)	6.7 (1)	0.0 (0)
3	0.0 (0)	18.8 (3)	0.0 (0)	12.5 (2)	6.7 (1)	10.0 (1)
4	86.7 (13)	68.8 (11)	53.3 (8)	31.3 (4)	26.7 (4)	60.0 (6)
5	0.0 (0)	0.0 (0)	13.3 (2)	18.8 (3)	13.3 (2)	10.0 (1)
6	6.7 (1)	6.3 (1)	0.0 (0)	18.8 (3)	6.7 (1)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.7 (1)	10.0 (1)

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Feeling Relaxed with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	12.5 (2)	10.0 (1)
2	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)
3	0.0 (0)	25.0 (4)	6.7 (1)	12.5 (2)	6.3 (1)	20.0 (2)
4	60.0 (9)	62.5 (10)	60.0 (9)	43.8 (7)	31.3 (5)	60.0 (6)
5	26.7 (4)	6.3 (1)	20.0 (3)	25.0 (4)	25.0 (4)	0.0 (0)
6	6.7 (1)	0.0 (0)	6.7 (1)	12.5 (2)	12.5 (2)	10.0 (1)
7	0.0 (0)	6.3 (1)	0.0 (0)	6.3 (1)	6.3 (1)	0.0 (0)

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Feeling Frustrated with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	6.3 (1)	26.7 (4)	0.0 (0)	31.3 (5)	20.0 (2)
2	0.0 (0)	6.3 (1)	13.3 (2)	18.8 (3)	12.5 (2)	0.0 (0)
3	0.0 (0)	18.8 (3)	0.0 (0)	12.5 (2)	0.0 (0)	10.0 (1)
4	73.3 (11)	43.8 (7)	26.7 (4)	18.8 (3)	31.3 (3)	40.0 (4)
5	6.7 (1)	18.8 (3)	20.0 (3)	12.5 (2)	18.8 (3)	10.0 (1)
6	13.3 (2)	0.0 (0)	6.7 (1)	37.5 (6)	0.0 (0)	10.0 (1)
7	0.0 (0)	6.3 (1)	6.7 (1)	0.0 (0)	6.3 (1)	10.0 (1)

E4. Again, compared to driving without Ali-Scout, please indicate the extent to which you had the following experiences while driving with Ali-Scout:

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Changes in Crashes With Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	26.7 (4)	12.5 (2)	7.7 (1)	25.0 (4)	50.0 (7)	33.3 (3)
2	0.0 (0)	0.0 (0)	15.4 (2)	0.0 (0)	7.1 (1)	0.0 (0)
3	0.0 (0)	6.3 (1)	15.4 (2)	0.0 (0)	0.0 (0)	0.0 (0)
4	73.3 (11)	81.3 (13)	46.2 (6)	62.5 (10)	42.9 (6)	66.7 (6)
5	0.0 (0)	0.0 (0)	15.4 (2)	12.5 (2)	0.0 (0)	0.0 (0)
6	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Changes in Missed Stop Signs with Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	21.4 (3)	6.3 (1)	0.0 (0)	18.8 (3)	42.9 (6)	33.3 (3)
2	0.0 (0)	0.0 (0)	15.4 (2)	6.3 (1)	14.3 (2)	0.0 (0)
3	0.0 (0)	12.5 (2)	15.4 (2)	0.0 (0)	0.0 (0)	0.0 (0)
4	78.6 (11)	81.3 (13)	69.2 (9)	62.5 (10)	42.9 (6)	66.7 (6)
5	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
6	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Always less with Ali-Scout 1 2 3 4 5 6 7 Always more with Ali-Scout

Ratings for Changes in Ran Red Light With Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	13.3 (2)	6.3 (1)	0.0 (0)	25.0 (4)	42.9 (6)	33.3 (3)
2	0.0 (0)	0.0 (0)	30.8 (4)	0.0 (0)	7.1 (1)	0.0 (0)
3	0.0 (0)	12.5 (2)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
4	86.7 (13)	75.0 (12)	69.2 (9)	56.3 (9)	50.0 (7)	66.7 (6)
5	0.0 (0)	6.3 (1)	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)
6	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Always less with Ali-Scout — Always more with Ali-Scout

1 2 3 4 5 6 7

Ratings for Changes in Ran Off Road With Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	18.8 (3)	6.3 (1)	7.7 (1)	25.0 (4)	50.0 (7)	33.3 (3)
2	0.0 (0)	0.0 (0)	15.4 (2)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	75.0 (12)	75.0 (12)	69.2 (9)	56.3 (9)	42.9 (6)	66.7 (6)
5	0.0 (0)	6.3 (1)	7.7 (1)	12.5 (2)	7.1 (1)	0.0 (0)
6	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Always less with Ali-Scout — Always more with Ali-Scout

1 2 3 4 5 6 7

Ratings for Changes in Crossed Lane Marker With Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	18.8 (3)	6.3 (1)	7.7 (1)	25.0 (4)	50.0 (7)	33.3 (3)
2	0.0 (0)	0.0 (0)	15.4 (2)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	62.5 (10)	68.8 (11)	69.2 (9)	31.3 (5)	35.7 (5)	66.7 (6)
5	12.5 (2)	12.5 (2)	7.7 (1)	25.0 (4)	14.3 (2)	0.0 (0)
6	6.3 (1)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)
7	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)

The next few questions deal with your crash and near-crash involvement while driving the Ali-Scout equipped vehicle. These questions are only for analytical purposes, and your responses will be held in the strictest confidence.

E5. Were you involved in any crashes while driving with the Ali-Scout system? (If no, please skip ahead to question E8.)

Crash Involvement While Driving With Ali-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
No	100.0 (16)	100.0 (17)	100.0 (15)	100.0 (16)	100.0 (17)	100.0 (10)

E6. In your opinion, how did Ali-Scout contribute to this (these) crash(es)?

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Not at All	100.0 (1)	100.0 (1)	0.0 (0)	0.0 (0)	100.0 (1)	0.0 (0)
Contributing Factor	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
The Main Factor	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

E7. In the space provided, please explain how Ali-Scout did or did not contribute to this (these) crash(es).

No responses

E8. Were you ever involved in what you consider to be a near-crash while driving with the Ali-Scout system? (If no, please skip ahead to question F1.)

Crash Involvement While Driving WithAli-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	25.0 (4)	0.0 (0)
No	93.8 (15)	100.0 (17)	93.3 (14)	100.0 (16)	75.0 (12)	100.0 (10)

E9. In your opinion, to what extent was Ali-Scout a contributing factor to this (these) near-crash(es)?

	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Not at All	100.0 (2)	100.0 (1)	100.0 (2)	100.0 (1)	66.7 (4)	0.0 (0)
Contributing Factor	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	16.7 (1)	0.0 (0)
The Main Factor	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	16.7 (1)	0.0 (0)

E10. In the space provided, please explain how Ali-Scout did or did not contribute to this (these) near-crash(es).

MALE:

Age 19-29

- I pay attention to my driving and will Look/Listen to Ali-Scout only when I am not in a crash situation.

Age 30-64

- Ali Scout had nothing to do with the near crash as someone almost missed their exit on freeway so they made a sudden stop to change lanes and get over

Age 65-80

- Pure misjudgement between my right turn & another left on both parts

FEMALE:

Age 30-64

- Near crash situation involved another car pulling out in front of me abruptly - obviously, Ali-Scout not a contributing factor. This was poor driving judgement from other driver.
- Watching monitor rather than road. (1st day) after monitor was occasionally used with glances. Should be placed higher on dashboard.
- The driver still has to watch the road and take safety measures!

F. Valuation

In the following questions, we would like to learn how much you, an experienced user, value the Ali-Scout system.

F1. For assistance in reaching your destinations, how do you rate the following sources of route-guidance information?

Poor Excellent
1 2 3 4 5 6 7

Ratings for Standard Road Map as Route Guidance Source	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	6.3 (1)	0.0 (0)
3	12.5 (2)	0.0 (0)	7.1 (1)	0.0 (0)	12.5 (2)	0.0 (0)
4	18.8 (3)	0.0 (0)	0.0 (0)	18.8 (3)	6.3 (1)	10.0 (1)
5	25.0 (4)	17.6 (3)	21.4 (3)	6.3 (1)	18.8 (3)	10.0 (1)
6	25.0 (4)	35.3 (6)	35.7 (5)	18.8 (3)	25.0 (4)	30.0 (3)
7	18.8 (3)	47.1 (8)	35.7 (5)	50.0 (8)	25.0 (4)	50.0 (5)

Poor Excellent
1 2 3 4 5 6 7

Ratings for Verbal Directions From Passenger As Route Guidance Source	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	10.0 (1)
2	0.0 (0)	5.9 (1)	21.4 (3)	6.3 (1)	0.0 (0)	10.0 (1)
3	0.0 (0)	5.9 (1)	21.4 (3)	12.5 (2)	18.8 (3)	10.0 (1)
4	12.5 (2)	23.5 (4)	14.3 (2)	12.5 (2)	12.5 (2)	20.0 (2)
5	18.8 (3)	29.4 (5)	21.4 (3)	37.5 (6)	31.3 (5)	10.0 (1)
6	62.5 (10)	17.6 (3)	14.3 (2)	25.0 (4)	25.0 (4)	30.0 (3)
7	6.3 (1)	17.6 (3)	7.1 (1)	6.3 (1)	6.3 (1)	10.0 (1)

Poor Excellent
1 2 3 4 5 6 7

Ratings for Verbal Directions From Other People As Route Guidance Source	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	7.1 (1)	0.0 (0)	12.5 (2)	20.0 (2)
2	0.0 (0)	0.0 (0)	7.1 (1)	12.5 (2)	0.0 (0)	10.0 (1)
3	12.5 (2)	23.5 (4)	21.4 (3)	12.5 (2)	18.8 (3)	20.0 (2)
4	6.3 (1)	29.4 (5)	21.4 (3)	25.0 (4)	12.5 (2)	20.0 (2)
5	43.8 (7)	23.5 (4)	28.6 (4)	31.3 (5)	31.3 (5)	20.0 (2)
6	25.0 (4)	11.8 (2)	14.3 (2)	18.8 (3)	18.8 (3)	0.0 (0)
7	6.3 (1)	11.8 (2)	0.0 (0)	0.0 (0)	6.3 (1)	10.0 (1)

Poor Excellent
1 2 3 4 5 6 7

Ratings for Written Directions As Route Guidance Source	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.7 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	10.0 (1)
4	13.3 (2)	5.9 (1)	7.1 (1)	6.3 (1)	6.3 (1)	20.0 (2)
5	13.3 (2)	35.3 (6)	28.6 (4)	25.0 (4)	12.5 (2)	10.0 (5)
6	40.0 (6)	29.4 (5)	35.7 (5)	50.0 (8)	56.3 (9)	30.0 (3)
7	20.0 (3)	29.4 (5)	21.4 (3)	12.5 (2)	25.0 (7)	30.0 (3)

Poor Excellent
1 2 3 4 5 6 7

Ratings for Ali-Scout As Route Guidance Source	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	0.0 (0)
2	13.3 (2)	5.9 (1)	6.7 (1)	12.5 (2)	0.0 (0)	22.2 (2)
3	26.7 (4)	0.0 (0)	6.7 (1)	6.3 (1)	11.8 (2)	22.2 (2)
4	6.7 (1)	17.6 (3)	13.3 (2)	0.0 (0)	11.8 (2)	44.4 (4)
5	6.7 (1)	17.6 (3)	13.3 (2)	25.0 (4)	11.8 (2)	0.0 (0)
6	26.7 (4)	41.2 (7)	33.3 (5)	37.5 (6)	29.4 (5)	0.0 (0)
7	20.0 (3)	17.6 (3)	20.0 (3)	18.8 (3)	29.4 (5)	11.1 (1)

F2. If you were about to drive to an unfamiliar area, which of the following sources of route-guidance information would you like to use?

Definitely Would Not Like Definitely Would Like
1 2 3 4 5 6 7

Ratings for Liking Standard Road Map As Route Guidance in Unfamiliar Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	20.0 (3)	0.0 (0)
2	0.0 (0)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
3	12.5 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	12.5 (2)	0.0 (0)	15.4 (2)	6.3 (1)	6.7 (1)	0.0 (0)
5	18.8 (3)	5.9 (1)	7.7 (1)	6.3 (1)	0.0 (0)	20.0 (2)
6	12.5 (2)	23.5 (4)	30.8 (4)	12.5 (2)	40.0 (6)	0.0 (0)
7	43.8 (7)	70.6 (12)	46.2 (6)	56.3 (9)	33.3 (5)	80.0 (8)

Definitely Would Not Like 1 2 3 4 5 6 7 Definitely Would Like

Ratings for Liking Verbal Directions from Passenger As Route Guidance in Unfamiliar Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	30.8 (4)	0.0 (0)	6.3 (1)	0.0 (0)
2	0.0 (0)	12.5 (2)	7.7 (1)	12.5 (2)	12.5 (2)	0.0 (0)
3	0.0 (0)	0.0 (0)	7.7 (1)	12.5 (2)	6.3 (1)	0.0 (0)
4	25.0 (4)	6.3 (1)	7.7 (1)	6.3 (1)	6.3 (1)	33.3 (3)
5	18.8 (3)	31.3 (5)	23.1 (3)	6.3 (1)	18.8 (3)	33.3 (3)
6	31.3 (5)	18.8 (3)	15.4 (2)	37.5 (6)	31.3 (5)	0.0 (0)
7	18.8 (3)	31.3 (5)	7.7 (1)	25.0 (4)	18.8 (3)	33.3 (3)

Definitely Would Not Like 1 2 3 4 5 6 7 Definitely Would Like

Ratings for Liking Verbal Directions from Other People As Route Guidance in Unfamiliar Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	25.0 (3)	12.5 (2)	12.5 (2)	0.0 (0)
2	0.0 (0)	12.5 (2)	8.3 (1)	6.3 (1)	6.3 (1)	0.0 (0)
3	6.3 (1)	12.5 (2)	16.7 (2)	12.5 (2)	18.8 (3)	11.1 (1)
4	12.5 (2)	12.5 (2)	8.3 (1)	6.3 (1)	6.3 (1)	44.4 (4)
5	37.5 (6)	18.8 (3)	25.0 (3)	18.8 (3)	25.0 (4)	22.2 (2)
6	25.0 (4)	18.8 (3)	8.3 (1)	62.5 (7)	18.8 (3)	0.0 (0)
7	12.5 (2)	25.0 (4)	8.3 (1)	0.0 (0)	12.5 (2)	22.2 (2)

Definitely Would Not Like 1 2 3 4 5 6 Definitely Would Like 7

Ratings for Liking Written Directions As Route Guidance in Unfamiliar Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	8.3 (1)	0.0 (0)	6.3 (1)	0.0 (0)
2	6.3 (1)	0.0 (0)	8.3 (1)	6.3 (1)	12.5 (2)	0.0 (0)
3	0.0 (0)	0.0 (0)	8.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)
4	0.0 (0)	6.3 (1)	0.0 (0)	6.3 (1)	0.0 (0)	11.1 (1)
5	31.3 (5)	25.0 (4)	16.7 (2)	6.3 (1)	0.0 (0)	11.1 (1)
6	6.3 (1)	25.0 (4)	16.7 (2)	18.8 (3)	43.8 (7)	22.2 (2)
7	50.0 (8)	43.8 (7)	41.7 (5)	62.5 (10)	37.5 (6)	55.6 (5)

Definitely Would Not Like 1 2 3 4 5 6 Definitely Would Like 7

Ratings for Liking Ali-Scout As Route Guidance in Unfamiliar Area	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	12.5 (2)	0.0 (0)	6.7 (1)	18.8 (3)	5.9 (1)	0.0 (0)
2	6.3 (1)	5.9 (1)	20.0 (3)	0.0 (0)	0.0 (0)	0.0 (0)
3	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	17.6 (3)	12.5 (1)
4	6.3 (1)	5.9 (1)	0.0 (0)	6.3 (1)	0.0 (0)	12.5 (1)
5	12.5 (2)	17.6 (3)	13.3 (2)	6.3 (1)	11.8 (2)	12.5 (1)
6	18.8 (3)	29.4 (5)	6.7 (1)	31.3 (5)	23.5 (4)	12.5 (1)
7	37.5 (6)	41.2 (7)	53.3 (8)	37.5 (6)	41.2 (7)	50.0 (4)

F3. For the following items, assume that the Ali-Scout system was available nationwide. Given this scenario, how useful do you think the Ali-Scout system would be for:

Not at all Useful 1 2 3 4 5 6 Extremely Useful 7

Ratings for Ali-Scout Usefulness For Commuting Trip	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	17.6 (3)	20.0 (3)	20.0 (3)	5.9 (1)	10.0 (1)
2	31.3 (5)	11.8 (2)	6.7 (1)	13.3 (2)	23.5 (4)	10.0 (1)
3	12.5 (2)	17.6 (3)	0.0 (0)	0.0 (0)	11.8 (2)	20.0 (2)
4	6.3 (1)	0.0 (0)	13.3 (2)	6.7 (1)	5.9 (1)	10.0 (1)
5	6.3 (1)	147.6 (3)	6.7 (1)	20.0 (3)	0.0 (0)	10.0 (1)
6	12.5 (2)	11.8 (2)	20.0 (3)	26.7 (4)	5.9 (1)	20.0 (2)
7	25.0 (4)	23.5 (4)	33.3 (5)	13.3 (2)	47.1 (8)	20.0 (2)

Not at all Useful 1 2 3 4 5 6 Extremely Useful 7

Ratings for Ali-Scout Usefulness for Out-of-Town Vacation Trips	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.7 (1)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	10.0 (1)
2	6.7 (1)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
3	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	5.9 (1)	10.0 (1)
4	13.3 (2)	11.8 (2)	13.3 (2)	6.3 (1)	11.8 (2)	20.0 (2)
5	6.7 (1)	5.9 (1)	6.7 (1)	6.3 (1)	17.6 (3)	10.0 (1)
6	20.0 (3)	35.3 (6)	20.0 (3)	12.5 (2)	23.5 (4)	10.0 (1)
7	46.7 (7)	41.2 (7)	46.7 (7)	68.8 (11)	35.3 (6)	30.0 (3)

Not at all Useful 1 2 3 4 5 6 Extremely Useful 7

Ratings for Ali-Scout Usefulness for Out-of-Town Business Trips	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	0.0 (0)	6.7 (1)	0.0 (0)	5.9 (1)	10.0 (1)
2	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
3	0.0 (0)	0.0 (0)	6.7 (1)	6.3 (1)	5.9 (1)	10.0 (1)
4	18.8 (3)	11.8 (2)	13.3 (2)	6.3 (1)	11.8 (2)	20.0 (2)
5	6.3 (1)	5.9 (1)	6.7 (1)	6.3 (1)	17.6 (3)	0.0 (0)
6	18.8 (3)	35.3 (6)	20.0 (3)	25.0 (4)	23.5 (4)	20.0 (2)
7	50.0 (8)	41.2 (7)	46.7 (7)	56.3 (9)	35.3 (6)	30.0 (3)

Not at all Useful 1 2 3 4 5 6 Extremely Useful 7

Ratings for Ali-Scout Usefulness for Local Driving	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	18.8 (3)	23.5 (4)	26.7 (4)	25.0 (4)	11.8 (2)	30.0 (3)
2	25.0 (4)	29.4 (5)	6.7 (1)	12.5 (2)	5.9 (1)	10.0 (1)
3	6.3 (1)	5.9 (1)	6.7 91)	0.0 (0)	11.8 (2)	10.0 (1)
4	6.3 (1)	11.8 (2)	26.7 (4)	25.0 (4)	17.6 (3)	20.0 (2)
5	6.3 (1)	17.6 (3)	13.3 (2)	6.3 (1)	5.9 (1)	20.0 (2)
6	25.0 (4)	5.9 (1)	13.3 (2)	18.8 (3)	5.9 (1)	10.0 (1)
7	12.5 (2)	5.9 (1)	6.7 (1)	12.5 (2)	41.2 (7)	0.0 (0)

F4. If you had $2,500 to spend on options for a new car, how would you allocate your budget?

Would Purchase Car Alarm ($300)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	37.5 (6)	35.3 (6)	53.3 (8)	25.0 (4)	41.2 (7)	25.0 (3)
No	62.5 (10)	64.7 (11)	46.7 (7)	75.0 (12)	58.8 (10)	75.0 (9)

Would Purchase Cellular Phone ($500)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	31.3 (5)	17.6 (3)	40.0 (6)	25.0 (4)	35.3 (6)	50.0 (6)
No	68.8 (11)	82.4 (14)	60.0 (9)	75.0 (12)	64.7 (11)	50.0 (6)

Would Purchase Power Sunroof ($500)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	31.3 (5)	23.5 (4)	0.0 (0)	31.3 (5)	11.8 (2)	0.0 (0)
No	68.8 (11)	76.5 (13)	100.0 (15)	68.8 (11)	88.2 (15)	100.0 (12)

Would Purchase Power Windows ($300)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	56.3 (9)	70.6 (12)	86.7 (13)	75.0 (12)	70.6 (12)	58.3 (7)
No	43.8 (7)	29.4 (5)	13.3 (2)	25.0 (4)	29.4 (5)	41.7 (5)

Would Purchase Cassette Player ($150)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	12.5 (2)	41.2 (7)	53.3 (8)	62.5 (10)	23.5 (4)	41.7 (5)
No	87.5 (14)	58.8 (10)	46.7 (7)	37.5 (6)	76.5 (13)	58.3 (7)

Would Purchase Air Conditioning ($650)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	87.5 (14)	88.2 (15)	100.0 (15)	87.5 (14)	94.1 (16)	66.7 (8)
No	12.5 (2)	11.8 (2)	0.0 (0)	12.5 (2)	5.9 (1)	33.3 (4)

Would Purchase Air Bag, Driver's Side ($400)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	81.3 (13)	82.4 (14)	66.7 (10)	87.5 (14)	76.5 (13)	66.7 (8)
No	18.8 (3)	17.6 (3)	33.3 (5)	12.5 (2)	23.5 (4)	33.3 (4)

Would Purchase Trip Computer ($1000)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
No	100.0 (16)	100.0 (17)	100.0 (15)	100.0 (16)	100.0 (17)	100.0 (12)

Would Purchase Power Mirror ($100)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	31.3 (5)	41.2 (7)	66.7 (10)	25.0 (4)	41.2 (7)	50.0 (6)
No	68.8 (11)	58.8 (10)	33.3 (5)	75.0 (12)	58.8 (10)	50.0 (6)

Would Purchase Ali-Scout ($500)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	43.8 (7)	29.4 (5)	40.0 (6)	43.8 (7)	52.9 (9)	16.7 (2)
No	56.3 (9)	70.6 (12)	60.0 (9)	56.3 (9)	47.1 (8)	83.3 (10)

Would Purchase Power Locks ($250)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	50.0 (8)	82.4 (14)	86.7 (13)	81.3 (13)	76.5 (13)	66.7 (8)
No	50.0 (8)	17.6 (3)	13.3 (2)	18.8 (3)	23.5 (4)	33.3 (4)

Would Purchase CD Player ($250)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	75.0 (12)	41.2 (7)	6.7 (1)	43.8 (7)	35.3 (6)	16.7 (2)
No	25.0 (4)	58.8 (10)	93.3 (14)	56.3 (9)	64.7 (11)	83.3 (10)

Would Purchase Integrated Child Safety Seat	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	37.5 (6)	35.3 (6)	13.3 (2)	12.5 (2)	11.8 (2)	8.3 (1)
No	62.5 (10)	64.7 (11)	86.7 (13)	87.5 (14)	88.2 (15)	91.7 (11)

Would Purchase Air Bag, Passenger's Side ($400)	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	56.3 (9)	82.4 (14)	53.3 (8)	62.5 (10)	64.7 (11)	58.3 (7)
No	43.8 (7)	17.6 (3)	46.7 (7)	37.5 (6)	35.3 (6)	41.7 (5)

F5. How much would you be willing to pay for the Ali-Scout system as an option on a new car?

Dollars Willing to Pay For Ali-Scout Option on New Car	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	13.3 (2)	31.3 (5)	53.3 (8)	20.0 (3)	29.4 (5)	66.7 (6)
1-49	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
50-199	6.7 (1)	6.3 (1)	0.0 (0)	0.0 (0)	5.9 (1)	11.1 (1)
200-299	13.3 (2)	12.5 (2)	12.5 (2)	26.7 (4)	23.5 (4)	11.1 (1)
300-399	26.7 (4)	12.5 (2)	6.7 (1)	26.7 (4)	11.8 (2)	0.0 (0)
400-499	13.3 (2)	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	11.1 (1)
500-599	13.3 (2)	12.5 (2)	26.7 (4)	26.7 (4)	23.5 (4)	0.0 (0)
600-699	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)
700-799	6.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
800-899	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
900-999	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
1000 or more	0.0 (0)	12.5 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

F6. How much would you be willing to pay to add the Ali-Scout system to your present car?

Dollars Willing to Pay For Ali-Scout to Add on Present Car	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	25.0 (0)	56.3 (9)	73.3 (11)	20.0 (3)	47.1 (8)	77.8 (7)
1-49	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
50-199	12.6 (2)	6.3 (1)	0.0 (0)	6.7 (1)	5.9 (1)	0.0 (0)
200-299	25.1 (4)	6.3 (1)	26.7 (4)	40.0 (6)	5.9 (1)	11.1 (1)
300-399	18.8 (3)	6.3 (1)	0.0 (0)	20.0 (3)	5.9 (1)	11.1 (1)
400-499	6.3 (1)	0.0 (0)	0.0 (0)	6.7 (1)	0.0 (0)	0.0 (0)
500-599	0.0 (0)	18.8 (3)	0.0 (0)	6.7 (1)	29.4 (5)	0.0 (0)
600-699	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
700-799	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
800-899	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
900-999	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
1000 or more	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

F7. How much extra per day would you be willing to pay for the Ali-Scout system as an option on a rental car?

Dollars Willing to Pay For Ali-Scout as an Option on a Rental Car	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	26.7 (4)	33.3 (5)	53.8 (7)	0.0 (0)	33.3 (5)	85.7 (6)
>0-5	60.0 (9)	60.0 (9)	23.1 (3)	35.7 (5)	33.3 (5)	14.3 (1)
6-10	6.7 (1)	0.0 (0)	15.4 (2)	35.7 (5)	20.0 (3)	0.0 (0)
11-20	6.7 (1)	6.7 (1)	0.0 (0)	21.4 (3)	0.0 (0)	0.0 (0)
21-50	0.0 (0)	0.0 (0)	7.7 (1)	7.1 (1)	13.3 (2)	0.0 (0)
51-100	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
101 or more	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

F8. In order to function properly, Ali-Scout requires two additional components to support the in-vehicle equipment. These out-of-vehicle components are:

(1) Roadside Beacons
Each beacon consists of a transmitter, receiver, and control unit for communicating with Ali-Scout's in-vehicle equipment. Beacons are located at selected intersections.

(2) Central Computer
Located in a traffic control facility, the central computer is the brain of the system-receiving, transmitting, and integrating information from throughout the study area. Each beacon is linked to the central computer.

Installation, operation, and maintenance of these out-of-vehicle components will require financial investment above and beyond the price of the in-vehicle devices. In your opinion, who should pay to install, operate, and maintain the beacons and central computer? (Place an X in the box next to all entities that you think should pay at least a part of this cost.)

Federal Government	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	25.0 (4)	11.8 (2)	13.3 (2)	6.3 (1)	35.3 (6)	16.7 (2)
No	75.0 (12)	88.2 (15)	86.7 (13)	93.8 (15)	64.7 (11)	83.3 (10)

State Government	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	43.8 (7)	29.4 (5)	73.3 (11)	25.0 (4)	47.1 (8)	33.3 (4)
No	56.3 (9)	70.6 (12)	26.7 (4)	75.0 (12)	52.9 (9)	66.7 (8)

Individual Users	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	56.3 (9)	76.5 (13)	73.3 (11)	68.8 (11)	58.8 (10)	66.7 (8)
No	43.8 (7)	23.5 (4)	26.7 (4)	31.3 (5)	41.2 (7)	33.3 (4)

Commercial Users	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	31.3 (5)	64.7 (11)	66.7 (10)	50.0 (8)	52.9 (9)	66.7 (8)
No	68.8 (11)	35.3 (6)	33.3 (5)	50.0 (8)	47.1 (8)	33.3 (4)

Manufactuers of Products Such as All-Scout	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	62.5 (10)	64.7 (11)	80.0 (12)	62.5 (10)	35.3 (6)	50.0 (6)
No	37.5 (6)	35.3 (6)	20.0 (3)	37.5 (6)	64.7 (11)	50.0 (6)

County Government	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	25.0 (4)	17.6 (3)	6.7 (1)	31.3 (5)	47.1 (8)	16.7 (2)
No	75.0 (12)	82.4 (14)	93.3 (14)	68.8 (11)	52.9 (9)	83.3 (10)

City Government	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	12.5 (2)	17.6 (3)	0.0 (0)	37.5 (6)	23.5 (4)	8.3 (1)
No	87.5 (14)	82.4 (14)	100.0 (15)	62.5 (10)	76.5 (13)	91.7 (11)

Car Manufacturers	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	18.8 (3)	23.5 (4)	20.0 (3)	25.0 (4)	23.5 (4)	16.7 (2)
No	81.3 (13)	76.5 (13)	80.0 (12)	75.0 (12)	76.5 (13)	83.3 (10)

Other	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Yes	6.3 (1)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
No	93.8 (15)	100.0 (17)	100.0 (15)	93.8 (15)	100.0 (17)	100.0 (12)

F9. Of those entities that you marked in question F8, we are interested in knowing who you think should bear the primary cost. In the space provided, write the entity that you think should pay the primary cost.

Entity that Should Bear the Primary Cost	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
Federal Government	0.0 (0)	6.7 (1)	0.0 (0)	6.3 (1)	23.5 (4)	0.0 (0)
State Government	7.1 (1)	6.7 (1)	7.1 (1)	18.8 (3)	17.6 (3)	11.1 (1)
Individual Users of Ali-Scout	14.2 (2)	27.0 (4)	14.3 (2)	12.5 (2)	5.9 (1)	11.1 (1)
Commercial Users of Ali-Scout	7.1 (1)	6.7 (1)	7.1 (1)	0.0 (0)	5.9 (1)	33.3 (3)
Manufacturers of Products such as Ali-Scout	21.4 (3)	20.0 (3)	14.3 (2)	6.3 (1)	11.8 (2)	33.3 (3)
County Government	7.1 (1)	6.7 (1)	7.1 (1)	6.3 (1)	0.0 (0)	0.0 (0)
City Government	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Car Manufacturers	0.0 (0)	0.0 (0)	0.0 (0)	12.5 (2)	11.8 (2)	0.0 (0)
Other	43.0 (6)	27.0 (4)	50.0 (7)	37.5 (6)	23.5 (4)	11.1 (1)

F10. One option for funding the installation, operation, and maintenance of the beacons and central computer is to charge users a monthly fee to receive information (such as route guidance) from the system. This monthly fee would cover both services received and maintenance of the system. If you owned an Ali-Scout in-vehicle device, how much per month would you be willing to pay to receive the information provided by the beacons and central computer?

Dollars Willing to Pay Per Month for Guidance Service	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
0	25.0 (4)	25.0 (4)	60.0 (9)	6.3 (1)	23.5 (4)	60.0 (6)
1-5	18.8 (3)	37.6 (6)	6.7 (1)	12.5 (2)	5.9 (1)	10.0 (1)
6-10	25.1 (4)	25.0 (4)	6.7 (1)	31.3 (5)	23.5 (4)	0.0 (0)
11-20	18.8 (3)	0.0 (0)	13.3 (20	37.5 (6)	5.9 (1)	10.0 (1)
21-50	12.5 (2)	12.5 (2)	13.3 (2)	12.5 (2)	35.3 (6)	20.0 (2)
51-100	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
101 or more	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

F11. In your opinion, how important are each of the following factors to the operation of systems such as Ali-Scout?

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Fuel Savings	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	25.0 (4)	23.5 (4)	42.9 (6)	6.7 (1)	20.0 (3)	55.6 (5)
2	6.3 (1)	0.0 (0)	21.4 (3)	13.3 (2)	0.0 (0)	0.0 (0)
3	18.8 (3)	17.6 (3)	7.1 (1)	6.7 (1)	13.3 (2)	0.0 (0)
4	18.8 (3)	0.0 (0)	7.1 (1)	13.3 (2)	6.7 (1)	0.0 (0)
5	12.5 (2)	29.4 (5)	0.0 (0)	0.0 (0)	20.0 (3)	0.0 (0)
6	6.3 (1)	23.5 (4)	7.1 (1)	26.7 (4)	13.3 (2)	22.2 (2)
7	12.5 (1)	5.9 (1)	14.3 (2)	33.3 (5)	26.7 (4)	22.2 (2)

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Ali-Scout For Reduced Air Pollution	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	25.0 (4)	5.9 (1)	35.7 (5)	12.5 (2)	20.0 (3)	44.4 (4)
2	12.5 (2)	11.8 (2)	28.6 (4)	0.0 (0)	6.7 (1)	11.1 (1)
3	25.0 (4)	11.8 (2)	7.1 (1)	18.8 (3)	6.7 (1)	0.0 (0)
4	12.5 (2)	17.6 (3)	14.3 (2)	12.5 (2)	0.0 (0)	0.0 (0)
5	6.3 (1)	29.4 (5)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
6	6.3 (1)	11.8 (2)	7.1 (1)	18.8 (3)	20.0 (6)	22.2 (2)
7	12.5 (2)	11.8 (2)	7.1 (1)	31.3 (5)	46.7 (7)	22.2 (2)

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Traffic Safety	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	12.5 (2)	5.9 (1)	21.4 (3)	0.0 (0)	0.0 (0)	22.2 (2)
2	0.0 (0)	5.9 (1)	21.4 (3)	6.3 (1)	0.0 (0)	0.0 (0)
3	18.8 (3)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	12.5 (2)	5.9 (1)	14.3 (2)	12.5 (2)	0.0 (0)	0.0 (0)
5	12.5 (2)	23.5 (4)	14.3 (2)	25.0 (4)	17.6 (3)	11.1 (1)
6	12.5 (2)	17.6 (3)	14.3 (2)	12.5 (2)	17.6 (3)	11.1 (1)
7	31.3 (5)	35.3 (6)	14.3 (2)	43.8 (7)	64.7 (11)	55.6 (5)

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Ali-Scout for Relief of Highway Congestion	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	6.3 (1)	5.9 (1)	14.3 (2)	0.0 (0)	0.0 (0)	11.1 (1)
2	0.0 (0)	5.9 (1)	14.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	12.5 (2)	0.0 (0)	0.0 (0)	6.3 (1)	0.0 (0)	0.0 (0)
5	12.5 (2)	11.8 (2)	28.6 (4)	18.8 (3)	11.8 (2)	11.1 (1)
6	37.5 (6)	23.5 (4)	28.6 (4)	31.3 (5)	17.6 (3)	11.1 (1)
7	31.3 (5)	47.1 (8)	14.3 (2)	43.8 (7)	70.6 (12)	66.7 (6)

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Ali-Scout For Accurate Route Guidance	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	14.3 (2)	0.0 (0)	0.0 (0)	10.0 (1)
2	0.0 (0)	11.8 (2)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)
4	12.5 (2)	5.9 (1)	0.0 (0)	6.3 (1)	0.0 (0)	10.0 (1)
5	6.3 (1)	5.9 (1)	0.0 (0)	6.3 (1)	11.8 (2)	10.0 (1)
6	37.5 (6)	17.6 (3)	50.0 (7)	25.0 (4)	29.4 (5)	10.0 (1)
7	43.8 (7)	58.8 (10)	35.7 (5)	62.5 (10)	58.8 (10)	50.0 (5)

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Traffic Diverted Into Neighborhoods	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	12.5 (2)	5.9 (1)	14.3 (2)	12.5 (2)	26.7 (4)	22.2 (2)
2	12.5 (2)	5.9 (1)	0.0 (0)	12.5 (2)	0.0 (0)	11.1 (1)
3	6.3 (1)	23.5 (4)	7.1 (1)	6.3 (1)	0.0 (0)	11.1 (1)
4	25.0 (4)	23.5 (4)	7.1 (1)	6.3 (1)	6.7 (1)	11.1 (1)
5	18.8 (3)	17.6 (3)	28.6 (4)	12.5 (2)	13.3 (2)	11.1 (1)
6	6.3 (1)	5.9 (1)	21.4 (3)	31.3 (5)	13.3 (2)	0.0 (0)
7	18.8 (3)	17.6 (3)	21.4 (3)	18.8 (3)	40.0 (6)	33.3 (3)

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Ali-Scout For Ease of Use	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	14.3 (2)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.3 (1)	5.9 (1)	7.1 (1)	0.0 (0)	22.2 (2)	22.2 (2)
5	12.5 (2)	11.8 (2)	14.3 (2)	6.3 (1)	11.1 (1)	11.1 (1)
6	37.5 (6)	17.6 (3)	50.0 (7)	37.5 (6)	0.0 (0)	0.0 (0)
7	43.8 (7)	58.8 (10)	14.3 (2)	56.3 (9)	66.7 (6)	66.7 (6)

Not at all Important 1 2 3 4 5 6 Extremely Important 7

Ratings for Importance of Ali-Scout For Quick Updates of Road Conditions	Male			Female		
	19-29	30-64	65-80	19-29	30-64	65-80
1	0.0 (0)	0.0 (0)	21.4 (3)	0.0 (0)	0.0 (0)	0.0 (0)
2	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
3	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
4	6.3 (1)	11.8 (2)	7.1 (1)	0.0 (0)	11.1 (1)	11.1 (1)
5	18.8 (3)	0.0 (0)	14.3 (2)	12.5 (2)	11.1 (1)	11.1 (1)
6	12.5 (2)	11.8 (2)	21.4 (3)	43.8 (7)	22.2 (2)	22.2 (2)
7	62.5 (10)	70.6 (12)	0.0 (0)	43.8 (7)	55.6 (5)	55.6 (5)

F12. We are interested in knowing how you would like to see Ali-Scout improved. In the space provided, please tell us two changes that you would like to see made in the system.

MALE:

Age 19-29

- Ability to modify voice of system tone, pitch, and speed. Mount it in vehicle internally - integrate to the interior.
- Eliminate voice response "You have left the recommended route." Should go on voice command.
- I think there needs to be more beacons.
- Start using a 32-bit macrocontroller that has better cyclic redundancy checking
- Add GPS capability with beacon system - this ability to always know where you are as well as get traffic information and transmit data to central computer.
- Provide more info based on traffic conditions. The system should inform the user of problems. Display road names & directions. This should be done verbally as well as displayed on the screen.
- Fine-tune the automous mode. Give more warning time before turns.
- Names of roads used, Name of road & Direction of Road turning on ex "Turn Right on Big Beaver Rd. East" Improved Navigation on sidestreets & Subdivisions.
- Better accuracy of particular coordinates. Programming for quick & easy routes.
- Entry destinations is cumbersome and time-consuming. The average citizen will never go for it. A computer map needs to be displayed BEFORE you start your trip. You have to start out blindly and sometimes go for a mile before receiving directions. Also, the system needs to know about closed roads, many more minor streets. It must pinpoint destinations better and not give the [Destination Zone Reached symbol drawn] so soon.

- I think the system should be colorized for better effects.
- Better way of imputing destination data. Congestion information entered into system for rerouting.
- Ali-Scout does not have a chance next systems that operate w/GPS. The address range system should be part of the unit. The "Nintendo" generation should NOT need a manual to use this or any system. If you can not program a "VCR" there is no way you can program this "thing"
- Ensure accurate directions are given at ACC times. As my notes have shown, there were times that the system told me to divert from my destination & that would not ultimately get me there. More beacons. Expand system to entire state. This would be useful for unknown destinations. (most of my driving consisted of places I had already been to in the past)
- Make sure it gets more accurate. many times it would show the right direction after I would pass the turn. Give the shortest roots.
- Overall, the DISPLAY should be improved, the LCD display is at times hard to read and very "undetailed" GUIDANCE - was very inaccurate at times and at times made no practical sense.
- It was fine, I just was out to the east, in Fraser & Mt. Clemens & I didn't get to use a lot. I was fine

Age 30-64

- Add more lead time into lane change. Expansion of local coverage.
- Eliminate Beacons - Much to costly & cannot be close enough to every starting location System must start you immediately & guide you to final destination - & allow you to pause & still be fully guided - must be super accurate.
- Improved accuracy to destinations without the voice control always stating "You have left the recommend route." Directions that give you the best routing not just the firs available route. I don't ever what to hear that voice again.
- Heads up display Easier to program destinations/& confirm. (Actual position function)
- Improved accuracy - more beacons. Route recommended was not always the best. A larger keypad for programming. - Also illuminated keyboard (closed position) for programming destinations.
- More coverage area.
- Easier interface - address and zip to receive latitude and longitude information. Increase coverage to minimum 5 county metro Detroit area.
- Larger keyboard. Lighted keyboard - for night use.
- More accurate sometimes it seemed confused. More voice instructions.
- Larger area coverage. Bigger screen
- I think the concept is great and that a system such as this could be very useful. Personally, I did not find it useful, do to my familiarity of the area.
- Bigger key pad for programing, to far out of sight while driving.
- I would like to see more beacons installed. Integration with traffic control system - for construction, accident & weather conditions for roads.
- Would like to be able to use it in Macomb County for a more accurate evaluation. Would like to see it tied into GPS - use GPS to program destination and then use the Ali-Scout control center for updated traffic information.

Age 65-80

- Using the coordinates on the Ali-Scout maps 1-6, destinations are not always accurate, to hear, destination area reached.
- Many more beacons to be useful Larger area. More range.
- Larger keyboard, awkward to use. More detailed coordinates for more precise locations.
- Move roadside beacons to middle of block not at intersection. More beacons neighborhood area.
- Eliminate the misinformation provided as to the direction to be followed. Re-write the users manual to make it more understandable.
- Need greater range & more exact destination

- Engineering changes - fixed keyboard with cover which opens. Re-chargeable batt. In (DU). Add system to indicate whether (DU) is using battery power or vehicle power when installed in vehicle. Change verbal instructions to give driver option to make decisions necessary to follow Ali-Scout recommendations. EX: "Prepare to turn right/left at next intersection."

- Menu should be defined more clearly. Relocate speaker - I banged my knee several times

- A-S should stay in guided mode closer to destination. The switch to autonomous at 0.4-0.6 mi is bad in cities. The j-turns at intersections, A-S should give better (earlier) lane warning. [diagram drawn] In the execution of this turn, it's important to be in the right lane at bottom of J.

Female:

Age 19-29

- Better location in car (if possible). Not covering up any other controls in room (less wobbly stand, too). Guidance to all entrances of location.

- Although this depends on car manufacturers, a more suitable place for the Ali-Scout monitor on or near the dashboard would be nice. It would be much easier to simply enter the name of one's destination and the city in which it is located than coordinates, etc. I like the "points of interest" option very much.

- I don't know why but it kept telling me I left the designated area when I was following the 3 arrows, this made me nervous & unshure of what I was doing wrong & where I was going.

- More beacons. Should be in all major intersections Found interference a BIG issue. Very frustrating. More beacons to pickup after interference (electrical wires, trucks between car & beacons, radio/tv towers)

- More beacons in different parts of Metropolotin Detroit. More accurate. I found that the system went off guided mode quite often, when I never left the recommended route. Why and how can that be corrected or avoided?

- Different voice for the speaking box. A more softer, comfortable voice. A wider range of study area. A lot of Beacons are concentrated in one area of Oakland County not to much on the out skirts.

- The guidance a little more accurate. I got lost on more than one occassion. Traffic conditions more accurate

- Many more beacons - and working. Gets me closer to my destination.

- Maybe to give more specific directions especially if you don't know the area.

- Early warning/instructions for executing left turns in a no left turn intersection. More defined arrow position indicating in what quadrant is your final destination point.

- I would like to see a display of the road you are on & what roads are nearby. I would like an easier method for putting in destination.

Age 30-64

- You need more beacons all over make it a little easier to program

- Needs to give alternate route of passing suggested route. Needs more beacons.

- Make the keypad keys a little bigger not quite so small

- Turned for Better viewing and larger Buttons for programming

- Accuracy - extra advance warning. Some form of grid - indicating route to be taken in advance of trip.

- Improved ACCURACY by system in guidance to destination. This is critical of the system is to be used with confidence. Simplification of programming info in the Ali-Scout. If is currently too time consuming & complicated. Too many "sources", maps need more detail, buttons on programming pad too small. (To insure greater accuracy)

- Using map - Locations to indicate N or S of a road or E/W. Black Boxes - Located closer together.

- More beacons (closer together). Have the ability to let you know if there is heavy traffic ahead.

- More accurate information - more beacons to feed the information - Didn't trust system to give accurate info. Quicker response - & adjustments made to sense traffic volume & give alternate routes.

- Less complicated for the average person. More accuracy in directions given by Ali-scout. It always to me to turn the wrong way.

- Better route solution by system. More wording on screen as opposed to arrows.

- The ability to program a standard route into memory I.E. work.
- Ali-Scout is inconvenient. By the time you program the thing you've spent as much time as a map w/less accuracy. It must be workable w/imputting an address. The system MUST be responsive immediately to traffic jams.

Age 65-80

- Would have to be more accurate Would like more vocal directions
- Improve accuracy of mileage to a destination. Less than 1/4 of our destinations were in the "points of interest" locations consequently we used the "actual position" coordinates which often greatly different from the map coordinates, causing inaccurate distances.
- Wider radius of distance into adjacent counties. Broader coverage of system improve the availability of the product by advertising or any other media to get to the consumer. I have never heard of this product & I read all the news releases of all the companies each day.
- I was only able to use the system for 2 days. There is no way I could give an accurate opinion of the system. The log was a real pain to me. I primarily am in neighborhood in which I basically am familiar. Worked in the field for many years. This system might be fine when traveling or in outlying areas, but basically I would not want it or to fund it for others. Thank you for allowing me to drive this great car.
- More up to date Road information from computer & beacon's. When construction closes or opens roads. Greater area served by the beacons and central computers.
- Larger size of buttons for Programming. Extremely important if Ali-Scout accomplished these.
- When I signed up I assumed relief of highway congestion was one of the benefits. Indirectly that would affect fuel use, air pollution, & safety. I didn't feel that there was any relief of congestion. I was not given an alternate route.
- The address system never takes you where you are going. Just 2 main streets. There are a lot of points of interest that are important that are missing.
- I found it frustrating to program the Ali-Scout for every stop.

Miscellaneous comments by NUL-ALI subjects

MALE:

Age 19-29

- Would be better if it had a single flashing arrow straight ahead or segmented arrow that pulsed ahead. Once instructed me to turn on road with no turn other than a mild curve - but still gave correct direction. Should offer new route if possible - switched to autonomous until next beacon every time. Often we almost get to destination before guided mode activated. Would not buy unless beacon system more dense and more wide spread (more coverage)
- I feel that people will never use it with the current interface. Non-technical people won't want to enter latitude and longitude. You need a menu-driven free-type user interface with a larger keyboard that allows users to make selections that increasingly narrow down their destination until it is pinpointed. You need a large database with a powerful search engine. I should be able to enter "Burger King -Auburn Hills Area" and have the system find all of them for me so I can choose one. A few times I didn't use Ali-Scout because I didn't know what my final destination would be. (When looking for a restaurant, etc.) It could be somewhat useful in its current form when people have stored a large number of locations in memory. Right now the coverage area just seems too small, and minor roads are unknown to the system. The "Points of Interest" section in the handbook is too small, and not enough roads are in the "address ranges". The map wasn't bad, but I needed an <u>easy</u> way to pinpoint an unfamiliar destination.
- Thank you for the opportunity to participate. I think this technology has great potential in the future. It has potential to help with the regular drivers commute or to help a visitor to the area find their way around. Personally, other than helping with traffic congestion, I believe it has limited use for everyday short trips. I believe it could be extremely valuable in rental cars for example. Needs some work to route around congestion. Thanks you again.

Age 30-64

- The past 2 weeks of use never helped traffic congestion or distance of my trips - it actually hurt because I followed its directions just to test system & was most often incorrectly directed as to shortest & best route.
- Greatly enjoyed participating in this survey. I found Ali-Scout to be of little value in traveling locally in area that are familiar to me. Perhaps its

best application and most valuable is aiding the traveler in unfamiliar cities etc. in locating hotels, business', etc and helping him to arrive safely at a location in the most prompt and efficient manner. I felt this visual display is not needed if voice commands are used. Actual visual is distracting from action of making a turn. (Even more so when making a left turn)

- Some signals displayed codes to refer to on display. No mention of these or written information to guide one on meaning or where to reference. Frustrating! As an Engineer my overall impression of Ali Scout was that it function at a very basic level to which many enhancements need to be made at a broad reach & development prior to any public marketing. The concept is valid.

Age 65-80

- Much too expensive for information provided. GPS system already available would be much cheaper. Use in large area would require measure amounts of reference material to obtain coordinates. (Some problem with GPS.)

- Exact co-ordinates are to difficult to determine from the information provided. Would not trust it to get me to my destination if it were unknown to me. I live in Royal Oak and drive outside of the major part of the study area, so maybe this is the reason the unit did not function properly.

- Drivers should have two sets of keys to test vehicle. ALI-SCOUT speaker should be mounted inst panel to right of steering clmn Keys with dual functions should be listed as such in pictorial views on pages 3 & 4 of the Users Guide. On page 5 of the User Guide, the screen displays pictured should also include an explanation of the chimes and voice commands associated with each display. On page 8 of the Users Guide under Mandatory Destination data 2nd paragraph should read "enter your destination name" using the alphanumeric key pad etc. 5th paragraph should read "you can save and end mandatory destination data by pressing [diamond key drawn] key or you can input additional data using the optional destination data instructions below." Instructions for first time users should detail a simulated trip origin to destination showing keystrokes required to make the trip and displays which will appear on the screen during the trip. A map tracing the route should also be included.

FEMALE:

Age 19-29

- Exact co-ordinates are to difficult to determine from the information provided. Would not trust it to get me to my destination if it were unknown to me. I live in Royal Oak and drive outside of the major part of the study area, so maybe this is the reason the unit did not function properly.

- I have really enjoyed using the Ali-Scout system in the FAST-TRAC project. I feel improvements are beneficial but, not a necessity with the whole system. I wish more schools got involved with this. Thank you.

Age 30-64

- In my experience so far, ALI-SCOUT seems to be most accurate and advantageous when freeway driving.

Age 65-80

- Thank you for an interesting experience. The potential for travel guidance is worthwhile to develop.

- I drove the car home and in just that much, I decided not to do it, so just took it back & parked where I took it from and went in & told the young man that I wouldn't do the testing because I was not comfortable in the drivers seat (because of the seatbelt.) In my car I can adjust the belt so it doesn't bind across my neck. (Everything else was O.K.)

- The problem I had with Ali-Scout was that it didn't help me select a less congested route. If I didn't follow the same route each time it couldn't make the change. (Do I use it incorrectly?) The only reasons to have an Ali-Scout are: 1) avoid congestion 2) select best route (didn't do it).

Appendix H:
Driver Log Comments

MALE

Age 19-29

- Trip 2: It gave an inaccuate reading to where the hospital was located.
- Trip #3 - Ali-Scout was disoriented. Told me I was 40 miles from Oakland Mall from 9-1/2 & John R. Called Fast-Trac - left message for [Fast-Trac Coordinator].
- Trip #7 - Routed around traffic congestion at 696 - I-75 interchange. Had me get off at 11 mile road. Impressive.
- Received odd message when car was first turned on. "New program vers. available" called in and was told programming glitch.
- Trip 1 - Hard to locate because did not know exact area.
- Trip 2 - Went into guided mode, but didn't tell me to turn then told me I was wrong.
- Trip 1- had trouble located exact address location.
- Trip 3 - at intersection of Coolidge and Maple Roads I did not receive information from first beacon. Trip 5 - same as above.
- Car has been making gurgling, sloshing noises - though probably minor, it's noticeable. It's hard to get the key out of the ignition after I turn the engine off. This has been a problem since the beginning. There are 2 tiny dings on one of the back doors - they were there when I first got the car. I wish beacons gave more information out especially if going to new places.
- Trip 1 - There is no beacon between home & Mama. Trip 7 - does not work properly if a turn is made from any other entrance than the corner of Squirrel & Walton Trip 3 - Home (had to be re set) The system works better if set by coordinates as oppose to actual position.
- Trip 3 - No beacon crossed Trip 5 - was "used " wrong indication, position re-set Trip 6 - [name] used wrong indication, position re-set
- Trip 2 - [unknown location] (Troy) was set as actual position
- Trip 2 - No Beacon crossed.
- Trip 1 - difficult to program trip (2) using assign current positions once at destination - instruction on pg 9 incorrect?
- Trip #2, 3, 4, 5 often guided mode did not activate until very near destination.
- Trip 6 - Ali-Scout never gave autonomous or guided direction. Accepted destination but never gave direction.
- Never gave autonomous or guided direction did not use.
- Trip 1 & 2 Ali-Scout unit still not working did not use. Siemens gave me a new display unit my vehicle [study vehicle identifier]
- #4, noticed that guided trip was shortest mileage but not fastest - menu would not allow me to select a "fastest" route.
- #2 Gave wrong directions, possibly mis-programmed once I reprogrammed it gave good direction but only autonomous.
- #3 Only autonomous despite passing several beacons
- Trip 1 & 2 used only until edge of map to help get there - destination location not on map. (Milford)
- Went out of town - vehicle was kept at work in Troy.
- Lane changes & turn prompts come too late. If unfamiliar would miss turn or be unable to change lane.
- On trip 1, it took quite a while to go into guided mode.
- Trip 3: Directions were confusing; They often came too late.
- Trip 1: Didn't go into guided mode until I was almost there.
- Trip 3: Ambiguous Directions (Autonomous mode) when nearing home It wouldn't be useful for finding private residences.
- The beacon E. Of Crooks and N of Long Lake doesn't make contact when expected.

- The "lead time" for turns is too short.
- Lost "contact" w/guidance at Summit Pl. Mall. I don't know how accurate arrow was. Lost guidance a couple of times in Pontiac.
- Trip 5: While traveling East on Maple, it went into guided mode at Orchard Lake Rd. At Maple and Southfield, it said I had left the recommended route but established route again quickly.
- Trip 1- Illogical directions when nearing office. It seemed to want me to take the Crooks Rd. Entrance. (Instead of Long Lake)
- Trip 2 - Guidance was not useful - Didn't go into guided mode until I was on Rochester Rd.
- Trip 4 - I took my usual route home - Crooks - Kirts - Somerset - Axtell. It left guided mode at Crooks and never regained.
- Trip 5 - Worked well until 13 & Dequindre - then lost guidance - frustrating
- Trip 6 - It would be better to have route information immediately upon startup, not a mile or two into the trip.
- Trip 4 - went into guided mode near 15 and Chicago Rd.
- Trip 1 - Often gives [diagram of Destination Zone Reached] before you have business in sight.
- Trip 1 - [picture drawn] too early
- Trip 4 - "Crow Fly" readings are getting inaccurate. (Since no beacon has been contacted in 3 trips?)
- Trip 6 - Left recommended route - didn't re-establish guidance
- Trip 2 - I was led down a closed road! I followed the Ali-Scout (and other cars) on 16 mi. West of Woodward. We were turned back by construction workers. Boy, did I feel stupid, because I didn't pay enough attention to signs, apparently. The signnage was poor, I felt, and I put too much trust in the guidance system. (16 mi. Closed West of Woodward).
- Trip 3 - Most of the trip was west on Maple. The system briefly said I had left the recommended route in Downtown Bhm., but I hadn't.
- Trip #3 - Did not pick up beacon at Dixie and Shashabaw
- Trip #1 Use only part way due to lack of beacons
- Trip 1 - It got "confused" near work - gave improper left turn command.
- Trip 4 - I started out going home but changed my mind (at Crooks & L.L.) It never went back into guided mode and said I was .55 miles away from library when I got there.
- Trip 5 - It indicates where I am .76 mi from home when I'm there.
- Trip 7 - It would NOT accept coordinates for 150 W. Maple (Troy). (Long John Silver's).
- Trip 1 - Guided mode until Rochester Hills. Autonomous arrow seemed somewhat accurate.
- Trip 1 - Put 16 & Van Dyke as destination. Lost guidance before Ryan Road on 16
- Trip 4 - Went into guided mode on Rochester Rd between M-59 and Square Lake.
- Trip 1 - Went into guided mode twice, but I ignored it since it would lose contact in Pontiac. I don't know the roads well enough to get from Pontiac to my destination with no map.
- Trip 2 - Went into guided mode @ Square Lake and Woodward. (I followed arrow in autonomous-mode til then. It routed me down Adams, however, a sign said Adams was closed @ Long Lake, so I left the recommended route.
- Trip 1 - Took Coolidge Rd to Long Lake. I didn't go into guided mode until I was in front of the building, and then the directions didn't seem correct.
- Trip 2 - Gave poor directions. At one point, it advised a left turn into "no where."
- Trip 5 - More beacons are needed, or they need to be RF instead of infrared?
- Trip 1 - I'm not sure where it wants me to turn @ Long Lake east of Crooks. I want to enter lot from Tower Dr.

- Trip 1 - Guided mode just before entrance; strange directions.
- Trip 2 - Started @ 9 mi. & Greenfield went into guided mode @ 14 & Woodward.
- Lost guided mode on Greenfield between 11 and 12 mi.
- Trip 4 - Went into guided mode @ 16 and Dequindre.
- Trip 1 - Mileage reading was .3 miles off.
- Trip 1 - The left turn pattern on display has changed @ Long Lake/Tower Drive entrance [diagram], but system still didn't recognize Tower Dr
- Trip 6 - Did a pretty good job. Lost guidance @ Cooley Lk Rd and Elizabeth Lk. Rd.
- Trip 7 - Went into guided mode @ Maple & Orchard Lk.
- Trip 3 - Guided mode after Wattles and Livernois.
- Trip 4 & 5 - System did a good job.
- Trip 2 - Mysteriously lost guidance at University and I-75
- Trip 9 - Did a good job in Auburn Hills area. However, it routed me down Adams, which is closed. (My original destination was Southfield, and I changed it to home in Birmingham.)
- Trip 3 - Leads down Adams - closed
- Trip 7 - Guided mode began @ 9 mi and Woodward.
- Trip 1 - Guidance until Macomb County.
- Trip 1 didn't go into guided mode @ Big Beaver/Crooks.
- Autonomous arrow pointed across street from actual address.
- Trip 5 - Lost guided mode at I-696 & I-75 interchange.
- Trip 5 - No pick up at 696 & Dequindre
- Trip 1 - Note new program available
- Trip 2 - auto mode doesn't work when cornering
- Trip 1 - Guided system made error - said left route before exit was possible on M-59
- General comment - places are never the same twice - when arriving home, it is always about .1 mile off from the last time. Same with parking in the same spot!
- Trip 7 - Guided mode "lost me" twice - said I left the recommended route a) EB M-59 between Crooks & Auburn Rd. B) Sb Rochester Rd btw South Blvd & Sq. Lk. Rd
- Trip 6 - strange route thru downtown Pontiac - it got me almost lost - then guided mode "went away" Did a very poor job!
- Took me down Quarton Rd, which is closed between Woodward and Cranbrook Rd.
- Trip 3 - Route is confused, took me thru Waterford!
- Trip 2 - Beacons on I-75 not working @ Sq. Lk Rd & near M-59
- Trip 2 - no beacon "sense" @ I-75 & Auburn Rd
- Trip 3 - No beacon "sense" @ I-696 & Dequindre
- Trip #3 No indication of 16 & Crooks beacon
- Trip #5 Instructed to exit E. Big Beaver from N. Bound I-75 when destination was west. (Two exit Ramps)

- Trip #6 Same as #3 - appears beacons not installed at 16 & Crooks.
- Note: Maps in back that show lat./long are not very accurate. Address range & points of interest lat./long are dead on.
- All trips - when destination is not within beacon area by the time you reach destination you are 2-3 miles off. Either a) Maps in back area are a couple miles off. B) Ali-Scout does not compute very accurately when on dead reckoning.
- Trip 4 - Programmed home using current position; dropped friend off (he lives approx. 11 mile due south) turned around & back tracked home. By the time I got home Ali-Scout was off by 2.32 miles.
- Trip 1 - Picked up all beacons - ALI-SCOUT worked perfectly.
- Trip 2 - Picked up beacon near 14 Mile/Livernois, went another 1/8 mile and went back into autonomous
- Trip 3 - Picked up beacon near 14 Mile/Crooks, went another mile and ALI-SCOUT went back into autonomous-mode. In auto. It did recognize destination area, & destination reached. But it failed to direct me to turn left (because it went back into autonomous-mode)
- Trip 5 - After ALI-SCOUT went into guided mode, it got confused and told me I deviated from recommended course - I was on the freeway near no exit. Display showed [diagram drawn] (continue on course) when it sounded off then went into Autonomous mode.
- Trip 6 - Entered construction area near Mound & M-59 ALI-SCOUT sounded and showed [diagram drawn of Destination Area Reached display] then went into autonomous-mode continued 4 more miles to home, reached home, but registered .30 miles off.
- Trip 2 - After going into guided mode, went right back into Autonomous Mode.
- Note: In your list points of interest you have two (2) Comerica banks on 1495 Crooks Rd/ in different lat./long.
- Note: Many times you would like to know what the fastest route from your origin to your destination is, but do not know what direction to start out in. Because ALI-SCOUT does not go into guided mode until you pass a beacon, which by that time your course is set, you are stuck going that particular way you struck out in instead of possibly going the faster route.
- Trips 4/5 - Passed beacon at Crooks & Big Beaver; ALI-SCOUT did not pick it up.
- Trip 2 - Could not program destination lat./long. - no maps or charts in that area.
- Trip 3 - Picked up beacon on I-75 went 1/8 mile & went back into autonomous-mode, 1 mile more, picked up another beacon & it guided me right in.
- Trip 4 - Was guiding me good, it told me right turn ahead (which was correct) then immediately told me I deviated from recommended course & went into autonomous-mode (I was only about a mile from destination)
- Trip 5 - Was heading south on John R., reached 14 Mile Rd. - destination was another 4 miles away - guided mode was telling me to proceed ahead - then it told me I deviated from recommended course, went into autonomous-mode & still showed me to proceed straight. Just after it went into autonomous-mode it said to take note of the display said "Display Code 'c'."
- Note: Not all maps in back are off/have used lat./long. Coordinates & been dead on & other times have been miles off.
- Trip 6 - Turned on car - told me to take note of the display - display said "Not promr. vers. availl."
- Trip 1 - ALI-SCOUT got confused. Was headed west on I-59, with about 8 miles to go, was still directing me to go straight; then told me to get in the left hand lane; then turn right; (no place to turn right) then I left the recommended route.
- Trip 2 - Same occurance as Trip 1.
- Have trouble with Scout, south of 8 mi Rd No map
- Trip 6 - "New progr. vers. Available"
- On trip one & two, the Guided mode stopped after I crossed 8 mile and I-75. (Probably because I left the county)
- See comments for trips 1 & 2 from 2-25 lost in directing guided mode. Also - the weather was quite poor today and the ALI-SCOUT seemed to be directionally confused asking me to get into a lane that did not exist. (Specifically on the overpass @ M-59 & Roch. Road.)
- No problems. Navigational system maps well even on short trips.
- Trip 6 - "New progr. vers. Available" came up on display

- Trip 4 - When I turned on car - told me to take note of the display, display said "New progr. vers. Available."
- When I used Ali-Scout it did not show me the shortest way. And many times it did not show me how to get there. If I had not known how to get there, I would have never made it using Ali-Scout.
- As I was driving east on 16 mile and wanted to get to the Library the Ali-Scout showed me the library on the wrong side of the road (showed South instead of north) Trip 2
- In the morning the system displayed "No program vers ..." The system shows the direction of the destination but if I did not know how to get there, I don't know if I would.
- Not at 2:37 pm: Something about available.
- Had to review manual before using system. Manual looks very easy to read.
- When I was traveling North on Rochester Road, trip #1, a voice Prompt chimed in telling me to look at the message display. I read something to like "text Message 9" It only lasted a few seconds, so it was hard to read. No other problems. The navigational system seems to be working well, but can't exactly touch down at my home, it tells me I have another .28 miles left. I also noticed a small puncture in the front left bumper next to the word Mercury, as well as a stone chip in the Middle of the windshield. This was not noticed when I picked up the car because of the snow and ice that had accumulated on the car.
- When I traveled outside of Oakland County, the navigational system became confused and pointed in different directions. Also, I received another "text Message Number Nine" that displayed when I crossed the intersection of Rochester Road & Long Lake.
- Same navigational issue as yesterday
- Again, when crossing M-59 @ Rochester Road, the computer told me to "Get into Lane" and displayed the decreasing bars. There should be no reason for this because my destination was due South, not East-West.
- Trip 1 - When I started the car "New Progr Vers Available" came up on display
- Trip 2 - Traveling down 16 mile - every beacon it would tell me to continue straight [drawing] then immediately say I left the recommended route (happened 3 times)
- Trip 1 - "New progr vers available"
- Trip 2 - Told me I was at my destination but was still 19 miles away
- Trip 4 - Kept telling me I left the recommended route; I would be going down the free way; Ali-Scout would read continue on ahead; then just come up (not near an exit or anything) "You have left the recommended route."
- See comments from 3-11.
- O.U. was directly ahead of me, but the unit pointed the opposite directions.
- it towards driver
- Why not G.P.S.? Sys. seems to get confused.
- Trip #4: Sys. Was wacky!! It directed me onto I-75 and about 1 mile before my exit it said I left the "recommended route" to "Home." Once I got w/in 1 ½ miles of my house, it was directing me to go in the opposite direction. Maybe sys. was doing maintenance at this time of day?
- Trip 2 - System directed me to w/in ½ mile of destination & then told me I left the "rec. route" yet I executed everything the way the sys. told me.
- Trip #3 - System loses me when directed off I-75 to Sq. Lk. Rd. Exit.
- Unit loses me as I drive thus, I got a "You left the Recommended Route" response.
- Trip 3 - At Middlebelt and Maple A.S. continues to suggest a bad turn at the intersection.
- Trip 6 - At Maple & Franklin A.S. told me to take wrong turn
- Trip 6 - Transmitter at 15 & Orchard didn't work
- Trip 4 - Square Lake & Woodward fed me bad information turn right where there was no place to turn right - still telling me the wrong

way at 15 & Franklin/Middlebelt.

- Trip #2: Whenever I return from Meijer, the computer "acts up". At one corner, it tells me to go straight, but this is impossible since the street ends and I MUST turn!

Age 30-64

- Trip 2 - I programmed 9 mile & Mound - got on I-75 South @ 14 mile - passes 1st beacon @ I-75 & 13 Mile - went into guided mode - obviously most correct route would be 696 east - but ALI-SCOUT said I left recommended route when I got on 696 East - but ALI-SCOUT said I left the recommended route when I got on 696 - this is not accurate or correct!! I don't have any interest in this unit if it can't direct you properly.
- Dialed in office - arrow shows direction & mileage but I passed no beacons until I-75 @ 11 Mile Road - then ok guided.
- Trip 1 - Worked good - after 1st beacon
- Trip 2 - headed north on Rochester Road - 1st beacon @ 16 and Rochester - said to continue north - it told me to turn right to enter M-59 X-way heading west (which is correct) - at approx ½ mile west of Livernois, it said I had left the recommended route - wrong - then exited @ Crooks to Avon to Adams (2nd beacon) then reset & was ok
- Trip 3 - A-ok - guided - Adams to Avon to crooks to I-75 to Stephenson to 15 Mile - good - Note: there should be a pause button in case while in guided mode you want to stop at a gas station or store - so you don't lose the guided mode
- Trip 1 - Went into guided @ Adams & Walton - used to take me home fairly good - now when I made right curve on Adams near M-59 entrance - it said I left recommended route - IT CAN'T BE TRUSTED
- Again - direction arrow to a destination is always good - but guided rarely finishes close enough or takes correct final turn!
- Thank you - very interesting but system needs improvement for proper routing Sorry - no time to wash [car] this morn since rain and snow yesterday
- Trip 4 - I reprogrammed home destination to map coordinates - to see if it possibly made an error again, it still takes me past Crooks exit - not the shortest or fastest route - also still doesn't tell me to turn north on Beach Rd off Sq Lake - will try again tomorrow.
- Trip 1 - Guided mode starts @ 1st beacon (approx 1 mile from start) & guides me correctly until the last major right turn off 15 mile onto Chicago Road - going to an ACTUAL programmed destination - why, if it knows where you start & want to end up (both actual location programs) does it not guide immediate & complete trip totally? For someone not familiar with an area & streets - this unit could get them into area, but not close enough.
- Map programmed R.O. Beaumont - worked great
- Experiences so far - unit gets you within ½ mile of intended location, but that is not good enough for someone from another area - why can it not direct you from start to finish - especially with Actual Location programmed. Also it sends you beyond proper turn in many cases.
- Trip 4 - Unit incorrectly told me to turn right on Coolidge from 13 Mile road instead of left after leaving Royal Oak Beaumont north entrance, exiting onto 13 mile - then East thru Woodward to Coolidge. Yesterday - same condition - same route - to told me to turn left - which is correct!
- Trip 1 - Scout not used as going out of area - Davisburg
- Trip 2 - Turned unit on - for Beaumont Royal Oak - traveling I-75 south - passed 1st beacon north of Baldwin Road - it then said to go right on Baldwin, but I chose to continue on I-75. It then said use right lane - to exit Square Lake (which was my intended way) then it said turn right, while still on exit - then it said left (which was not possible - X-way) - then it said I left recommended route - it again reset at beacon @ woodward and Sq Lake - then it was ok to hospital.
- Trip 3 - Again like yesterday, it told me to turn right off 13 onto Coolidge - but I needed to turn left onto Coolidge to go north - if its intention was to route me Woodward to Adams then north, it is wrong as Adams is closed from 19 mile north to Sq Lake to go home!
- Note - Have reprogrammed home again - using improper co-ordinates from map - to see if map not correct to actual unit - cheated eastward to see if unit will tell me to exit @ Crooks then I-75, which again is shortest & best way home - as I-75 always allows between Crooks & Adams exits in evenings.
- Trip 2 - Too time consuming & aggravating to program destination
- Trip 4 - Came home Coolidge to Sq Lake - 1st beacon - it says I left the recommended route - when I turn north on Beach - but it is

wrong - direct route.

- Trip 2 - Ali-Scout was not programmed to restaurant as this was enroute home. Stop was spontaneous.
- Trip 3 - Ali-Scout announced destination area reached 2 blocks from home.
- Trip 4 - Oakland Mall is located at 14 mile & John R. From my home it is more convenient to take 15 mile to John R. When I passed Rochester Road Ali-Scout instructed me to turn south (to 14 mile) which I did not want to do. Ali-Scout then informed me that I left the recommended course. Essentially Ali-Scout was correct per coordinates given.
- Trip 5 - Ali Scout went into guided mode at first beacon, approx 4 miles from home. While at Ann Arbor Ali Scout in autonomous-mode showed trip distance to home, Clawson to be 37.4 miles which was relatively accurate.
- Trip 2 - Ali Scout entered guided mode at first beacon approx 4 mi from home.
- Trip 3 - See note re trip 4 for Dec. 2nd. Same route was taken to Oakland Mall, ie via 15 mile. This time Ali-Scout did not direct me to turn south at Rochester Rd as in previous trips. Instead I was directed to continue to John R and then turn south. Oakland Mall is located at John R and 14 Mile Rds. New beacon at Rochester Rd and 15 Mile??? Why was I previously instructed to turn south at that intersection and presumably take 14 mile?
- Trip 4 - Very impressed with Ali Scout direction which guided me thru a Michigan left turn (thru a boulevard). This was a first!!
- Trip 4 - Stop enroute home
- Trip 2 - Ali Scout went into guided mode while traveling north on Southfield at approx 10 Mile Rd. Shortly there after it informed me that I had deviated from the recommended course even though I continued traveling north on Southfield Rd. This occured at approx 11 Mile Rd and again at approx 12 Mile Rd. Info given by Ali Scout was wrong because I did not deviate from route. Also I drive this same route daily and this is first instance this happened.
- Programmed incorrect co-ordinates, but close-worked good - after passing beacon on I-75 near Livernois
- Morning - guided mode worked ok after 1st. Beacon passed. Evening - Guided mode started on I-75 near 16 & Crooks - did not pass any beacon prior - then when I exited @ Crooks & 19, it said I left recommended, but 2 nights earlier it said to exit @ Crooks - closest to home - then next beacon @ Coolidge & Sq Lake - but when I turned in Beach, again said I left recommended - not correct to home point today!
- Have now programmed home and work as actual location. Going home still doesn't seem to suggest shortest route. Will follow suggestions on Saturday to see if it actually takes me home.
- Trip 3 - drove around to John R northbound at 14 ½ mile - 1st beacon @ John R & 15 - it did not indicate direction - I turned left on 15 - it then said turn right @ Stephenson, which did - it then said I had left recommended route?? - Next beacon was at I-75 & Livernois - continued northbound - followed directions - it told me to exit right @ Adams - then right on Adams - then stopped directions - if I didn't know Beach Road was a left @ Square Lake, I would be lost. All above was heading to home, which was preprogrammed to actual position - the best & shortest route is to exit I-75 @ Crooks, then Sq Lake to Beach - then north. This unit starts too late, after 1st beacon passed & doesn't remember its actual position program to finish the trip.
- Possibly went another way - it reset & sent me properly - but only gets me to area - doesn't seem to tell me all turns reqd at end of trip to an "actual" location. - work.
- I was really surprised in the way Ali Scout worked. Tried some things to see how Ali Scout would react and how well it worked. It worked good.
- Note: vehicle was not used during the [holiday] for reason that family went out of town Wed evening [date] and returned Sunday evening [date]. (Family vehicle used)
- Trip 3 - Wrong coordinates entered for Trip 3 therefore Ali-Scout could not be used.
- On 6 It gave me a wrong path or I input the wrong coordinates.
- There are few beacons for enough coverage.
- When passing by a beacon rapidly, Ali won't receive updates.
- The Ali system doesn't recognize detours.
- The system: It won't prevent traffic density (Birmingham) or traffic detours
- Had blow out on right rear tire approx. 1:30 pm [date] on 16 mile east of Ryan.

- I didn't drive to church today because we were going straight to Canada from Church. So Sunday was not a driving day.
- The Ali Scout did not go into Guided Mode when I came to Rochester & Square Lake like it usually does. Today it didn't at 10:00 AM. Also sometimes gives me a different distance from [name] home today it was 1.34 usually 1.68 to my home.
- Trip 1 - Route was not what I would use. I programmed it to Southfield & 12 Mi RS. Took a non-freeway route.
- Trip 6 - Gave incorrect routing after turning right on Long Lake, off Rochester rd told me to turn left. Home is to the right.
- Trip 2 - Traveling S on Rochester Rd, ALI went into guided at the corner of Rochester Rd, Sq Lake. Turned East onto Long Lake and unit incorrectly said to turn left. Then said left the recommended route. Compass readings were correct in A mode.
- Trip 1 - received DCU update message.
- Trip 2 - same problem as #2 on [date].
- Trip 4 - same as above.
- Trip 2 - similar direction problems.
- Trip 4 - Did not go into Guided mode despite going past beacons.
- Trip 2 - Ali-Scout directions are not accurate.
- Trip 1 - Directions not working. Says go left when should go R.
- Trip 2 - same as trip 1.
- Not holding onto locations. System may be down?
- It won't take the shortest way to the end point.
- Even though it passes a beacon at Maple and Coolidge it doesn't receive information.
- No optimal route.
- Sometimes the Ali-scout unit will give me different distance home from Darlenes house to mine 1.68 to 1.78 and once 1.86 which is hard to understand when we always go the same way.
- Trip 5 - Unit was not illuminated for use at night (back light was turned off). Programmed unit to turn light on.
- Trip 4 & 7 - DMU did not accurately guide me to my home. It indicated destination was reached 1 block away. DMU was previously programmed for automatic home position rather than entering map coordinates.
- Trip 2: Wrong coordinates were programmed into DMU. Therefore DMU was not used when this was discovered. (My error)
- Made different turns in route going home to see how well the Ali Scout would work and react. It worked really good. One thing is that you must follow all turns that Ali Scout tells you. You can't make a turn prior if there is one otherwise it will go into crow fly mode. Overall it is outstanding.
- Comment - Ali-Scout goes into guided mode when destination almost reached indicates recommended route w/o prior instruction.
- Short trips like trip #2 didn't give the system much time to be used.
- Having some trouble programming current position.
- Trip #4 - Lost Ali-Scout - kicked out during the trip to the airport.
- Trip #5 - Ali-Scout again - was used on/off Ali-Scout pointed in the wrong direction at Southfield & I-696 (east). The system was directing me to turn - west. I kept driving east for a few miles & the corrected itself. But the system still doesn't locate my home exactly - It misses it by 5-10 houses in different directions.
- NOTE When traveling home (Troy) Ali-Scout doesn't direct me to drive to John R. Road to my street Highbury. Ali-Scout wants to use 18 Mile/Long Lk. Rd. Then north zig/zagging thru-out the sub.
- Trip 2 - Beacon's on freeway's? None,information from system, but in autonomous-mode!

- Trip 2 - Re. Meijer trip, going north on John R. At Auburn Rd. Working fine, on way back at same intersection it did not work, noted! Strong wind out of the north, system may be affected by strong winds?
- Reading instructions & familiarization.
- Shutting off prematurely - took me to dead end street - last location trip #1
- Working much better. Can't get exact coordinates to most of my destinations most outside range.
- Hurt back - unable to drive - approx. 5 days
- Trips #1 & 2 - Autonomous mode only
- Trip #1 - Programmed wrong
- Trip #2 - Ali-Scout went into Autonomous mode immediately. Guided mode started around approx. Southfield and 10 Mile Road.
- Trip #1 - I turned left as always at 17 & Rochester going south the unit also advised to do same, but after turn it stated you have left the recommended route!?
- Trip #2 - Unit not working only a dot in center of viewer [picture drawn] like this, after selecting work on program? Note I always take face plate out of car when leaving, and this has been the coldest so fare, maybe cold has some effect on unit?
- General note: Keeping unit (face plate) in inside pocket till car warms up in this cold weather, unit now ok.
- Trips 2 & 3 - Did not want to leave unit in car on Cobo Roof parking!
- Trip 3 - Program as far north Oakland - up M-24 as the map provided.
- From work to home - instructed me to get on 75 S. at Crooks. As soon as I was on 75, told me "You have left the recommended route" until next beacon at Wattles - then picked up guided mode again.
- On trip to Oak Park - directed me to get on 75 S. Once on 75, indicated "you have left the recommended route" Then went back into guided mode at next beacon at 13 Mile.
- Trip 2, 3 - Dropped out of guided mode twice - usually does not do this in route to work (Rochester Hills). Beacon at 17 Mile & 75 not working 2:30 p. Beacon at 14 Mile & 75 not working 3:00 p.
- Dropped out of Guided Mode between beacons on trip to Rochester Hills this morning. Normally does not do this. Trip #1
- Beacon at 15 Mile & Telegraph not functioning properly - apparently a build-up of salt on the windshield affects the reception of the beacon signal.
- Ali Scout & car not used for 3 trips today because I did not have time to program it for out of area.
- Ali worked on the way home but went the long way.
- From work to church (2nd trip) it only registered once and told me to make a right turn on 696 by Lahser
- Trip 3 - By passed turn on John R. Off Big Beaver went to Livernois as good alternate route for that time of day.
- Trip 5 - Accidentally went through red light, no beacon sound on Northbound Rochester Rd. In downtown Rochester.
- Trip 2 - Scout indicates the old Orin Rd turn not the new re-routed road.
- Trip 1 - Until acting erraticly; without changing direction it stated I left the rec. Route.
- Trip 1 - Unit worked until approaching 11 mile Rd on s'bound Washington. Then it directed me in the opposite direction.
- Trip 1 - Again, the system worked until in the vicinity of 11 mile and s'bound Washington, when it directed me to turn left on 11 mile and then pointed in the opposite direction from where I wanted to go.
- Trip 7 - Voice directed me to turn left off n'bound Woodward onto w'bound 13 Mile, the correct direction. To get to w'bound 13 Mile, one must make a U-turn in the turnaround from n'bound to s'bound Woodward. The system informed me I had left the recommended route and left the guided mode.
- Trip 2 - Voice in system indicated I had left the recomended route, after I passed 11 Mile on n'bound Woodward, although I had not.

- Trip 1 - Again, the system worked well until I reached 11 Mile on s'bound Washington. Then it indicated I should bear east, although my destination was directly south.
- Trip 1 - Voice directed me to go into B'ham, south of 15 Mile. My destination was north of 16 Mile. I had to get back to n'bound Woodward.
- Trip 2 - At Greenfield, on e'bound 12 Mile - the unit signalled and both screens lit up - a circle of arrows on the left and solid rectangles on the right.
- Trip 2 - At Coolidge on e'bound 13 Mile, I was directed to turn left. I turned left and was told I had "Left the Recommended Route."
- Trip 1 - On w'bound 13 Mile @ Southfield I had to turn right onto S'fld to reach my destination. The system indicated I should go left on Blique. I turned right and the system "beeped", indicating I was going in the right direction. Then the voice indicated I was in the immediate area (correct).
- Trip 3 - directions were accurate until one mile from destination. Then I was directed to turn left, & then the reverse of where I was going.
- Trip 1 - Same problem as #1 on [date].
- Beacon on I-75 at 13 Mile not working.
- Trip 2 - Unit quit working - called and received a new one at Troy office.
- Trip 1 - Beacon on I-75 at Maple inoperative
- Trip 2 - Beacon at I-75 at Maple inoperative
- Trip 1 - Beacon at I-75 at Maple not working
- Trip 1 - Passed 3 beacons - did not go into guided mode - Coolidge/Woodward, 14 mi./Crooks, Crooks 16 mile.
- Trip 2 - Passed under I-75 I should have been instructed to take the west bound Big Beaver exit. Aliscout was late indicating turn & recommended the east bound exit with a boulevard turn.
- Trip 4 - Home coordinates off by 1 mile (to the east) from my "actual position setting in my driveway.
- Trip 5 - YMCA "actual position" coordinates ok - Home "actual position: reset 1 mile to the west.
- Trip 3 - Aliscout came on & dropped off after I directed from the recommended root (it was wrong).
- Trip 7 - Still does not have a consistent actual position for home (or work). Seems to "float" away from coordinates.
- Trip 1 - Work location of by .3 miles
- Trip 5 - Home off by .8 miles
- Trip 2 - Beacon @15 & I-75 did not work.
- Trip 2 - Home did locate correctly for the 1st time. Work was reset when I left. Off by .3 miles prior to leaving.
- Trip 4 - [diagram] coordinates - from above reset to [lat long coordinates]
- Trip 1 - work coordinates [lat long coordinates] prior to reset off by .43 mile according to display [diagram] to [lat long coordinates] when reset reset 2x's - same coordinates
- Trip 1 - coordinates now read [lat long coordinates] chord reset to [lat long coordinates].
- Trip 3 - unit thought library was 1.2 miles from actual location
- Trip 4 - unit went in and out of guided mode
- Trip 1 - Frustrated with inaccurate readings.
- Turned in malfunctioning unit
- Trip 3 - Programmed new location for work - picked up new unit

- Trip 4 - Lights did not work - tried to use but couldn't see
- Trip 5 - Lights did not work - tried to use but couldn't see
- Trip 2 - Nice to have a unit that is working somewhat accurately. Home location is much closer - within 4 houses. Figured out how to turn the light on.
- Nice to have a functioning unit - new rout home is interesting.
- Trip 2 - Finally - worked well - suggested a completely different rout than first unit - from work - Crooks - 13 mile west to Coolidge to Woodward. south to then followed compass heading.
- Trip 3 - Woodward Boulevard turns seem to be a problem - it is unaware of the first ones to mile roads in either direction - n or s.
- I came home Orchard Lk Rd where the Ali has worked well in the past. It keeps dropping out of guided mode.
- Trip 1 - South on Woodward at 14 Ali - told me to turn left. I did at the first turn around liked different rout than first unit - from work - Crooks - 13 mile west to Coolidge to Woodward. south to then followed compass heading.
- Trip 1 - South on Woodward at 14 Ali - told me to turn left. I did at the first turn around like I have for years. It told me I had left the route. I would never go to the 2nd turn around.
- Trip 1 - changed destinations half-way through trip - Ali-Scout did not instruct verbally on new destination which was programmed into unit.
- Trip 12 - Brought me all the way home in guide - first time 8 & Tel n to Orchard Lk Rd to Cass Lk Rd to Cass Eliz Lk Rd
- Trip 1 - Unit stated I left recommended route, even after I followed the unit's direction.
- Trip 1 - Unit again stated I left recommended route, but I did not alter my path (direction)
- Trip 1 - Message on unit was "number code 13"
- Trip 1 - Message came on display "number code 13"
- Trip 4 - What is: text code #13 (please take note of display?) Note: 696 unit state as always"you have left recommended route." We are finding this Ali-scout useless and annoying. It's very crude and inaccurate.
- Vacuumed out car and thoroughly washed mats foul odors eliminated - yeah!!!
- My 95 truck is in a nice warm garage with clean windows. With this bitter cold I have driven it more.

Age 65-80

- Trip #2 ALI SCOUT didn't go into guided mode
- Trip #3 ALI SCOUT didn't go into guided mode
- User's guide should be in large loose leaf binder - for easier use - is difficult to use all folded up
- Passed beacon on Wattles & Livernois - stayed on - no information
- On way to Southfield Plaza - computer wanted me to turn and go down Rochester Rd below Big Beaver - I went I-75 to I-696 to Granfield to JL Hudson Drive (fastest & shortest) Computer says I am not on prefferred route?
- Trip #4 @ 13 Mi and Woodward Ali ordered RIGHT turn, should have continued straight ½ mile, then turned LEFT. Corrected itself when destination reached.
- Trip one - called for LEFT turn. Completed turn & Ali said "You have left recommended route." I hadn't!
- Trip 3 Programmed destination - but lost it in Ali.
- Trip 4 See above.
- Trip 6 Ali was off 180 [degrees] and .5 miles from previously programmed "Home" location
- Trip 1 - Arrow indicating direction appeared to be pointing incorrectly

- Trip 3 - In autonomous-mode the arrow seemed to point incorrectly
- Trip 1 - Passed a beacon unit did not go into guided mode
- Trip 2 - Ali-Scout went into guided mode at 11 Mile & Woodward. Just below Coolidge the chime rang and it went to A mode the back to guided mode when I passed 13 Mile.
- Trip 1 - Not the shortest route
- Trips 2 &3 Guided mode just part way
- Trips 1-5 Outside beacon route not on maps
- Trip 6 - 1st beacon we met was at destination
- Trip 7 - started with Guide. Mode went out of range & Autonomous mode went 90 [degrees] off course
- Trip #1 - Going east on Maple Rd from Haggerty to Woodward Ali-Scout went in & out of Guided Mode twice
- Trip 1 - Seemed inaccurate in its directions. I checked and reset the coordinates to more correctly reflect my home location.
- Trip 2 - Directions TO Kroger were not accurate, although RETURN directions to home (3) WERE accurate?
- Trip 1 - Directions still showed I was going the wrong way - set for "Kroger"
- Trip 1 - Worked until ½ mile from destination - then directed me to turn left on 11 mile rd. Restaurant was straight ahead.
- Trip 2 - Worked perfectly.
- Trip 1 - Worked fine until E Bound Maple (15 Mile) at Crooks. Then I was directed to turn left. Then the unit beeped when I got to Kmart.
- Trip 2 - Direction on the way home were opposite of what they should have been.
- Trip 3 - Worked fine until I arrived at 12 Mile & Rochester Rd. Turned west on 12 Mile & directions became confused.
- Trip 4 - South on Middlebelt in Guided Mode - just crossed 13 Mile Ali-Scout announced that we were off Designated Route. No other warnings. Picked up signal at 12 & Telegraph - All went well.
- Trip 2 - Southbound on Woodward Ave at *Coolidge Ali-Scout ordered a Right Turn - no warning.
- Trip 3 - Westbound on 12 Mile Beacon at Greenfield did not turn Ali-Scout to Guided Mode.
- Trip 3 - Ali Scout took me at least 3 miles out of the way
- Trip 2 - At Northwestern & 14 Mile Rd - Scout said get in Lane - Did not indicate left turn.
- Trip 1 - East on Maple Rd approaching Inkster RdScoutsaid "You left designated Route" - Passing Inkster Guided Mode came on again. Approaching Franklin Rd same thing happened.
- Trip 2 - North on Maple Rd. Scout said to turn right at Inkster which goes the wrong way - Past Inkster Guided Mode went straight ahead.
- Beacon at 11 Mile & Campbell not working
- Trip 1 - Easbound on Maple Rd following Ali-Scout, crossed Middlebelt Scout informs us we have left designated Route with no warning about any turns. At Telegraph Scout came back on time and took us to destination.
- Trip 2 - Home is off Maple Rd (15 Mile). West on Maple at Franklin Rd - Scout says turn right (north) then left (west) on Walnut Lake Rd (16 Mile) Left us at 16 Mile & Farmington Rd.
- Trip 4 - would have never gone this way but advised
- Trip 5 - South on University Rd past OpdykeScout went into autonomous-mode. We had to make our own way around wide Track Drive - did not pick up beacon until we were on Orchard Lk Rd. (Would have been lost)
- Trip 4 - Passed at least 2 beacons and AliScout did not go into guided mode (11 mile & 13 mile)

- Trip 3 - Passed 1 beacon (13 & Woodward) did not go into Guided Mode.
- Trip 4 - Passed 1 Beacon on 14 Mile Rd (Crooks & 14 Mile) unit did not activate to guided mode.
- Trip 1 - AliScout went out of Guided Mode after Passing Beacon at 11 Mile & Woodward (No chime). Failed to display appropriate when nearing destination. Having difficulty programing unit. It appears to be malfunctioning at times.
- Trip 1 - Beacon at 11 mi did not activate Guided Mode (no chime)
- Trip 2 - Beacon at 13 mi did not activate Guided Mode (no chime) On Woodward Avenue just north of Webster there is a chime and the system goes from Guided to Autonamous Mode. I have searched the area and there are no beacons.
- Trip 4 - Picked up a beacon at 16 Mile & John R. Followed directions in Guided Mode. At one point on 14 Mile RD. Ali Scout directed me to take the next exit.
- Trip 2 - Aliscout did not function on the way home, the only screen showing on the faceplate was the start up display
- Trip 4 - Beacon at 11 mi & Woodward failed to activate unit when in the right hand lane.
- Trip 2 - As reported earlier trip sheets unit went out of Guide Mode just north of 12 ½ mi Rd on Woodward.
- Trip 5 - Functioned perfectly.
- Trip 5 - Trip was from 12 Mile & Woodward to 14 Mile & Woodward. At approx 13 Mile RD Ali said I had left the recommended route, but it did recognize the location when I arrived.
- Trip 6 - At 11 Mile Rd Ali told me to turn left (correct) but when I made a Michigan Left: (using the turn loop) Ali said again that I had left the recommended route, but again recognized the destination when I arrived.
- Trip 8 - Ali said I had left recommended route and did not recognize destination. On earlier trip (#3) no notice of departure from route was given & destination was recognized.
- Trip 5 - Ali called for right turn, followed closely by left. I turned left (which is correct). Ali said I had left recommended route, then recognized destination.
- Trip 3 - Ali displayed "see text code #9" What is this?
- Trip 4 - Wrong directions - again
- Trip 3 Misguided - two different times Ali said I had left recommended route. Not true - straight down Woodward from 12 Mile Rd to destination. General: Ali seldom recognizes destination whether using coordinates from lists or from map.
- Trip 9 - Southbound on Woodward from Big Beaver to Beaumont Rd Ali called for 2 right turns, then two left turns - then didn't recognize Beaumont.
- Trip 1 - Called for right turn, should have left turn twice said I had left recommended route. Did not recognize destination.
- Trip 2 - Did not recognize destination.
- Trip 5 - Wrong direction in destination area.
- Trip 9 - Directions all wrong/driving west on 12 Mile road Ali said to continue west. When I turned on Pierce Ali said I left recommended route. Never did correct itself. Did not recognize BRC.
- Trip 4 - Did not use to many stops.
- Fairlane trip. At Southfield and Plymouth it jumped back and forth. (Pointer)
- #5 was in guided mode part of the trip
- Malfunction - arrow would not appear slapped unit - must be a short - now working
- Malfunction
- Malfunction 2. Worked
- Sent me down Lone Pine & between Lahser & Telegraph, said, I left recommed route

- Does not follow detours
- Seems to act better
- New route from Telegraph & Maple, much better. Acted well on xway. Didn't come in until 12 Mile. Xxway to be eratic at end of trip
- Home is Maple & Haggerty - Program good to Maple & Farmington Rd. Got on Maple at Woodward going West. - Three times Ali Scout told me I "Left the Recommended Route," until I arrived at the next intersection.
- neat
- Guided Mode, at Southfield & Maple came in
- Did not come in until 14 & Woodward
- Route took me down Middlebelt to Square Lake Road to I-75 back to Big Beaver.
- Said turn at Middlebelt, did not & went straight E. On Maple - in guided mode at Telegraph said turn right & left around island then said I left designated route.
- Practice input to D.U.
- Trip 1 - going west on 12 m Ali- Scout instructed turn at Coolidge. Going south - Greenfield was correct. Greenfield between 8 & 9 M road.
- When a few blocks from Home, Ali-Scout will tell TURN HERE. Usually its a street I never use, because of potholes, so I use my usual route and get the message you have left the designated route! Other than that Ali-Scout works fine.
- Trips 6 & 7 - road repair.
- Found with road repairs in Royal Oak - re-routing causes destination points not to be right on with Ali-Scout.
- It seems with all trips, the destination area is only reached about 1/3 of the time.
- Big Beaver - Crooks did not beep, nor set Ali-Scout. 14 mi Crooks - same comment.
- Trip 4 - Ali-Scout gave confusing turn signal. I went off course, but recovered at next beacon.
- Trip 1 - Good trip. Picked up first beacon at 16 mile & Dequindre. Took me right to the parking lot.
- Trip 5 - Wasn't sure if A-S had correct terminus. Beaumont North was already in memory but it didn't look right. Aborted!
- Lost route on one trip because truck blocked third beacon beep. My map readings weren't as good as address inputs.
- Trip 3 told me to make a left turn from Maple to Farmington Rd. After I made turn, I was told I had left the designated route.
- Trip 2 When driving from origin to destination along Rochester Rd., I was told I had left the designated route each time I passed a beacon.
- The audible right turn message is to close to point of execution.
- Trip #1- I went out of the way to pick-up beacon at 12 Mile and Orchard Lake Rd. Ali-Scout acknowledged beacon but did not give visual or voice instruction to turn. After I turned left onto Orchard Lake Road, ALI-SCOUT told me I had reached my destination area.
- Trip #1 Did not enter destination into (DU). Used destination with same coordinates in memory bank. Prior to reaching destination, desplay screen began flashing display normally seen on initial turn on. I eventually restored display to original destination.
- When I entered destination and pressed start key, (DU) began flashing display normally seen on initial turn-on. (DU) kept flashing and would not respond to any function key on face of (DU). I physically hit top of (DU) with my hand and it returned to normal operation.
- Trips 1 & 2 - (DU) unit kept turning off during trip. I had to keep pressing green on/off key to keep unit in operation. Prior to start of this trip, (DU) screen showed low battery message. On Trip #1, mileage displayed on screen kept increasing as I drove toward destination entered in (DU). I did not receive visual or audible information upon arriving in destination area. (DU) did acknowledge presence of two beacons on this trip which was almost a straight line down 13 mi. from Halstead to Evergreen.
- Intermittent operation

- Operation normal
- Trip #1 - operation normal
- Trip 1 - Only got 2 beeps at 16 & Dequindre headed W. Did pick up beacon at 16 & Rochester.
- Trip 2 - At Coolidge while W-bound on 14 mile, Scout gave Left-turn signal too early. Almost turned in road E of RR track.
- Trip 3 - [Destination zone] signal cameon too early; about 0.6 mi from destination. The A function got me to shop. In general, the switch from Guided to Autonomous occurs too early. In most trips this was about ½ mile from destination.
- Trip 1 - Entered system westbound at Big Beaver & Dequindre. Successfully acquired beacon & A-S went into guided mode. My destination was on Rochester Rd, but A-S directed a right turn at John R. About 1/4 mile after turn, A-S gave a "Left the route" signal and went Autonomous.
- It required direction at Wattles, correctly guided me to right (N) turn on Rochester and then repeated the previous error. Reacquired at Lang Lake Rd but did not find destination, the Belian Art Gallery. A-S said it was 0.43 mi E when I was in lot. Coordinates entered correctly from book.
- Only got 2 beeps at Livernois & Wattles; had clear path.
- Entered system at Big Beaver & Dequindre; A-S successfully went into guided mode. Unfortunately, I was in right-hand lane and I got an immediate direction to turn left. The direction was correct, but surprised me.
- Trip 3 - On first acquisition on Wide-Track Blvd, A-S immediately directed me to turn, but there was no way I could cross lanes to do it.
- Reacquired guided mode and A-S directed right turn from Wide-Track onto non-existent road. Reacquired guided mode at Telegraph & South Blvd. Proceeded down Orchard Lake Rd per directions.
- A-S lost the guided mode during the twisty part of Orchard Lake Rd near Pine Lake. Went guided at Orchard Lake & Long Lake Rds and completed trip okay.
- Trip 1 - Keys didn't work consistently. Took 3 on-off tries before I could enter coordinates.
- Trip 3 - A-S didn't pick Adams on the fastest route from R.O. to Big Beaver.
- Trip 4 - A-S missed beacons (2 beeps) at I696 & Dequindre even though all lanes were clear. It also missed the I75 & 11 mi beacons. It did go into guided mode at I75 & 13 mi and worked fine after.
- Used A-S in autonomous-mode after it switched from guided at Dequindre and 11 mi. I was southbound guided. It worked to find location near 9 mi & Van Dyke.
- Trip 1 - Failed to switch to guided mode at Big Beaver & Dequindre. Had clear shot at beacons but got only 2 beeps.
- Trip 3 - A-S failed to pick up the beacon at Hamlin & Rochester. Southbound at time with clear beacon view.
- Trip 2 - Only picked up 2 beeps at I-75 & 11 Mile Rd. Switched to autonomous-mode. Reacquired guided mode at next beacon on I-75 and worked well to destination.
- Trip 4 - Directions worked fine: on main street Rochester center Chimes alerted me that I was on target. Tri-arrows appeared; circular image with arrow led me to my direction. But sidebar did not appear nor voice instructions to enter left turn lane. Traffic was heavy and noticed the ten car stack in the left lane approximately 250 feet from intersection. So I edged into the lane prematurely - 100 feet from intersection the voice stated I have reach my destination. We could spot the restaurant from Main street Rochester Hills. It worked out perfectly.
- Trip #4 Vertical bar does not appear. Audio did not respond reaching the destination.
- Trip #5 Vertical bar does not appear. No audio instructions at the approach of my destination. Comments: My two passengers in the seventies were amazed at how the system instructs the driver when to turn or reaches his/her destination. Going to Mandarin Palace....the instructions were explicit which impressed my passengers...we were going to lunch at Charley's seafood, subsequently.
- Trip #4 The trip from Clinton Township, 16 Mile to Woodward Ave went smoothly. The instructions to turn right then left turn U to Woodward south went well. Although not much time to merge into the left U turn lane (Woodward Rd.) because of the short distance allowed for the maneuver.
- Turn right (west) off Woodward instructions took me onto Farmington Road west o.k. When I approached Tientken Rd crossroad, voice activated that I have reached my destination area. But while the vehicle faced west (Farmington road) at intersection, the arrow

was indicating SW. So I turned south (Tientken road) traveled 200 ft and arrow changed to north; made U turn and traveled Tienken north and past the corner and arrow reverted to the South. We finally located Restaurant in SW corner adjacent to small shopping center. Restaurant is not very visible from the main thoroughfare, small sign under a low hanging tree is tough to find in the dark. This was my first trip where I had no idea where the restaurant was located. The system guided me to my destination with least traffic congestion and shortest route passible. I felt secure and confident that I would reach my destination with the least amount of tension. The system worked perfectly. (I thought the restaurant was located in Farmington Hills...not West Bloomfield)!

FEMALE

Age 19-29

- Guided mode turned on; it hadn't turned on at that position before.
- Had trouble getting the detachable module to secure in the cradle.
- Lost beacon signal around a beacon (by Siemens). Was given unusual directions. Gave me a clearly longer or more time consuming route to a destination.
- Having trouble programming destinations. Screen/computer "froze" on me while I was driving. I was trying to change screens when it displayed "parking desired" and wouldn't change screens no matter what buttons were pushed.
- Tried to use the automatic position identification, but when the "enter" button was pushed, and all info read 0.00m/ "destination reached" all was fine; but when I turned the car on again it read 1.08 mi away from destination. So I can't record mileage. This was tried SEVERAL times.
- Trip 3 - It instructed me to turn onto Orion Rd (left) from Rochester, going North. Apparently, it was un-(aware/informed) that Orion Rd was moved North to connect w/Rochester Rd at a point farther north than it used to be.
- Trip 2 - Driving back from Holly the screen "reset" itself. It did not go back into guided mode @ this point. Also asked for left turn at an intersection where left was not allowed (I75 and Joslyn Rd. exit). This could be a problem.
- Had trouble getting Ali-Scout to work. I programmed the distinctive but it was not doing anything. I passed three beacons and none of them seemed to work.
- Ali-Scout got easier to use today, when I went to O.U. I took a different route and the beacons I crossed this time worked. What's going on?
- Trip 1 - I passed a beacon and it didn't go into guided mode. A traffic light was out. (University Rd.)
- Trip 2 - Ali-Sct. didn't pick up info. from beacon at 14 mile. Then told me to turn Rt. on Square Lk. Road and after turn told me that I was off the rec. route. Didn't pick up info. from beacon on University Drive. 0229130083 Trip 2 - Ali-Scout didn't pick up info. From 2 beacons. One on Middlebelt and one on University.
- I stopped at home a bit and then I just drove around. Then I went to the car wash. These were not all trips because I didn't turn the car off. I did not use Ali-Scout since these drives were not planned destinations. During these 3 trips in the chart I didn't always follow Ali-Scout. I was afraid to get off at strange exits that I was told by Ali-Scout on my way to Davisburg for fear that the system would just leave me in Davisburg and not knowing Davisburg I would not be able to find where in Davisburg I needed to be. I would then be late. So I took my usual route. On my trip to the bank I don't think Ali-Scout knew which bank I wanted to go to until I reached Long Lake Road. On my way home I turned where Ali-Scout didn't want me to so I quickly got back on Ali-Scout's route. Going up I-75 N I noticed that once I got closer to Davisburg the beacons ended. On my way to the restaurant Ali-Scout didn't know the place I entered into the computer. Ali-Scout was sending me in the opposite direction a few times.
- No Ali-Scout. I wanted to keep car clean from rain.
- There needs to be more beacons in general, so that you know where you are going at ALL times. Also in the event you do not know where you are going you will really depend on Ali-Scout. Ali-Scout is not very helpful if you have left the recommended route because it doesn't have an immediate back-up. What do you do if you totally depend on Ali-scout then?
- Trip 3, 4 - beacons before exit 77a on I-75 N & S did not communicate with Ali-scout. First beacon that I go by on any trip does not help very much. It only makes sounds. It doesn't get me on the right wheel.
- Beacon at Exit 77a on I-75 is still not working. Sometimes the route I'm used to is not the route Ali-Scout is used to. And often when I make a turn that Ali-Scout didn't say to it's because I'm so used to making that turn it's like a reflex. I do this even as I meant to follow Ali-Scout's route to the destination. There have been times when I missed a turn, because the radio was too loud or I was not expecting the turn and I couldn't get over in time to make the turn, because of highway traffic on I-75 S.
- Trip 1 - Ali-Scout told me to turn left onto M-59, when I turned it told me I was off of the suggested route.

- Trip 1 & 2 - had to use " Meadow Brook Hall " as my computer destination because Ali-Scoutwould not allow me to input coordinates for Oakland University (Oakland & Meadowbrook are the same property)
- Trip 2 - had to use Meadowbrook as the computer destination and at about ½ mile before the destination it said I was out of range
- Trip 3 - position reset
- Trip 1 - made a last minute decision stop at a store that was not my destination and Ali-Scout did inform me that I went off course.
- Trip 4 - got a flat tire!
- Trip 4 - did not use Ali-Scout because my next destination was so close.
- Trip 1 - had much difficulty programming Oakland University. The address for Oakland Mall would appear.
- Trip 1 - had intended for the credit union to be my first trip, but traffic was bad and I was running late so I caused Ali-Scout to inform me that I was off course. Trip 2 - I had typed in the coordinates during a traffic light, but as I was approaching the light, Ali-Scout was telling me to turn left when there was no place to turn left to. After I didn't turn left, Ali-Scout told me that I left the navigation area.
- Trip 1 - I was able to put in coordinate for AAA from the map, however Ali-Scout's "crow's fly" was not pointing me into the right direction. Trip 2- this trip was last minute therefore I didn't use Ali-Scout. Trip 4 - Did not use Ali-Scout because the Cellular one building is in the parking lot of Meijers, so I did not program the Ali-Scout.
- Trip 4 - I could not figure out how to keep the Ali-Scout unit lit at night so I could see the directions.
- I still don't understand how the lighting works on Ali-Scout. I cannot see the directions at night. Also, sometimes without pressing the "on" button, my Ali-Scout turns on when I start my car even when I don't plan on using it for that trip. If I then don't notice it on or leave it on after I turn the car off, won't that drain the battery?
- Trip 9 - After passing the Rochester Road exit on I-75 North, the Ali-Scout instructed me to get in the right lane of the exit ramp when I did not take that exit. This is most likely not a big problem because Ali-Scout did instruct me to get off at the Rochester Road exit, but I chose to go to Crooks Road. It finally told me that I had left the designated route. Also, I do understand that I had not passed another beacon, so it did not know where I was.
- The Ali-Scout always turns on when I start my car. This gets frustrating because sometimes I don't notice it's on & when I turn my car off it stays on & may run the battery down. Also, sometimes when I enter a destination & Ali-Scout is on "A" mode, it points in the wrong direction. (For example, South instead of North).
- Trip #4 - Ali-Scout said to turn right to get on 696E from Telegraph. When it was time to merge left it said to turn left. Since I merged, it said I had left the recommended route.
- Trip #3 - Did not complete instructions for final destination. Never acknowledged that destination was reached. Also, when driving on expressway it announced right turn ahead as we approached an exit.
- Trip 2 - Traveling down Rochester Road to Romeo. It never told me to make a right turn.
- Trip 2 - Traveling down Livernois w/destination Romeo St. & Rochester Rd. Drove past Avon & it said I deviated from recommended route & I was still south of my destination & did not need to make a turn.
- I forgot ALI-SCOUT at home
- Trip #2 - If I set my destination for Target on Rochester Rd. & Auburn, it directs me from Livernois to turn on South Blvd. (Livernois backs up between South Boulevard and Auburn). If I set my destination as home which is also East of Rochester Rd. But further North, it has continue down Livernois which was not good.
- Recommend them too soon. Would have been in parking lot. (At Rochester and South Blvd, Troy)
- Went into guided mode at appropriate time. Went by beacon at John R & Maple and system went on and off with "Ali-Scout" message. Proceed to correct route. Guide switch to different destination. When arriving and correct destination, system notified I went off guided route. Also noticed early in guided mode. When in traffic going less than speed limit system prompts too early to turn or too late. Would not be able to change lanes on time for turn.
- Worked very well - timing, etc.
- "Timing" off again. Gave directions one street too early. (Would have been in residential/church) Prompted that I left recommended route.
- Trip 1 - Went into guided mode ok. Dropped off daughter left car running (John R & South) went out of mode. Went into mode,

again.

- Passed 16 Mile & John R beacon - did not beep. Gave went out of recommended message even though I did not. Still giving suggestions too early or too late when in traffic.
- Trip 3 - Turned "off" and back on was not working properly. Could car phone cause interference?
- Trip 1 - did not recognize beacon at South Blvd & Dequindre
- Trip 2 - restaurant closed
- Trip 4 - restaurant has 1-1/2 hour wait
- Trips 4 and 6 - gave directions, followed, and went off route at 14 mile & Stephenson Hwy.
- Trip 1 did not work cause the address in Points of Interest wrong! It seemed to be .5 of a mile of anywhere I went I live right on Dequinder - [zip] - but on the east side which actually is Shelby Twp but I called it Roch.
- Seemed to work better takes getting used to.
- Trip 1 was off on miles but I was out once
- Trip 5 took me a way I have never driven & I didn't get lost - it was kind of cool to let it lead me home its way.
- It is more convenient to set it by points of interest but there needs to be a lot added. The address ranges are off the actual & the points of interest are a lot more accurate I have been trying to set it by assigning a destination to current position by it just won't do anything for me. Setting by the maps is helpful when you don't have an exact address.
- Trip 2 - on trip to school - After 1st beacon it immediately told me to turn right, on Rochester Rd. There was not enough time for me to turn so I took my normal way via Crooks. After passing beacon on Adams it told me to turn right when the campus was at the left. I followed Ali-Scout's direction about one mile out of the way to see if it would rectify itself. It didn't! When I turned back towards campus, it told me I didn't follow the route and went to automated mode. Even when I did get on campus it didn't tell me I reached my destination.
- Trip 2 - a little early for directions
- Trip 3 - Wasn't in guide mode, but recognized arrival to destination (voice)
- Trip 5 - Quickest route I've ever used!
- Trip 2 via [name] house. On 14 mile went by power lines caused interference & gave "left recommended route" when did not. Trip 3 via [name] house
- Trip 1 - I was going straight with the 3 arrows & it told me I went out of the designated area I didn't even change lanes
- Trip 7 - it told me to take one of the left lanes to stay on M-59 and not to exit on I-75 so I kept straight like it told me & then it said I went out of the designated way again.
- Trip 4 - Told me to turn left where I should have turned right.
- Trip 1 - When I left "recommended route" it slipped out of guide mode for remainder of the trip.
- Trip 3 - Didn't pick up signal for beacon
- Trip 4 - Finding out that the "turning right to turn left" maneuvers confuse Ali-Scout.
- Noticed in guided mode system can be early or late (slightly) to look for area or switch lanes.
- Trip 2 - directional advice on wrong side of street
- Forgot book at work
- Trip 3 - on 696 went under "light over pass" in Southfield. Cause interference and said left recommended route. Noticing system is sensitive - lots of interference.
- Trips 3 & 4 - Not enough beacons in Oakland County - near the "edges".
- Trip 1 - Turned into parking lot before suggestion. Faster to entrance parking, etc.

- Trip 1 - via [name], Snow, ice, VERY slow commute.
- Trip 3: Left on business trip. Parking difficulties. Had to allow lot to valet park car. (Airlines parking off Merriman)
- Trip 2 via [name]
- Trip 3 - via [name] (injured co-worker needing ride)
- Trip 4 - Didn't have time to program
- OU - Oakland University trip 4 it was telling me I was going out of the way when I followed the 3 arrows
- I just noticed beacons at Livernois & Avon they have never went off & I go to school there every other day. They seem broken from both sides of Avon.
- It is still telling me I am going off the rout when I am NOT.
- Trip #2 & Trip #5 I'm getting different readings for number of miles to destination of home. It doesn't reach destination all of the time and sometimes its .08m away or .23m away etc.
- Trip #1 - I reset the Oakland Univ. Destination coordinates using the "actual position" setting for a more accurate reading. Now it reaches its destination as I enter O.U.
- Trip #2 - I also reset Church destination coordinates.
- Trip #3 I reset home coordinates "actual position"
- Trip #1 Yesterday I reset the coordinates for Church for "actual position", yet today I did not reach destination. It still had .23m left to go.
- Trip #2 Same as trip 1- I did not reach destination for home
- Trip #1 Wed. I reset coordinates for O.U. and it is working perfectly. Still have problems reaching destination for home & church.
- Trip #5 I programmed the wrong coordinates
- Trip #1 I did not reach destination this time.
- Trip 5 - Has a weird way of showing me how to get to O.U. I think it should tell you to exit at University Dr. off of I-75 but it didn't tell me to do that.
- Trip 5 - Ali-Scout turned off & back on screen blinked until I touched a button. Only occurred when car passed the very first two beacons.
- Trip 3 - Passed beacon, didn't go off.
- Trip 1 - picked up daughter
- Monitor is a bit cumbersome when adjusting heat, etc. Could it be positioned better??
- Trip 4 - Went off of guided mode because my coordinates weren't right. Do they have to be absolutely perfect?
- Trip 1 - The coordinating in the book were wrong for OU. (But they were correct on my next trip)
- Trip 1 - I didn't leave the recommended route it said I did.
- Trip 1 - I went out of guided mode when I didn't leave the path again. Then was pointing in the wrong direction.
- Trip 1 - The system was totally off. It didn't pick up any beacons & pointed the wrong way.
- Trip 2 - I once again didn't leave the recommended route & it said I did.
- Trip 1 - This system seems to be very, very inconsistent. Sometimes it works sometimes it doesn't. How can you make it work all the time?
- Trip 3 - Worked very well on the way to the mall.
- Trip 1 - I noticed, whenever it turns off the guided mode, I don't leave the route, its always in the same spot on M-59 west.

- Its working fairly well today. Still a little inconsistent, but better than usual.
- Trip 1 - Went off guided mode - didn't leave route
- Trip 1 - Passed a beacon on 18 Dequindre, didn't respond then.

Age 30-to-64

- Tone sounded, screen indicated direction, but, no spoken direction that turn was coming at John R & Wattles Rd.
- Signal at Rochester & Long Lake switched from guided to autonomous 3 times as I approached intersection - possibly interference from truck. No directions given.
- Beacon at Livernois directed me to turn - I did so - no further beacons encountered. Following direction to turn took me away from destination & added miles to trip - not the most direct route.
- Did not tell me to turn left as it did on previous trip = "miles to go to destination" seemed off. (Indicated in bottom right of screen on ALI-SCOUT.) *When I turned off car - unit instructed me to read display which said "new du program available". No further info or explanation given. What does this mean?
- Beacon did not activate guided mode at John R & Wattles.
- Guided mode - did not "speak" to turn left at Rochester & Long Lake
- ALI-SCOUT went into guided mode very late - AT the intersection of Rochester and Big Beaver. Directed me to continue north on Rochester Road when the correct route was to turn west on Big Beaver. Did not show I should turn south on Livernois. When I reached post office, ALI-SCOUT did not announce destination reached (It has done so in past trip to post office) and it directed me to continue south on Livernois another 0.48 m.
- ALI-SCOUT did not go into guided mode as I headed ease on Big Beaver - apparently no signal from beacon & no interference with beacon I could determine around area. ALI-SCOUT did go into guided mode as I headed west on Big Beaver at Rochester Rd.
- ALI-SCOUT did not go into guided mode as I headed (approaching) south at intersection of Rochester Rd. & Long Lake Rd. It DID go into guided mode after I passed THRU the same intersection heading south.
- Wattles & John R - Ali-scout went into guided mode, but directed me to head north when my destination was south east. As I headed east on Wattles, ALI-SCOUT spoke to me to turn left (north) - again the opposite direction I needed to take. Once I reached the store, Ali-scout instructed me to head west. Decided to check the coordinates - they were different from those I had entered. Previous trips to this destination, Ali-scout functioned correctly - puzzled by change in the coordinates.
- Ali-Scout indicated "test beeps on" then "test beeps off" when started car & when I entered destination. Hadn't done this before.
- Heading south on Rochester Rd., south of Long Lake Rd. - ALI-SCOUT did not go into guided mode - no signal from beacon?
- ALI-SCOUT went into guided mode at Rochester & Long Lake south of Long Lake , but, did not go into guided mode on Long Lake just east of Rochester Rd. - no signal from beacon?
- Coordinates for home wrong so directions incorrect. Must have hit the "wrong" button when indicating destination?
- ALI-SCOUT voice directed me to "note display" but I didn't see a message or anything out of the ordinary.
- Big Beaver beacon heading west - went into guided mode, but, did not direct me to turn right as I needed. Coordinates were off, even though they worked fine earlier. This week for this same destination no changes had been made. This time, I changed coordinates by setting them according to ACTUAL position.
- Beacon on southeast corner of Rochester Rd. Is obstructed briefly by street sign as you approach it causing it to change from mode to mode when it should remain in guided mode until beacon is passed.
- Heading north on Rochester Road just north of South Blvd, Ali-Scout "spoke" for me to "get in lane" but did not indicate anything else. Showed countdown bar also. The correct direction was straight which ALI-SCOUT indicated.
- It took 3 tries before ALI-SCOUT accepted the coordinates for this trip. Showed all info on screen, but when I pressed the diamond key, it didn't save the info.
- Used a slightly different route home, so ALI-SCOUT didn't go into guided mode.
- Did not use ALI-SCOUT as destination was close & I drove thru subdivision.

- Did not use ALI-SCOUT as guide - out of range, but did leave it on and it did work at beacons passed until no more beacons.
- Trip 1 - computer did not work. Miles were off. Rechecked #'s input & found they were in Birmingham, not Troy, re-entered correct #'s.
- Trip 3 - was in guided mode until I turned opposite way of Birmingham. That was my clue of wrong entry #'s.
- Also AliScout program with co-ordinates Coolidge & Maple. If noted destination reached. I took a turn prior to Coolidge.
- Trip 1 - Ali-Scout was program today as come being Van Dyke & 16 mile Rd. Ali-Scout gave the arrow description for direction only.
- Trip 1 & 3 - Did not go into adv.'d stage of lane change. Just the 3 arrows only. I had to turn sooner than programmed route because of construction. Destination reached only mode.
- Trip 1 and 3 - Reset unit while in lot. In order to enter parking lot I need to take a driveway closer to Livernois. If I come in from west side, the mode would engage in full mode. Lane changes etc.
- Trip 3 - Gave me directions on turning at Maple & Coolidge. Gave me destination reach at location before turning into driveway.
- Trip 2 - Partial mode - 3 arrows only - still need to come in from west side of building.
- Trip 1 - Again [picture drawn] mode for this destination. Cannot get additional mode from east.
- I programmed my home at 12 & Vandyke the Ali-Scout told me to get off I-75 at 12 Mile Rd exit. Since I didn't it advised me I went off the route.
- On my way to work I passed 13 Mile & I-75 it went in guided mode for a second then went back in A mode passed Rochester Rd exit, it took me to 16 Mile and told me to turn R followed 16 mile East went to make turn around it told me I went off route. Then when I got to work it told me I reached my designation.
- It worked great today - Ali-Scout advised me to get off at Rochester Rd from I-75 & what lane to get into. When I got on to Rochester Rd to go to the mall it worked great, instead of going back onto I-75 I went down 14 Mile to Mound then to 696.
- On the way home - it went into guided mode only at 16 & Rochester Rd for a minute then when I passed the 13 mile beacon till 12 mile - it said off the route.
- It works great on the way to work. But on the way home the Ali-Scout advises me to go a different route. I haven't had time to follow it. It advised me to take Rochester Rd towards 15 mile, I did get on I75 south my home is programmed at 11 & Vandyke, when I hit the 13 mile beacon on 75 it went into guided mode and advised me to exit 12 mile I did not get off at 12 Mile I went straight onto 696.
- Today it worked great into work, on the way home I followed my own route got on I-75 at Rochester Rd and it advised me I went off the route then I passed the 13 mile beacon and it went into guided mode to right at 12 mile, but it told me to turn right but not until I passed the 12 mile exit.
- On the way to the doctors office, I went east on 16 mile I did the loop around and it said I left route but then I crossed over Rochester Rd & in went into guided mode till Dequindre then back into the A mode.
- I tried a different route today. I came up 16 mile Rd it went into guided mode around Dequindre and took me right into work.
- On the way to work I took 16 mile across to Rochester on way home I took 75 to 696.
- Trip 1 - Didn't pick up signal until Rochester Rd. Pictures of cars for In. Didn't appear to change lanes. To make right turn.
- Trip 3 - Didn't hit beacon until Freeway only was in guide mode for short distance
- Trip 1 - Not in guided mode until 13 Mile Rd. When I exited I-75 at Rochester went into autonomous-mode until Big Beaver. When it picked up signal again Map Trip Beacons around 9 Mile and 11 mi.
- Trip 1 - Routing? When going to work on Rochester Rd Ali-Scout didn't route me to get off at Rochester Rd from I-75. I didn't follow Ali-Scout got off anyway.
- Trip 3 - When coming home from bowling alley I let Ali-Scout direct me. Home co-ordinates are for 9 mile & I-75 (closest co-ordinates I could find for Hamtrammack) Ali-Scout directed me toward 13 mile & Crooks & then ran out of signal & went automated instead of directed I turned around & went home.
- When returning to work from Bank on 16 mile just west of Rochester Rd. Ali-Scout didn't direct me to the first turn around to make rgt turn on Rochester Rd to head north on Rochester toward the office. It wanted me to continue east on 16 mile (Big Beaver). Of course I ignored the route & then it went into autonomous-mode. Until it picked of signal again at corner & then let me know I reached my target area when I returned to the office.

- Trip 1 - no beacon until 13 mile Rd on I-75. Again I exited Rochester Rd without instructions from Ali-Scout. Ali-Scout directed to continue straight on I-75. Destination was on Roch. Rd.
- Trip 3 - Ali-Scout directed me on to Rochester Rd. Not I-75 again I left route
- Trip 1 - picked up signal on I-75 at 13 mile Rd. Went into autonomous-mode at just past Rochester Rd exit. Picked it up again at Big Beaver exit.
- Trip 4 - followed what I thought were the instructions given by system. System went into autonomous-mode until next beacon.
- Trip 6 - Guided me off I-75 at 12 Mile Rd & N on Stephenson - back toward 13 Mile Rd. No beacons until I-75 at 13 Mile Rd went S. on I-75 from 14 mile
- Trip 2 - Doesn't direct me on I-75 at Rochester Rd - then directs me off I-75 at 12 mile rd.
- Trip 1 - For the 1st time Ali-Scout actually routed me from I-75 to Rochester Rd. Cool!
- Trip 2 - Direct off I-75 & 12 mile to Stephenson & turn rt back toward 13 mile - wrong direction
- Trip 4 - I followed rt. again in wrong direction from home at 13 mile toward Crooks.
- Trip 2 - Didn't direct me on I-75 at Rochester Rd & Directs me to exit at 12 Mile Rd from I75
- Trips 1, 2 - Didn't use Ali-Scout - no beacons in area.
- Trip 5 - Ali-Scout beeped near beacons - never did that before. Still doesn't direct me on I75 at Rochester Rd. However didn't direct me off of I-75 at 12 mile Rd.
- Trip 1 - Followed directions & exited I-75 to Rochester Rd. On the ramp it directed me to take a left hand land. Then it said I left the recommended route.
- Trip 2 - Didn't direct me off of I-75 at 12 mile Rd this time.
- Co-ordinates when I reached destination were off. Destination is home & the coordinates were correct for trip #7. They were not changed for trip #9!! Sometimes ALI-SCOUT seems to have a mind of it's own!
- *Flat tire on right front of car - discovered in the morning as I was about to leave on first trip. Made that trip in my personal vehicle to keep a scheduled appointment. Advised by FAST-TRAC co-ordinator [FT Project Coordinator] to contact roadside service - did so. They sent Coleman's to put on spare. [FT Project Coordinator] also directed me to Discount Tire for repair or replacement. I was informed all charges would be reimbursed by U of M. Tire was not repairable - new tire out on car. I paid for it. Contact at Discount Tire - [name]. Called FAST-TRAC office - spoke with [FT Project Coordinator] & informed her of action re: tire.
- ALI-SCOUT showed home as being .24m away when I was at home.
- Trip 3 - Programmed ALI-SCOUT as far as coordinates given for I-75 north.
- Trip 4 - used "actual position" to program family position & restaurant position.
- Used "as the crow flies" direction - accurate.
- Trip 5 - coordinates off for distance to destination & they had not been altered by me! Used actual position to re-enter position.
- Trip 3 - Coordinates off - ALI-SCOUT said I still had .41m to go when I was at my destination.
- Trip 7 - Coordinates at destination off. Said I had .18m to go. Re-entered correct position.
- Trip 1 - ALI-SCOUT instructed me to take note of the display - it said "new DCU program available". No further instructions.
- Trip 4 - Coordinates off for destination. Third day in a row this is off for this destination.
- Trip 1 - Destination coordinates off - had not been changed from previous trips to this destination.
- Trip 7 - Upon reaching destination, ALI-SCOUT showed .40m remaining to destination.
- Big Beaver & Rochester Rd. Beacon - ALI-SCOUT directed me to go south on Roch. Rd or straight when I should turn west on Big Beaver. Distance to destination way off. I turned west on to Big Beaver & ALI-SCOUT changed instructions to the correct directions & remaining distance.

- When I turned on car - ALI-SCOUT directed me to note the display which said "new DCU program available". No further explanation given.
- AliScout tells me to turn the wrong way. I wonder if AliScout is working properly!
- Ali-Scout still has me turning right or left when I should continue to go straight!
- Doesn't take into account of construction on Dequindre.
- The instructions are easy to follow.
- Trip 3 - while driving on 14 mile Road east, I was not told to turn left on Dequindre. When I drive on Maple going east it does tell me to turn right on Dequindre.
- Trip 1 - Usually AliScout starts talking to me around Big Beaver Rd. Today nothing happened.
- Would not work when I went home. It wants me to turn right on Rochester Rd & Not I75
- Trip 3 - On Big Beaver just past Rochester - didn't direct me through 1st turn around. Took me to next one. Also didn't SAY Reached Destination as it usually does.
- Trip 2 - No beacon until Long Lake
- Trip 1 - Coordinates entered for Maple changed (on their own) to [lat long coordinate] from [lat long coordinate]. Had to re-enter.
- Trip 1 - Coordinates for work - must have changed. Miles were incorrect on Display & Crow Fly indicator was way off. Miles way off. Never picked up any beacon signaled. I think the battery might be dead. On the display unit.
- Trip 2 - Followed Ali-Scout - Dumped me again in wrong direction
- All went well
- Trip 2 - After getting on SB 75 - system said - left designated route.
- Trips 3 & 5 - Beacon on Rochester Rd and Hamlin not working
- Trip 2 - Beacon on Rochester Rd & Hamlin still not working
- Trip 3 - Traveling south on 75 - set for farthest point - Scout said to get off at Big Beaver & turn right - wrong direction
- Trip 4 - Beacon on N. 75 at [blank] not working - no direction given at all
- Trip 1 - used Crooks Rd - different route
- Trip 2, 4, 8 - Guided mode starts at Rochester & stops between Dequindre & Ryan - its programmed to Vandyke.
- Trip 9 & 10 - out of range
- Trip 1 & 4 - Tried to reprogram, but guided mode ends east of Dequindre
- Doesn't understand Mich U Turns
- Ali-Scout still telling me to turn Left at Avon & John R; should go ½ mile straight!
- Trip 3 & 4 - 696 through Royal Oak & Farmington but did not go into Guided Mode
- Trip 4 - Passed beacon on 75 I & would beep & then go Back To Atom mode
- Trip 7 & 8 - Out of range
- Trip #4 - Chicago Blvd. Off 15 mile rd. Has not been programmed. System wanted me to go past mall.
- Trip #1 - First time Guided Mode took me to turn on Kirts Blvd. Coordinates were not changed. Prior to today system showed destination reached before turn at Kirts & Livernois.
- Trip 4 - At 17 & Dequindre Beeped & Did not Talk

- Trip 2 - When Passing Beacon at Big Beaver & Rochester Road It did not work
- Trip 3 - it worked up until the Silverdome
- It came on around the Silverdome
- Trips 4 & 5 - it works part way
- Trip 7 - Construction at 16 & Woodward - system wanted me to go through road block. When I picked up another beacon on Woodward it told me to go back towards 16 mile Rd.
- Trip #8 - System seemed to react from cold weather, as I kept losing signal!
- What does Text Code No 9 mean?
- Trip 3 - I programmed to farthest point - M59 - Eliz. Lake Rd
- Trip 1 - Turned on in Lansing - gave pretty accurate mileage to home - Picked up at M59 - Eliz Lake Rd.
- Trip 1 - last signal - I75 & 13 Mile
- Trip 3 - Picked up again I75 North & 13 Mile
- Trip 1 - This trip was not instructed to exit at Big Beaver West as done previously - can't remember of beacons beeped.
- Trip 1 - Whoops - Didn't follow recommended route.
- Trip 2 - Still learning how to program w/correct #'s. Had wrong # I think.
- Trip 3 - Worked great, til I almost got home - I must have programmed the #'s wrong. Still figuring home program #'s.
- Trip 7 - Did not use Ali-Scout.
- Trips 1 & 2 - Off by .31 per navigation unit (???)
- Trip 4 - Programmed wrong
- Trip 6 - You have left rec. Rte - u reached dest.?
- Trip 9 - Didn't beep @ beacon!
- Trip 1 - At 16 & Roch beacon - after 2 beeps, few minutes, then about 6 super fast beeps?
- Trip 3 - Arrow pointing wrong direction
- Trip 3 - You have left Recomm Area...& then says Destination Reached?
- Trip 5 - Never said I reached dest.
- Trip 6 & 7 - No voice in guided mode I guess no beacon - no voice!
- Trip 8 - Did not use Ali-Scout.
- Guided mode ? Trips 1, 2, 3 No voice
- Trips 4 & 5 - Did not use ALI-SCOUT.
- Trip 2 - Left Oakland County - couldn't program
- Trip 3 - Worked GREAT!
- Trip 8 - Didn't go intended route, stopped at another friends.
- Trip 2 - System instructed me to make a left turn when it should have been a right turn. A left turn took me in the wrong direction of my destination
- Had small problem with program but I think I finally got it, will see.

- Seems to me that there is something wrong with this unit! Can never get the same mileage reading on it.
- Mileage is off on computer Board told me to make left turn when I had to turn right (?)
- Trip 2 - stopped @ car wash (off course)
- Trips 8, 9, 10 - Didn't use Ali-Scout
- Trip 2 - At first programmed wrong & then fixed it @ Big Beaver & Roch. Rd. - Beeped normally - Turned into bank & Ali-Scout said I left rec. Rtr & then - I reached destination...!
- Trip 3 - States I left rec. route - then says reached destination.
- Trip 7 - Did not use Ali-Scout
- Trip 2 - Left recom. rte
- Trip 2 - left recom. Rte - Destination Area Reached (I didn't leave rec. Rte. Must be programmed wrong??)
- Trip 5 - Did not use Ali-Scout - out of boundrys. At 7 pm when I started car the screen said, "Take note of the display - New program versions available."
- Trips 2, 3, 4 - Did not use Ali-Scout
- Trip 1 - Did not use ALI-SCOUT - drove to Wayne County. (Out of range - out of Oakland County)
- Trip 2 - Left route - Dest. Area reached
- Trip 1 - Outside of Oakland County. No beacons in area I drived today.
- Trips 3, 4, 5 - Outside of Oakland County
- Trip 1 - Forgot to set up unit until middle of trip!
- Trips 6, 7 - Out of target area
- Screen on program shows mileage to go up then down when almost to destination (problems!)

Age 65-80

- Trip 1 - I went out of guided mode when I didn't leave the path again. Then was pointing in the wrong direction.
- Trip 1 - The system was totally off. It didn't pick up any beacons & pointed the wrong way
- Trip 2 - I once again didn't leave the recommended route & it said I did.
- Trip 1 - This system seems to be very, very inconsistent. Sometimes it works sometimes it doesn't. How can you make it work all the time?
- Trip 3 - Worked very well on the way to the mall.
- Sir: I find I do not like where the Ali Scout is mounted. I can not see it without taking my eyes of the road for a period of time I'm uncomfortable with. I cannot read it with sunglasses on where it is located. I think it should be in an angle & face driver.
- Trip 7 coordinates were incorrect
- Trip 1 beacon failed at 13 mile 7 Northwestern. Trip 2 No Beacon signal at Telegraph & Long Lake Delayed instructions at Lone & Telegraph (Rt & U to go north) Trip 4 Beacon at 13 & Farm. Not working?
- Trip 1 A mode - Guided mode part way - passes 1 beacon at Long Lk & Orchard Lake (also, I did not bingo!) Trip 2 beacon at long Lk & Orchard Lk did not respond. Trip 1 Following curve on Cass Lk Rd, I was told that I deviated from prescribed course.
- Trip 2 Set coordinates at Rankin onto Ali-Scout. Trip 4 [lat long coordinates]. Trip 7 Indicator read 1.18 mi. To destination, after we had arrived.
- Trip 1 I was told that I left the recommended route - twice. Trip 2 Same as #1 - (one time)
- Trip 4 - Beacon at 14 Mi & Woodward did not respond Beacon at Big Beaver & Woodward did not respond Beacon at Long Lake &

Middlebelt did not respond. Was told that left the recommended route at Woodward & Long Lk.

- Trip 2 - Followed different route. Lone Pine Rd. HAS construction.
- Had left front tire repaired - per [FT Project Coordinator] ($12.50)
- Trip 5 - Veered from guided route in 4 miles, audio at I 696 & Evergreen informed me that I missed the turn onto I-696, start of the day 'home' was [lat long coordinates] end of the day 'home' was [lat long coordinates] indicated chance of 0.70 miles west
- Trip 6 & 7 - No Audio information from beacons on Woodward Note - Later discovered 'audio' turned down to lowest level. Start of the day 'home' =[lat long coordinates] End of the day 'home' =[lat long coordinates] indicated change of 2.5 miles n.w.
- Trip 13 - Guided Mode came on at Maple & Telegraph, arrived Home. Home position indicated to be 0.60 miles North. Previous Home position (5-25) was [lat long coordinates] now, (8pm 5-26) it is [lat long coordinates] no directions as to lane change or turns.
- Trip 1 - see #1, May 25, the distance was 2.32 miles.
- Trip 7 - just across the street, 0.05 miles, but screen showed 0.40 miles.
- Trip 1 - No directions Maple & Southfield, but did accurately tell us we reached our destination Trip 2 - Beeped on but no spoken directions or comments. Maple & Southfield
- Trip 1, 2, 3 - went past Beacon at Maple/Southfield - no audio instructions. Trip 4 - did not past Beacon at Maple/Southfield - just visual.
- Trip 3 - actually 1 ½ miles, but final reading = 3.99 m on arrival at Costa's. Trip 8 - Beacons at 11 mile/I696 & Orchard Lake Rd/12 Mile worked perfectly.
- Entered Beacon at 12 Mile/Evergreen where a -4 mile correction in mileage occurred final mileage was only 0.14 off. Trip 3 - Beacon at 11 Mile/Evergreen & 12 mile/Evergreen worked
- Trip 6 - Beacon near Lasher/Maple (15 Mile) worked perfectly to direct turns.
- Trip 4 - mileage shown kept increasing. Trip 5 - distance to bank should BE 0.3 miles, not 1.27 Trip 6 - across the street
- Trip 1 - Mileage way off, shaped 3.99 on arrival. Trip 2 - see #1, distance ok on return trip, only 0.47 on arrival
- Trip 1- not very accurate mileage, see #5. Trip 2 - right on! Trip 5 - not accurate at 0.07, see #1
- Trip 1- Right on - only 0.01 mile left. Trip 5 - off by +0.60 miles. Trip 9 - very good, all beacons worked. Trip 10 - not very accurate.
- Trip 5 was told I left the recommended route - wrong! Trip 5 Beacon at 13 Mile & Lahser did not respond. Trip Beacon at 13 Mile & Lahser did not respond.
- Trip 1 - Distance and signals worked perfectly. Trip 4 - 'Home' was undated to be 1.56 miles south (on arrival home)
- Trip 1 - 4.0 miles remained on arrival. Trip 2 - much different mileage then 'going' (#1)
- Trip 3- unprogrammed
- Trip 1- unprogrammed Trip 3 - Beacon at Maple & Coolidge but remained A mode to destination - Trip 5 & - unprogrammed
- Trip 1 - at start of trip mileage to destination read 8.8 M. The trip was only 3. Ali Scout would have taken me way beyond Hollywood. Thinking I might have entered incorrect coordinates, I checked the figures entered, & they were correct.
- Trip 1 - beyond map limits so I programmed Southfield and nine mile. Trip 2 - on return - good "A" & guided all the way until Adams & Big Beaver (½ mile south of home). It routed me E a mile & N a mile & west ½ mile, making a longer trip home.
- Trip 2 - good route home by Ali Scout!
- Trip 1 - No message - passed Beacon at Maple & Coolidge. Trip 2 - 1 ½ miles longer - Ali-scout sent me to Wattles - usual route turns at Kristen
- Trip 2 - Went from guidance mode to 'A' at Long Lake & Woodward beacon - Back to guidance at Square Lk. & Woodward. I left the recommended route at Square Lk. So it went back to 'A' until South Blvd & Telegraph. Trip 3 - Perfect - Guidance all the way
- Trip 4 - About 1 ½ miles farther than necessary because of Ali Scouts route.

- Trip 2 - Kmart not programmed properly
- Trip 1- no verbal messages
- Trip 2 - had to turn on Farmington Rd. against the directions of Ali Scout as there was no other way to my destination
- Trip 2 - Farmer Jack not programmed.
- Trip 2 - No verbal message at Coolidge & Maple Beacon. Trip 3 - Messages received after Coolidge & Maple beacon - and at Coolidge & Wattles beacon.
- Trip 2 - AliScout wanted me to go farther north on Woodward than Long Lake to get to Long Lake & Telegraph.
- Trip 2 & 3 - way off on mileage to destinations
- Trip 4 - Guidance cut out after beacon at 14 mi & I75
- Trip 5 - Guidance began at John R & 15 mi beacon
- Trip 1 - compass pointed in opposite direction from destination
- Trip 2 routed me left at Big Beaver & Adams - home was just .5 mi on Adams - so I left the recommended route
- Trip 3 continued N. On Adams to home even though Ali-Scout suggested a rt. Turn on Big Beaver
- Trip 1 Autonomous all the way with the arrow pointing away from the destination.
- Trip 2 - went back to "A" at beacon at Big Beaver & Woodward & then guidance at Long Lake. I turned left when told at Long Lake but when I went right on to Long Lake westbound I had left the recommended route.
- Trip 1 - switched to "A" at beacon at 14 & Woodward
- Trip 4 Took me 3 miles farther to get home than necessary & requested 1 impossible left turn.
- Trip 1 &2 - no verbal messages except at end of Trip #2: "Destination area reached."
- Trip 1 compass direction was wrong - double checked coordinates & they were correct.
- Trip 1 & 4 - no beacons - compass not accurate on trip #4
- Trip 2 - Beacon at Woodward & Big Beaver - no guidance. Beacon at Woodward & Long Lake switched to guidance but said I had left the recommended route when I turned left on Long Lake.
- Trip 3 - really good guidance!
- Trip 2 - "Bong" sound, once, after motor turned off
- Trip 3 - mileage on screen showed 1.8 mi. Actual was 4.7 mile.
- Car relocated on drive-way.
- More comprehensive orientation would be helpful re: use of key pad. We were told to go to our homes & learn how to program.
- Trip 2 - Some difficulty re: destination (Kroger) to program
- 7:30 am - as I entered the 3 destinations while at home (done in car with motor on) apparently "Weeborn" did not get entered. Redone it (o.k.) At Weeborn.
- Trips 4, 6, and 7 were only 4 to 5 blocks apart and I juts drove to them.
- Trips 1 & 2 - distance of miles shown on screen 29.0 miles and 26.5 miles
- Trips 1 & 2 mileage on screen shows 29.0 (actual miles were 4.8) and 28.6
- Trip 5 - Screen showed 3.1 mi = (first correct mile on today's trips)
- Trips today were short runs. Ali-Scout would do little or no work.

- Trip 8 - screen showed 20.2 mile for home to fish place.
- Trip 9 Screen info. Correct on return.
- Trip 1 - Screen showed 29.5 mile. I made some side routes so total was 7 mile. (Actual is 4.5 mile)
- Trip 3 - As car neared Woodward/Lincoln - voice directed me to "turn rt" & at Lincoln ("turn lt.") - Surprising as the distance between these two turns is a block only & angle only from Wdward.
- Trip 1 - Tried 4 times to program Nrt Wst finally left & just measured the distance.
- Trip 2 - Forgot to leave User's Guide in car.
- Trip 1 - Park is reached by using only local/side streets.
- Trip 2 - 9.5 gal. & car washed.
- Trip 1 - Voice of Ali-Scout said something like - "these are out of beacon range" (Woodward and Lone Pine). We learn of similar travel assists being developed or in use 1) [car rental agency] offer an assist and 2) an article in last weeks(?) New York Times re: these travel assists.
- As summary, I was glad for the opportunity to participate in the FAST-TRAC field test. 1) Our trips are short and to well known sites. (So received voice guidance seldom) 2) I suggest two sets of keys. We always make a second set, if nec., with a rental car. (An easy trouble preventative) 3) Thank you and farewell to "Ali-Scout."
- I set it wrong for restaurant. Programmed wrong. Trip #3 - too short - passed beacon on I-696 on eastbound - Evergreen - didn't change to guided. Called...and was informed that beacons were down.
- Didn't use it because beacons were down.
- I didn't take the route recommended by Ali-Scout. I-696 was bumper to bumper at 4:15 so I didn't follow route suggested. Why didn't Ali-Scout recommended Northwestern to 10 mile? Less congestion (by far) Wasn't Ali-Scout supposed to give that info?
- I assume that Ali-Scout should indicate how to get to a location. There doesn't seem to be enough to tell me how to get to my destination. Ali-Scout didn't have me turn at Maple to get to Drake. I couldn't find coordinates for [address].
- Trip 4 - System got confused. In order to make a left turn onto Telegraph from 10 mi eastbound, I had to use the turn around. Ali-Scout said I had left the recommended route and I was back in autonomous-mode.
- Trip 3 - Ali-Scout doesn't choose the best route. There was an accident on I-696. The radio reported it. When does this system indicate this?
- Trip 5 - Ali-Scout didn't give best route.
- Trip 3 - After I passed beacon on I-696 and Evergreen I am supposed to get off at southbound Telegraph. The Ali-Scout said, "You are not following the recommended route." This is the same route I have been taking all week without a problem.
- Trip 1 - When I passed beacon on I-696 and Evergreen on my way to work, Ali-Scout said that I was not following the recommended route. This is the best way to get to work. I have been using this route all along.