Earthquake Preparedness: The School Bus Driver

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Introduction

A school bus driver attending an earthquake emergency training workshop in Seattle asked the question. After listening to the plentiful information available to help students, teachers, administrators, custodians, parents, and planners prepare for an earthquake emergency, she wanted to know what she should do if an earthquake occurred during bus route time. It brought to my mind that very little attention had been paid to the potential dilemma bus drivers could face if they had no clear direction on what to do in an earthquake emergency. Should they continue on their routes, return and release students already picked up, or take students to a nearby school if regular transportation routes were disrupted? Through a cooperative effort with the Seattle School District, Laidlaw Transportation Company, and the School Earthquake Safety and Education Project, among others, a two-hour training curriculum and video, plus a testing procedure was developed. Thanks to this caring Seattle school bus driver, Sheryl Everson, a need was identified and "Earthquake Preparedness: The School Bus Driver" training materials resulted. The following information can be used for school bus training in your area with little adaptation. Just substitute seismic information about your geographic area in the introductory section.

Working Lesson Plan
1990-91 School Bus Driver In-Service

INSTRUCTOR'S NAME _____

TITLE OF LESSON Earthquake Preparedness

OBJECTIVES:

The driver will be able to:

1. Demonstrate to students the proper "Earthquake Position."
2. Describe the three steps to be taken when the shaking starts.
3. Describe the proper procedures to follow when taking students to school when an earthquake occurs.
4. Describe the proper procedures to follow when taking students home from school when an earthquake occurs.

EQUIPMENT LIST:

Overhead projector
Screen
TV Monitor
VCR - VHS Format
Videotape: "Earthquake Preparedness - The School Bus Driver"
Handouts/Transparencies

Earthquake Preparedness

I. Introduction

II. Prior to an earthquake

- A. Develop a plan
- B. Inform/prepare student passengers

III. What to do when the shaking starts

- A. Inform the students
- B. Stop the bus
- C. Secure the bus

IV. What to do when the shaking stops

- A. Check the bus and immediate area
- B. Decision time
- C. Procedures to follow when transporting students to school
- D. Procedures to follow when transporting students home from school
- E. Radio procedure
- F. Aftershocks

V. Conclusions

VI. Video Tape - **"Earthquake Preparedness - The School Bus Driver"**

VII. Acknowledgments

VIII. Samples of Report Forms

Introduction

Washington is earthquake country!

Washington has a history of large earthquakes; and earthquakes tend to recur where they have occurred in the past. It is not a question of "if" Washington will have large earthquakes, but one of "When, Where, and How Big" they will be. Advance planning can eliminate some of the fear as well as the danger experienced in major earthquakes.

During, and after a major earthquake, the school bus driver will be one of the most instrumental staff members in restoring order. It will be imperative that the school bus driver be prepared and remain cool, calm, and collected.

Instructor Note: At this time, administer a "Number Game." This consists of a piece of paper on which there are a variety of numbers scattered about (1-60). See pages 4-15 and 4-16.

As you can see, it is much easier to play the game when you have a plan. We know another major earthquake will occur in Washington State. It is extremely important that all school bus drivers have a plan. They must be familiar with their route, plan ahead, and know in their own minds what they will do when a major disaster strikes. If your school district does not currently have an earthquake or disaster plan, work with your district administration to develop one.

It must be kept in mind however, that no matter how school districts try to plan for all eventualities and provide the proper instructions, the bottom line is always that the driver must use his/her own good judgment.

Prior to an Earthquake

A. Develop a plan

1. If your school district does not already have an earthquake/disaster plan in place, work with your administration to develop one.

2. If the bus driver does not have a home/family preparedness plan in place, he/she should develop one to assure the driver's peace of mind about their own family.

B. Inform/prepare student passengers

Student passengers should be instructed on ways to protect themselves. If they are on the bus when an earthquake occurs, they should be instructed to assume the "Earthquake Position." That is:

- Grasp the seatback on the seat ahead of them with their hands.
- Put their head between their arms.
- Protect their head and neck as well as possible.

Note: Those passengers that are seated at outboard seating positions, (next to the windows), should turn their faces slightly inboard (towards the aisle), to protect their faces.

It is strongly recommended that earthquake instruction be given to all students along with emergency evacuation instruction and drills.

When the shaking starts

A. Inform the students

Tell the students "We are having an earthquake" and to assume the earthquake position!

B. Stop the bus

If possible, pull the bus to the side of the road and stop in a location that is clear of:

- Tall buildings
- Power lines
- Bridges, or under/overpasses
- Base or summit of ridge, ravine, or hillside

C. Secure the bus

- Put the transmission in neutral, (park, if so equipped), and set the brake
- Turn off the ignition
- Remove the ignition key and place in your pocket

When the shaking stops

A. Check the bus and immediate area

- Keep the door closed and students in the bus
- Check for injuries and administer first aid as needed
- From inside the bus, survey the immediate area for downed power lines, cracks in the roadway or any other potential hazard

B. Decision time

After students have been taken care of, and the immediate area surrounding the bus surveyed for any unsafe conditions, the driver must decide whether to continue on route or seek assistance. Part of this decision will be based on whether the bus is taking students to school or home from school.

C. Procedures to follow when transporting students to school

If at all possible, complete your route and deliver the students to their school. Unless you receive instructions from a school official or your supervisor, students are not to be returned to their bus stops or homes. Parents have an expectation that once students are placed on a bus, they will be delivered to school. We cannot independently choose to return the students to their bus stops without first assuring their safety.

If you are in the process of completing your bus route, drive by the remaining bus stops and pick up any students who might be waiting there. One important consideration in this decision is the condition of the roadway. The driver must be keenly aware of the roads he/she is traveling and the damage an earthquake could have done to a bridge or overpass. If the earthquake was severe, drivers should avoid traveling across any supporting structures until they have been officially cleared for passage. If continuing on a route does not appear feasible under given circumstances, the driver should proceed to the nearest safe school district building and report to the school administrator. If it is not possible to reach a school district building, another safe public building, such as a library or fire station, should be selected.

D. Procedures to follow when delivering students home from school

After the earthquake has subsided and the driver has made his/her checks on the students and vicinity around the bus, he/she should proceed.

If roads appear passable and there is no major damage visible, proceed on route taking the same precautions when passing supporting structures as in going to school. However, depending on the age of the students, drivers should consider their emotional stability as they let them off the bus. Students who appear emotionally upset are to be kept on the bus until the entire route is completed. In addition, drivers should consider the distance the students' residence is from the bus stop. If the driver suspects it may not be safe for the students, they should be kept on the bus. The dispatcher or supervisor should then be contacted for further instructions. If conditions make it imprudent to continue the route, drivers are to proceed to the nearest safe school district building with their students and report to the school administrator for further instructions. If it is not possible to reach a school district building, another safe public building, such as a library or fire station, should be selected. Students should only be released where there is competent, adult supervision.

E. Communications procedure

1. Use the two-way radio only in the case of extreme emergency.

2. If your bus is not equipped with a two-way radio, tune AM/FM radio to local station.

3. Expect that telephone circuits will be overloaded and inoperable.

F. Aftershocks

Drivers should not wait to see if there are going to be any aftershocks. They should proceed, when it is safe to do so, and treat any aftershocks as separate earthquakes.

Conclusion

You can't do anything to stop earthquakes, but you *can have a preparedness plan.*

As a driver, know what to do:

Before the Ground Shaking:

- You and your district, develop a plan.
- Involve and inform the parents.

During the Ground Shaking:

- Continue forward until you are off bridges and overpasses, if possible.
- Stop your bus away from tall buildings, underpasses, and power lines, if possible.
- Turn off engine, set brake, and put key in pocket.
- Tell your students, "It's an earthquake. Protect your head and hold on to the seat in front."

After the Ground Shaking:

- Reassure the students. Tell them you and the school district have a plan in place to take care of them.
- Check for injuries. Administer first aid.
- From inside the bus, check for downed power lines. Assume all lines are live.
- Check to see whether streets are passable before deciding to continue.
- Avoid crossing bridges and overpasses until they have been inspected and their safety assured.

More information about the videotape

Earthquake Preparedness: The School Bus Driver

Length: 16:44 minutes

Target Group: School bus drivers, school district administrators

Goal: To provide an earthquake preparedness training program

Impetus: Ms. Sheryl Everson, Seattle School District school bus driver with Laidlaw Transit, Incorporated

Developers: Video, training curriculum, and exit drill materials by:

Seattle School District Support Services
Laidlaw Transit, Incorporated
EBI O'Ryan (a private enterprise)
American Motion Pictures Company
School Earthquake Safety and Education Project

Program: Videotape of earthquake preparedness presentation targeted for school bus drivers. Provides information on earthquake zones, typical earthquake damage and goes through a scenario of a morning school-bus route earthquake disaster. Ends with recommendations for appropriate actions. A packet including a two-hour, in-service training lesson plan, driver exit drill procedures, and a one-sheet information flyer for drivers is available.

Ordering: Video:

American Motion Pictures Company
2247 15th Avenue West
Seattle, WA 98119
(206) 282-1776

Cost: $20 including tax and shipping

Lesson Plan Packet available from:

Carole Martens, Earthquake Preparedness Consultant
8035 42nd Avenue, NE
Seattle, WA 98115
(206) 524-4921

Cost: Free of charge
Request any comments or revisions by recipients be shared with sender

Acknowledgments

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Seattle School District Support Services
Laidlaw Transit Inc., Seattle
School Bus Driver Training Planning Committee, SPI

First Semester Emergency Exit Drills
(Special Services)

1. Emergency Exit Drills are to be conducted on (fill in appropriate dates).

2. All drills are to be conducted in the school load zone upon arrival at the school in the morning. If you service more than one school, conduct one drill for all students at the first school you arrive at in the morning.

3. School officials are aware of the drills and have been requested to provide assistance.

4. The evacuation portion of the drill is to be via the front service door of the bus and NOT THROUGH THE SIDE OR REAR EMERGENCY EXIT DOORS.

5 Instruct the students of the exact procedures to safely and quickly exit from the bus. Those Special Program students who cannot participate in the actual exit drills due to their handicap or age shall only receive verbal instructions.

6. Demonstrate the items below and check them off. Complete all the spaces. Return this form to dispatch following the morning run.

Check List for Driver

	TRIP #1 RT#_____	TRIP #2 RT#_____
1. Instruction on opening exit doors.	_____	_____
2. Exit Procedures (assembly point after disembarking from bus).	_____	_____
3. Instruction on removal of first aid kit.	_____	_____
4. Instruction on removal of and handling fire extinguisher.	_____	_____
5. Instruction on setting out road reflectors.	_____	_____
6. Instruction on seeking emergency help.	_____	_____
7. Wheelchair evacuation with Bus Supervisor's assistance if applicable.	_____	_____
8. Instruction regarding motor shut off, setting hand brake and spring brake (maxi), removing ignition keys.	_____	_____
9. Instruction on earthquake procedures.	_____	_____
10. Number of students.	_____	_____
11. A) Actual evacuation time (if applicable)	_____	_____
B) Exit Drills not complete due to limited student's abilities.	_____	_____

CONTROL #_____ SCHOOL TRIP #1_____ SCHOOL TRIP #2_____

DRIVER: _____ DATE: _____

C:EEDSS

First Semester's Emergency Exit Drills

1. Emergency Exit Drills are to be conducted on (fill in appropriate dates).

2. All drills are to be conducted in the school load zone upon arrival at the school in the morning. If you service more than one school, conduct one drill for all students at the first school you arrive at in the morning.

3. School officials are aware of the drills and have been requested to provide assistance.

4. The evacuation portion of the drill is to be via the front service door of the bus and NOT THROUGH THE SIDE OR REAR EMERGENCY DOORS.

5. Instruct the students of the exact procedure to safely and quickly exit from the bus. Point out that students seated nearest to the exit to be used are to exit first and assemble all of those on the bus at a certain sport designated by the driver. Be very specific that no one is to push or shove and that they must not jump from the stairs.

6. Demonstrate the items below and check them off. Complete all the spaces. Return this form to dispatch following the morning run.

	TRIP #1 RT #_____	TRIP #2 RT #_____
DEMONSTRATE:		
1. Instruction on earthquake procedures.	_____	_____
2. Setting parking brake or Maxi, putting in gear.	_____	_____
3. Turning off ignition and lights, removing key.	_____	_____
4. Location and use of Fire Extinguisher.	_____	_____
5. Location of First Aid Kit and Reflectors.	_____	_____
6. Instruct students how get emergency help.	_____	_____
7. Demonstrate how to open all emergency exits.	_____	_____
8. Explain which windows will push out and tell how.	_____	_____
9. Explain assembly point and preventing injury.	_____	_____
10. Actual evacuation time (minutes and seconds).	_____	_____
11. Number of students.	_____	_____

ALL STUDENTS ARE TO BE INSTRUCTED TO THE EXTENT OF THEIR ABILITY TO UNDERSTAND AND PARTICIPATE IN THE DRILL. IF YOUR STUDENTS ARE UNABLE TO PARTICIPATE, PLEASE INDICATE WHY:

_____

_____

_____

CONTROL #_____ SCHOOL TRIP #1 _____ SCHOOL TRIP #2_____

DRIVER:_____ DATE: _____

C:EEDL

_____

Emergency Exit Drill

BUS RUN_____

In the compliance with WAC 392-145-040, METRO will conduct an emergency drill on _____. All students riding AM trips on route number 700 through 865 will be instructed by the operator on the points listed below. The drills will be held at the school loading zones. Caution: Operators will show the location and how to use only. DO NOT OPEN emergency escape hatches on Flyer coaches or emergency windows on 700 type coaches. DO NOT break emergency glass on rear door. If a route services two schools, perform the drill at the first school load zone.

Check List for Bus Drivers

Check Items As They Are Covered:

	TRIP #1 RT#_____	TRIP #2 RT#_____
1. Instruction on earthquake procedures.	_____	_____
2. Instruct students on how to shut off motor.	_____	_____
3. Instruct students on how to set parking brake.	_____	_____
4. Instruct students on location of fire extinguisher.	_____	_____
5. Instruct students on getting emergency help (radio).	_____	_____
6. Instruct students on how to open and the procedure to exit through emergency exit, windows, doors and hatches. (See CAUTION above.)	_____	_____
7. Evacuation time (in minutes and seconds) using both doors.	_____	_____
8. Number of students instructed:	_____	_____

ALL STUDENTS WILL BE INSTRUCTED TO THE EXTENT OF THEIR ABILITY TO UNDERSTAND AND PARTICIPATE IN EXIT DRILLS. IF IT IS UNFEASIBLE TO CONDUCT EXIT DRILLS OR THE INSTRUCTIONAL ALTERNATIVE, IT WILL BE NOTED ON THIS FORM.

RETURN THE COMPLETED FORM TO YOUR BASE DISPATCHER

C:EEDM

Numbers Game Instructions

Each participant is given two copies of the Numbers Game sheets, to be placed face down until instructions are given.

Instruct participants that at the given signal, they are to turn over one Numbers Game sheet and begin circling the numbers in order: 1, 2, 3, etc. Give them twenty or thirty seconds to do so.

At the end of that time, ask who got the most numbers circled.

Then instruct them to fold the second paper in half from top to bottom and fold in half again from side to side. Point out to them that all of the numbers on the left side of the paper (when opened up) are uneven numbers and all of the numbers on the right side of the paper are even numbers.

Further, in the upper left hand portion, the numbers are 1, 3, 5
in the upper right hand portion, the numbers are 2, 4, 6
in the lower left hand portion, the numbers are 7, 9, 11
in the lower right hand portion the numbers are 8, 10, 12
in the upper left hand corner, the numbers continue with 13, 15, 17
and so forth

After the explanation, have students go through the exercise again. You will find that they will get many more numbers circled after they have received proper instruction and information. Make sure you emphasize that it was much easier to play the game when there was a plan. It will also be easier to respond appropriately in an earthquake if there is a plan.

THE NUMBERS GAME