

USNWG ON TAXIMETERS
JULY 10, 2013
WEB-CONFERENCE SUMMARY

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I. Carry-over agenda items

A. Point-of-Sale System

This carry-over item concerns the development of an amendment for the definition of the term “point-of-sale system” as found in the NIST Handbook 44 (HB44), Appendix D.

Background:

This item involves two separate issues which have been linked together in the USNWG efforts to require a recording element in a taximeter system. The two separate issues are: the amendment of the existing definition of a point-of-sale system (POS); and the requirement of a recording element as part of a taximeter system.

The existing definition of a Point-of-Sale System (POS) describes those systems as consisting of elements that include a weighing or measuring element, an indicating element, and a recording element. Because the recording element is included as an element in a POS system, the application of this term to describe certain taximeter systems was initially considered to be a plausible method to require a recording element in those taximeter systems. The intent of an original proposed change to the NIST Handbook 44 (HB44) Taximeters Code was that by categorizing a given taximeter system as a POS, a recording element could then be required to fulfill the parameters provided in the POS definition. During its September 2012 meeting, the USNWG considered this approach and engaged in

lengthy discussions on the issue. Many of the ensuing debates within the USNWG involved the type of hardware components used in the taximeter industry and whether those components when attached to a taximeter would comprise a POS system. The work group however, did not arrive at any agreement involving the use of this definition as a basis for requiring a recording element in a system.

One potential approach the group considered was to revise the existing definition for POS systems so that the amended definition would not describe the system on the basis of the various hardware components included in the system but rather describe the system on the basis of the various functions it is capable of performing. By doing so, a taximeter system could be classified as a POS system by identifying the features in the system and the functions they perform. Using this approach, , provided that the taximeter system performed certain specific functions, it could be categorized as a POS system regardless of what hardware components were attached to the taximeter.

Discussion:

After summarizing the discussions on this item from previous meetings, the NIST Technical Advisor displayed a number of drafts representing stages in the development of a proposal to amend the existing definition for “Point-of-Sale Systems.” The latest draft of proposed changes to the existing definition of POS systems as shown below was also presented to the USNWG for consideration.

point-of-sale system. – An assembly of **interactive** elements ~~connected either wired or wirelessly~~ including a weighing or measuring element, an indicating element, and a recording element (and may also be equipped with a “scanner”) used to complete a direct sales transaction. **The system components, when operated together shall be capable of the following:**

- 1. determining the weight or measure of a product or service offered;**
- 2. calculating a charge for the product or service based on the weight or measure and an established price/rate structure;**
- 3. determining a total cost that includes all associated fees involved with the transaction;**
- ~~**4. provision for a means to make and accept payment; and**~~
- 5. providing a sales receipt when required by either buyer or seller in a form that is acceptable to all parties involved in the transaction.**

Some comments were offered by the USNWG indicating a general agreement among the work group for this latest draft proposal.

There were however, a number of minor changes recommended by some members. These changes included amending the language contained in the present number 4 bullet point. Ms.

Aileen Fox stated that this phrase does not convey clearly the intent that an alternate form of receipt may be offered when the buyer and seller are both in agreement.

Additionally, Mr. John Roach suggested that this amendment to the definition could also include a statement which would indicate that a POS system would also include a “console/controller” since this type of component is found in systems attached to a number of weighing and to measuring devices. The NIST Technical Advisor recommended that this suggestion not be acted upon since the intent of revising the existing definition is to base the definition on the functions of a POS system rather than the components it includes.

Conclusion:

The USNWG agreed to discontinue any efforts to use an amendment of this POS definition as a means to require a recording element in a taximeter system. The work group did however, express its intent to further develop a proposal to offer amendments to generally improve the usefulness of this definition. The work group agreed that the primary reason for requiring a recording element would be to supply the passenger with documentation of all charges in detail for the transportation service provided. For that reason, the USNWG agreed that its efforts to establish criteria for the requirement of a recording element in a taximeter system would focus on the level of complexity of a given rate structure used rather than the components included in a system.

The NIST Technical Advisor agreed to draft some minor changes to the language used in bullet point number four in this latest draft proposal to amend the definition of POS systems and to present that revision to the USNWG at their next meeting for review.

B. Extras Charges

This carry-over item proposes to amend the existing definition in NIST Handbook 44, Appendix D for the term “extras”.

Background:

The discussions that took place during the September 2012 meeting of the USNWG identified a number of the various charges that may be assessed in addition to fare to be applied to the total charge of transportation service. The work group members further identified which of these charges might be considered as “extras” charges. The work group initially concluded that charges that are not determined via the measurement of time and distance but which are directly related to the transportation service being provided would be considered as extras.

Because the term “extras” is used in a number of requirements in the existing HB44 Taximeters Code, its definition is critical to the interpretation and understanding of those

requirements. Furthermore, the USNWG believed that it was necessary to amend the existing definition for extras charges. The existing definition found in HB44 Appendix D is as follows:

extras. – Charges to be paid by a passenger in addition to the fare, including any charge at a flat rate for the transportation of passengers in excess of a stated number and any charge for the transportation of baggage.[5.54]

This issue was included on the agenda for subsequent meetings of the USNWG and a result of further consideration by the USNWG, was that the definition was revised to better reflect the intent of the work group. Based on comments from the USNWG during its meeting in March 2013, the following proposed language was drafted.

extras. – Any pre-existing charges to be paid by a passenger in addition to the fare; **Extras charges are those fees directly related to the transportation service provided including but not limited to** any charge at a flat rate for the transportation of passengers in excess of a stated number and any charge for the transportation of baggage.[5.54]

At the May 22, 2013 meeting the USNWG generally indicated their agreement to the draft proposal shown above but also recommended that the definition include reference that additional charges may also be incurred which are not included as fare and are not considered as extras. The NIST Technical Advisor agreed to provide further amendments to this draft proposal and presented the following revised draft for further review by the USNWG members.

extras. – Charges to be paid by a passenger in addition to the fare **that are directly related to the transportation service provided, including The monetary value of extras charges are established prior to a transaction although they may be applied, whenever appropriate during a trip. Extras charges may include but are not limited to** any charge at a flat rate for the transportation of passengers in excess of a stated number and any charge for the transportation of baggage.

Additional charges for products or services which are not directly related to the transport of a passenger may be included as part of the total charge for the transaction but are not considered as “extras.”[5.54]

Discussion:

The NIST Technical Advisor provided the group with background information leading up to the development of the latest draft proposal to amend the existing definition for “extras.” Because the term “extras” is used to identify specific charges and specific displayed indications, the definition of this term is critical for providing clarity in the Taximeters Code therefore, the work group was advised to continue efforts in the development of an appropriate revision for this definition.

Several comments were made at the July 10, 2013 meeting of the USNWG regarding the language used in the latest draft for the proposed amendment. Mr. Phillip Steiner asked for an explanation for the meaning of the wording: “The monetary value of extras charges are established prior to a transaction...” The NIST Technical Advisor explained that the intent

of this language is to indicate that the charge for individual services or fees incurred that are considered extras, will have been established and will not be subject to change *during* any trip. Mr. Steiner stated that these charges which would be a fixed value would be posted on a rate card and suggested that this may be an important point to include in a definition. Other work group members agreed that wording in the proposed amendment should indicate that these extras charges are “as stated on a rate card” and be incorporated into the draft proposal.

An initial polling of the participants of the July 10, 2013 meeting of the USNWG confirmed that the work group would support additional changes to the proposed amendment which would clarify that extras charges would be established and then posted on a rate card.

Mr. Bill Fishman commented that the distinction between extras charges and additional charges which are not considered fare or extras may be blurred due to the fact that many existing taximeters will display these “additional” charges in the “extras” display area on the taximeter. Because these additional charges are not considered by some as “extras” charges, their display in the “extras” portion of the primary display located on the taximeter may not be considered appropriate. Mr. Fishman also stated however, that the presentation of both types of charges in the “extras” display location may not be a major concern if the passenger is provided a receipt that clearly itemizes all of the various charges incurred during a transaction.

Mr. John Roach expressed concern over the possibility that some taximeter systems may not be deemed to be in compliance with requirements pertaining to the agreement of indications within a system, due to changes proposed to the definition of extras charges. He stated that because other charges not considered as fare or as extras may be added to the total cost of a taxi service, the total cost of the taxi service may differ between indicating elements in a taximeter system. As an example, in some systems those charges not considered as fare or extras may be applied and be displayed as part of the total cost on a supplemental display (e.g., passenger information monitor) but would not be appropriately displayed on the taximeter itself (because they would not be considered as fare or extras) therefore, creating a conflict between the taximeter and supplemental displays for the total cost of the taxi service.

Mr. Roach explained that if the definition of “extras” was amended in such a way (as proposed) that a distinction is clearly made between extras charges and other types of additional charges, those additional charges would not be allowed to be displayed together with extras charges and that this could lead to differences in the display of total charges and therefore non-compliance of agreement of indication requirements.

Conclusions:

Although the USNWG initially indicated support for further revision of the latest draft proposal, the extended discussions during the July 10, 2013 meeting indicated a change in that position. The work group was polled in order to verify the intent of the USNWG regarding this item. The results of that polling indicated that no changes to the definition for “extras” should be proposed and that maintaining the existing definition was now preferred by the work group.

The NIST Technical Advisor acknowledged this position and informed the work group that this item will be removed from the agenda. The work group was advised however, that continuing efforts to update the HB44 Taximeters Code may require that the issue be revisited at some point in the future.

C. Proposed new requirement: S.1.1.1. Recording Elements

This proposal intends to add a new requirement in the HB44 Taximeters Code that would require taximeter systems which are classified as a taximeter point-of-sale system include means to provide a printed receipt for all transactions. This item stems from the initial proposal presented in a draft revision of the HB44 Taximeters Code. As mentioned under agenda item I.A., this issue represents a portion of a previous proposal that also included the amendment of the definition for POS systems.

Background:

This proposed new requirement was initially developed during a meeting of small working group that met in August 2011 to develop a draft for an update for the HB44 Taximeters Code. The intent to add this requirement was to offer a means to require a recording element in a taximeter system based on that system's classification as a Point-of-Sale System and had been drafted as follows:

S.1.1.1 Point of Sale System. A printed receipt providing the required information in S.1.9. Recorded Representations shall be available through an integral or separate recording element for all transactions conducted with point-of-sale systems

[Nonretroactive 20XX]

(Added 20XX)

As stated under this proposal, a printed receipt would be required based on the existence of a POS system and that the information required under HB44 Taximeters Code paragraph S.1.9. is to be included on that receipt.

This item proposing that a recording element is required as part of a point-of-sale system was closely tied to the discussion of item I.A. (above). Part of that discussion, was a suggestion that rather than requiring a recording element simply based on the term "point-of-sale system" being applied to a taximeter system, it may be more appropriate to mandate a recording element based on a set of criteria that identifies specific features that the system is capable of performing.

At the May 22, 2013 USNWG meeting, the NIST Technical Advisor recommended that this draft proposal be replaced with a proposal that a recording element be required based on criteria such as the following examples:

- Requirements of the local authority;
- The complexity of the rate structure; and
- The sophistication of the taximeter system. (not only the hardware and software used but also the features that it may offer – i.e., non-transportation products/services)

This list was offered as starting point and it was acknowledged that it may need to be further developed.

During that May 2013 meeting and based on the above suggestion, the USNWG was asked to consider the following draft as a proposed requirement that would serve to replace the initial proposal to add a new requirement; S.1.1.1. Point of Sale System.

S.1.1.1. Recording Elements. – A receipt providing the required information in S.1.9. Recorded Representations shall be available through an integral or separate recording element for all transactions conducted when any of the following criteria is met:

- a) When the regulatory authority requires that a receipt be provided to the passenger;**
- b) When extras permitted are in excess of those charges for additional passengers or transportation of luggage;**
- c) When rate differentials are permitted for trips in excess of set limits on distance travelled or passage of time;**
- d) When the total charges include fees for products or services not directly associated with the service of transportation of the customer.**

For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (i.e., e-mail, text message, computer file, etc.).

[Nonretroactive 20XX]

(Added 20XX)

No objections were stated regarding the basic notion that a recording element be required as part of a taximeter system. Most of the work group indicated however, that there can be instances when requiring a recording element is not appropriate and that there can be specific circumstances which would not warrant such a requirement.

Mr. Bill Fishman noted that state and local authorities may provide exemptions during a routine field examination however, a taximeter system when submitted for a type evaluation would be required to comply with all applicable HB44 requirements. Therefore, the HB44 Taximeters Code should be definitive about when a recording element is required. Mr. Bob

McGrath noted that since many jurisdictions adopt Handbook 44 by reference, if a proposal becomes adopted as a requirement into HB44, it may not be a simple matter of whether that requirement will be enforced or not. In these cases, regulators would be compelled to apply all applicable requirements in the Taximeters Code.

Mr. Byron Corcoran commented that there are other circumstances involving the use of rate differentials that are not included in the draft proposal shown above and should be considered as well. One such example would be a rate differential that applies to trips that exceed a threshold for a specific monetary value. Some group members indicated that a recording element should be required if any rate that is charged is a variable rate and could change during a trip. The USNWG agreed in general to support a proposal which will specify that a recording element be required as part of a taximeter system under appropriate conditions. The exact nature of the criteria which will serve to identify when a recording element is required will need to be further developed however.

At the May 22, 2013 USNWG meeting, the NIST Technical Advisor agreed to draft a revised version of S.1.1.1. and to base that revision on the comments from that meeting.

Discussion:

At the July 10, 2013 USNWG meeting the NIST Technical Advisor provided the work group with a summary of this item's development and displayed previous draft revisions that have been developed for this proposed new requirement. The latest draft revision was presented to the work group for their review.

S.1.1.1. Recording Elements. – A receipt providing the required information in S.1.9. Recorded Representations shall be available through an integral or separate recording element for all transactions conducted when any of the following criteria is met:

a) When the regulatory authority requires that a receipt be provided to the passenger;

b) When extras permitted exceed those charges for additional passengers or transportation of luggage;

c) When the rate applied is permitted to change for any reason after the initiation of, and prior to the conclusion of a trip;

d) When the total charges include fees for products or services not directly associated with the service of transportation of the customer.

For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, computer file).

[Nonretroactive 20XX]

(Added 20XX)

This latest draft was based on the notion that a recording element be required based on the level of complexity of the rate structure in the jurisdiction where the system is placed in operation. The original intent of adding a requirement to mandate a recording element was to provide the passenger a record of the various charges incurred during taxi service. This becomes of greater importance when there are multiple charges assessed (i.e., variable rates, extras, additional charges) as opposed to charges calculated on a simple rate structure.

During the July 2013 meeting, an alternative to adding a new requirement (S.1.1.1. shown above) as proposed by Mr. Ross Anderson was also presented to the USNWG. This alternate approach would also serve to require a recording element within a taximeter system however would do so by amending the first paragraph in the current HB44 Taximeters Code requirement: S.1.9. Recorded Representation as shown below.

S.1.9. Recorded Representation. – A ~~Except for taximeters that indicate or accumulate only fare and charges for additional passengers and baggage, a printed receipt issued from a taximeter, whether through an integral or separate recording element, shall include the following:~~ providing the following information shall be available through a built-in or separate recording element for all transactions.

This suggestion does not propose any changes for the bulleted points (a through i) in this existing requirement.

The work group was generally supportive of this alternative proposal however, some members suggested further changes to make it more acceptable. One comment was to replace the term “built-in” with another, more descriptive term.

Ms. Angela Godwin also suggested that the last paragraph in the proposed new requirement (S.1.1.1.) be inserted into this alternative proposal (S.1.9.) to indicate that a receipt could be provided in either electronic or printed form.

The NIST Technical Advisor pointed out that under the proposal of a new S.1.1.1., a recording element would be required when rates are permitted to change during a trip, while there is no similar provision in the alternative recommendation to amend S.1.9.

Mr. Bill Fishman acknowledged this point and suggested that a statement be added to the proposal to amend S.1.9. that would require a recording element when there is more than one rate applied in the calculation of fare charges.

Conclusion:

The USNWG was in agreement that the proposed amendments to S.1.9. Recorded Representation should be further revised in accordance with the comments noted in the discussion above. The NIST Technical Advisor will draft this revision and then present it for review by the work group at its next meeting.

D. Proposed amendments to paragraph S.1.2.

This proposal consisted of amendments to HB44 Taximeters Code existing paragraph S.1.2. to recognize that fare indications may be advanced by means other than the movement of the vehicle or by the time mechanism.

The proposed changes are shown below.

S.1.2. Advancement of Indicating Elements. – Except when a taximeter is being cleared, the primary indicating and recording elements shall be susceptible of advancement only by the movement of the vehicle or by the time mechanism, **or by automatic entry of a predetermined fixed rate.**

(Amended 1988, **and 201X**)

Background:

The existing paragraph as written would not permit the fare indications to advance when a flat rate was applied and then displayed on the primary indicating element. In addition, it was not clear whether or not this requirement applied to the display of charges assessed in addition to fare (e.g., extras and other additional charges). Extras charges may typically be applied and displayed independently of vehicle movement or the lapse of time.

Some taxicab companies will offer alternative types of fare charges (e.g., flat rate based fares where permitted). This type of rate is most often found in use as a charge for frequently traveled routes such as between an airport and a downtown district. These charges would be entered into the taximeter to document this type of transaction and to establish a record of revenue although this type of fare is not based on a metered distance/time. Because some jurisdictions will permit charges based on predetermined flat rates, it has been suggested that the permitted use of this type of fares should be reflected within this HB44 requirement.

During USNWG meetings held in September 2012 and May 2013 additional discussions took place regarding this item, and resulted in additional editing to amend the proposal as shown below:

S.1.2. Advancement of Indicating Elements. – Except when a taximeter is being cleared, the **fare charges displayed on the** primary indicating and recording elements shall be susceptible of advancement only by:

- a). the movement of the vehicle;
- b). by the time mechanism;
- c). **a combination of both a) and b); or**
- d). **the entry of a monetary amount associated with a flat rate or negotiated flat rate where permitted.**

Advancement of the displayed indications for charges not based on the measurement of distance and time may occur through manual or automatic means.

(Amended 1988, **and 201X**)

Discussion:

The USNWG was presented with the background of the development for the proposed changes shown above and asked for further comments on this item.

Mr. Bill Fishman stated that because other additional charges which are not considered as fare or extras are typically displayed in the “extras” portion of the primary display on most of the existing taximeters, any proposed changes should specify that the *indications presented in the extras display* are permitted to be advanced through manual or automatic means.

Conclusions:

The USNWG indicated its support for the most recent version (shown above) of the proposal to amend S.1.2. however, the members agreed that the last sentence in this proposed amendment should not be worded so that additional charges (not based on time/distance) other than extras are specifically referenced.

The NIST Technical Advisor will draft a revision of this proposal and present the revised version to the USNWG. The revised version will be placed on the agenda for the work group’s next meeting.

E. Proposed changes to paragraph S.1.9. Recorded Representations

The proposed changes to paragraph S.1.9. would require that additional information be included on a printed receipt that would enable the passenger to obtain contact information for the owner/operator of the taximeter (or taxicab service) and to verify charges. The suggested changes are shown below:

S.1.9. Recorded Representation. – *A printed receipt issued from a taximeter, whether through an integral or separate recording element, shall include the following:*

- (a) *date;*
- (b) *unique vehicle identification number, such as the medallion number, taxi number, vehicle identification number (VIN) or permit number;**
- (c) *start and end time of trip;**
- (d) *distance traveled, maximum increment of 0.1 kilometer (0.1 mile);**
- (e) *fare in \$;*
- (f) *for multi-rate taximeters, each rate at which fare was computed and the associated fare at that rate;**
- (g) *additional charges where permitted such as extras, surcharge, telephone use, tip and tax shall be identified and itemized;* and*
- (h) *total fare in \$ (total charge).**
- (i) **any credits or discounts applied to the fare****
- (j) **the name of the taxicab company or owner****

The customer may elect to receive this information in the form of an electronic receipt made available to the customer's personal device.

[Nonretroactive as of January 1, 1989]

**[Nonretroactive as of January 1, 2000]*

****[Nonretroactive as of January 1, 20XX]**

Background:

When this item was discussed by the USNWG at their September 2012 meeting, additional changes were suggested that would require more details to be included on a receipt regarding the contact information for the owner/operator of the taxicab. While some members supported requiring additional contact information for the individual or company providing the transportation service, others (primarily taximeter manufacturers) pointed out that there are limitations for the amount of data that can be printed on receipts. Those members stated that the amount of space available in the finite number of data lines on a printed receipt may not permit excessive information to be included.

Considering this, most USNWG members agreed that the information currently required is sufficient for the passenger to readily make contact with the responsible party. The work group also concluded that no known existing taximeters on the market today are able to comply with subparagraph “g” that requires that extras charges be itemized.

It was also pointed out by some work group members that unless the taximeter provides the data output for the itemization of charges, manufacturers of some accessory equipment attached to the taximeter will not have the data input needed to display the itemization of charges on their accessory equipment.

During the September 2012 meeting of the USNWG, there was some discussion recommending that the itemization of extras charges should be left up to the local authorities however, that meeting concluded before any agreement on this issue was achieved.

Discussion:

The NIST Technical Advisor provided a review and summary of this issue for the work group and reminded the USNWG of the points made by some of the taximeter manufacturers regarding the limits on data lines that are available on printed receipts.

Mr. John Roach commented that while he supports the notion of having an electronic receipt as an alternative to a printed receipt, the electronic form must be an option that the passenger must agree to. He added that not all passengers will be able to receive a receipt in an electronic form so the printed receipt would be an appropriate default format for a receipt.

Ms. Angela Godwin questioned whether the discussions on the previous agenda item "I. C." (Proposed new requirement: S.1.1.1. Recording Elements) are relevant to this item and whether the proposed additional language to the header paragraph of that requirement will be presented as part of any proposed amendment to this proposed item. The NIST Technical Advisor explained that those suggested changes to the main header paragraph of this requirement will be included in a final proposal when drafted however, this agenda item is focused specifically on the subparagraphs (a-j) that define what information will be required on the receipt provided to the customer.

Mr. Bill Fishman pointed out some changes that are needed in the wording of subparagraph "f." He explained that this is due to the fact that all taximeters in use today are capable of calculating fares using multiple rates. Therefore the term "multi-rate meters" is not meaningful and should be deleted.

Some USNWG members suggested that subparagraph "h" be reworded to indicate that the total cost of the service provided (including extras charges and other additional charges) is the appropriate information that should be required under this subparagraph.

Ms. Joanne Rausen noted her concern that this proposed amendment should not be worded so that an individual driver or operator of a taxi would be required to provide their personal contact information to the passenger. She also explained that in New York City there is a central phone number operated by the Taxi and Limousine Commission which is provided to the passenger for redress. This service will then route any complaint or concerns to the

appropriate responsible party. Others in the work group agreed that this would be acceptable and acknowledged that the intent is to provide a means for the customer to seek customer assistance.

The work group also considered some additional changes that were discussed at the USNWG's September 2012 meeting. These changes affected subparagraph "g" as shown below:

*(g) additional charges where permitted such as **extras in \$**, surcharge, telephone use, tip and tax shall be identified and **may be** itemized **when required under local jurisdiction;***
and*

Referring to these suggested changes to subparagraph "g" that would make it optional whether the information regarding extras and other additional charges are itemized on a receipt, Mr. Bill Fishman stated that he does not support these changes. Other members in the work group agreed, recognizing that these changes will undermine the intent of providing the customer with sufficient information to adequately reconcile any disputes. There was no opposition stated in this discussion to delete the added language "may be" and "when required under local jurisdiction;" in subparagraph "g."

Mr. Nestor Guzman noted that there is no existing requirement or any component in the proposed changes that would require the "trip number" to be included on a receipt. Others in the work group agreed that in certain jurisdictions, this information could be a vital element in the process of identifying a specific transaction. The NIST Technical Advisor suggested that, under subparagraph "c" the phrase: "... and trip number if available" could be added. The work group agreed with this.

Conclusion:

The NIST Technical Advisor will incorporate the changes discussed and agreed upon during this meeting into the original proposal and present the revised draft for the USNWG to review at its next meeting.

II. Update from GPS Subcommittee

Discussion/Conclusion:

Mr. Bill Fishman (Subcommittee Co-Chair) presented the USNWG the results of a survey taken among the subcommittee members that was intended to determine the scope of the subcommittee's work. In this survey, the subcommittee members were asked three basic questions:

- a) whether the type of application of GPS in which a route is plotted on a map and thereby providing a distance of that plotted route (hereafter referred to as “mapping”) should be addressed in terms of legal metrology. Or, should the subcommittee only consider the application of GPS where a vehicle is tracked along its traveled route and the distance is calculated based on a route that has actually been traveled (hereafter referred to as “tracking”);
- b) the second question asked if it is appropriate to categorize devices within three classes of devices when developing standards and requirements for devices that use GPS and/or mobile telephone apps. These three categories were described as: 1) A taximeter that operates using features and functions found on traditional-types of taximeters but using GPS as a measurement source rather than a vehicle speed sensor; 2) A software based device, *installed in a vehicle* and which calculates fare based on GPS measurements; and 3) a software application (app) that may be downloaded and then function on various types of hardware devices *not installed in a taxi* (smart phone, tablets, computers, etc.); and
- c) is it feasible that regulation/requirements be drafted that will allow for alternative measurement sources to “fill-in” during periods of GPS signal loss?

The responses to these questions were as follows:

- a) the subcommittee members were somewhat split on this question with 5 members supporting the notion that both types of GPS application should be considered within a legal metrology context and 4 members supporting the notion that only the “tracking” type of application should be considered by the subcommittee;
- b) a clear majority of subcommittee members support the classification of GPS devices in the three categories described above; and
- c) all members stated their belief that the loss of a GPS signal could be mitigated by the use of software or some other method of distance/time measurement during brief periods of signal loss.

The Technical Advisor noted that some GPS Subcommittee members have expressed concerns about certain statements that are reportedly being made regarding the USNWG’s work by at least one mobile telephone application (“app”) provider to authorities in areas where the provider wishes to begin offering its services. According to these members, the statements may be misrepresenting the work of the USNWG, stating that the USNWG is performing a “study” on mobile telephone “apps” used to secure transportation services. The service provider implies that this “study” would theoretically provide guidance to regulatory authorities on whether this type of app should be permitted to operate under existing

regulations and that the results of the “study” will be available relatively soon. The argument is then made that until the NIST USNWG “study” is complete and appropriate regulations have been established, there should be no barriers to prevent this innovative technology from existing and operating along with more traditional means of hired transportation services.

It should be noted that these statements seem to imply that officials are unable to apply any current provisions in Handbook 44 to this type of equipment until the USNWG completes its work, which is not the case. It should also be noted that it is incorrect to characterize the work of the USNWG as a “study.”

The USNWG members who have raised this issue have asked if the USNWG might issue an official statement in response to these references. Members of the USNWG and the NIST Technical Advisor agreed to discuss further the ramifications and consequences of any proposed official statement regarding this matter before deciding upon any particular action.

Technical Advisor’s Note: It is not within the purview of the USNWG to dictate regulatory actions in any specific application. However, it may be possible and useful to provide general information to help educate stakeholders about how to apply legal metrology requirements to new types of equipment in a way that would allow that type of equipment to be used commercially in the marketplace, while ensuring fair competition with existing, regulated equipment.

III. Additional Notes

A poll was provided during the July 10, 2013 web-conference where participants were asked to select up to three dates from several options provided. These dates were the options available for dates to schedule the work group’s next meeting. The result of this poll indicated that the date receiving the greatest amount of approval (69%) was September 18, 2013. The next scheduled meeting of the USNWG will therefore be held on Wednesday, September 18, 2013. More information about this next meeting will be provided in advance.

IV. Attendance

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