

# Rural Bus Kickoff Meeting Minutes

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DOT Headquarters Nassif Building Room 9401

<b>Participants:</b> J. Barry Barker	jbarrybarker@ridetarc.org
Marcel Belanger	marcel.belanger@fta.dot.gov
John Bell	john.bell@fta.dot.gov
Lewis Clopton	lewis.clopton@fta.dot.gov
Santo Grande	santo@dcsdct.org
Gene Griffin	gene.griffin@ndsu.edu
Cheryl Hershey	cheryl.hershey@fta.dot.gov
Jill Hough	jill.hough@ndsu.edu
Walter Kulyk	walter.kulyk@fta.dot.gov
Michael Molloy	michael.molloy@fta.dot.gov
Henry Nejako	henry.nejako@fta.dot.gov
Venkat Pindiprolu	venkat.pindiprolu@fta.dot.gov

## Minutes:

Following introductions, the project concept and objectives were outlined. A short discussion on the goals was held, which included the need to identify the client groups and the needs of potential clients in defining the project. Starting in January 2006 the HeadStart program will require that students be transported separately from all other passengers in a school bus style vehicle. The group will need to identify all stakeholders, including manufacturers and transit agencies and include their input throughout the process.

There is currently a Community Transport Vehicle program, which is coordinated with the HeadStart program. The specifications for the vehicle were adopted by NHTSA. There was an industry need for a multiple use vehicle so that specialized vehicles were not required for every different application. This vehicle met the requirements to transport students, but did not include the standard exterior markings (this was controversial because it left no indication to other vehicles on the road that children would be boarding and alighting). This vehicle was designed for 9-18 passengers. Bryna Helfer and Doug Birnie were recommended as contacts for more information on this project.

The Delmarva agency in eastern Maryland presents a good example of the range of services that need to be addressed in defining the goals of the project – from rural transit, to small urban applications, paratransit and the potential for developments from a new small vehicle to be applied to urban transit. A significant portion of this service operates on long, flat one-way rural roads. Large diesel buses are very inefficient for this use. It would be desirable to have a smaller vehicle that can be used for paratransit, will travel the necessary long distances, include a low floor, 1 or 2 wheelchair positions, increase accessibility and include hybrid technology for fuel economy.

The project concept should be widened from a vehicle serving rural areas, and even a dual rural/para- transit vehicle to include components that can aid urban areas as well. It may be beneficial to define the characteristics necessary or applicable to each of these uses (rural, suburban, paratransit) and identify which could be included in a multiple use vehicle. The terrain in rural and other areas will need to be addressed during the design. There is likely to be variance within each area, as well as between regions (for example the long, flat road in eastern Maryland versus hills in North Dakota). The design will also have to account for weather; for example, a bus in Alaska had an external lift freeze and become useless, a problem that could have been avoided had weather been considered in the design process. Additionally, when a ramp is used without a sidewalk (which many rural stops lack), the angle becomes significantly steeper and creates safety issues.

The discussion then turned to modified vehicles – when a “trailer” type passenger cabin is attached to an existing truck chassis. Modified vans also fall into this category. Transit vehicles built on truck frames often suffer in quality and durability. Attaching a cheap trailer to a chassis not designed for transit lifetimes does not create a long term reliable vehicle. Also, these vehicles tend to have high centers of gravity which make them prone to rollovers. They are currently banned from use in school transport programs. The safety factors and requirements for the new rural vehicle will be an important part of the developmental program.

The recommended next step at this point was to examine the current status of rural transit vehicles and look at any available analyses that have already been completed. The group should look into the possibility of getting a waiver from HeadStart and similar programs for rural areas.

There is a new National Parks vehicle in production that may provide a starting point for this project. This bus was demonstrated by TRI at DOT headquarters in September 2003. They are currently in use at Glacier National Park. They have an open air roof, low floor, rear ramp and are built on a modified Chevy chassis.

Another possible starting point is to scope the nature, size and complexity of the issue (determine applications and uses, operating requirements, etc). A scaleable design should be considered – where a single set of specifications would be prepared, but the actual size and capacity of the vehicle could be determined by agency needs. The ultimate end of the project is likely to be a set of functional specifications, after which industry and market forces would determine the path of the effort. There is a possibility to develop off of existing manufacturer efforts – similar to the current practice of attaching passenger cabins to existing truck frames. This will make it more likely that the specifications developed in the project are accepted by manufacturers and can be employed by industry. There are currently small vehicles being produced, mainly for school functions to avoid using a 60 passenger bus to transport 20, or fewer, students to an extra-curricular event.

This project may be an iterative process in which the bus will be defined, then the market will be examined from a new starting point, the bus redefined, etc. It may be best to start by examining the market to determine the feasibility of continuing. Interest, potential uses and applications, and costs (compared to costs of existing rural transit) should be understood before starting to define vehicle characteristics. After a study, specifications can be created; this step should be

held until closer to the end of the process, then bring the specifications directly to manufacturers. To clarify, manufacturers should be involved from the beginning of the process to provide their input and also to develop their interest in applying the specifications when they are prepared.

A Stakeholder meeting is needed in the next 60-90 days. Following this, NDSU could perform an industry analysis, then a broader market study to include the expected number of vehicles that could be ordered over the next decade. The concept of functional specifications was adjusted to reflect vehicle requirements rather than functions. The market may actually act as a function of interest in the vehicle; it is likely industry has not examined this market segment at all, or that they have and already found it impractical. There probably are already vehicles in production that either approach the needs of this project, or that could form a composite to fill the need.

The group should examine the possibility of encouraging a partnership with some of the European companies that already have experience in this area. Furthermore, bringing some of the existing buses over from Europe for demonstration here to determine interest and feasibility will provide valuable results without the cost of creating a new prototype.

It will be necessary to examine all the regulations governing this project, including requirements and standards to ensure the development of the vehicle will be legal (capacity, ADA requirements, availability and applicability of the chassis to transit – i.e. above issue of using existing truck frames).

At this point the suggested next step was a scoping or issues paper prepared to clarify the purpose and goals of the project, including discussion of regulatory constraints and marketplace. The winners and losers of the project should be identified early in the process. It is possible that manufacturers of current 12-15 passenger buses would see this project as a threat. Also, it is possible that creating specifications of a vehicle will limit the ability of a manufacturer to make their product unique and identifiable – and is perhaps one reason previous specifications failed to be accepted (Transbus). To counter this, it is possible to make several recommendations about specifications that would improve vehicles or to make specifications for certain sections/components of the vehicle. The Community Transit Vehicle was seen as a threat to school transportation operators. The group should look into whether or not paratransit and rural transit operators and manufacturers see themselves as competing, or at least in overlapping roles.

To clarify terminology, the definition of paratransit involves service more than  $\frac{3}{4}$  of a mile from fixed route service, and demand responsive service is a separate, non-ADA related option.

By January, the scoping paper prepared by NDSU SURTC should be available for industry input. Following this the FTA will assist NDSU in developing an action plan including stakeholder meetings, dates, milestones and deliverables. It might be possible to hold an initial stakeholders meeting during TRB week in December. The scoping paper should be ready to be reviewed at stakeholder meetings held at the APTA and CTAA conferences in May and June. (There is an APTA bus and paratransit conference expected in May and a CTAA conference in June that will provide opportunities to gain industry input.) There will probably be a breakout lunch for operators by size of system, allowing small urban and rural transit operators to be approached as a group (Pam Boswell with APTA was suggested as a contact). It was decided that a series of

stakeholder meetings will be appropriate. A private sector (Business Member) meeting of APTA will be held in January, but will require an invitation, which can be solicited for if project interest is developed. Manufacturers are not likely to be represented at TRB or APTA GM meeting in January. It was suggested that a sample of CTAA operators be surveyed to gain input on improvements to a paratransit vehicle. Easter Seals Project Action has an email list of transit community and disabled members who can be contacted for ideas and input. This will provide a first attempt at rating advancements for a new vehicle and will provide good input. Some suggested ideas will need to be provided to ensure good results. ATTI has been working with CTAA and is planning a survey of CTAA members on their knowledge and interest in advanced propulsion technology. It may be possible to combine a rural transit survey with that project. This task should be completed by January.

A Steering Committee will be created with industry and government members. This should include someone from Project Action (Al Abeson was recommended) and cover a broad sample of input. Santo Grande will chair this committee.

At a minimum, the project may still be a success if the only accomplishment is to stop manufacturers from attaching fabricated passenger cabins to existing chassis. There are better options than simply modifying chassis. The Sprinter (Daimler-Chrysler, under the Freightliner name domestically) is a good example of this, and with enough interest has the potential to be manufactured in the US. Creating a single unit body, like a common car, this vehicle should have better longevity. Using only front-wheel drive is another option and will allow more room in the passenger portion of the vehicle. The durability of front-wheel drive is unknown; no examples of heavy use designed front wheel drive vehicles are known.

**Notes:**

- The vehicle must be multi-purpose, could benefit both urban and rural
- Need to consider propulsion, terrain, weather
- Must address industry needs versus specifications (specs may not be adopted)
- Are there chassis available that meet ADA requirements?
- Gene will be in town next and will try to meet with Walt and Lewis

<b>Action</b>	<b>Lead</b>	<b>Timeline</b>
Stakeholder List	Jill Hough/Mike Molloy	December 2005
Stakeholder Meeting	Walt Kulyk	December 5-6 (TRB)
Scoping Paper	Jill Hough	Draft by January 2006
Steering Committee	Santo Grande	Ready by January paper review
CTAA Survey	Mike Molloy	January 2006
Stakeholder Meetings	Walt Kulyk	January/May/June 2006 (APTA and CTAA conferences)
Develop Action Plan	Jill Hough/Walt Kulyk	Fall 2006
Market Study	Jill Hough	Start Fall 2006