## FOREWORD

Pupil transportation plays an important role in the educational process. Transporting children to and from school each day is a responsibility which requires good physical health, professionalism, emotional stamina, determination, dedication, and skill. The main objective of any pupil transportation system is to transport passengers to and from school each day safely and efficiently. To achieve this goal, driver trainees must be thoroughly instructed in the fundamentals and techniques of operating school buses. The success of the program depends upon their motivation, dedication, and skill.

The contents of this training guide are a compilation of the "School Bus Instructional Program" of the United States Department of Transportation, The National Highway Traffic Safety Administration, "National Minimum Guidelines for School Bus Operation" and driver training materials from school districts in Arizona, Virginia, California, Illinois, West Virginia, New Mexico and other states. The inservice section is divided into twelve units: The Driver's Role and Responsibility; Passenger Conduct; Loading and Unloading; Driving Under Special Conditions; Homeland Security/Emergency Preparedness; Transporting Students with Special Needs; Activity Trips; Two-Way Communication; Operations Checks; Accidents and Emergencies; Behind-the-Wheel Training and Defensive Driving. These units cover the minimum knowledge and skills needed to drive a school bus. At the end of some units there is a review to determine the trainees' comprehension of the subject matter.

After completing this program, school bus drivers should be able to operate a school bus safely and efficiently. Drivers of school buses should always keep in mind that they are responsible for transporting children whose lives depend upon their knowledge, alertness and sound judgment.

## ACKNOWLEDGEMENT

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## OVERVIEW

See Arizona Administrative Code (A.A.C.) R17-9-102(F) and R17-9-102(H)

School bus drivers play a vital role in today's school system; a role that calls for the transportation of thousands of children in a safe, orderly and efficient manner.

Learning to drive a vehicle the size of a school bus is a difficult task, involving knowledge of related information, visual skills, judgments, decisions and accurate responses. The way in which you learn to perform this sort of task will have a marked effect on your on-the-job performance. You must learn to recognize hazards, understand defenses and take prompt evasive action.

As a professional school bus driver, driving a vehicle safely is not enough. A driver must also possess the necessary skills to work with the general public, students, parents, teachers, school administrators and fellow workers.

Practically everything done while performing the job and the manner in which you conduct yourself while performing it, will contribute either favorably or unfavorably to the community's image of you and the school transportation system.

The material covered in the manual is designed to assist in preparing you for the school bus driver's role. It is also part of the training that you are required to successfully complete in order to receive and maintain your Arizona School Bus Driver Certification.

## IN THIS COURSE 13 SECTIONS WILL BE COVERED:

A. Driver's Role and Responsibilities
B. Passenger Conduct
C. Defensive Driving
D. Driving Under Special Conditions
E. Homeland Security/Emergency Preparedness

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F. Accidents and Emergencies
G. Loading/Unloading
H. Activity Trips
I. Special Needs Transportation
J. Two-Way Communications
K. Operations Check
L. Behind-The-Wheel
M. Arizona Revised Statutes (A.R.S.)

## YOU ARE IMPORTANT

It is evident that you, the school bus driver, are a very important person with a responsible part to play in our educational system. Your basic function is to provide safe and efficient transportation for students to and from school, as needed to complement the instructional program. School bus safety involves much more than merely running a shuttle service. Efficient bus operation prevents accidents. If student transportation is to be efficient, it must be safe.

In most instances, you will be the first representative of the school system to meet the children in the morning and the last to see them at night. While the children are on the bus, their safety is in your hands.

## YOU ARE RESPONSIBLE

The primary responsibility of any school bus driver is to provide safe, efficient and economic transportation for students. One of the major considerations in school bus safety is the safe operation and maintenance of the school bus. Also, the school bus driver is often perceived as serving multi-roles

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including guardian, teacher, friend and sometimes disciplinarian to the students riding a school bus.

You can successfully accomplish this assignment and be respected and appreciated as a person who is performing a difficult and necessary service. You are in a position to have a large influence on a child's attitude toward school.

## YOU ARE A MEMBER OF THE SAFETY TEAM

The primary responsibility of any school bus driver is to provide safe transportation for passengers. In no other area of education does any one person accept more responsibility for the safety and well being of passengers than does the school bus driver. Therefore, as a driver and a member of the safety team, you must continuously apply the knowledge of safe operations in your daily routine to safely operate a school bus.

Most accidents result from errors in seeing habits, judgment and evasive action on the part of the school bus driver. You, as a member of the safety team, are responsible to make every trip a safe trip.

## SUMMARY

Safety and efficiency in operating a school bus to transport precious lives daily, requires dedicated personnel. The health, safety, and welfare of passengers are at stake. You must demonstrate the proper use of equipment in regard to the safety of all persons and other vehicles at all times and in all places.

## DRIVER'S ROLE AND RESPONSIBILITIES

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# DRIVER'S ROLE AND RESPONSIBILITIES 

## OCCUPATIONAL ROLE

The school bus driver has a very important position. Learning to drive a vehicle the size of a school bus is a difficult task in itself. When you sit behind the wheel of a school bus, you become aware of the many differences in handling a larger vehicle. These differences are magnified from the time you first put the transmission in gear to the time you apply the brakes at the end of any given day.

If mastering the tasks of driving a school bus were all there was to being a school bus driver, it would be impressive enough. But, another factor must concern all school bus drivers. The factor is passengers.

Perhaps in no other area of education, does any one person accept more responsibility for the safety of the students than the school bus driver. This responsibility requires that you devote full attention to the driving task, with the safety and welfare of your passengers foremost in your priorities.

The vital link to safety, proper driver attitude, knowledge, and skill must be developed through your interest in safe driving. With intensive preemployment training and continual in-service activities, you upgrade your ability to cope with the constantly changing driving environment. You must be constantly re-evaluating your driving technique.

Developing and maintaining safe driving habits require consistent practice and periodic refresher courses.

## DRIVER'S ROLE AND RESPONSIBILITIES

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Explain employer/employee relationship. Introduce qualifications - Minimum Standards

Employer is responsible for training; job follow-up, inservice meetings, observation, etc.

Provide specific examples of each from local experience.

Discuss each point with the class.

Communications are best done in writing rather than by verbal requests. (Verbal communications can be enlarged or diminished by second and third parties,

## YOUR EMPLOYER

Your employer provides your job, salary, benefits, and safe working environment (equipment), establishes qualifications, regulations, and policies and procedures.

Within the scope of established policies and procedures, you receive the supervision necessary to help you provide efficient transportation services.

An employer depends upon you for safe, efficient and economic operation of your vehicle, and for an attitude and conduct that will enhance school, community and public relations.

## YOUR SUPERVISOR

As allies in the "Safety Team" network, you and your supervisor are vitally concerned and mutually involved with the safety of school bus passengers, as well as the efficiency and economy of the transportation operation. To realize a safe and efficient operation requires your mutual cooperation.

You must be willing to:

- Accept reasonability
- Accept authority
- Communicate
- Show interest and enthusiasm for all assigned duties
- Accept training and be willing to learn new ideas and techniques


## DRIVER'S ROLE AND RESPONSIBILITIES

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depending upon their interest.) Use examples of incomplete or expanded verbal instructions.

List examples, i.e., home side of street, loading/unloading in rural areas, safely crossing the street, turnarounds, etc.

Emphasize that the bus driver is an example to students (especially high school students who are or will be learning to drive).

Does the driver call out abusive names to other operators who pull out unexpectedly?

Does the driver show skill, courtesy, and patience?

Point out: You are not on the bus to make friends with the students, but your relationship should be friendly.

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- Carry out assignments cheerfully and to the best of your ability
- Gain a working knowledge of written school policy
- Communicate openly and discuss problems with you supervisor. The objective or routing buses is more than merely getting students to and from school. Be alert for:
o Unnecessary interference with traffic patterns and flow.
o The safe loading and unloading of passengers.
o Behavior and/or safety concerns at bus stop locations.
o Hazardous locations such as dangerous intersections, hills curves, etc.
o Possible avoidance of railroad grade crossings.


## PASSENGERS

Besides being responsible for the safety of your students, you have other obligations to your passengers as individuals; most of which relate to your relationship with them. Their conduct on the bus, in the classroom and at home depends, in varying degrees on that relationship. Negative feelings can affect an individual's actions all day and/or evening.

To promote a positive relationship with passengers, and to develop an overall positive environment, you should:

- Be professional at all times, serving as a role model of correct behavior
- Follow designated schedule


## DRIVER'S ROLE AND RESPONSIBILITIES

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Discuss: What is the difference between being a friend and being friendly?

Provide examples; passenger conduct is covered in section "B."

Point out the hazards of falsely accusing passengers through mistaken identity, etc.

See FERPA definition at end of section

Emphasize importance of being alert for developing problems and make early contact with parents to prevent serious discipline cases.

Provide specific examples from local experience. Draw on experience of veteran bus drivers.

Consider weather conditions/extreme heat which students must endure when waiting for a late bus. If students are expected to be on time, drivers must be also.

- Exercise safe practices
- Maintain a clean bus
- Maintain high standards for you own personal habits
- Speak courteously to passengers
- Use reasonable discipline methods, while following school district procedures
- Develop rapport with the students, but maintain a friendly/businesslike relationship with them.
- Treat each student fairly, equally, and as a person
- Acknowledge student's good behavior
- FERPA/Confidentiality

Happy children will learn. Angry children will only cause problems. How you treat them on the bus will affect their entire day.

## PARENTS

Most parents are vitally concerned with the safety of their children and will be a positive force in assisting you with problems on the bus.

Occasionally, through lack of information or misunderstanding, some parents may react negatively. Learn how to properly inform and work with parents.

- Discussions with distraught parents should be conducted in a calm and professional manner
- When necessary, impress upon parents their responsibility to have children at the bus stop on time


## DRIVER'S ROLE AND RESPONSIBILITIES

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Caution drivers that they can't change rules at parents' or students' suggestions, but they can pass suggestions on to supervisor.

DO NOT approach parents with an attitude and accusation that puts them immediately in defense of their child.

Example: Never say, "Your child is a problem" or "Your child is no good."

Convey to others a feeling of their worth or importance.

Ask participants how employees' attitudes affect the transportation operation.

- Always be on time, courteous, and cooperative
- Exhibit your concern for the safety of passengers by practicing good and proper driving at all times
- Be receptive to parents' and students' suggestions and, when appropriate, refer them to the proper school official
- When necessary, advise parents that passengers are expected to sit and be reasonably quiet without causing a disturbance
- Don't hesitate to seek assistance form school officials to help resolve problems between you and your passengers, and their parents


## YOUR FELLOW EMPLOYEES

All members of the "Safety Team" must perform effectively to achieve a safe and efficient transportation operation. Discord among employees can quickly undermine the best intentions of individuals within the team. To promote harmony, which will make your job and the job of your fellow employees more rewarding for all concerned, follow these simple suggestions:

- Direct new drivers to supervisor to interpret rules and regulations
- Be courteous at all times
- Assist others with reporting procedures
- Assist other drivers in checking out lights and in using proper driving practices in the area of other buses
- Do not criticize other drivers, or display jealousy over their routes


## DRIVER'S ROLE AND RESPONSIBILITIES

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Point out that all drivers need not be friends, but should work together.

Honesty with yourself is a first prerequisite to personal self-esteem and a good relationship to others.

NOTE: To be respected, you must appear and act respectable.

To establish and maintain confidence of others, we must project an image of worthiness.

Make note that "regular medicines", e.g., cold tablets, act as depressants and slow down reaction time.

- Compliment good work and deeds
- Assist other drivers with emergencies
- Promote good working relationships at all times
- Seek help from school officials to solve problems between you and other drivers


## YOURSELF

It is important that you honestly evaluate yourself. Your dress, behavior, and professionalism directly reflects on you school district/company. Hold yourself to the highest standards. To increase your effectiveness as a school bus driver you should display, at least, the following characteristics. You must be:

- A responsible and upstanding person
- Able to gain the knowledge, skills and abilities necessary to safely operate a school bus
- Able to cope with unexpected and unusual situations
- Able to demonstrate a positive attitude toward safe driving specifically, and student transportation generally
- Alert and practice good judgment
- Concerned about the needs of your passengers
- Willing to practice patience and understanding
- Even tempered
- Physically and mentally prepared for the driving task


## DRIVER'S ROLE AND RESPONSIBILITIES

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- Free from the effects of alcohol, illegal drugs, and medication
- Exemplify a position and professional image through appearance, behavior and language

Along with these characteristics, an essential factor in your success as a school bus driver is developing a positive self-image. To help develop a positive selfattitude, remind yourself of the following:

- You're an important person
- You have a responsible job
- You're a member of a team

Emphasize the importance of vehicle being constantly maintained in a safe condition. Refer to Federal Motor Carrier Safety Standards rule series 100accident prevention rule series 200-injury protection rule series 300 -post-accident protection.

Illustrate the difference between public relations and publicity.

Discuss the "me first" attitude of some drivers.

## YOUR VEHICLE

School buses are one of the safest means of ground transportation. This record of safety is due in part to the committed, well-trained professionals who daily operate school buses in all types of weather and conditions. Other factors include the design and construction standards school buses are built under and must adhere to.

Emphasize the importance of vehicle being constantly maintained in a safe condition.

## YOUR PUBLIC

## Courtesy

The school bus driver is a highly visible representative of the school system. The image you convey to people, both as an individual and as part of the school system, is called public relations. The image people have of you influences their opinion of the school system itself.

# DRIVER'S ROLE AND RESPONSIBILITIES 

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Stress personal importance.

Give example of courtesy, e.g., pulling over at an appropriate spot to let other motorists pass.

Don't go into too much detail here. Passenger behavior and control is discussed in detail in section "B."

Explain and give example from personal experience where poor communication adversely affected relationship.

Emphasize that laws work to help you by controlling the orderly movement of traffic.

Emphasize importance of properly maintaining the bus at all times. This promotes a good working relationship with DPS.

You are very important in the public relations picture. Give thought for a few moments to these facts:

- During your daily routes, you will have more contact with the public than any other school group, because of the:
o Number of students you transport
o Number of motorists and other in the environment
- The public expects, as they should, proficient driving on your part. They take good performance for granted and are usually quick to complain of poor driving
- A clean bus is seldom noticed. A dirty bus is always noticed and reflects badly on you and the school system


## Performance

Learn each passenger's name; if possible, and always greet your passengers by name.

## Communication

Provide passengers with a complete list (approved by your supervisor) of behavior you expect on your bus, including consequences for failure to comply. Think of ways to invite every passenger to be a member of the "team" and instill a sense of group possession for riding the school bus in a way that will ensure everyone's comfort and safety.

## Enforcement Officers

You should consider enforcement officers part of the "safety team." Their job, as well as yours, is to assure safety on the highways. Their authority and experience may be invaluable to you.

Arizona Department of Public Safety (DPS), Student Transportation inspection personnel regularly inspect your bus to ensure that it is equipped and maintained for safe operation (Refer to A.R.S. 28-984 and A.A.C.

# DRIVER'S ROLE AND RESPONSIBILITIES 

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Discuss situations that warrant requesting police assistance.

See A.R.S. 28-857.01Passing School Bus

The single most important ingredient for doing a good job and having a successful and happy life is a proper attitude!

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R17-9-108(C). This is an advantage and is protection for you, as well as for your passengers. Your full cooperation is expected and appreciated.

DPS and other law enforcement agencies will also assist you in enforcing the safety law requiring motorists to stop when the red flashing warning lights are in operation on your bus. Enforcement officers, when requested through your supervisor will usually promptly check areas, or locations, where frequent hazardous operation of other motor vehicles endangers your passengers.

## Attitude

Building desirable public relations is a contagious process. It depends much on the attitude each one brings to work each day. A positive opinion of the public and fellow workers sustains public relations. Good relations within one's organization are essential.

Public relations begin with colleagues, school personnel, Board of Education members and the public at large. An organization has met a major requirement of good public relations if its employees have mutual friendless, interest and respect.

Displaying safe and courteous practices on the streets and highways indicates a responsible school bus driver. This influences a positive acceptance by the public.

## Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

FERPA gives parents certain rights with respect to their children's education records. These rights

## DRIVER'S ROLE AND RESPONSIBILITIES

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transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. Students to whom the rights have transferred are "eligible students."

- Parents or eligible students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for parents or eligible students to review the records. Schools may charge a fee for copies.
- Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the parent or eligible student then has the right to a formal hearing. After the hearing, if the school still decides not to amend the record, the parent or eligible student has the right to place a statement with the record setting forth his or her view about the contested information.
- Generally, schools must have written permission from the parent or eligible student in order to release any information from a student's education record.
However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions ( 34 CFR § 99.31):
o School officials with legitimate educational interest;
o Other schools to which a student is transferring;
o Specified officials for audit or evaluation purposes;
o Appropriate parties in connection with financial aid to a student;
- Organizations conducting certain studies for or on behalf of the school;
o Accrediting organizations;
o To comply with a judicial order or lawfully issued subpoena;
o Appropriate officials in cases of health and safety emergencies; and
o State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools may disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools

Stress that it is important to be thinking at all times. Only when you think can you bring into play all your knowledge and skills.
must tell parents and eligible students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify parents and eligible students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school.

School districts can designate bus drivers as a "school official" and provide them information from a student's education records. That includes student health records covered by FERPA, but not HIPAA, the Health Insurance Portability and Accountability Act protecting participants in the health care system.

## SUMMARY

We have discussed a few of the responsibilities a driver has to a variety of people. Responsibility is a significant characteristic of a professional school bus driver. There are no shortcuts to fulfilling those responsibilities, but to assist you, always remember to:

- Be courteous
- Communicate
- Display a good attitude
- Think

Being courteous will always promote good public relations. Communication enhances mutual understanding. A good attitude will touch, in a positive way, all those with whom you come into contact. Thinking permits your actions to be guided by the knowledge, skills, abilities and experiences you have developed and are constantly refining.

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## PASSENGER CONDUCT

See section entitled:
"Maintain Order" for detailed instructions.

Discuss conduct in terms of home and /or school problems the students bring with them to the bus.

As a school bus driver, safely transporting a group of individuals from one place to another is your primary responsibility. Your level of success depends mainly on your professionalism in student interaction, passenger conduct, and your usage of defensive driving techniques.

## DRIVER'S ROLE IN PASSENGER CONDUCT

As mentioned in the section, Driver Role and Responsibility, your attitude has a great influence on your passengers' behavior. When you smile, say hello and goodbye and learn the students' names, it shows that you care about them. If you foster an atmosphere of mutual respect and trust, your efforts to maintain order will be more successful.

Periodically reward (even with just a positive passing comment) individual actions that contribute to acceptable behavior. Be liberal in your praise of the group when they accept responsibility well and have a pattern of good behavior. Good morale will discourage individual offenders from creating trouble for fear of they will lose "face" with the group.

Remember, how you handle behavioral situations, both appropriately and inappropriately, will be watched closely by the students for consistency, fairness and understanding. Do not show favoritism, but apply all rules equally. If you overlook violations of conduct by one student, you will lose the respect of the other students.

## DESIRABLE PASSENGER CONDUCT

The passengers riding your bus must understand from the beginning that you cannot allow anyone's actions to prevent you from providing for the safety of your passengers and yourself.

The rules governing passenger behavior, including consequences for misconduct, should be prepared by the administration and distributed to the students and parents at the beginning of the school year to avoid any misunderstanding.

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Emphasize each rule, giving and asking for examples.

Discuss the possibility of students exiting by the back door and how to handle those situations.

Refer to A.A.C. R17-9-104 (B)(5) - Cross 10 feet in front of the bus.

Refer to A.A.C. R17-9-104(D)
(14-15)(17-19) - Alcohol/
Controlled substance and animals, weapons etc.

CONTENTS
The active cooperation of the parents can be very helpful. As the driver, you are the authority on the bus and must be consistent in following the rules.

As you go over the following bus rules with the students, show them (verbally and with your body language) that you expect them to obey the rules. Be confident and firm, but not negative. Generally others will live up to our expectations, whether positive or negative.

## 1) Passengers must enter and leave the bus at school loading zones and bus stops in an orderly fashion and in accordance with instructions. This requires passengers to:

- Proceed quietly and quickly, but carefully, using the handrails.
- Not to crowd or push.
- Show due regard for the safety of others.
- Use only their assigned bus stop unless permission is authorized in advance by the school administration.

2) Passengers must cross the road 10 feet in front of the bus. Crossing the road behind the bus is dangerous and prohibited.

## 3) Passengers should not carry onto the bus.

- Alcohol, tobacco, drugs or any other controlled substance
- Animals, insects, nuisance items
- Hazardous materials, such as anything stating "Flammable", or glass of any kind.
- Skateboards, balloons, and laser lights.
- Weapons or anything that resembles a weapon of any kind.
- Any item that cannot be secured or held by the student.

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See ARS 28-901 and A.A.C. R17-9-104 (D)(6)
for seating capacity R17-9-104 (D)(5) for sitting forward.

Emphasize ALL passengers, even adults, must remain seated.

Refer to A.A.C. R17-9-104 (D) $(21,22)$ Clear aisles, secured objects.

Refer to A.A.C. R17-9-104 (D)(20) - Nothing may protrude through windows.

ARS 28-898 - Placing glass or other objects on the roadway is prohibited.

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4) Passengers must remain seated while the bus is in motion.

- Go directly to a seat upon entering the bus
- Sit facing forward with feet placed in front and belongings on the lap or between the feet.
- Remain seated until the bus has come to a complete stop.

5) Passengers must not obstruct the aisle or emergency exits with objects.

- The aisle must remain clear.
- Books and other property such as musical instruments and athletic equipment must be controlled and secured by the passengers at all times.
- All windows must be clear of any objects.

6) Passengers must remain reasonably quiet and not distract the driver.

- Refrain from shouting, using profane language or engaging in boisterous activities.
- Refrain from talking with the driver while the bus is in motion, except in an emergency.

7) Passengers shall not extend arms or other parts of the body out of the windows.

- No object shall protrude through an open window
- Passengers should not adjust windows unless authorized by the driver.

8) Passengers shall not throw litter or other objects while riding the bus.

- Shooting "paper wads" or other material in the bus is prohibited.
- Provisions shall be made for a trash container in the bus.
- The container must be secured to the floor.
- The trash must be disposed of at the end of the trip.

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Point out different types of sharp objects.

Handout behavior curve diagram.

Ask new drivers to remember when they were at the various age groups.

## CONTENTS

## 9) Passengers should not destroy or damage any part of the bus.

- Refrain from eating and drinking on the bus, except for water in plastic bottles.
- Keep feet off the seats.
- Keep sharp objects away from the interior of the bus such as seats, windows, and floor.


## BEHAVIOR CURVE

This "behavior curve" illustrates a general pattern of activity applicable to to most children. Being aware of the stages children go through enables you to adjust your attitude and approach to each child more sympathetically. Using proper management techniques can reduce discipline problems. But remember, each child is an individual with individual needs.

## Preschool through Third Grade

Let's progress around the behavior curve with a boy named Johnny.
When Johnny is in preschool and kindergarten, his activities are very much restricted and regulated and, most of the time, he expects and accepts these regulations.

Being in first grade, Johnny is beginning to be allowed just a little bit of freedom of action. At home, he may be allowed to go next door and play in the yard with friends. As a bus rider, he presents few disciplinary problems because he has no reason to become aggressive. Since his memory span is short, you will need to constantly remind him and his group to remain seated, lower the noise level and follow the rules.

As he progresses in this age group, there is a little relaxation of the constant regulation and observation and he is beginning to move about independently. His teacher is beginning to allow him to use his own ideas in his drawing and a few other things. As a bus rider, he is beginning to be conscious of his responsibility, although at times, he may test the rules. Most often, he can be talked to and directed with good results.

Because of the discipline problems arising out of the physical, mental and emotional changes occurring in the seventh, eighth and ninth graders, it is essential that school districts use their most qualified drivers to transport these students.

## Fourth and Fifth Grades

Beginning in the fourth grade, Johnny will probably have his first experience with having more than one teacher. He is probably getting away from the teacher-mother image. He is being challenged by competition.

Over the next three years, he will be constantly growing and expanding his field of operation. More is expected of him and he is given more freedom to develop. But remember, he will also be testing the limits of his new freedom.

## Sixth Grade

As a sixth grader, Johnny is bigger, stronger and most often, a better athlete. In some schools, the sixth graders are the oldest children in the school. Hence, Johnny may show off to show he is one of the top guys on campus. He is the student that most other students look up to. The wise bus driver can channel desire for leadership to work positively. Without proper channeling, Johnny may cause some behavior problems himself or encourage others to misbehave.

## Seventh Grade

At this time, Johnny faces the emotional and physical changes of puberty, which include increased energy levels, along with the worries he may not be changing as quickly as his friends. Johnny may either remain in his current school for seventh and eighth grade or move to a junior high school. If he moves on to junior high , he will experience changing from his familiar, comfortable neighborhood to a school with possibly four or five times the students. In addition, he is no longer the top guy he moved to the bottom of the social hierarchy again. In affect, Johnny feels as if he is back in kindergarten. How can he cope with this new situation? If he can't gain back the attention he was accustomed to by excelling, he may do so by misbehaving.

All these changes - physical and emotional differences, new school environment, friends and changes in status - are all working against the quiet, orderly bus situation we desire. A driver needs to understand and accept that this is a normal part of child development. Then, you will be able to work within a framework of discipline tempered with understanding.

## Eighth Grade

Notice that we are at the top of the behavior curve. Now Johnny is given more freedom in selection of class and at home. His friends have expanded beyond his immediate neighborhood. He is getting old enough and brave enough to really start experimenting with his new freedom and his emotions now that he has moved up in the social hierarchy. He is more aggressive and more apt to show his feelings in bad behavior.

His behavior next year depends on whether he moves on to high school or continues one more grade in junior high. Remember environment is always a factor in student behavior.

## DISIPLINE IS LEARNED. BEHAVIOR IS CAUSED.

## Ninth Grader in Junior High

In this program, at this level, Johnny is again the "top guy". He has more choice and opportunity. He is less frustrated and learning to live with his physical changes. He will give fewer problems on the bus, but when he does misbehave, it will be more serious. This trend will continue throughout high school.

## High School Freshman

In this program, Johnny has again moved to the bottom of the social hierarchy. There are serious adjustments he has to make to reestablish his place in the social order. He has moved to a larger, more crowed and more complex environment. Competition is more intense and scholastic pressure is beginning to build. But Johnny has most likely been through all of this before (in seventh grade) and is better able to cope with them. Also, he is grouped with older, more mature students and his natural tendency is to pattern himself after an older, more sophisticated person.

## Tenth through Twelfth Grades

As a driver, you will encounter fewer problems with this age group than the seventh through ninth graders. However, the misbehavior will be more serious. Your approach must be very different than it was with the elementary school children who are more compliant with instructions and demands. With this group of nearly young adults, your approach
must be on a person-to-person level rather then on a group level. There must be a feeling of mutual respect. Respect cannot be demanded. It must be earned by one person and bestowed by another.

## FACTORS INFLUENCING STUDENT MISCONDUCT

The school violence we see today is often the end result of a downward spiral that begins in early childhood with learned bigotry. This prejudice can cause children to exclude and make cruel remarks toward and about those who they think are "different." When children are taunted and tormented over a period of time, this is known as bullying. Left unchecked, this can lead to more serious conduct known as hate behavior, which includes harassment, intimidation and threats of force. Hate crimes such as vandalism and assault are the next level in the downward spiral.

The final level is in the school shootings and bombings occurring throughout the United States. The violence can be committed by either the perpetrators or by the victims who are finally fighting back.

## Early Warning Signs of the School Violence Include:

Social withdrawal
Excessive feelings of isolation and rejection
Being a victim of bullying or violence
Low school interest and poor academic performance
Expressions of violence in writing and drawings
Uncontrolled anger, hitting, intimidating and bullying
History of discipline problems, aggressive or violent behavior
Obvious prejudicial attitude
Affiliation with gangs
Drug or alcohol use
Inappropriate access to, possession of and use of firearms
Serious threats of violence
One of the benefits of developing a relationship with your passengers is it enables you to observe and identify changes in normal behavior that may indicate a child is having a problem at home or school. Once a problem is identified; it can be handled before it escalates into worse behavior.

INSTRUCTOR'S GUIDE

## Message to Parents:

The following symptoms could indicate that a child is being bullied:

- Suddenly being unwilling to go to school
- Choosing a different route to school
- Suddenly doing poorly in school
- Arriving home with cuts and bruises or torn clothes or damaged school items
- Being overly hungry after school, needing extra money for lunch
- Becoming depressed, withdrawn or suddenly aggressive


## Show a video on gangs such as "Gangs at School"

## BULLYING

Bullies begin their behavior in childhood. In the Merriam-Webster Collegiate Dictionary, it states: "Bully implies intimidation through threats, insults, or aggressive behavior as bullied into giving up their lunch money".

Although bullying is recognized as a childhood trait, it must be corrected because it can lead to fighting, hate behavior, hate crimes, suicide or school violence.

Children bully for many reasons. They may have been bullied themselves; they may have low self-esteem; they might not know how to interact with others or how to release aggressive feelings. Bullying can also occur because of bigotry learned from adults. This prejudice can cause children to exclude and make cruel remarks toward and about those who are "different". Parents must be informed of their child's bullying so that they can discover the reasons for it, and then take steps to correct it. Teachers, bus drivers and other school personnel can assist in correcting the behavior while the child is at school.

Bullying happens, by design, when there are no adults around. Buses and bus stops are frequent places for bullying since there is often no adult supervision at stops and school bus drivers are concentrating on driving. As a driver you can talk about this with your students while going over the bus rules. Explain that bullying is saying or doing anything hostile that hurts another person, making them feel uncomfortable, unsafe, or intimidated. It can be physical, verbal, sexual or emotional. Tell the students to report improper behavior to you, if it is happening to them or if they are a witness to it. Tell them that bullying will not be tolerated on your bus or at your bus stops.

## GANG AWARENESS

What is a Gang? A gang is a group of people who engage in socially disruptive and criminal behavior in the name of the gang and to benefit the gang.

Why do kids join gangs? A gang meets a child's need to belong, to be valued and accepted, to have some scene of control and power, to be safe and to have freedom to make decisions. However, the gang does not provide the healthy family the children require, instead the child's needs are meet in an atmosphere of coercion, loss of personal autonomy, illegal acts and danger.

## PASSENGER CONDUCT

INSTRUCTOR'S GUIDE

Helpful internet websites:
www.hatewatch.org
www.splcenter.org
www.cde.ca.gov/ls/ss/se/
documents/bullyingatschool.pdf
www.esrnational.org
www.justice.gov/crs/pubs/
prevyouhatecrim.htm www.safeschoolscoalition.org/

What does a gang member look and act like? First, every child who wears baggy pants and shirts or who shaves his head is not in a gang. There are many different types of gang attire as there are gangs. Nearly all kids know what true gang members wear. When you get an opportunity, talk casually to kids about gangs. You can learn much from them.

In addition to their dress, gang members and their friends will have nicknames. They will use gang slang and hand signals. They will draw gang symbols on themselves and their personal property and may have tattoos as well. Gang members will most likely have a problem dealing with authority.

## HATE BEHAVIOR IN SCHOOLS

Often, the precursor to hate behavior is bullying or being the recipient of bullying over a long period of time. The definition of hate behavior is any act or attempted act intended to cause emotional suffering, physical injury, or property damage through intimidation, bigoted slurs or epithets, force or threat of force or vandalism. It is motivated by hostility toward a person's real or perceived race, nationality, religion, disability, gender, or sexual orientation.

As a bus driver, you can help by observing students' behavior and listening to what students are saying. If you ignore hate behavior, it will not go away. It will continue and become worse. When you hear a student taunt, insult, harass or threaten another person because of race, nationality, religion, disability, gender or sexual orientation, you need to intervene. Point out that prejudice is wrong and hurtful and that even though someone is different than we are that does not make him/her inferior to us. Our differences make us unique and valuable, not inferior.

If your school does not have a policy regarding hate speech and hate behavior, you can be instrumental in establishing one. It is essential if the pattern of school violence is to be stopped.

## PASSENGER CONDUCT

INSTRUCTOR'S GUIDE

Show Video(s) such as "School Bus Drivers

Positively in Control" or "Don't Lose Your Touch" (the last 7 minutes) for scenes where a driver is handling a fight on a school bus. Written material is also included.

Have a discussion regarding the recommendation in the videos, especially "Don't Lose your Touch". Also discuss how the class members would handle a fight where the participants refuse to stop when you speak to them.

> Never yell, lose your temper or use intimidation; do not label or humiliate students or tell them to shut up. Refrain from using profanity or screaming.

## FIGHTING

Before a physical altercation occurs on the school bus, there will usually be name-calling, cursing, yelling and/or movement among the passengers. It's important to be aware of what is going on in your bus. This awareness enables you to address problems before they escalate to the level of a physical altercation. You must avoid using physical force unless children are physically hurting each other. And, remember, you should never touch a child in anger.

If there is no response to your warning(s) over the speaker system, you may need to drive the bus out of the traffic, then stop and secure the bus. (Never turn around to try to handle a fight while driving the bus). Loudly call out the names of the students involved in the fight. Tell them what you want them to do, rather than what you do not want them to do. Repeat this a few times if necessary.

If successful, separate the student to separate seats in the bus. Spend a few minutes with each individual to allow them to calm down. Listen more then you talk; don't go over the consequences of the incident at this time. If not, you will need to contact your employer, advise them of what is happening and obtain direction as to what steps can be taken.

Discuss the "Angel Seat"

## PASSENGER CONDUCT

INSTRUCTOR'S GUIDE

## Suggested Videos to show:

"School Bus Drivers:
Positively in Control"
"Assertive Discipline for Bus Drivers"
"Bus Discipline: A Positive Approach"
"Behavior Management: Transporting Students with Special Needs Series"
"Intervention Strategies for Special Ed. Bus Drivers"

Discuss what the video(s) covered as it relates to examples that your class attendees provided. Discuss any differences there may be in how something was handled in the video and what local policy allows. If necessary, take time to go over local policies.

Have drivers read and summarize state and local laws for driver responsibility and authority to discipline.

## MAINTAINING ORDER

The driver has full authority and responsibility for the behavior of the students using the school bus. It is essential for everyone's safety that order is maintained.

Even though you make positive comments to individual students and praise the group whenever they have a pattern of good behavior, it will sometimes be necessary to discipline students. When this happens, bear in mind the following principles:

- Proper discipline is not punishment, but training to develop selfcontrol as well as compliance with the safety rules of the bus. Discipline should always be handled in a fair and just way and not performed with anger.
- Whenever possible, talk to the student individually, not in front of others.
- When speaking, identify the problem, the reason it was unsafe and the consequences that will follow if it continues.
- Don't waver; follow through with consequences you have stated will occur.
- If you are angry with a student, do not touch them or become verbally loud.


## For minor passenger misconduct

- Often a word of warning over the speaker system (if available) directed to all the passengers is enough.
- If you have 1 or 2 students causing minor problems, after you unload your other passengers at the school in the morning, keep them on the bus and go over the rules they are disobeying. Tell them that, if the behavior continues, you will repeat this the following morning. Repeat this until the behavior significantly improves.

Refer to A.A.C. R17-9-104(B) (Loading/Unloading) and (D)(4) (Passenger Behavior)

Discuss local policies on reporting discipline problems. Go over forms used and give completion instructions.

Suggest a disclaimer be filled out which describes what rewards may be given and obtain parental consent prior to any rewards being given.

Discuss local policies regarding student suspensions.

Discuss four situations which warrant immediate action.

1) Collapse of student due to illness, alcohol or drugs

## 2) Fist fight

3) Vandalism such as small fire or explosion.
4) Student exhibiting or brandishing a dangerous object such as a weapon, explosive device or pepper spray.

- Often having the child write a report on proper bus behavior is very effective. Young children can "draw" their report.
- Assigned seating, if not mandatory, should be your prerogative. It can be used permanently or as a temporary disciplinary measure.
- Rewards for good behavior according to the age of the students can be very effective. But be aware of medical and/or religious beliefs of your students.


## For repeat offenses:

Your school district policy will have established procedures for you to follow as well as forms to complete and summit to school administrators. Bear in mind, that, as a driver, you do not have the authority to discontinue picking up the child in the morning, nor can you legally force the student off the bus. In addition to documenting all confrontations with students, your supervisor must be advised of them as well. With proper documentation, action can be taken toward withdrawing the student's right to ride the bus on a temporary or permanent basis.

If an emergency situation develops in which you feel drastic action is needed, stop the bus and notify the proper authority of the circumstances.

## For more serious problems:

- Drive the bus out of traffic, stop and secure the bus. The fact that you have taken this action makes the student realize the situation is one that is out of the ordinary.
- After stopping the engine and removing the key, stand up, face the students and speak in a firm, but courteous voice. Tell the students to remain in their seats and talk quietly among themselves. Then call the ringleader(s) up to the front of the bus.
- Firmly, but without showing anger, tell the offenders what behavior is expected of them and what behavior is not allowed. Remember, this is about behavior; it's not personal. When advising students of consequences, be certain they are in accordance with district policy and within your power to initiate.


## PASSENGER CONDUCT

## Discuss what NOT to do:

Never yell, lose you temper or use intimidation; do not label or humiliate students or tell them to shut up. Refrain from using profanity or sarcasm.

Emphasize the negative effect a bus driver's sarcasm could have.

For example, the driver calls out to an $8^{\text {th }}$ grade boy, "Hey you with the girl's hair".

Encourage class discussion.

## Show video(s) on:

"Defensible Use of Force"
STSA, School Transportation
Security Awareness, (Put out by Transportation Security Administration).
"Violence Prevention on a School Bus"
"School Bus Held Hostage"

- If a change in seating is needed, move the students to a seat near the driver so behavior can be closely observed.
- Avoid using physical force unless children are physically hurting each other. If so, see the section on FIGHTING.
- When the situation has been resolved, resume driving.


## EXTREME BEHAVIOR

The downward spiral that begins with bullying can end with school violence such as shootings and bombings. The following quotes are from an article in the May 2002 Campus Safety Journal entitled "Inside the Head of a School Shooter" by Vito Riccardi, a school psychologist. "... It is in our best interest to look back into a student's life and learn what specific factors sped his/her metamorphosis into a killer... how did he/she make the leap from troubled teen to campus assassin?... Many of the students who brought guns to school and opened fire had been ostracized and bullied by classmates." The author told of three teenage school shooters. Bullies had verbally and physically tormented one 15year old. An overweight 16-year old from Mississippi explained, "I killed because people like me are mistreated everyday." And a student in Kentucky who killed three and wounded five quoted afterwards. He said, "I was tired of being teased and picked on." The author goes on to say "It is the presence of hate and dehumanization in a young man's soul that makes pulling the trigger so easy. With a gun, the bullied teen feels as if he can stop the torment and obtain justice."

In the section entitled "Factors Influencing Student Misconduct" are listed early warning signs of violence. It is possible that a bus driver can prevent a school violence incident such as a school shooting or bombing or even a student-led bus hijacking by learning weapons screening and by being attentive to the comments, demeanor and actions of the students.

## PASSENGER CONDUCT

INSTRUCTOR'S GUIDE
Show Video "Safe Schools" or "Garrett Metal Detectors" for weapons demonstrations along with instruction in visual screening techniques to identify individuals with hidden weapons.

## WEAPONS SCREENING

As students board the bus, in addition to welcoming them, learn to observe their demeanor and their clothes. Look at their demeanor for early warning signs of school violence. Baggy clothing with shirt untucked can hide many weapons. Are there any odd bumps in their clothing? Are they walking normally and swinging their arms freely? Is their jacket hanging lower on one side? Are they wearing a jacket when the weather is too warm for one? Visual screening techniques are best taught in a video or in a seminar where they can be demonstrated.

Having good relationships with your student passengers is very helpful in preventing violent behavior because students will trust you enough to come to you with concerns about a student making threats or displaying weapons when adults aren't around. Then, you can pass the information on to the administration.

As a result of the school violence in recent years, most school districts have established procedures to follow in the event a student brings a weapon onto a bus. Often included in the policy are code words that the bus driver can use when advising the administration of the situation. If you observe or are told about a weapon on the bus, be calm and follow the procedures in your school district. If possible, without alerting the student in possession of the weapon, advise the administration of the estimated time of arrival at the student's stop or at the school. If necessary, "waste time" driving to give authorities time to get near the bus. Newer buses can be equipped with 2-way communication devices that also allow for silent alarm capacity so that the appropriate law enforcement agency or medical facility can be alerted.

Remember, you can't handle the situation alone. You must consider the safety of all the students. Don't try to be a hero! Don't try to disarm the student!

INSTRUCTOR'S GUIDE

Show video:<br>"School Bus Held Hostage"

## HIJACKING / HOSTAGE SITUATIONS

The best way to deal with a hijacking/hostage situation is to prevent it from happening. Hijackers can be kidnappers, child molesters, murderers, terrorists, escaped criminals, enraged parents or employees, drug users, or suicidal or mentally disturbed individuals. Don't stop for a person trying to flag you down; it could be a potential threat. Be alert to unfamiliar individuals near a bus stop. Don't open your door for them. Direct them to your side window if they want to talk with you. Most bus hijacking situations are not the results of a pre-conceived plan, but, rather, an impulsive decision. Therefore, a transit bus, due to its availability, would more likely be chosen than a school bus.

## STEPS TO TAKE IF YOUR BUS IS HIJACKED

- Do not try to be a hero! Do not try to disarm the hijacker(s)! Instead breathe deeply a few times to ease your tension so you can think clearly. You must remain calm.
- Bear in mind the first 15 to 45 minutes are the most dangerous. The tension is high and the captor(s) may act in an unpredictable and dangerous way.
- Follow instructions; be courteous and cooperative without offering to help; don't ask too many questions; don't argue, confront or try to negotiate.
- Ask permission to speak to your passengers so that you can calm them and instruct them to remain seated and quiet.
- If you have special needs students, attempt to explain this to the captor(s) and describe special behaviors and needs your students may have.
- Try to mentally document your captor(s) description(s), comments made, number and type of weapons, vehicles involved -- everything you see and hear, to advise the police later. If any hostages are released, first get their names and where they are let off the bus.
- Make normal eye contact with your captor(s), but do not stare. Don't turn your back unless told to do so. People are less likely to harm someone who is looking at them.


## PASSENGER CONDUCT

INSTRUCTOR'S GUIDE

- Avoid physical resistance or attempts to escape unless you're alone and you've carefully considered your plan.
- If permitted to contact your employer, use any pre-planned code words, but be careful to follow your captor(s) instructions in what you say. If possible, leave the radio or cell phone on so your employer can hear what's happening.
- If a rescue is attempted or hostage negotiators arrive, follow their instructions. If possible, attempt to move yourself and the children away from the hijacker(s); consider lying on the seats or floor. Use good judgment; don't anger the hijacker(s).


## PASSENGER CONDUCT

## REVIEW QUESTIONS

## Check whether the statement is mostly True or mostly False

True: $\square$ 1. A parent or teacher relieves the driver of half of his responsibility for student behavior.
False:
True: $\square$ 2. Being liberal in your praise when students have good behavior is a wise move.
False:

True:
False:
3. Conduct of the students aboard the bus is the direct responsibility of the principal.

True:
4. A driver who is lenient gains respect and control over his passengers.

False:
True:
False:
5. The key to success with your passengers is to have a friendly, positive attitude.

True:
False:
6. A driver can discharge a passenger anywhere along the route as long as the driver feels it is safe.

True:
7. The entire group should not be punished for an individual's behavior.

False:

True:
False:
8. Favoritism is a good way to gain control of your students.

True:
9. Seat your troublemakers near the center of the bus.

False:

True:
False:
10. It is good practice for a driver to understand the growth problems as well as behavior patterns of

True:
False:
True:
False:
True:
False:
True:
False:
11. After unloading passengers, the driver may proceed as soon as the last student steps onto the
12. Arizona state statutes require that all passengers be seated on school buses.
13. The bus driver should respect the rights and privileges of every rider as long as the established the passengers in his care even for the short period he will be with them. ground or pavement. rules of conduct are followed.
14. The bus driver shouldn't involve himself in the interactions of the student passengers even when he hears insults and threats from one student toward another.

## PASSENGER CONDUCT

## Discussion:

1. How can the driver promote good morale and discipline?
2. Why should a school bus driver never use physical force with any passengers?
3. If there is a serious problem with a passenger, what should be done?
4. What is good conduct?
5. Name five common sense rules when dealing with passenger control.

## PASSENGER CONDUCT



## PASSENGER CONDUCT

## STUDENT SITUATIONS

Situation: On the way home from school, senior high students begin name calling and cursing. The driver looks up and mutters something about the "garbage mouths that ride this bus." The name calling continues and the noise level increases, two students in the back of the bus begin fighting. The driver breaks up the fight, yells at the students, returns to his seat and mutters that the students are a "BUNCH OF ANIMALS."

What action should have been taken?

1. Stop the bus in a safe area.
2. Get students under control.
3. Write conduct notices.

What did the driver do wrong?

1. Called students names.
2. Yelled at students.
3. Included all students in the problem.
4. Ignored behavior too long.

NOTE: Foul language and racial slurs are not to be tolerated under any circumstances.

## PASSENGER CONDUCT

# NINE REASONS SCHOOL BUS <br> DRIVERS EXPERIENCE DISCIPLINE PROBLMS 

\author{

* Failure to know passengers' names <br> * Unfriendly attitude <br> * Inflexibility <br> * Displaying personal prejudices <br> * Inconsistency <br> * Group punishment <br> * Lacks knowledge of the route or area
}
* Lacks a sense of humor
* Unfamiliar with equipment


## DEFENSIVE DRIVING

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## DEFENSIVE DRIVING

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## PURPOSE

The purpose of this section is to help the driver achieve competency in general defensive driving techniques as well as in the legal operation and control of the bus. You will learn the procedures for basic driving skills, and you will be expected to explain each skill correctly to become proficient. Through repetition, each basic procedure will become habit and will improve your performance as a school bus driver.

## OBJECTIVES

By the end of this section, drivers should be able to:

- Identify basic driving techniques.

As an introduction, point out the general
similarities (e.g., must obey rules of the road).

Provide or ask for specific examples from class. Confirm or correct their examples.

Point out differences (e.g., wider turning radius, greater stopping distance, handling that is changed by size and weight of bus). Provide/ask for examples as above.

- Discuss state laws and local policies related to basic driving maneuver.
- Discuss and explain basic maneuvers behind the wheel of a bus, progressing from simple to complex driving environments.


## ELEMENTS OF DEFENSIVE DRIVING

Safe driving requires the adoption of an attitude toward operating a motor vehicle known as "defensive driving." Defensive drivers take every reasonable precaution to prevent traffic mishaps, over and above what the law requires them to do. This means driving in a manner which will prevent accidents in spite of the actions of others or the presence of adverse driving conditions.

There are many correct definitions of what defensive driving is and what a defensive driver is.

- Defensive Driving - The ability to drive in such a manner as to identify accident-producing situations to take reasonable and prudent action to prevent a collision.
- Defensive Driver - A driver who reaches a destination safely in spite of the bad driving habits of other motorists or adverse weather conditions.

Ask participants: Can anyone describe a situation where you found a hazard before it found you?

In order to be defensive driver, there are five basic rules which must be followed. They are:

- Be Far-Sighted.

The first step in being a defensive driver is to be farsighted. Look ahead of where you are - far enough ahead - so you can see situations developing and take appropriate action based on a proper decision.

As you are driving, determine which lane offers the least congestion and/or hazards and follow that course. You should allow yourself some visual lead time. As a general rule for city driving, you should be scanning 12-15 seconds in front of the bus. In rural areas, look ahead to the next curve or hill or at least one mile ahead on a straight road. Notice the telephone poles on the side of the road, as they may tell you the direction of the road and blind points.

## - Move eyes Continuously.

Since you can see clearly only with your central vision, it is important to constantly shift your focus. While moving your eyes, take in all rearview mirrors to keep you current on developments to the rear. The mirrors should be adjusted so that each presents a different view.

Move your eyes at least every two seconds. Never let a distraction or a hazard occupy your eyesight for very long. While you are staring in one direction, something is happening elsewhere. When your eyes alert you to a problem far ahead, check your mirror to determine how your decision may affect traffic to the rear.

Check your mirrors every five seconds for any traffic ahead or behind your vehicle. Observe traffic around to be sure that it is safe before making a lane change. When stopped at a red traffic signal, always check on cross traffic before moving into the intersection on the green light. If your side view is blocked by a large vehicle alongside you when the signal turns green, let the vehicle move into the intersection first. Always be prepared to stop when entering into an intersection.

## - Take In The Whole Picture.

(Get the "big picture".) When you are driving, don't just stare straight ahead, take in the whole picture. Look at the cars along the street, alleyways, and cross-streets. Look to the side when approaching intersections and keep track of what is happening behind you by utilizing your mirrors.

While taking in the whole picture, your mind must constantly decide which objects might cause a problem and make a decision as to your course of action.

- Maintain A Safety Margin of Space (space cushion).

If you leave yourself a space cushion to the front and rear of your vehicle, sudden stops of vehicle ahead will not put your vehicle in a precarious position. You will have room to slow down gradually, which has added advantage of reducing the possibility of any following vehicle hitting yours in the rear.

Leaving an adequate space cushion also conserves fuel, since you will not need to be braking so much as traffic slows. Drive in the right lane when possible, so as not to be trapped if the other vehicle should make a wrong move. This allows you an escape route to the side if something develops requiring quick evasive action.

Avoid driving in the other driver's blind spot-if they do not know you are there you cannot expect them to make decisions regarding your vehicle.

It is poor practice to insist on your driving rights. You really don't have rights which the other driver is not willing to give you. The "right-of-way" is something to be given or yielded, NOT TAKEN. If the other driver does not yield to you when he should, allow him to go ahead.

Refer to A.R.S. 28-771
thru A.R.S. 28-776

- Communicate.

Make sure others see you. Communicate with other drivers and pedestrians with turn signals, headlights and brake lights, horn and eye contact. Don't wait until the last minute to communicate; let others know your intentions early so they can make an appropriate decision.

## DEFENSIVE DRIVING REQUIRES:

## Knowledge

This is the foundation of defensive driving. This section is a start in increased knowledge about safe driving practices. We must continue learning on our own.

## Alertness

Knowing what is happening in and around the bus at all times. Constant mirror checks and scanning the area is a must.

## Foresight

The ability to anticipate. Be able to size up traffic situations as far ahead as possible, anticipate how they are likely to develop, and decide whether these developments will endanger your bus and its contents.

## Judgment

Recognizing alternatives in traffic situations and making the right choice wisely and quickly.

## Skill

The ability to maneuver your bus properly.

## GETTING READY TO DRIVE

To be in full control, you must position yourself properly; you must be able to reach and operate the controls in comfort and be able to see the areas around the bus.

- Adjust seat so that your feet can operate floor controls easily.
$>$ Foot is able to rest in a flat position against both accelerator and brake pedal. (Clutch must go in far enough, if applicable.)
- Adjust steering wheel (if applicable).
- Adjust all mirrors for optimum rear vision of traffic behind the bus, and for proper vision of both sides across the front of the bus.
(Lap versus lap and chest.)
Refer to Arizona
Administrative Code (A.A.C.) R17-9-

104(D)(1)--Driver's seat belt.

Provide road diagrams with turning radius indicated in turns.

- Fasten and adjust seat belt as required by state law.


## STEERING AND TURNING

## Steering

- Hold the steering wheel firmly. Your hands should be on opposite sides of the wheel (nine and three o'clock positions). Do not wrap your thumbs underneath. They could be broken if the wheel spins from hitting a curb or pothole.

- Focus eyes on the road ahead as well as all around the bus.
> Eyes should be constantly on the move to obtain the "big picture."
> Look ahead; use left side, right side and rearview mirrors.
- The push-pull steering method is recommended for school bus drivers. One hand pulls and the other one pushes.

- Hand over hand method may catch thumb in clothing, safety chain on a wrist watch, bracelets, etc., which are hazards to steering.


## SIGNS, SIGNALS, AND MARKINGS

Diamond- Warning. Diamond-shaped signs alert the driver to possible dangers ahead. The driver must adjust driving to avoid these dangers.

Horizontal Rectangle- This sign provides directional information.

Inverted Triangle- Yield. This sign warns the driver to slow down and be ready to stop, if needed. The driver should give right-of-way to traffic and pedestrians.

Octagon- Stop. Come to a complete stop. Yield right-of-way to pedestrians. Stop behind marked or unmarked crosswalk or stop line. If there is not a stop line or crosswalk, stop at the point nearest the intersecting roadway where the driver has a view of approaching traffic on the intersecting roadway.

Pennant- No passing. This sign is located on the left side of the road.

Pentagon- School. The driver must slow down and watch for children.

Round- Railroad. This sign warns of a railroad crossing. Slow down and be prepared to stop.

Shields- Guide. This sign identifies a highway by number and symbol as part of a national, state, or local system.

Triangle (orange with red center)- slow-moving vehicle. The driver of this vehicle carrying this sign must not travel more than 25 mph (miles per hour).

Vertical Rectangle- Regulatory. This sign contains information about traffic laws and regulations.
A.R.S. 28-645 --Traffic control signal legend.

## COLORS

The designated colors and their meanings are as follows:

- Red- Stop, Yield, or a prohibition.
- Yellow- Warning.
- Orange- Construction and maintenance warning.
- Green- Indicates movements permitted and direction guidance.
- White- Regulation.
- Black- Regulation.
- Blue- Motorists services guidance.
- Brown - Public reaction and scenic guidance.

Traffic Control Signals-The traffic light colors are:

- Red- Stop at stop line or behind crosswalk.
- Yellow- Warning. Light is about to change from green to red. Do not enter intersection.
- Green- Go, but first check to see that the intersection is clear. Yield to vehicles and pedestrians in the intersection. Be prepared to stop if the light has been green for some time.


## Arrow

- Steady Green- Turn in the direction shown by the arrow. Yield to pedestrians and other traffic in intersection.


## Flashing Signals

- Red- Come to full stop. Proceed when road is clear.
- Yellow- Caution. Slow down, look carefully, and proceed with caution.


## Lane Signals

- Green- A steady green arrow pointed downward indicates that the driver is permitted to drive in that lane.
- Yellow- A steady yellow X indicates the driver should clear that lane because the signal is to change to red.
- Red- A steady red X indicates the driver should not drive in that lane.


## Pavement Markings

Yellow lines separate traffic lanes moving in opposite directions.

- Broken yellow lines indicate passing is permitted when broken line is on driver's side of the road.
- Solid yellow lines on driver's side of the road indicate do not pass.
- Double solid yellow lines on a two-lane roads indicate center of road. Passing prohibited.
- Center lane, left turn only: marked on both sides by solid yellow and broken yellow lines. Use only when turning left. Do not use for passing. This lane should be used for a merge lane from standing still traffic pulling out into traffic.


## White Lines

- Broken White lines separate traffic lanes moving in the same direction.
- Solid white lines are used to channel traffic and prevent lane changes near intersections.
- Crosswalk lines indicate where pedestrians are to cross. Do not block crosswalks. Yield to pedestrians.
- Stop line indicate where a vehicle must stop at intersections.


## Symbols

- White Arrows: Lanes marked with white arrows indicate the direction in which the driver must proceed.


## SAFETY CIRCLE / ZONE

The safety circle is an early warning system consisting of three distinct zones. The outer zone is known as the Zone Of Recognition. The middle zone is known as the Zone Of Action. The inner zone is known as The Accident Zone.

Each driver traveling down the highway must ring the vehicle with a circle of safety. Much like an early warning system used in defense against an enemy attack, the ring of recognition must be the widest circle around the driver.

In some instances, the circle which represents the Zone Of Recognition may be as close as 300 feet if a driver is observing a 10 -second eye lead and is traveling 20 miles per hour. In some instances, the circle might be a mile or more if the vehicle is traveling at high speed in open country.

The front safety zone is determined by the stopping distance of the bus. The rear safety zone is determined by the stopping distance of the vehicle behind the bus. Each driver must train his/her eyes to pick up persons, vehicles, or objects that may conflict with their travel from any direction.

The driver who maximizes their personal early warning system gives themselves the most time to avoid involvement in any conflict.

A second safety circle / zone rings each driver representing the earliest point at which action must be taken. Based on the messages transmitted to the brain from the driver's eyes, the motor reflex actions cause the driver to slow, turn, stop or communicate with the other driver in time to avoid conflict.

The defensive driver uses all the tools and skills to keep the safety zone free of hazards. Anything that enters the safety zone is a hazard. Having failed to recognize danger early enough, or having recognized danger and failed to act in time, a driver places themselves and others in jeopardy when they enter the point of no return or the accident zone. Again, as in the case of the earliest point of recognition, the wider the circle of action, the greater the opportunity to avoid conflict.

The difference between the average driver and the professional bus driver is the degree to which each understands the practices and principles of defensive driving and manages the margin of safety. The professional driver defines a perfect trip as a trip without error. This definition considers five types of errors:

- Collision
- Traffic Violation
- Vehicle Abuse
- Schedule Delay
- Discourtesy

However, this definition is incomplete. . .
A driver can have an indefinite number of so-called "perfect trips" and still be an accident going someplace to happen because if not driving defensively and not having an adequate margin of safety.

## IDENTIFY, PREDICT, DECIDE AND EXECUTE (IPDE)

Defensive driving is the concept that each driver should always drive with an adequate margin of safety. Defensive driving requires yielding, rather than taking, the right of way. You must adjust your driving behaviors to the continuously changing factors of light, weather, road, and traffic conditions.

You rely very heavily on vision to guide your vehicle along the roadway. Safe and efficient driving, however, requires more than just seeing. It is being able to interpret what you see and taking the appropriate action once the traffic situation has been correctly interpreted

## THE DRIVER MUST DEVELOP A SYTSTEMATIC METHOD OF SEEING, INTERPRETING, AND RESPONDING TO THE EVER CHANGING TRAFFIC SCENE. IPDE CAN HELP MEET THAT OBJECTIVE.

- The I stands for identify. You must be able to identify the relevant cues, which involves more than just seeing. It includes interpreting or giving meaning to what you see. To identify and interpret relevant cues, you must know how to look, where to look, and what to look for.

To identify hazards, you must constantly search the traffic scene carefully. Quick glances should be taken around (to the front, to the sides, and in the mirrors) both near and far. Since the traffic environment changes constantly, these glances must be taken continuously.

- The $\mathbf{P}$ stands for predict. You must be able to predict the significance of the relevant cues. Once you have identified a hazard in the driving environment you must predict how the hazard might affect your planned path of travel.

To avoid the hazard, "Should I speed up, slow down, turn to the right, or turn to the left?" These are the types of questions you might ask yourself. During this stage of the process, you are interpreting the information you have identified and are judging where conflicts may occur.

- The $\mathbf{D}$ stands for decide. You must decide what to do, now that you have identified a hazard and have predicted its effect on your path of travel. Nothing is more critical to safe driving than being able to make a wise decision, in time, under these circumstances.

The options available include:
$>$ Deciding to change speed by slowing down or speeding up.
$>$ Deciding to change directions or location by moving into some area of the space cushion around your vehicle.
> Deciding to communicate your location and plans to the other traffic in which you are in conflict.

Stress: The potential for head-on collision is greater on narrow roadways.

Refer to A.R.S. 28-922
-- When lighted lamps are required.

- The E stands for execute. You now execute your decision. To carry out a decision to avoid a conflict, you must take one or more of the following actions:

Accelerate
Brake
Steer
Communicate

## COMMON HAZARDS AND DEFENSES:

## ONCOMING VEHICLE

Meeting an oncoming vehicle, particularly on a two-lane road, is potentially a hazardous situation in driving. At any time an oncoming vehicle may cross the center line in your intended path. You must be prepared to act accordingly.

To reduce the risk of meeting an oncoming vehicle:

- Keep as far from the center line as practical.
- Maintain precise steering control when oncoming vehicles pass so you can react quickly to wind gusts and road irregularities.
- Constantly check the action of oncoming traffic, so that you'll be prepared to take evasive action if someone misjudges and comes into your lane.
- Do not rely on approaching vehicle's turn signals. Never assume a vehicle is going to turn.
- Reduce speed, sound turn, turn on hazard lights to warn oncoming driver. If you slow down, the oncoming driver may have time to get back to the proper lane and avoid a head-on collision. When lights are needed, always use the headlights -- not the parking lights.
- Be prepared to stop.

Stress: Try to miss fixed objects. Brake carefully to avoid wheel lock-up.

- As a last resort, leave the roadway to avoid a head-on collision with the oncoming vehicle. DRIVE RIGHT, NEVER LEFT. If the oncoming driver recovers, that driver will swing back into his / her lane and you will have a head-on collision.


## PARKED VEHICLES

Be prepared for the following hazards when approaching parked vehicles:

- Occupants of parked vehicle who may suddenly open doors.
- Parked vehicle which may suddenly move into the path of another vehicle.
- Spaces between parked vehicles through which pedestrians and animals may dart into street.
- Any indication that a vehicle may be about to enter your traffic lane.
$>$ Exhaust fumes coming from vehicle.
> Back-up lights on.
> Brake lights on.
Front wheels turned towards traffic lane.
> Driver looking back over shoulder.
> Turn signal flashing.
> Garage doors opening and closing.
- Procedures when related to parked vehicles:
> Maintain reasonable speed.
> Maintain lane position, leaving reasonable clearance between bus and parked vehicle.
$>$ Be ready to stop.
$>$ Change lanes, if necessary.

Use your horn when needed. Your horn can let others know you're there. It can help to avoid an accident. Use your horn when needed, but don't use it unnecessarily.

## APPROACHING UPGRADE

- Check for heavy vehicles behind you that may be speeding excessively to gain momentum for the hill.
- Check the traffic ahead for slow moving vehicles.


## APPROACHING DOWNGRADES

- Look for signs indicating length and / or gradient of downgrade.
- Check behind you for vehicles that may be going too fast - particularly trucks that may have lost their brakes.


## PEDESTRIANS AND OTHER ROAD USERS

Pedestrians are required to obey traffic laws just as drivers are. But the law provides that drivers must exercise due care and take proper precautions under all circumstances to avoid collisions with pedestrians. You must be extra alert and cautious around:

- Joggers - May run into your path without looking; may run on the wrong side of the road, may have a headset on listening to music.

Refer to A.R.S. 28-794
-- Exercise due care.

- Pedestrians / Cyclists - Pedestrians may be engaged in conversation with others; may be reading a book, magazine, or newspaper; may be unaware of the presence of the bus.

When passing pedestrians, provide the maximum possible clearance and do not pass the vehicle ahead when pedestrians reduce the lane clearance.

When in danger of hitting a pedestrian or cyclist, slow by modulating the brakes to avoid wheel lock-up. If there is not enough distance to stop, veer the bus gradually.

Stress: Animals are unpredictable. Don't expect that you will be able to see animals in your headlights in time to avoid them.

Refer to A.R.S. 28-855(B) -- Stop signs.

Refer to A.R.S. 28-754(B)
-- Required signals.

- Elderly - May have poor vision or defective hearing and cannot move as quickly as young people.
- Bouncing Balls - Almost always followed by a running child.
- Animal Crossing Zones - Slow when entering animal crossing zones or when seeing animals on or alongside the roadway. Pass at reduced speed. Be ready to stop or swerve if the animal enters the roadway.
-     - CAUTION - - if swerving the bus to avoid hitting the animal would jeopardize the safety of you and your passengers, other motorists or pedestrians, do not swerve the bus.


## NEGOTIATING INTERSECTIONS

## Approaching Intersections

When approaching intersections the driver should:

- Slow down in sufficient time to avoid stopping in the intersection or on a crosswalk.
- Observe signs providing lane information and enter the correct lane as early as possible but no later than 100 feet before reaching the intersection.
> To especially watch for multiple turn lanes (right \& left).
- When intending to turn, enter far right lane for a right turn or the appropriate, authorized lane for a left turn, unless otherwise directed.
- Check mirrors.
- Signal intention to turn as soon as possible without causing confusion but no later than 100 feet before reaching the intersection.
- If unable to enter correct lane for a turn, proceed to next intersection.

Refer to A.R.S. 28-855(B)
-- Stop signs - officer directions.

- If an officer and control devices are in conflict, follow the officer's directions.
- Prepare to stop if the light is red, flashing red, yellow, or if facing pedestrian crossing signals indicate a stale light. Proceed with caution but be ready to stop if the light is flashing yellow.
- Slow down and prepare to stop if traffic light is changing from green to yellow.
- Proceed through intersection when light changes from green to yellow, if stopping would cause a conflict with following vehicles.
- Slow down in preparation for stopping at an intersection controlled by a stop sign.
- Slow down sufficiently to stop, if necessary at an intersection controlled by a yield sign and proceed cautiously only when the intersection is clear.
- Observe oncoming traffic for an indication of a left turn and prepare to stop quickly if an oncoming vehicle suddenly makes a left turn.
- Reduce speed to enable a vehicle turning left in the intersection to complete the turn, and be ready to stop if the vehicle does not complete the turn.
- Observe path ahead of a left-turning or right-turning vehicle to anticipate a forced stop by the turning vehicle.
- Slow down or stop to permit a vehicle approaching from the right to clear the intersection.
- Observe the path of a vehicle approaching from the right to anticipate the vehicle entering the intersection.
- Come to a complete stop before proceeding through the intersection if there is a flashing red light.
- If a green arrow governs the lane, proceed only in the direction indicated by the arrow.
- When an intersection is controlled by a stop sign, come to a complete stop and proceed only when no interference with cross traffic will occur.

Refer to A.R.S. 28-855(C) -- Yield Sign.

- When encountering a "yield" sign, proceed only when no interference with cross traffic will occur.


## ENTERING OFF STREETS (right turns):

When entering off streets, the driver should:

- Right Turn
> Check mirrors for traffic flow.
$>$ Signal for right turn.
$>$ If intending to turn into an off-street area immediately beyond an intersection, activate signal when halfway through intersection so that vehicles do not interpret signal as an indication to turn at intersection.
> Position vehicle in appropriate lane.
> Look for signs or entryway markings indicating the direction of travel.
$>$ Adjust position of the bus to provide proper clearance for entering and off-street area.
$>$ Check right mirror for passing vehicles and obstructions.
$>$ Complete turn.
> Maintain safe entrance speed when turning into an off-street area entrance.
> Stop only after vehicle is completely through the entrance way and well off the main roadway.

See to A.R.S. 28-754(B)
-- Required signals.
Refer to A.R.S. 28-751
-- Turning.

Refer to A.R.S. 28-754
-- Turning movements.

## Intersections - Right Turns

When making a right turn, the driver should:

- Check mirrors.
- Signal intention to turn well in advance of turn (100 feet).
- Make the approach for a right turn and make the turn itself as close as practicable to the edge of the right-turn lane.
- Observe traffic controls before attempting to make a right turn.
- Check cross traffic to the left, and if there is a line of traffic, wait for an opening of sufficient size before proceeding.
- Check cross traffic to the right to make sure there are no vehicles blocking passage in intended lane.
- Check right mirror.
- Enter travel lane nearest the curb, turning sharply enough to avoid blocking or entering left lane, if possible. If the right turn cannot be completed without swinging into another lane, turn wide as you complete the turn.
- When making the turn use push-pull technique.
- Check mirrors clearance or right rear duals as you turn.
- After the turn has been completed, check to see that the directional signal has been cancelled.
- Adjust vehicle speed to conditions.

Ask participants: Why should wheels not be turned while waiting for traffic to clear?

Refer to A.R.S. 28-754(B)
-- Required Signals.

## Entering Off Streets (left turns)

When entering off streets, the driver should:

- Left Turns
> Check mirrors for traffic flow.
> Signal for left turn.
> Position bus in lane just to the right of center line or in left-turn-only lane.
> Keep wheels aimed straight ahead.
$>$ Yield to oncoming traffic.
$>$ Watch for other traffic entering or exiting offstreet areas.
$>$ Check left mirrors for rear dual and passing vehicles.
$>$ Complete turn.
> Maintain safe entrance speed when turning into an off-street area entrance.
> Stop only after vehicle is completely through entrance way and well of main roadway.


## Intersections - Left Turns

When making a left turn, the driver should:

- Observe traffic controls before making turn.
- Check mirrors.
- Signal intention to turn well in advance of the intersection (100 feet).
- Reduce speed of vehicle.

Refer to A.R.S. 28-772
-- Turning left at intersection.

- Check cross traffic and wait until there is a sufficient opening in traffic from the left and the right before proceeding to turn. If necessary to stop, keep front wheels straight and brake pedal depressed.
- Observe traffic and pedestrians for clear way to make turn.
- Yield to oncoming traffic.
- When making the turn, use the push-pull technique.
- Enter the lane to the right of the center line.
- When turning into a one-way street, turn into the left lane unless otherwise marked.
- Check to be sure the directional signal has been cancelled after completing the turn.
- Adjust the bus speed to the conditions.


## BEING OBSERVED BY OTHER TRAFFIC

Other drivers will not know what you are going to do until you tell them.

Just as careful observation of other traffic and road users is critical to safe driving, so is being observed. You can ensure that you are observed by other drivers and road users by always using the communication devices your vehicle is equipped with; lights, signals, and horn.

Signaling what you intend to do is important for safety. Here are some general rules for signaling:

## - Preparing for Turns / Lane Changes

> Check traffic to the front and rear of the bus.
$>$ Give proper signal to move vehicle into appropriate lane.

Stress: Slowing or stopping on high-speed roadway is always dangerous.
$>$ Signal your intention to slow or stop by using your brake lights - tap your brake pedal in advance. This is particularly important if you are the rear-most vehicle on a high-speed roadway that is congested.
> Use your brake lights, headlights and horn to warn others of hazards that you encounter. You may be confronted with a variety of hazards from animals in the roadway to erratic drivers.

- Turns. Rules for using turn signals.
> Signal early. Signal your intention to change lanes or direction by using directional signals well in advance. It is the best way to keep others from trying to pass you.
$>$ Signal continuously. You need both hands on the wheel to turn safely. Don't cancel the signal until you have completed the turn.
> Signal your intention to pass or change lanes by activating your left turn signal well in advance of initiating the passing maneuver. Use right turn signal in advance of moving back into the desired travel lane. When the pass is complete, cancel the turn signal.
$>$ Signal your intention to turn, leave or enter the roadway by using your directional signal well in advance. When the move has been made, cancel the signal.
> Cancel your signal. Don't forget to turn off your turn signal after you've turned, if it does not self cancel.
- Right Turns. Here are some rules to help prevent rightturn accidents:
> Turn slowly to give yourself and others more time to avoid problems.

Discuss the tail sweep into the lane to the left of the turn lane, and the front end crossing over the lane.
> If you are driving a vehicle that cannot make the right turn without swinging into another lane, turn wide as you complete the turn. Keep the rear of your bus close to the curb to keep other drivers from passing you on the right.
> Don't turn wide to the left as you start the turn. A following driver may think you are turning left and try to pass on the right.
> If you must cross into the on-coming lane to make a turn, watch out for vehicle coming toward you. Give them room to go by or to stop. Never back up for them because you might hit someone behind you. Wait until traffic in front of you backs up or until light changes.

## Making the turn:

- Activate right turn signal 100 feet prior to turn.
- Reduce speed and downshift to proper gear, if applicable, to execute turn.
- Position bus in center lane.
- Check for clear right-of -way.
$>$ Traffic signals, signs, pedestrians, or vehicles.
Use all outside mirrors.


## Execute the turn:

- Make turn smoothly without strain on the engine.
- Never shift gears during a turn.
- Check right mirror while executing turn.
- Enter the right most lane available and check turn signal for cancellation.
- Steer wheels back into position - do not let steering wheel spin wheels back into position.

- Discuss the tail sweep into the lane on the left of the turn lane and front end crossing over lane.
- Left Turns. On a left turn, make sure you are near the center of the intersection before you start the turn. If you turn too soon, the left side of your bus may hit another vehicle because of off-tracking. Also be aware that the rear of the bus may swing to the right far enough to hit a vehicle passing you.

If there are two turning lanes, always take the right-hand turn lane. Don't start in the inside lane because you may have swing right to make the turn. Drivers on your right may be hard for you to see and you might collide.

Be aware of the size and weight of your vehicle when you cross or enter traffic. Here are some important things to keep in mind:
> Because of slow acceleration and the space your bus requires, you will need a much larger opening to enter traffic than you would in a car.
> Acceleration varies with the load. Allow more room if your bus is heavily loaded.
> Before you start across a road, make sure you can get all the way across before traffic reaches you.

## Making the Turn:

- Activate left turn signal
- Reduce speed and downshift gear, if applicable.
- Position bus in center of the lane.
- Check for clear right-of-way.
$>$ Traffic signals, signs, pedestrians, or vehicles.
> Use both outside mirrors.
- If necessary to stop, keep front wheels straight and brake pedal depressed.
> Prevents movement and activates stop lights.
> Prevents being shoved into line of approaching traffic if struck from the rear.


## Execute The Turn:

- Drive into the intersection and make turn smoothly.
- Check left mirror while executing turn to ensure that the left side of the bus is not crossing into on-coming traffic.
- If applicable, never shift gears in a turn.
- Enter the highway in the left-most lane available and check turn signal for cancellation.


LETT TURN

Refer to A.A.C. Code
R17-9-104(B)(13)
-- Backing

See also A.R.S. 28-891
-- Limitations on backing

- Making a Turnaround. Use a helper when you can. There are blind spots you can't see. Remember that school bus drivers are not permitted to back a bus on or adjacent to the school grounds unless a responsible person is standing at the rear of the bus in a position to be visible to the driver while directing the maneuver. This provision does not apply in garage and bus storage areas where children are not permitted.
$>$ Give brake signal well in advance of turnaround.
$>$ Stop bus in proper position on roadway.
- One bus length ahead of road to be backed into.
- Check area behind bus and on side before backing.
- Have traffic move around bus if possible.
- Back into roadway or driveway using outside mirrors.
- Re-enter roadway.
- Check Traffic
- Use caution


TURNAROUND

Refer to A.R.S. 28-961
-- Use of Reflective triangles

NOTE: Show participants how to open and operate triangles.

Let participants know that MVD Book has picture of set up for triangles.

## STOPPING AND PARKING BUS

Stopping a school bus smoothly and within the limits of safety is another sign of an expert driver. As a good driver, you have your vehicle under control at all times and know that braking distances increase greatly as the speed and weight of the bus increases. With an ideal reaction time of $3 / 4$ of a second, you must realize that at 20 MPH the average stopping distance is 62 feet, and at 40 MPH the stopping distance is 209 feet, or more than three times greater.

The skillful driver also knows that by using correct stopping procedures, the maintenance costs on the braking system will be less.

When Parked At The Side of the Road. The presence of a school bus stopped at the side of a road can confuse other motorists. If there is any danger, use your 4-way emergency flashers. The flashers are very important at night. Drivers have collided with the rear of parked vehicles because they thought it was moving normally.

If your bus is disabled on the road or on the shoulder of the road, you should put out your reflective triangles as soon as you reasonably can (at least within 10 minutes). Place your warning triangles at the following locations:

- On the traffic side of the bus within ten feet of the front or rear corner.
- About 100 feet behind and ahead of the vehicle, in the center of the lane you are stopped in.
- Back beyond any hill, curve or other object that prevents other drivers from seeing your vehicle within 500 feet.
- If you must stop on or by a one-way or divided highway, place warning devices 10 feet, 100 feet, and 200 feet toward the approaching traffic. Start at curb and move outward towards corner of bus.

When putting out the triangles, hold them between yourself and the oncoming traffic for your own safety. (So other drivers can see you.)

SUGGESTION: Provide handouts with graph showing different stopping distances.

## BRAKING

There are three things that add up to total stopping distance.

- Perception Distance
- Reaction Distance
- Braking Distance
$=$ Total Stopping Distance
Perception Distance. This is the distance your bus travels from the time your eyes see a hazard until your brain recognizes it. If a driver ahead brakes hard but has no brake lights, you won't know the vehicle is slowing until you realize that the distance between you and the other vehicle is decreasing rapidly. The perception time for an alert driver is $3 / 4$ of a second. At 55 MPH , you will travel about 60 feet in that time.

Reaction Distance. This is how far you travel from the time your brain tells your foot to move from the accelerator until your foot is actually pushing the brake pedal. The average driver has a reaction time of $3 / 4$ of a second. This accounts for an additional 60 feet traveled at 55 MPH .

Braking Distance. This is the distance it takes to stop once the brakes are put on. At 55 MPH on dry pavement with good brakes, it can take a heavy vehicle about 170 feet to stop and will take about $41 / 2$ seconds.

Total Stopping Distance. At 55 MPH, it will take about 6 seconds to stop and your vehicle will travel about the length of a football field $(60+60+170=290$ feet $)$.

The Effect of Speed on Stopping Distance. Whenever you double your speed, it takes about four times as much distance to stop and your vehicle will have four times the destructive power if it crashes. By slowing a little, you can gain a lot of reduced braking distance.

The Effect of Vehicle Weight on Stopping Distance. The heavier the vehicle, the more work the brakes must do to stop it and the more heat they absorb. Due to heavy duty suspension systems, empty trucks take longer to stops then fully loaded ones. The tires begin bouncing and traction is reduced. This is not usually the case with buses.

You can't steer or brake a vehicle unless you have traction. Traction is friction between the tires and the road. There are many road conditions that reduce traction and call for lower speeds.

## ENTERING THE FLOW OF TRAFFIC

## General

- Merge smoothly into the traffic flow. Stop if necessary.
- Activate right or left turn signal.
- Look to determine that there are no pedestrians in the path of the bus.
- Look to the right and to the left to determine whether there are vehicles in motion on the roadway to be entered.
- Yield right-of-way to vehicles already on the road.
- Look for a suitable opening in traffic and when safe, accelerate smoothly into road, neutralizing the turn signal as right lane position is established.
- Keep in mind the size of the vehicle and space needed to complete turn.


## LEAVING TRAFFIC STREAM

- Scan roadside for a suitable place to stop.
- Observe shoulder for obstructions (trees, poles, signposts).
- Look for a spot with no obstructions where the vehicle can be seen by the traffic.

Refer to A.R.S. 28-701
-- Speed restrictions
Discuss A.R.S. 28-775
-- Move Over Law

Discuss driving in urban and residential areasadjusting speed, obstructions on shoulder, constant eye movement, vehicles backing out of drives, children running into streets, etc.

Discuss maximum speed for buses.

- Check Mirrors.
- Signal intention to leave traffic stream.
- Reduce speed.
- Guide bus gradually off roadway.
- Brake gently to a complete stop.


## ADJUSTING THE SPEED OF THE BUS

Driving too fast is a major cause of fatal accidents. You must operate the bus within posted speed limits and with consideration of prevailing environmental conditions. The basic rule-of-thumb is to drive at no greater speed than will permit stopping within the assured clear distance ahead.

URBAN:

## RESIDENTIAL:

## Curves:

- When positioning the bus for a curve:

For tight right curves, keep the left front wheel close to the center line. This allows the rear wheels to remain on the road surface.

- Approach a curve at a speed that will enable the curve to be negotiated safely. If you take a curve too fast, two things can happen. The wheels can lose their traction and the bus continues straight ahead, so you skid off the road. Or, the wheels may keep their traction and the vehicle rolls over.
$>$ Observe the roadway ahead for signs indicating maximum safe entering speed.
> Slow to a safe speed before you enter the curve. Braking in a curve is dangerous because it is easier to lock the wheels and cause a skid. Always maintain a reasonable and prudent speed for each curve.
$>$ Be in a gear that will let you accelerated slightly in the curve. This will help you keep control.
- When entering and driving through a curve:
$>$ Look ahead to anticipate the need for steering correction by looking through the curve as far as possible. Hazards thus can be detected sooner and appropriate action taken.
> Maintain position within the lane. Do not change or "cut across" lanes.
> Maintain speed through a curve by keeping light pressure on the accelerator.
> Reduce speed by releasing the accelerator and applying brakes lightly:
- Whenever the initial speed results in too great a rate of curvature.

Refer to A.R.S. 28-730
-- Following too closely

- Whenever visibility is restricted by darkness, fog, vegetation, or other obstruction.

You should always be able to stop within the distance you can see ahead. Fog, rain, and other conditions may require that you slow down to be able to stop in the distance you can see. At night you can't see as far with low beams as you can with high beams. When you must use low beams, slow down.

- Accelerate slightly during curve if entry speed proves to be slower than necessary.
- When leaving curve, resume original or other safe speed.


## Heavy Traffic

When you're driving in heavy traffic, the safest speed is the speed of other vehicles. Vehicles going the same direction at the same speed are not likely to run into one another. Drive at the speed of traffic if you can without going at an illegal or unsafe speed. Keep a safe following distance.

The main reason drivers exceed speed limits is to save time. But anyone trying to drive faster that the speed of traffic will not be able to save much. The risks involved are not worth it. If you go faster that the speed of our traffic:

- You will have to keep passing other vehicles. This increase the chance of an accident.
- It is more tiring. Fatigue increases the chance of an accident.


## Hills

Going slow is the most important thing in driving through hills safely.

- Select far right lane or auxiliary climbing lane (if available).
- Maintain constant speed on upgrades by:
> Applying accelerator pressure.
> Shift transmission to lower gear.
- When approaching the crest on a narrow roadway, keep far to the right.
- Slow down slightly when approaching the crest to compensate for limited sight distance.
- Look for signs indicating length and / or gradient of downgrade.
- Check the brakes and shift the transmission to a lower gear before starting down the hill.
- Maintain a constant speed on downgrades by taking the following steps:
> Reduce accelerator pressure.
> Apply the brakes just hard enough to feel a definite slowdown. Remember, the use of brakes is only as a supplement to the braking effect of the engine.
> Release the brakes when your speed has been reduced to approximately five mph below your "safe" speed. (This brake application should last for about three seconds.)
> When your speed has increased to your "safe" speed, repeat the steps.
- When approaching the bottom of the downgrade, resume normal driving speed.
- When making turns over the crest of a hill or around a curve, activate the turn signal while the bus is still visible to motorists following the bus.


## Night Driving

Headlights. At night your head lights will usually be the main source of light for you to see and others to see you. You can't see nearly as much with your headlights as you can see in the daytime. With low beams you can see ahead about 250 feet and with high beams about 350-500 feet.

You must adjust your speed to keep your stopping distance within your sight distance. This means going slow enough to be able to stop within the range of your headlights, Otherwise, by the time you see the hazard, you will not have time to stop.

Night driving can be more dangerous if you have problems with your headlights. Dirty headlights may give only half the light they should. This cuts down your ability to see, and makes it harder for others to see you.

Other Lights. In order for you to be seen easily, the following must be clean and working properly:

- Reflectors
- Marker Lights
- Clearance Lights
- Tail Lights
- Identification Lights

Turn Signals and Brake Lights. At night your turn signals and brake lights are even more important for telling other drivers what you intend to do. Make sure you have clean, working turn signals and stop lights.

Windshields and Mirrors. It is more important at night that in the daytime to have clean windshields and mirrors. Bright lights at night can cause dirt on your windshield or mirrors to create a glare of it own, blocking your view. Most people have experienced driving toward the sun just as it has risen or is about to set and found that they can barely see through a windshield that seemed to look ok in the middle of the day. Clean your windshield on the inside and outside for safe driving at night.

Refer to A.R.S. 28-942
-- Multiple-beam lighting equipment

Refer To A.R.S. 28-730
-- Following too closely

Avoid blinding others. Glare from your headlights can cause problems for drivers towards you, and for drivers you are following. The Arizona Revised Statutes require drivers to dim within 500 feet when meeting other vehicles, and within 200 feet when following. Actually we should dim much farther away to avoid problems for other drivers.

Avoid glare from oncoming vehicles. Do not look directly at lights of oncoming vehicles. Look slightly to the right at a lane or edge marking if available. If other drivers fail to dim, don't try to "get back at them" by putting your own high beams on. This increases the chance of an incident or accident.

Use high beams when you can. Some drivers make the mistake of always using low beams. This seriously cuts down on their ability to see ahead. Use high beams when it is safe and legal to do so. Also, keeping the lighting level down inside your driver's compartment helps you see outside.

## Managing Space

To be a safe driver, you need space around your vehicle. When things go wrong, space gives you time to think and to take action.

To have space available when something goes wrong, you need to manage space. While this is true for all drivers, it is very important for large vehicles - they take up more space and they require more space for stopping and turning.

Of all the space around your bus, it is the area ahead of the vehicle - the space you're driving into - that is most important.

The Need for Space Ahead. You need space ahead in case you must suddenly stop. According to accident reports, the vehicle that trucks and buses run into most often is the one in front of them. The most frequent cause is following too closely. Remember, if the vehicle ahead of you is smaller that you, it can probably stop faster that you can.

How Much Space? How much space should you keep in front of you? One good rule says you need at least one second for each 10 feet of vehicle length at speeds below 40 MPH. At greater speeds, you must add one second for safety. For example, if you are driving a forty foot bus, you should leave 4 seconds between you and the vehicle ahead. Over 40 MPH, you'd need 5 seconds.

To know how much space you have, wait until the shadow of the vehicle ahead passes a pavement marking, or some other mark or object on the road. Then count off the seconds like this: "one thousand and one. . . .one thousand and two. . . .and so on," until you have reached the same spot. Be careful that you don't try to make the count fit the space that's there. After a little practice, you will know how far back you should be. Remember to add one second for speeds over 40 MPH . Also remember that when the road is slippery, you need much more space to stop.

Safety professionals suggest that you should also increase your following distance by one second for each adverse condition that exists. For example, add another second if it starts raining, and still another second if you have visibility problems. Snow on the road would indicate a need to add an even greater following distance.

## Estimating Required Space

In order to keep a proper margin of space between your school bus and any moving or stationary object, you will have to notice changes in the separation distance or apparent object size, then adjust the bus speed and / or position.

Skill must be developed in using peripheral and central vision to accomplish the finer steering control required to keep the bus within its lane while maintaining a safe distance from parked and other vehicles.

- You must be able to judge the rate at which your bus is closing with the vehicle ahead in order to adjust your speed or initiate a pass at the proper time. The main clues are:
> In the daytime the change in the size of the lead vehicle is visually apparent.

Ask participants: Does anyone know how many feet per second (fps) a vehicle travels at 30 mph ? $(\mathrm{mph} \times 1.47=\mathrm{fps})$
> At night, the primary clue is the distance between the tail lights.
> The size or brightness of the tail lights can be misleading and are not useful clues.

- -CAUTION- - Small vehicles such as motorcycles and compact cars may seem farther away than they actually are because of their size.
- You must be able to judge:
$>$ If the closing rate and distance of following vehicles in other lanes will give you a safe opportunity to change lanes.
$>$ The speed and distance of leading vehicles. Speed changes must be estimated quickly if changing into another lane is to be done safely.
- Before and during a lane change you must be able to:
$>$ Keep traffic to your front, sides, and rear under constant surveillance and at the same time, steer the bus within its lane.
> Accomplish the change in a smooth continuous move with very slight steering corrections and accelerator movement.
- You must develop the visual surveillance habit of scanning 360 degrees around the bus. This requires:
> Coordination between eye movements and the movements required to control the bus.
> The ability to adjust the position of the bus to avoid any hazards you may encounter.
- You must know the appropriate and stable following distances maintain safe traffic flow, and certain conditions call for greater than normal following distance.

By being alert, observant and anticipating slowdowns or stops ahead, you will rarely need to use all of your space cushion, or resort to a "panic stop." Be constantly watchful for clues in the driving environment that suggests a need to slow down or stop.

Remember, you must also maintain enough space on both sides of your vehicle (lateral separation). This is particularly important when changing lanes, passing or being passed, approaching oncoming vehicles, approaching parked vehicles, approaching intersections, and near pedestrians and other road users.

## Being Tailgated

You should be able to react appropriately to being followed too closely.

- Make smooth, gradual stops and observe the roadway and traffic ahead to anticipate stopping requirements.
- Check the rearview mirrors frequently to assess the traffic situation behind. Watch for tailgating vehicles and for the following vehicle's directional signals indicating an intent to pass.
- If there is traffic in front of you while you are being tailgated, you should add the tailgates following distance to your own. For example if the vehicle behind looks to be about 35 feet long and you driving a 40 foot bus, you would open up ten seconds following distance in front of your vehicle -- five for your bus, and five for the other vehicle.


## Lane Changes

Checking Quickly. Check all mirrors. Observe traffic to the front, rear and side. When you use your mirrors while driving on the road, check quickly. Look back and forth between the mirrors and road ahead. Don't focus on the mirrors for too long. Otherwise you will travel quite a distance without knowing what's happening ahead.

Understanding What You See. School buses have curved (convex, "fisheye, spot, bug-eye") mirrors that show a wider area than flat mirrors. This is often helpful, but everything appears smaller in a convex mirror than it would if you were looking at it directly. Things also seem father away than they really are. It's important to realize this and to allow for it.

Check all mirrors to observe vehicles in the new lane. Check for vehicle passing, vehicles closing fast from the rear, and vehicles about to enter the new lane.

Adjust the speed of the bus by accelerating or maintaining speed, whichever is necessary.

Signal your intention to change lanes, wait a few seconds for motorists to see your signal, check your blind spot, the steer in the new lane. Position the bus in the center of the new lane.

## LANE USE AND POSITION ON ROADWAY

- Stay in one lane for normal driving, not straddling lane marker lines or obstructing more than one lane.
- Use parking lane only for stopping and parking.
- Where there is more that one lane for traffic going in one direction, travel the farthest right lane (not including parking lane) unless passing or turning to the left.


## NOTES:

Refer to A.R.S. 28-725
through 28-727 --
limitations on passing

Refer to A.R.S. 28-857
-- Passing a school bus

## OVERTAKING AND PASSING

## Situations where you must not pass:

> Hills.
> Intersections.
$>$ Curves.
$>$ Tunnels.
> Many bridges.
$>$ No passing zones.
> Any place where there is less than 800 ft . visibility ahead.
$>$ In a convoy of buses.
$>$ Another bus loading or unloading.

- Especially at schools.
- Exception: If loading zone is adjacent to a roadway. (Follow district policy)


## Steps to a Safe Pass

Usually, you won't have to overtake and pass other vehicles. But, when it's necessary, follow these steps.
> Maintain a proper following distance.
> Using rearview mirrors, check that the traffic following the bus is clear for passing.
$>$ Look ahead.
> On a two-lane road, check that there is no oncoming traffic and check traffic signs and markings to determine if passing is allowed. You must have at least 800 feet clear ahead to make a safe pass with a school bus.
> Activate the left turn signal well in advance of passing.
$>$ Look behind. A vehicle may be about to pass you.
> When clear, pull smoothly into the passing lane.
$>$ Deactivate left turn signal.
> Move smoothly past the vehicle at a safe speed increasing speed of bus if necessary.
$>$ Activate right turn signal.
> Move back into right lane when at least 1 1/2 bus lengths ahead of passed vehicle.
> Deactivate right turn signal.
> Maintain safe speed.

EXTRA CAUTION: Signal your intention to pass - to the lead vehicle - by flicking headlights at night, or by sounding the horn:
$>$ When the lead vehicle's vision to the rear is obscured by a trailer, open trunk lid, ice or snow on the rear window, or objects in the rear window.
> When the lead vehicle is about to pull out and pass.
$>$ When the lead vehicle moves laterally toward the bus.
$>$ When the driver of the lead vehicle appears inattentive.

Refer to A.R.S. 28-704
-- Minimum speed regulation-line of traffic

DO NOT PASS if the lead vehicle is:
> Signaling or otherwise indicating a left turn.
> Changing lanes preparatory to passing.
$>$ Weaving or wandering.
In this case, you may sound the horn or flash the headlights to alert the driver of the lead the headlights to alert the driver of the lead
vehicles. If the weaving does not cease, wait until you can pass with at least one-half lane separation.
> Decelerating suddenly.
> Passing children, cyclists or animals.
$>$ Being passed by another vehicle.
In this case wait until the lead vehicle has been passed, your view of the road ahead is clear, and an acceptable opening is present.

## NOTES:

## BEING PASSED

## If the pass appears safe:

- Maintain position in the center of the lane, or slightly to the right, if possible to provide additional passing clearance.
- Maintain or reduce speed -- avoid acceleration.
- Prepare to slow to provide more spaces if the passing vehicle cuts close in front of you after passing.

Point Out: This will require good judgment on your part.

- If the passing vehicle attempts to abort the pass accelerate quickly -- if you have enough space ahead -- to allow the passing driver to pull safely back into your lane.


## If the pass appears to be unsafe:

- Try to let the passing driver know of the unsafe condition.
- Control the speed of the bus so that the passing driver can either steer back in position behind you, or can safely complete the pass (this may require you to speed up, or slow down).
- Steer as far to the right of the roadway as possible.
- Be prepared to leave the roadway to avoid a head-on collision with oncoming vehicles.

When a narrow road, following traffic is built up, and a regular stop is not coming up soon:

- Pull to the side of road (if possible) using right turn signal and stop.
- Allow vehicles to pass.
- Activate left turn signal.
- Resume position on road and continue route.


## NOTES:

## STARTING ON GRADES

## Manual Transmission

- Apply service brake.
- Set parking brake (if necessary).
- Depress clutch (five-count).
- Place gearshift lever in starting gear.
- Apply appropriate pressure in accelerator.
- Release clutch to friction point, simultaneously releasing parking brake so that bus does not roll backward.
- Release clutch completely and press throttle until bus gains adequate speed to shift into next higher gear.


## Automatic Transmission

- Apply service brake.
- Set parking brake.
- Place gearshift lever in lowest gear.
- Simultaneously release parking brake and press throttle so that bus does not roll backward.
- When bus gains the appropriate speed, shift manually into next higher gear.


## STARTING ON DOWNGRADES

## Manual transmissions

- Apply service brake.
- Set parking brake.
- Depress clutch (five-count).
- Place gearshift lever in starting gear or numerically higher gear, depending on severity of downgrade.
- Release parking brake.
- Gradually release service brake.
- Release clutch without accelerator.


## Automatic Transmission

- Apply service brake.
- Set parking brake.
- Place gearshift lever in appropriate gear, depending on severity of downgrade.
- Release parking brake.
- Accelerate, as necessary.


## STRUCTURES WITH RESTRICTED SPACE

When approaching a bridge, tunnel or underpass, you should follow these procedures:

- Slow for better control.
- Look for signs indicating load, width and height limits, or estimate whether the required clearance is available.
- Decide whether it is safe to proceed.
- Yield to oncoming vehicle if the structure is narrower than the normal roadway.
- Avoid stopping in or on the structure except in response to traffic flow or an emergency.
- Maintain an appropriate speed, taking into account the road surface, grade, weather conditions and traffic.
- Stay as far right as possible until you clear the structure.


## BRIDGES AND TUNNELS

When crossing a bridge or entering a tunnel:

- Slow down for better control and remain in the right lane to provide clearance with traffic in the adjacent lane.
- Look for signs regarding:
> Lane availability and usage.
> Clearance.
> Load limit.
> Speed limit and passing restrictions.
> Use of lights in a tunnel.
- Observe other traffic and lane side structures.
- Remove sunglasses before entering tunnel.
- Turn lights on while in tunnel, if necessary.
- Adjust speed to grade changes and observe speedometer frequently.
- Stop only if traffic flow requires, or at emergency exits.
- Observe posted signs regarding exit information and speed limits.
- Turn off lights on leaving tunnel during daylight hours (unless required by law or policy).


## ENTRANCE RAMPS

When approaching an entrance ramp:

- Observe information signs indicating correct lane or ramp usage, speed limits, and warnings.
- Observe entrance ramp and main roadway configuration to aid in judging merging distance and pattern.
- Check mirrors carefully.
- Look back briefly over left shoulder to check location and speed of vehicles on main roadway. If possible, look over right shoulder if entering roadway from left.
- Check location and speed of lead vehicles on entrance ramp acceleration lane.
- Make initial speed adjustment based on entrance ramp and roadway configuration and traffic conditions.
- Prepare to enter acceleration lane.
- Enter acceleration lane.


## MERGING

When merging into traffic:

- Check mirrors.
- Signal intention to merge.
- Look for opening in merging lane.
- Adjust speed as necessary to merge safely.
- Recheck traffic in merging lane with mirrors.
- Merge with traffic.
- Adjust speed to traffic.


## EXIT RAMPS

When preparing to exit:

- Look for correct exit.
- Check mirrors.
- Move into proper lane.
- Watch for deceleration lane.
- Check mirrors.
- Signal intention to turn.
- Reduce speed in deceleration lane.
- Watch for exit ramp speed limit sign.
- When deceleration lane is part of acceleration lane, watch for entering vehicles.
- Observe speed limit signs.
- Drive in center of appropriate lane and stay clear of barriers.
- Watch for other vehicles changing lanes.
- Observe signs on cross roadways for information on alternative destinations.
- Check speed.
- When nearing end of exit ramp, slow down and prepare to stop. Watch for traffic that may be stopped or waiting in line at the end of the ramp.


## TRAFFIC CIRCLES

When entering traffic circles:

- Yield to vehicles already in circle.
- Remain in right lane at a consistent speed.


## BACKING

Backing is a common cause of accidents involving buses.

- Do not get into a situation where you have to back up.
- Avoid backing as much as possible.
- Get out and look before you back up.
- Know your backing reference points.
- Use hazard lights and sound horn.
- Back slowly.
- Direct responsible person (if available) to stand near rear of bus to give signals for safe backing. Set up signals for stopping and moving in advance.


## BACKING IN A STRAIGHT LINE

You must be able to back straight into given space without allowing the bus to scrape or hit stationary objects.

- Stop bus in correct position to back.
- Direct responsible person (if available) to stand near rear of bus to give signals for safe backing. Set up signals for stopping and moving in advance.
- Get out and look before backing up.
- Use mirrors, check the path is clear. Try to keep helper in driver's side mirror.
- Put transmission in reverse.
- Using mirrors, back slowly and smoothly in a straight line.
- Stop at desired point without hitting any object.

NOTES: Never back up if it can be avoided. If necessary, try to have a helper.

## EMERGENCY VEHICLES

Many drivers don't know what to do or do the wrong thing when confronted with emergency vehicles. Emergency vehicles have the right-of-way except when school bus has already started loading or unloading students. The bus driver must then work with students so as to not to hold up emergency vehicle. (Be sure to check traffic in front and to the rear of the bus before activating the overhead amber warning lights.)

- If you are loading or unloading students, have them remain where they are within the protection of the bus. Cancel school bus overhead lights and bringing the stop arm until the emergency vehicle has passed.
- Pull off to the right as far as possible and stop until the vehicle has passed.
- Realize that one emergency vehicle frequently follows another, so be prepared.


## LATE STARTS

If you start late, expect to arrive late. Don't try to "make up" time on the road.

## CONSTRUCTION

What can you expect when you approach a road that is under construction?

- People working around the site.
- Lane markings may be changed, unclear, or not there at all.
- Speed limit may be slower.
- Driving lane may be narrow.
- Shape of road may be changed since last you drove on it.
- Barricades marking hazards may have fallen or moved.
- Other drivers become frustrated by the delay and act impulsively.

Slow down and be extra alert-increase following distance.

## ACCIDENT SITE

An accident occurred, emergency vehicles are at the scene, a tow truck is there cars are parked on the shoulder. WHAT IS THE DANGER HERE?

- Traffic jam.
- Many drivers slow and stare at any accident.
- The distraction of one accident increases the probability of another accident.

To defend yourself, your bus, and your passengers you must:

- Slow down; increase following distance.
- Be especially alert for pedestrians.
- Be especially alert for oncoming traffic pulling into your lane.
- Watch for and obey any official's signal.


## FREEWAY DRIVING / TURNPIKES / EXPRESSWAYS

When on a freeway:

- The procedure for entering the freeway is:
$>$ Enter on ramp.
$>$ Activate appropriate turn signal.
$>$ Scan mirrors (visual checks).
> Avoid entering the freeway at a sharp angle.
$>$ Adjust to freeway speed in the acceleration lane.
$>$ Allow your space cushion.
- IPDE:
$>$ Anticipate sudden slowing or stopping and / or merging at too low a speed.
$>$ Allow extra distance between you and the vehicle ahead in case the other driver suddenly slows.
$>$ Watch for little or no acceleration lane or yield signs. Wait for longer opening before attempting to enter freeway.


## Helping Other Drivers Enter and Exit

- When driving in the right-hand lane, you may find drivers attempting to enter the freeway. Help them by adjusting your speed or by moving to the next lane, if it is clear. This will create an opening for them to enter the freeway safely.
- The right-hand lane is also a place where driver ahead may slow for an exit. When you see and exit sign, be prepared for such an action.


## Choosing Speeds

- Once on the freeway, choose a legal speed. Your speed should also be based on visibility, traffic, and road conditions. Drivers sometimes tend to lose their sense of speed during sustained, fast driving. They may gradually increase speed to a point far higher than intended. Frequent short glances at the speedometer will help reduce this tendency.
- Speeds that are either slower or faster than that of most traffic will increase the risk of collisions. Choosing the speed used by most drivers will reduce conflicts, make driving more relaxed, and save fuel.


## Choosing Lanes

- Two-lane freeway
> Use right-land for traveling.
Use left-hand lane for passing.
- Three-lane freeway
$>$ The right-hand lane is lower speed through lane.
$>$ The center lane is a higher-speed through lane.
$>$ The left lane is a passing lane.
$>$ When approaching interchanges, move out of the right lane, if traffic conditions permit, to avoid merging conflicts.


## Changing Lanes

- Check for ample space between your vehicle and the vehicle ahead.
- Make sure that the vehicle ahead or in another lane is not about to change lanes and the vehicle behind your vehicle is not about to pass.
- Before moving into another lane, check all mirrors and glance over shoulder.
- Signal your movements in advance of the lane change and avoid any sudden or unexpected moves that could startle drivers near you.
- Gradually steer into the next lane.
- Avoid reducing speed during the lane change because this can create a hazard by forcing a driver in the next lane to brake.


## Leaving the Freeway

- Look ahead for the signs indicating what lane to use for desired exit.
- When leaving the freeway, enter the lane next to the deceleration lane a mile or more before your intended exit.
- Avoid slowing down before entering the deceleration lane.
- Signal and enter the deceleration lane.
- Reduce speed in deceleration lane.
- Reduce speed to the posted speed for the ramp.


## Complex Interchanges

- Careful checking is necessary, especially when access lanes parallel to the freeway require entering traffic to merge twice in a short space.
- Review on-ramp procedures:
> Acceleration lane.
$>$ Turn signal usage.
$>$ Mirror usage.
> Proper following distances.
$>$ Lane changes.
- Review off-ramp procedures:
$>$ Deceleration lane.
$>$ Turn signal usage.
> Mirror usage.
$>$ Wrong-way drivers on exit ramps.
- Ramps not always of uniform length.
- Curved ramps/speed.
- Design characteristics (for example, inverse).


## OTHER URBAN AREA DRIVING

## Downtown Problems

- Alleys
$>$ Speed limit ( 15 mph ).
$>$ Clearness (vertical/lateral).
$>$ Review of IPDE.
$>$ Proper mirror usage.
- Review of space cushion.
$>$ Car in front.
$>$ Cars behind
> Cars beside you.
$>$ Proper mirror usage.
- Review of lane selections.
$>$ Parked cars.
$>$ Pedestrians.
> Bicycles.
> Children.
$>$ Review of shopping center traffic.
- Parked car dangers.
- Clearness (vertical/lateral).


Information on Railroad Grade crossings should Be incorporated into each Lesson where appropriate.

Note: During this section talk with participants about the laws for buses and the light rail system. Direct them on the rules and regulations set up for buses to follow when dealing with this new system.

Reminder: School buses DO NOT use overhead lights (reds and ambers).

- IPDE.
- Pedestrians.
- Proper mirror usage.
- Bus parking situations.
- Review of various intersection configurations.
> Crosswalk procedures.
> Limit-line procedures.
$>$ Left-turn and right-turn procedures.
> Proper gear selection.
$>$ Proper mirror usage.


## RAILROAD CROSSINGS

Crossing railroad tracks represents one of the greatest hazards as far as mass casualties and fatalities are concerned. STOP, LOOK, and LISTEN. Many accidents could be eliminated through planned safety procedures for crossing railroad tracks. Bus accidents involving trains are almost always fatal.

## Operating the Bus

- As the railroad crossing is approached, a round yellow sign will be seen with black letter and a cross to warn of the tracks ahead. At the tracks, the familiar cross - buck railroad crossing sing should be present.

Besides the cross - buck, you may also find the following:
> Red flashing lights.
$>$ Crossing gates.

See A.R.S. 28-853(B) and also A.A.C. R17-9104(15) -- Railroad Grade Crossing.

Note: District / company policy may vary.

- Prepare to stop.
$>$ Check traffic conditions (get the big picture); check traffic control devices and lights.

Warn traffic behind you of impending stop.

- Turn on hazard warning lights 100 feet prior to railroad crossing.
- Also tap your brakes to activate the brake lights.

Stop in the driving lane farthest to the right.

- STOP the bus.
$>$ Stop no closer than 15 feet from the nearest railroad tracks but no farther than 50 feet unless view is obstructed.
> Arizona requires all buses to stop at all railroad crossings whether loaded or empty, when the crossing is not directed by a police officer or a traffic control signal device.
- LOOK and LISTEN.
> Make sure to turn master switch off before opening the service door and driver's window so that the overhead lights and stop sign will not activate when the door is opened.
$>$ Turn heaters / AC and radio off if necessary to have more silence. (noise suppressor switch if equipped)
$>$ Request silence. This is recommended so that you have minimal distraction.
$>$ Open driver's window and service door.
> Look and listen in both directions. Recheck. Never rely on railroad mechanical flashing lights.

Refer to A.R.S. 28-853
-- Railroad Crossing.

Discuss various Railroad Scenarios, lighted, not enough room, multiple tracks, etc.

- If no indication of approaching train:
> Start in a gear that will take bus across tracks without hesitation and without shifting.
- Shifting gears on tracks shall not be permitted.
$>$ Look and listen a second time, close service door and proceed quickly and smoothly. Reactivate noise suppressor switch if equipped.
> After crossing is complete and normal speed is resumed, turn off hazard warning lights and turn on the master switch if there will be more loading/unloading stops.
- If there is an approaching train:
$>$ Set the parking brake. Place transmission in park or neutral.
$>$ After train passes, look and listen in both directions. Recheck. Never rely on railroad mechanical, flashing lights.
- Multi-track Crossings:
> Make sure no train is approaching on any of the tracks.
> After a train passes, wait until other tracks become visible before proceeding. A second train may be approaching from the opposite direction.
> Look and listen in both directions. Recheck. Never rely on railroad mechanical, flashing lights.

Explain local policy on false alarms.

Refer to A.A.C. R17-9104 (15)(a) -- Use of hazard lights

Refer to A.A.C. R17-9104 (B) (15)( c) -- Close service door

- Railroad traffic control devices.
$>$ Flashing lights and bells.
- Warning of an approaching train.
- If train is stopped or signal is malfunctioning, they will turn on automatically. You should be aware of local policy on this situation.
> Gates
- All traffic must stop when gates are lowered.
- School bus drivers may not proceed around gates unless given specific direction from a law enforcement officer.
$>$ Railroad crossings controlled by a flag person.
- Make a safety stop.
- Follow directions of the flag person.

NOTES: Steps for crossing:

- Activate hazard lights at least 100 feet in advance of tracks.
- Stop 15 feet from tracks (use white line as guide) unless view is obstructed. No farther than 50 feet.
- Open door and side window (driver).
- Stop...Look...Listen...
- Close door; proceed with caution.
- Never shift gears.
- Deactivate hazard lights when normal speed is resumed.

Refer to A.R.S. 28-853 (B)(1)
-- Any school bus shall stop the vehicle within fifty feet but not less than fifteen feet from the nearest rail of the railroad, etc.

Make sure to go into detail in this section. Explain the differences in the two types of trains; light rail and locomotive. Size, noise etc.

## LIGHT RAIL

- Metro Light Rail Grade Crossings Controlled by a Traffic Control Signal
$>$ The A.R.S. Code does allow school buses to proceed across a Light Rail grade crossing that is controlled by traffic control signals.
$>$ If the grade crossings are controlled by railroad warning devices (crossing arms and flashing red lights) school buses will have to continue to stop at such locations.


## DEFENSIVE DRIVING

## ACTIONS THAT CAN BE TAKEN DURING DRIVING EMERGENCIES

- Brakes Fail

Take foot off accelerator pedal.
> Pump brake pedal repeatedly if bus has hydraulic brakes only.
$>$ Shift to lower gear.
> Engage parking brake.

- Running Off Pavement
$>$ Take foot off gas pedal.
$>$ Grip steering wheel with both hands.
$>$ Resist urge to return to road immediately.
$>$ Gain control of steering.
$>$ Turn steering wheel $1 / 4$ turn quickly to return to paved road.
> As soon as right front wheel hits edge, steer back to the opposite direction to maintain lane position.
- Tire Blows Out
$>$ Keep firm grip on steering wheel.
> Keep wheels as straight as possible.
$>$ Gradually release accelerator pedal.
> Pump brakes slightly.
$>$ Reduce speed to 15 MPH or less before pulling off onto shoulder.
$>$ Drive vehicle completely off the road if possible.


## DEFENSIVE DRIVING

## ACTIONS THAT CAN BE TAKEN DURING DRIVING EMERGENCIES

- Gas Pedal Sticks
> Shift to neutral.
$>$ Pump accelerator pedal with several sharp jabs to release.
> Pull off highway.
$>$ Turn off ignition.
- Lights Fail
> Try other light, high or low beam, turn signals, parking light, brake light and strobe lights.
$>$ Slow down.
> Look for something to orient you.
Pull off the road and stop.
- Stalling on Railroad Tracks
> Direct passengers to evacuate bus immediately.
> Walk away from the bus at a 90 degree angle to the track.
> If train is not coming, after evacuating passengers, place gear shift in first or reverse (manual transmission), release clutch and engage starter. For automatic transmission, place in neutral and attempt to have the bus roll off the tracks.


## - Large Animal on Road

Avoid hitting animal only if you can safely do so by braking and steering. But, do not swerve so drastically as to lose control or risk hitting another vehicle.

## DEFENSIVE DRIVING

## ACTIONS THAT CAN BE TAKEN DURING DRIVING EMERGENCIES

- Deep Ruts and/or Holes in Road
$>$ Reduce speed.
> Try to avoid holes / ruts.
> Before wheel drops in rut or hole, let up on brakes so wheels will turn.
$>$ Maintain firm grip on steering wheel.
- Steering Failure
$>$ Grip the wheel firmly.
$>$ Signal and get off the road as quickly as possible.

If there is no response in the steering wheel due to a break in the steering linkage, stop the bus as quickly and safely as possible.

- Hood Flies Up
> Look Between the hood and dashboard.
> Pull off road and stop as soon as possible.
- Physical Emergencies Affecting the Driver
> Dirt in eye, violent coughing or sneezing attack -- signal, slow down and stop until condition is corrected.
$>$ Dropped articles -- do not try to pick up anything from the floor of the bus while moving. Stop the bus first!! Then pick up the dropped items.

Bee in bus -- try to ignore while driving. Pull off road, if necessary, to try to remove the bee from the bus.

## DEFENSIVE DRIVING



## EXERCISE 2



## DEFENSIVE DRIVING

## EXERCISE 3



## EXERCISE 4



## DEFENSIVE DRIVING

## EXERCISE 5



## DEFENSIVE DRIVING

EXERCISE 6


## DEFENSIVE DRIVING

## EXERCISE 7



## DEFENSIVE DRIVING

## EXERCISE 8



## DEFENSIVE DRIVING

## EXERCISE 9

## EXERCISE 10



You are driving the bus marked＂ U ＂． You have been driving on a paved highway．Now you are going to turn right onto a gravel road．

What speed adjustment will you need to make on the gravel road？Write your answer here：
$\qquad$
$\qquad$
Why is this necessary？Write the answer here：

－子aィnauew 10 dors of Kı！！！qe ano人 asearəu！


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－peon ןәледб әuł uo paəds נno人 ànpas of paəu ！！！

## DEFENSIVE DRIVING

EXERCISE 11


Why is this necessary？Write your answer here：

 pue umop mojs plnoo no人 a＇se6 a arou әम ！！e snq әuł as！ 6 no人 ssolun＇umop snq


 ano人 uigघulew pinous no人＇anıno ayt paraqua


## DEFENSIVE DRIVING

## EXERCISE 12



You are driving the bus marked
"U". You want to pass car \#1.
Put either " $A$ " for accelerate, or "M" for maintain speed, or "D" for decelerate in each of the unmarked buses according to what you should do in passing.

Turn the page to check your ${ }^{\text { }}$ answer.

## DEFENSIVE DRIVING

## ANSWER TO EXERCISE 12



Be sure that you do not decelerate too
earfy or too much. If you do, you could
interfere with Car \#1.

## EXERCISE 13



## DEFENSIVE DRIVING

## EXERCISE 14



EXERCISE 15


## EXERCISE 16



## ANSWER TO EXERCISE 16



## DRIVING UNDER SPECIAL CONDITIONS

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# DRIVING UNDER SPECIAL CONDITIONS 

SPECIAL CONDITION DRIVING - GLOSSARY OF TERMS

| ADHESIVE CONDITION: | Traction |
| :--- | :--- |
| BLACK ICE: | Clear water frozen on black pavement |
| BRAKE FAILURE (AIR LOSS): | Sudden drop in air pressure due to malfunction or <br> failure |
| DECELERATION LANE: | Lane used to slow the vehicle when exiting a <br> freeway or highway |
| EMERGENCY STOPPING: | Backup system used if service brake is inoperative <br> while moving forward |
| FISHTAIL: | Presence of a wedge of water under the tires that <br> causes the tires to ride on water and not on the road <br> surface |
| HYDROPLANING: | Deteriorated vision caused by reflected from the <br> snow or ice |
| SNOW BLINDNESS: | Distance between two vehicles in a moving or <br> stopped position |
| SPACE CUSHION: | Following too close |
| TAILGATING: | The adhesive friction between the tires and the road <br> surface |
| TRACTION: | A condition you can normally see, such as frost or <br> snow |
| WHITE ICE: |  |

# DRIVING UNDER SPECIAL CONDITIONS 

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## OVERVIEW

In this unit, we will discuss a variety of special conditions that will demand alert and skillful action. Some adverse conditions being faced will be; rain, ice, sleet, mud snow, fog, dust, wind, night driving, hot and cold weather.

A basic rule to follow is to always make a mental adjustment to fit the problem. Adverse conditions are not a valid excuse for being involved in an accident. These conditions merely increase the hazards of driving. Failure to adjust driving to the prevailing conditions could determine if an accident is preventable. Accidents usually happen because the driver fails to adjust driving skills to road conditions. Mental adjustments must be made to fit the problem when it is apparent that you will encounter any of these conditions.

A vehicle cannot be operated safely and efficiently at a high rate of speed when any of the above conditions prevail. You may be driving over the same route twice a day during the year and become thoroughly familiar with the route. After a short time you may begin to take the road for granted, but conditions change rapidly: potholes develop overnight; the grade washes away; shoulders become soft; railroad crossing approaches change; loose gravel appears; or slick spots develop through accumulations of water, snow, ice, and oil deposits. Conditions are different each and every day, and the driver must stay alert to anticipate these changes before they occur.

Professional drivers can drive safely on extremely slippery surfaces by reducing speed and adjusting driving skills to cope with the conditions.

## RAIN

Wet roads mean the vehicle cannot stop as fast as it can on dry roads. The visibility and maneuverability are less on wet roads. Many drivers treat slippery road surfaces and limited visibility as inconveniences rather than as hazards. As well-trained, safe, and professional drivers, you should drive according to conditions and increase following distances.

## DRIVING UNDER SPECIAL CONDITIONS

Discuss definition of high water.
A.R.S. 28-910 -Liability for emergency responses in flooded areas
A.R.S. 28-693 -Reckless driving

When it rains after an extended dry period, the water mixes with dust and accumulated oil dripped from other vehicles and forms a very slippery surface. Reduce speed and be very cautious under these conditions.

Visibility can also be a minus factor. Road spray from other vehicles can coat your windshield with dirt and oil. The window-wiping equipment must be in good working order. Heavy rain can partially obscure road signs, traffic signals, and edge of the road, pavement markings, and pedestrians.

Try to avoid big puddles and accumulated water, as water will affect the brakes.

If not possible to reduce speed prior to reaching the water, once clear, apply a light pressure to the brakes, keeping in mind the traffic following. This will allow heat from the friction to dry the brake linings. Make a test stop when safe to do so. Check behind to make sure no one is following, and then apply the brakes to make sure they work properly. If not, dry out further as described above. Caution: do not apply too much brake pressure and accelerator at the same time or you can overheat the brakes.

Good judgment and common sense should tell a driver not to drive into high water. Your vehicle should never enter flooding or swiftly-flowing waters. Do not drive around road barricades even if there are no visible signs of flood water.

It is suggested that these procedures be followed while operating in rainy conditions:

- Use your heating, defrosting, defogging equipment to clear the inside surface of the glass of moisture.
- Replace windshield wiper blades as soon as they show signs of streaking or missing areas on the windshield.
- Besides slowing down, allow extra following distance.
- Have good tires with proper tread depth.
- Avoid driving through deep puddles and accumulated water. (water will affect braking capabilities).


# DRIVING UNDER SPECIAL CONDITIONS 

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- Be aware of the procedures used to dry the brake linings.
- Have mirrors properly adjusted.


## HYDROPLANING

This problem is created when there is enough water on the road and the speed is fast enough to create a wedge of water under the tires. This condition creates a loss of vehicle traction. There are contributing factors in hydroplaning. The following items should be discussed with the driver:

- Water- It does not take much. Although hydroplaning is more likely to occur on roads covered with half an inch or more of water, it can happen with less.
- Speed- Below 30 MPH , a tire should disperse water under and around it, and maintain contact with the road. Above 30 MPH , partial hydroplaning can occur. Above 55 MPH , the tires may lose contact with the road, causing total hydroplaning.
- Tires- Worn or under inflated tires invite hydroplaning and will do so on less water and at lower speeds. Good treads channel the water through the grooves without lifting the wheels.
- Weight distribution- If too much weight is concentrated in the rear of the vehicle, hydroplaning is also likely, for the front tires will tend to tilt up much like the bow of a speedboat.

The following procedures should be used by the driver when hydroplaning conditions are present:

- Be alert for hydroplaning conditions. As we just mentioned, hydroplaning can occur with minimum moisture: dew, fog, or the first few raindrops.
- If the steering begins to feel unstable, your tires are losing traction with the road surface. Ease off the accelerator and do not apply the brakes.
- Follow the tracks of the car ahead. Their tires will clear away the water for yours. Do not tailgate. Increase your following distance.


## DRIVING UNDER SPECIAL CONDITIONS

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- If you anticipate hydroplaning conditions, check your tire pressure too. But do not exceed the recommended maximum pressure.
- Worn tires lower the speed required for hydroplaning. Check your tread depth. If necessary, replace your tires. (Historical note: Treads were originally placed on tires to dissipate water and eliminate skidding.)


## MUD

The primary cause of getting a vehicle stuck in the mud is a lack of good judgment on the part of the driver. To avoid getting stuck or spinning the wheels, try to keep the bus moving slowly and steadily forward. If the wheels start to spin, let up slightly on the accelerator to allow the wheels to brake. If the bus stops, do not continue to spin the wheels in hope of pulling out. Call for help.

## FOG AND MIST

Fog and mist are closely related to rain. Fog can be a minor inconvenience or a major hazard. It can appear in many forms; it may be very light and patchy, or it may be very thick with very little visibility.

Two things should be kept in mind, visibility and speed. Windshield wipers should be started and bus speed should be reduced. Keep headlights on low beam in fog or haze. Buses should be well lighted so that others can see you first. Give plenty of warning when stopping and turning while driving in the fog.

Speed should be reduced because of poor visibility. Many times people travel too fast and consequently are difficult to see until it is too late to avoid an accident. Keep your speed at the level with which you feel the vehicle is under control in the event something happens ahead.

At times it is necessary to use the white line as a guide. This is acceptable as long as drivers stay within their own traveling lane.

## DRIVING UNDER SPECIAL CONDITIONS

There are times when good common sense dictates that fog is too dense to permit the safe operation of buses. If visibility is almost zero and it is impossible to operate without running the risk of being hit by another vehicle, it is time to find a safe place to park. In such cases, get well off the roadway and shut all lights off. If lights are left on, drivers in other vehicles may think they are in the wrong lane and may zero in on the lights. Stay parked until the fog lifts enough that it is safe to continue driving.

Think about the passengers' safety and your own. Always remember, it is not a matter of life or death to get the children to school on time. It is much better to be a little late and safe than to be sorry. Safety comes first!

The good judgment of the driver is the determining factor in a "RUN" or "DON'T RUN" situation.

## WIND

Wind is a hazard when driving a bus. The side of the bus is like a large billboard. There is a large surface for the wind to blow against and this can cause steering problems. Under such conditions it may be necessary to hold pressure against the wind with the steering wheel. If gusty winds are blowing, it is like driving on ice and snow; you have to drive by feel and counteract any movement caused by the wind.

It doesn't make much difference whether being passed or if overtaking another vehicle; the change of wind pressures can throw the bus from side to side and cause problems.

## SMOKE

Smoke creates much of the same hazards as fog. When confronted with patches of heavy smoke that reduce visibility suddenly, the driver should:

- Drive with low-beam headlights, to throw the light down on the road.


## DRIVING UNDER SPECIAL CONDITIONS

- Reduce speed and tap the brake pedal lightly to signal following traffic (use the hazard lights, if necessary).
- Drive as far to the right as possible and watch the road edge.
- Drive slowly enough to be able to make an emergency stop within the distance you can see.


## DUST

High winds can create a severe hazard for buses in the form of sand and dust storms. In addition to causing a sudden force on the vehicle, visibility decreases instantly. Severe sand storms can cause major damage to glass and paint on the vehicles. As soon as the driver determines the vehicle will be entering a situation of dust or sand storm, the driver should:

- Close all open windows.
- Maintain a firm grip on the steering wheel.
- Follow procedures as outlined in the previous lesson on smoke.
- If visibility is almost zero and it is impossible to operate without running the risk of being hit by another vehicle, it's time to find a safe place to park. In such cases, get well off the roadway and shut all lights off. If lights are left on, drivers of other vehicles may think they are in the wrong lane and may zero in on the lights. Stay parked until the dust stops blowing enough that it is safe to continue driving.


## LIGHT CONDITIONS

Except for the bus and yourself, you cannot control certain conditions. As a professional bus driver, you can control how you adjust to light conditions.

## DRIVING UNDER SPECIAL CONDITIONS

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For examples, too much or too little light can contribute to an accident because of reduced visibility. The visibility is dangerously reduced when driving directly toward the sun or when glare is increased by reflection. Such reduced visibility calls for extra caution and a good pair of sunglasses.

Night driving hazards include the glare of oncoming headlights, reduced visibility by poorly illuminated streets and highways, and objects in the roadway ahead. You can reduce this hazard by using the headlights of a vehicle ahead to spot them. This advance warning will probably be enough to avoid an accident without having to take evasive action.

Driving at twilight is more dangerous than driving during daylight hours. Drivers overestimate their ability to see twilight. Shadows increase the difficulty in judging speed and distance of other vehicles. Many drivers are tired at dusk.

Distance and speed estimation for oncoming vehicles at night is almost equal to that of daytime driving in the case of a standard sized vehicle. Distance and perception at night is based upon angular separation of headlights, and quite often, the distance of a small compact car may be overestimated. At a distance of 100 feet, it is very difficult to see objects besides or beyond an approaching vehicle.

Because of the headlight glare of the oncoming vehicle, vision does not return to normal for a few seconds after the vehicle has passed. The driver actually travels blind for some distance after having passed a pair of brilliant headlights.

Visibility is affected considerably by oncoming headlights at distances even over half a mile.

High beams may blind vehicle driver; thus compounding the problem of driving, especially on a wet and possibly slippery road.

## IMPROVING ABILITY TO SEE AND DRIVE DURING DARKNESS

- Maintain the proper vigilance needed to improve your ability to see during darkness.


## DRIVING UNDER SPECIAL CONDITIONS

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- Use the taillights of the vehicles ahead as an indication of the closing rate when driving in rural areas.
- Watch for dark or dim objects on the roadway when driving at night.
- Watch beyond the headlights on and near the roadway for slow-moving or unlighted vehicles, curves, road obstructions or defects, for pedestrians and animals.
- When approaching a pedestrian or animal at night:
> Dim the lights to low beam.
> Slow down.
$>$ Watch the pedestrian or animal for any indication of change in direction of movement.
> Prepare to take evasive action should the pedestrian or animal enter the roadway.

Always drive more slowly at night than during the daylight under similar circumstances. Maintain a speed that permits stopping within the distance illuminated by the headlights (seeing distance).

As a safe, professional driver, you should always maintain a greater margin at night than during daylight hours.

- If the driver of an oncoming vehicle refused to dim its headlights:
> Slow down.
$>$ Keep your headlights on low beam.
> Avoid looking directly at the vehicles bright lights.
> Focus your eyes to the right side of the roadway beyond the oncoming vehicle.
> Maintain a slower speed for a period of time after the vehicle has passes.

CONTENTS
A.R.S. 28-922 --

Lighted lamps required
A.R.S. 28-941 --

Multiple beam road lighting equipment
A.R.S. 28-942 --

Usage of multiple beam road lightning

## NIGHT DRIVING TECHNIQUES

Before starting, check that all lights in the interior as well as the exterior of the bus are clean and in working order.

Keep headlights on low beam in cities and towns and when approaching other motorists on the highway.

- By law, the bus must have two headlights (right and left) bright enough to let you see a person or vehicle 100 feet ahead on low beam, 350 feet ahead on high beam.
- The headlights must not blind other driver. Dim the lights before you are 500 feet from a vehicle coming toward you; dim the lights 300 feet from the rear of a vehicle being approached.

Keep the level of lights on the instrument panel bright enough to read the instruments, but not so bright as to interfere with visibility outside the bus.

Schedule start and return times of the trip with consideration of slower driving time at night.

## INTERIOR LIGHTING

The driver must be sure interior lighting during darkness is sufficient for passengers to enter and exit safely or when otherwise deemed necessary, as in the case of an onboard incident or emergency.

## WINTER DRIVING

Make sure your vehicle is ready before driving in cold weather. You should make a regular pre-trip inspection. Pay extra attention to these items:

- Make sure the cooling system is full.
- Make sure there is enough antifreeze in the system to protect against freezing.
- Make sure the defrosters work.
- Make sure the heaters are working.
- Make sure the windshield wiper blades are in good condition.
- Make sure the windshield washer works.
- Make sure there is plenty of washing fluid in the washer reservoir.
- Make sure the wiper blades press against the window hard enough to wipe the windshield clean.
- Make sure you have enough tread on your tires.
- Make sure lights and reflectors are clean and working.
- Remove any ice or snow from the windshield, windows, and mirrors before starting.

What we want to discuss here are several conditions related to ice and snow. Drivers who do not drive with respect for these conditions usually do not have experience driving under them. Bus drivers who operate daily under these conditions learn how to cope with these problems. Some of the things that will help us learn how to drive under these conditions are as follows:

You may have heard the terms "white ice" and "black ice." White Ice is a condition you can normally see, such as frost and snow. Black Ice is clear water frozen on black pavement. You usually cannot see or feel this ice until the vehicles are already on it. The key to driving during the winter is temperature. If it is below freezing, expect to find these conditions. There are times, during the early morning when freezing takes place and during the day when temperature warm up above freezing except in places where the roadway is heavily shaded. These areas will stay frozen all day. This condition is probably the most dangerous if you are not aware of it. Most roadways are posted with signs that warn of this hazard.

Because bridges and overpasses are first to freeze, take extra caution when approaching them and watch for other vehicles entering at a high rate of speed. During the winter months, many accidents occur at these locations.
A.R.S. 28-701 --

Reasonable and prudent speed
A.R.S. 28.958 --

Tire equipment restrictions

When driving under these conditions, roadways are five to ten times more slippery than dry roads. Caution must be taken when changing direction or speed. Accelerate slowly and use the brakes with caution. The following distance must be increased to make allowance for the mistakes of others.

## TIRE CHAINS

No person shall operate any motor vehicle without chains on any portion of the highway that has signs posted requiring chains.

There may be times when you will not be able to drive without chains even to get to a safe place. Carry the right number of chains, and make sure they fit your tires. Carry extra cross links. Check chains for broken hooks, worn or broken cross links and bent or broken side chains.

Learn how to put the chains on before you need to do it in the snow or ice.

When tire chains are on vehicles, drive at a speed that is reasonable and prudent. No person should ever drive faster than prevailing conditions permit.

## DRIVING IN HOT WEATHER

Check the tire mounting and air pressure. Inspect the tires every two hours or every 100 miles of continuous driving. Air pressure increases with temperature. Do not let air out of tires or the pressure will be too low when the tires cool off. If a tire is too hot to touch, remain stopped until the tire cools off. Pay special attention to recapped or retreated tires. At high temperatures the tread may separate from the body of the tire.

The engine oil helps keep the engine cool, as well as lubricates it, so make sure there is enough oil. If you have an oil temperature gauge, make sure the temperature is within the proper range while you are driving.

# DRIVING UNDER SPECIAL CONDITIONS 

Antifreeze helps the engine during hot weather as well as during cold weather. When driving, check temperature gauge to make sure it stays in the normal range. If the gauge goes above the highest safe temperature, stop driving as soon as possible and try to find out what's wrong. There may be something wrong that could lead to engine failure and possibly engine fire. Sometimes overheating can be prevented by running the heater. This should be done only in an emergency and for a short distance.

Some vehicles have sight glasses or see through coolant overflow containers. These permit you to check the coolant level while the engine is hot. If the container is not part of the pressurized system, its cap can be safely removed and coolant added; even when the engine is at operating temperature.

## NEVER REMOVE THE RADIATOR CAP OR ANY PART OF THE PRESSURIZED SYSTEM UNTIL THE SYSTEM HAS COOLED.

If coolant has to be added to a system without a recovery tank or overflow tank, follow these steps:

- Shut off engine.
- Wait until engine has cooled.
- Protect hands (use gloves or thick cloth).
- Turn radiator cap slowly to the first top, which releases the pressure seal.
- Step back while pressure is released from cooling system.
- Visually check level of coolant and add more coolant if necessary.
- Restart the engine before adding coolant.
- Replace cap and turn it all the way to the closed position.
- Loose belts will not turn the water pump or fan properly. This will result in overheating.


## DRIVING UNDER SPECIAL CONDITIONS

CONTENTS

Refer to A.A.C. R17-9-104(D)(8-9)

- Make sure coolant hoses are in good condition. Driving with a broken hose can lead to engine failure and even fire.
- High speeds create more heat for tires and the engine. Heat will increase chances of tire failure, engine failure or even fire.
- Tar in the road pavement often rises to the surface in very hot weather. Spots where tar "bleeds" to the surface are very soft and slippery.


## MOUNTAIN DRIVING

Mountain driving presents unique problems and situations that require greater attention to the same driving skills and expertise expected of all bus drivers. Steep grades, winding roads, falling rock, wildlife and unpredictable weather can present great potential risk and serious consequences. The margin for error is reduced and minor mistakes can develop into major problems.

Mountain driving requires a high level of concentration and a respect for the terrain.

This section provides information on how to safely travel in the mountains, and emphasizes driving procedures for dangerous downhill descents.

When traveling in the mountains, the driver should make frequent checks of the gauges and mirrors. These checks can warn the driver when something is wrong or about to go wrong; i.e., gauges, air pressure, engine temperature, oil pressure. Check mirrors for runaway vehicles from behind.

## - Maintaining Control.

Drivers must maintain control of the bus by use of the transmission (gearing down), use of the retarder (if equipped), and by use of the braking system. The bus is in control when it is maintaining a safe road speed, and maintaining a safe engine speed or revolutions per minute (RPM).

## - Maintaining Vehicle Control with the Transmission and Engine.

Braking is secondary. Engine compression is the first source of braking power, even if the bus is equipped with a retarder. When coming down a long slow grade, descend in a gear that is low enough to climb the same grade. On steeper grades and/or with a loaded bus, use at least one gear lower. You should be aware that an automatic transmission can up shift even when manually locked in gear if the engine reaches maximum RPMs. Keep your speed down.

Remember, the proper gear for the grade should be selected before descending and held to the bottom of the grade. Avoid the possibility of not being able to shift into the next lower gear.

It is important to maintain the manufacturer recommended RPM range for the gear selected to avoid over-revving or lugging, which may damage the engine.

## - Proper braking technique.

Select a gear so that at governed speed, the vehicle tends to stay at or below the posted speed limit. If speed increases, apply the brakes to moderately slow your vehicle to five to eight miles per hour below the target speed. Braking effort should be similar to that used to make a normal controlled stop at a traffic light. It should take approximately three seconds to decrease your speed from five to eight miles per hour. The driver should then release the brake and let the vehicle accelerate back up to governed speed. Subsequently, you should repeat the APPLY and RELEASE sequence until the grade levels off.

Brakes are designed so that brake shoes or pads rub against the brake drum or rotors to slow the vehicle. This action creates heat. Brakes are designed to take a lot of heat. However, brakes can fail from excessive heat caused by attempting to slow down from too high a speed too many times or too quickly.

# DRIVING UNDER SPECIAL CONDITIONS 

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Brakes will fade (have less stopping power) when they get very hot. Brake "fade" occurs when heat build-up causes the brake lining to glaze or deteriorate at high temperature. This decreases the effectiveness of the brakes and in extreme cases, will no longer slow the vehicle.

- Maintaining Vehicle Control with the Retarder.

The retarder is designed to slow the bus and/or maintain the bus at a safe speed. The most common retarders are: the electromagnetic retarder and the hydraulic retarder.

The electromagnetic retarder is mounted on the drive line of the bus and slows the drive line to the rear tires using electrical magnetic forces. Electromagnetic retarders have four levels of braking. Positions one and two are the most commonly used. Three and four are used in brief applications. If the fourth position is needed to maintain speed, then the bus is in too high a gear. Slow the bus using the brakes and shift to a lower gear.

Electromagnetic retarders can be active even with the engine off, as long as there is electrical power.

The hydraulic retarder is a fluid braking system which slows the bus by slowing the automatic transmission. The hydraulic retarder does not have the four distinct levels of braking as does the electromagnetic retarder. However, it can be applied to prove varying levels of braking.

Avoid continuous use of the transmission retarder as the transmission can overheat. It will not function if the engine is off. The retarder should be used for all slowing needs. Its use will maintain cool brakes for use in case of an emergency. Neither retarder system is designed to completely stop the bus.

Remember, retarders control only the rear wheels. Over retarding on icy roads can break the traction of the rear wheels causing the vehicle to skid. Use retarders on snow and ice cautiously.

# DRIVING UNDER SPECIAL CONDITIONS 

## - Maintaining Vehicle Control with the Brakes

In mountain driving, the force of gravity plays a major role. Gravity will tend to make the bus speed up when going down steep grades. You must go slow enough that the brakes will not overheat while maintaining a safe speed.

## - Effect of Speed on Stopping Distance

Whenever you double your speed, it takes about four times as much distance to stop, and your vehicle will have four times the destructive power if it crashes. By slowing down a little, you can gain a lot in reduced braking distance.

## - Escape Ramps

Escape ramps have been built on many steep mountain grades. Escape ramps are made to stop runaway vehicles safely without injuring drivers and passengers. Escape ramps use a long bed of loose soft material (pea gravel) to slow a runaway vehicle, sometimes in combination with an upgrade.

Know escape ramp locations on your route. Signs show drivers where ramps are located. Escape ramps save lives and equipment. Use them if you lose your brakes.

## EARTHQUAKES

While earthquakes are not a concern for this region of the country as a rule, the possibility that one could strike does exist.

## Minor Earthquakes

In minor earthquakes, stop and/or "take cover" procedures should be followed, and vehicles should be driven to a safe point and halted. If there is no reported damage to roads and structures, normal operations should resume when electrical service is restored if there are no fires or gas leaks, and no visible, serious damage to buildings.

# DRIVING UNDER SPECIAL CONDITIONS 

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## Major Earthquakes

This plan is intended for implementation only in case of major earthquake (usually 5.0 or above on the Richter scale) and/or where there is obvious damage to roads and structures.

The basic emergency plan assumes that damage will be widespread, roads will be difficult or impossible to use, and buses will be rerouted to those schools which are still operating. In local emergencies, such as chemical spills, follow the instructions from your district/company.

## Instructions for Drivers during an Earthquake

- If traveling, pull to the side of the road, away from tall buildings, trees, tall signs, street lights, and power lines, if possible.
- Do not stop on or below freeway overpasses or bridges.
- Monitor radio for instructions.
- Keep students on the bus because they are safer there.
- Students should be told to take cover by putting their heads between their knees and remaining in their seats until an "all clear" is given.
- When the shaking stops, avoid areas of downed trees, buildings or power lines and park the vehicle safely.
- Leave the door closed and go through the bus to check for student injuries.
- Calm the students and render first aid if necessary.
- Drive the students to the nearest school.
- If your vehicle is inoperable or the streets are damaged, keep your door closed and wait for assistance.


## DRIVING UNDER SPECIAL CONDITIONS

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Drivers are to await further instructions from their district/company. Even though students may be badly frightened, they must not be allowed to leave without adequate adult supervision. The driver should carry the bus roster (if available) personally to keep track of the students and report injuries during the emergency and to report the name and identification of any parent, school administrator, or police official relieving the driver of the responsibility for bus passengers.

## SEVERE THUNDERSTORMS OR TORNADOES/MICROBURSTS

## Procedure Prior to Emergency

If severe weather disturbances are threatening near school dismissal time, consideration might be given, in cooperation with school administrators, to retain students in safe areas at school or other nearby buildings until the threat has diminished. School bus drivers should be regularly drilled in tornado procedures.

The National Weather Service issues a Tornado Watch when the possibility of a tornado has been spotted or indicated on radar. Remember also, there may not be time for a tornado warning before a twister strikes. Tornadoes form suddenly.

TORNADO WATCH means that the conditions are right for a tornado.

TORNADO WARNING means that a tornado has been spotted or indicated on radar.

Investigate and become thoroughly familiar with all roads adjoining regular routes in the event that they would be needed to seek shelter.

Determine any buildings, homes with basements, ditch hills, culverts, or other places along routes where students might be evacuated and provided safety.

## Procedures during Emergency- School Bus Driver's Judgment

- Never try to outrun a tornado. No one can predict the tornado. Tornadoes can skip from one area to another.
- If a school bus is caught in the open when a tornado is approaching, the students should be evacuated from the bus and escorted to a nearby ditch, ravine, building, home basement, or place which might provide more protection than the bus. If they go to a ditch or ravine, they should be made to lie face down with hands over their head. They should be far enough away from the bus so the bus cannot topple on them.
- Remember tornadoes are only one of a thunderstorm's killer elements. Lightning is a major killer; heavy rains cause flash floods. Very strong winds can cause heavy damage. Large hail can be very damaging.


## Procedures After Emergency

- Listen to a radio for the "all clear" before leaving a shelter. There may be several tornadoes in your area.
- Check for injuries and seek medical aid if necessary.
- After the emergency, be extremely cautious and alert for weakened structures, trees, power lines, and other storm damage which may impede travel or constitute a hazard for students.


## RAILROAD CROSSINGS -AFFECTED BY WEATHER

## Warning Devices Might Be Affected By Weather

During wet, stormy, or foggy weather, before placing any part of the bus on railroad tracks, you must take all extra precautions to know conclusively that the crossing can be made safely. Any movement of warning signal or device maintained at such railroad crossings, such as ordinarily indicates the movements of trains, must be taken as an additional warning of danger.

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You must not accept a movement as indicating that the device is either in or out of order or not properly handled, but must always take movement as a conclusive warning danger. You must not cross the tracks while the warning signal is in motion until you have conclusively ascertained that, regardless of the warning signal, no train is approaching.

## SUSPICIOUS SUBSTANCES

A wise business owner/manager understands that no business is invincible and all are at risk of some form of terrorism or sabotage. With emergency plans in place and employees trained in proper procedures, an employer has the assurance that he is prepared for a potential disaster.

If anthrax or a suspicious substance is found in a vehicle, the safety of the passengers is foremost. Remaining calm and taking common sense precautions can reduce the possibilities of injuries.

## SAFETY PROCEDURES

1. Move the vehicle to a safe location as soon as possible and secure it.
2. Use available materials such as jackets, paper, wastebasket, etc. to cover the suspicious substance. Do not move or touch the substance.
3. Notify you dispatcher of the emergency and begin applying the procedures established in your employer's emergency plan. Avoid returning to the area of the bus that may be contaminated.
4. After everyone has been moved to a safe area, wait for emergency personnel to arrive. At no time should nonemergency personnel be allowed to enter the vehicle.
5. Documentation of all passengers on the bus, especially those who were closest to the substance is important to local officials and school personnel. This scene should be treated as an accident scene.

## DRIVING UNDER SPECIAL CONDITIONS

6. If the suspicious material has come on contact with your skin, wash your hands with soap and water; prevent spreading any powder to your face. Do not use bleach or other disinfectant on your skin.
7. Remove any and all contaminated clothing as soon as possible and place it in a plastic bag and seal it. Give the clothing to the proper authorities.
8. Shower with soap and water as soon as possible. Do not use bleach or disinfectant on your skin.

It is vital that school bus drivers be alert to any possible dangers to themselves and their passengers and do not allow themselves to become complacent as a result of the daily routine. A periodic review of the emergency plan serves as a good reminder of the procedures and the reasons for them.

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## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

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## HOMELAND SECURITY

## OBJECTIVE:

This section is designed to train school bus drivers on the knowledge and skills required to effectively identify and report perceived security threats as well as to appropriately react to actual security incidents if they occur.

In All Crisis/Security Situations You Must:

- Keep calm and assess the situation.
- Contact the supervisor and if necessary, emergency responders.
- If required - evacuate, relocate or shelter in place.
- Protect self and protect and assist the students.
- Identify self to and cooperate with first responder if the situation dictates.
- Follow school procedures and complete documentation.
- Option 1 - Be like an ostrich. Stick your head in the sand and ignore the possibility of acts of violence.
- Option 2 - Overreact. Live in paranoia and fear and negatively impact the quality of our lives in which case the terrorists have already won.
- Option 3 - Is why we're here. That is to keep our eyes and ears open, report suspicious activities and learn how to react to a crisis if it were to occur. This training will help to do that.


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## THREATS AND RISK

Threats to security can vary from the violent act of a deranged individual to a planned international terrorist event. The best protection against such an event occurring is to identify the perpetrator(s) before they carry out any violent action.

There are times however, when early detection is not possible and acts of violence may take place. School bus drivers play a significant role in security awareness that goes beyond their everyday duties.

The threat or use of force or violence to coerce a government or
Define Terrorism civilian population, in pursuit of political or social objectives Federal Bureau of Investigation

Potential terrorist targets include:

- Government buildings
- Mass transit vehicles and facilities
- Public buildings and assembly areas
- Symbolic structures and landmarks
- Communication facilities and systems
- Dams, highways, bridges and tunnels
- Water supply locations
- Nuclear power plants
- Pipelines and refineries
- Shopping malls
- Research laboratories
- Military facilities
- Airport and seaport stadiums


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The potential threat to our school system exists and should be taken seriously.

## TARGETING SCHOOLS, SCHOOL BUSES AND STUDENTS

School facilities and vehicles represent an attractive terrorist target for the following reasons:

- They are relatively unprotected and vulnerable.
- There would be a large number of potential casualties.
- They are located everywhere in the nation.
- Because children are involved, they represent an emotional target.
- Escape after an event would be relatively easy.
- Attacks would demoralize the community, state and nation.

A security threat is any source that may result in an event or occurrence that endangers life or property and may result in the loss of services or equipment.

A security incident is an unforeseen event or occurrence that does not necessarily result in death, injury, or significant property damage, but may result in interruption of service.

In the case of school buses and school facilities, the threat has been articulated by national and International terrorist groups and demonstrated by acts of violence perpetrated within school systems throughout the nation.

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## BE ON THE LOOKOUT "BOLO"

Be the eyes, ears and protector of the community in the same way that the Neighborhood Watch Program is. Be on the lookout for any suspicious people, activities, vehicles, packages or substances. Drivers know their operating environment, know what is usual and unusual and need to trust their gut reactions when they feel there is need for some level of concern.

- Protect yourself.
- Protect student passengers.
- Protect fellow citizens.


## Drivers do not replace law enforcement or other official antiterrorist agencies

If a driver comes into contact with anything that arouses suspicion, he should not try to detain any individuals or examine suspicious packages of substances. Immediately contact dispatch and report anything that appears suspicious.

Recommended procedures for school bus drivers:

- Remove keys from ignition whenever leaving the driver's seat. Never leave the keys in the ignition.
- Conduct pre-trip and post-trip vehicle inspections.
- Maintain uncluttered vehicle.
- Maintain fuel tanks at half full capacity whenever parked.
- Maintain constant awareness of people and activities.
- Trust your personal gut reaction.
- Immediately report any operational security weaknesses.


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Emphasize the importance of vigilance in the inspections.

During inspections drivers should look to see if there are marks or noticeable forced entry into the vehicle, unusual items attached to the vehicle or any opened or disturbed compartments.

## INSPECTING THE BUS, FACILITIES AND THE SURROUNDINGS

The first act in an effective school bus security program is the act of prevention. The normal bus pre-trip and post-trip inspection activities should be expanded to pay particular attention to security issues.

- Inspect the interior of the bus: floors, seats, under seats, driver's area and interior compartments for unknown objects or tampering.
- Inspect the interior lights to make sure they are operational and have not been tampered with.
- Inspect the steps and wheelchair lifts if the bus is so equipped.
- Inspect under the bus for items taped or attached to frame.
- Inspect wheel wells, exhaust system and fuel and air tanks.
- Inspect back and side emergency exit doors.
- Inspect the exterior of the bus for unusual scratches or marks by tools, signs of tampering, unusually clean or dirty compartments, or items attaché using magnets or duct tape.
- Inspect the engine compartment and other areas for foreign objects.

If anything unusual, suspicious or threatening is seen or found during the vehicle inspection sweeps or observed on or near school facilities, staging areas or student pickup / drop off points, school bus drivers should immediately notify dispatch and/or a supervisor about their concerts. Particular attention should be given to unusual or suspicious people or vehicles in the school bus staging area outside the school, as well as student pick up/drop off areas near their residences.

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Identify and Report. School bus drivers should not be concerned about looking foolish or reporting something that in the end turns out to be of no significance.

## UNUSUAL BEHAVIOR

Suspicious behavior could be exhibited by anyone who appears to not belong. This appearance of not belonging could be based on being in the wrong place, appearing lost, loitering, observing and taking notes, acting in a nervous fashion, dressed inappropriately for the weather or any other indicator the driver feels is strange or unusual. Identifying a suspicious person should not be based on stereotypes of race, color, or ethnicity (profiling), but rather on specific behavior or activity.

When a driver observes a suspicious individual or group of individuals, those concerns should be reported to dispatch and/or appropriate authorities as soon as possible.

Suspicious activities are basically anything the school bus driver may note that appears unusual or out of place.

## Characteristics of suicide bombers:

- May wear irregular or disproportionate clothing for body type or weather.
- May repeatedly pat their chest or stomach.
- May carry irregular, inappropriate or overweight luggage or bags.
- May move about without purpose.
- May sweat or act extremely nervous.
- May not make eye contact.
- May be non-communicative or uncooperative.

Never be confrontational or attempt to physically detain anyone.

## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

|  | When reporting suspicious people to the appropriate authorities, it <br> is important that as many physical characteristics as possible of the <br> individual(s) are reported accurately. Start at the top of their head, <br> scan down to their feet and then scan back up to their head again. <br> Pay close attention to: |
| :--- | :--- |
| - Eyes |  |
| - Ears |  |

## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

School grounds and school bus staging areas present an inviting opportunity for terrorists to use vehicle bombs in order to kill or injure people.

## REPORTING UNUSUAL VEHICLES

Any vehicle that could represent a threat and based on appearance, location and other factors deserving of concern.

Large and small vehicle bombs are extremely popular terrorist tools.

They are popular because:

- They can contain a large amount of explosives.
- They are easy to obtain and easy to deploy.
- They are inconspicuous and difficult to attack.
- They can be parked or driven very near a target.
- They are difficult to render safe.
- They create a mass casualty situation.

Indicators of vehicles which might present a threat:

- Vehicles that are repeatedly seen in the vicinity.
- Vehicles following or shadowing school buses.
- Vehicles parked in out of the ordinary or unauthorized locations.
- Vehicles parked for extended periods of time where one would not expect a vehicle to be parked.
- Vehicles riding low on springs, especially in the rear.
- Vehicles holding large containers, such as drums, in the rear or in the back seat.
- Vehicles with wire, string or ropelike material strung from the front seat to the rear or from small containers on the front floorboard.


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- Vehicles that are accompanied by unusual odors, such as fertilizer, diesel fuel, nitro methane or other fuel like odors.
- Vehicles whose occupants show sign of stress, are deceptive or reluctant to answer questions, tell conflicting stories or have no legitimate purpose to in the area.

When reporting a suspicious vehicle the following info should be noted:

- Location, if it is parked.
- Direction, if it is moving.
- Color
- Year
- Make
- Model
- License plate number and state
- Identifying features, e.g., convertible, damage, excessive rust, etc.
- Description of occupants

When a suspicious vehicle has been identified and reported, school bus drivers should evacuate their students and/or buses from the location and should refrain from using radios or cell phones within 300 feet of the suspicious vehicle to ensure that timing mechanism is not accidentally triggered.

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## WEAPONS

Weapons that terrorists and other perpetrators use, but not limited to:

BOMBS

Fifty percent of terrorist attacks worldwide are bombings and 85\% of terrorist attacks within the United States are bombings. They are also the terrorist weapon most likely to be encountered.

- They are the easiest to obtain.
- They have detailed instructions to construct.
- They may be used to cause massive local destruction or to disperse chemical, biological or radiological agents.
- Bombs and firebombs are cheap and easily constructed.


## CHEMICAL WEAPONS

Chemical agents are intended to kill, seriously injure, or incapacitate people through physiological effects. Categories of chemical agents classified by their affect on the body include nerve, blister, blood and choking. An incident involving a chemical agent will demand immediate reaction from all responders. Hazardous chemicals, including industrial chemicals and agents can be introduced via aerosol devices, breaking containers or covert dissemination. Such an attack might involve the release of a chemical warfare agent, such as a nerve or blister agent or an industrial chemical. Most chemical attacks will be localized and their affects will be evident in a few minutes. School bus drivers may well be able to identify the presence of chemical agents almost immediately after their release and would then have to react accordingly by evacuating upwind from the area of the release and immediately reporting the incident to their dispatcher or supervisor.

## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

Indicators of possible chemical agent release:

- Existence of a threat.
- Sick or dead birds, animals or people.
- Absence of insects or large quantities of dead insects.
- Signs that foliage is abnormally changing colors, withering or dying.
- Unusual liquid, spray or vapor in the air.
- Suspicious devises or packages.

Symptoms of a chemical releases are if two or more people are observed suddenly:

- Experiencing difficulty breathing or coughing uncontrollably.
- Suffering a collapse or seizure.
- Complaining of nausea.
- Complaining of blurred vision.
- Complaining of an unusual and unexplainable odor.


## BIOLOGICAL WEAPONS

People exposed to pathogens such as Anthrax, Ricin or Smallpox may not know that they have been exposed and those who are infected or subsequently become affected may not feel sick for some time. This delay between exposure and onset of illness is characteristic of infectious diseases. Unlike acute incidents involving explosives or some chemicals, the initial response to a biological attack is most likely made by hospitals or the healthcare community.

## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

Indicators of a possible biological agent release:

- Existence of a threat.
- Sick or dead birds, animals or people.
- Unusual illnesses within the region.
- Unusual liquid spray or vapor in the air.
- Suspicious devices or packages.


## RADIOLOGICAL WEAPONS

The difficulty of responding to a radiological incident is compounded by the nature of radiation itself. In an explosion the fact that radioactive material was involved may or may not be obvious, depending upon the nature of the explosive device used. Radiological detection equipment will be required to confirm the presence of radiation. School bus drivers should react to the initial explosion used to disperse radiological materials in the manner most appropriate for the circumstance and should evacuate the area before radiation is potentially detected.

Indicators of a possible radiological agent release:

- Existence of a threat.
- A presence of radiological equipment such as spent fuel canisters.
- Nuclear warning materials along with unexplained casualties.

Chemical, Biological and Radiological Weapons:

Different substances can affect individuals in different ways and can enter the body through a variety of ways:

- Being absorbed through the skin or eyes.
- Being injected through broken or punctured skin.
- Being ingested through the mouth.
- Being inhaled through the mouth or nose.


## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

Decontamination of Chemical, Biological and Radiological Weapons:

The determination about when decontamination may be necessary will be made by first responders and those managing the incident. Individuals potential exposed should be kept at the scene and isolated until the decision to decontaminate or not is made and to ensure that further contamination of other is prevented.

## PHYSICAL CHARACTERISTICS AND SENSORY SIGNS OF POSSIBLE WEAPONS

Suspicious items and devices have the potential to contain or be a part of an improvised explosive device or a chemical, biological or radiological release.

Suspicious packages are any bag, container, object, letter or package on a school bus that can't be identified as belonging to the driver or one of the student passengers. Of particular concern are packages that:

- Are placed in out of the way locations where they are not easily seen.
- Are accompanied by a threatening message.
- Appear that they could have the potential to be a bomb of some type.
- Have visible wires, batteries or timers attached.
- Are abandoned by someone who quickly leaves the scene.
- Have tanks, bottles or bags visible.
- Are accompanied by a suspicious cloud, mist, gas or vapor.
- Are common objects in uncommon locations, such as baby strollers or back packs.
- Are uncommon objects in common locations, such as gas cylinders?


## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

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If a suspicious package is discovered on the vehicle follow these 6 general rules:

- Never touch, move or cover a suspicious device or object.
- Move as far from a suspicious object as possible without being in further danger from other hazards such as traffic or secondary sources of explosion.
- Do not use a radio or cell phone within 300 feet of the object/device.
- Stay out of the object's line of sight, thereby reducing the hazard of injury because of direct fragmentation.
- Keep away from glass windows or other materials that could become flying debris.
- Remain alert for additional or secondary explosive devices in the immediate area.


## EVACUATING, RELOCATING OR SHELTERING IN PLACE

Accurately report information to authorities regarding potential or actual security events and decide upon and carry out the appropriate evacuation, relocation or sheltering response.

- The amount of risk present in chemical, biological and radiological exposure depends upon:
$>$ How long the individual was exposed to the agent (time).
> How far they were immediately able to get away from the agent (distance).
> Whether the agent was blocked from entering the body by some structure or layer of protection (shielding).


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- If the release occurs inside the school bus, everyone must be evacuated from the bus and moved as far away, preferably upwind from the bus, as possible. If the release occurs outside the bus, the driver should driver the vehicle as far upwind as possible while shutting all vehicle window and turning off all vents, heating and air conditioning systems.
- Regardless of whether the school bus itself is evacuated or if the bus is used to evacuate the area, the driver must immediately report locations and all events to dispatch and the appropriate authorities.
- Response priorities during any attack are to:
$>$ Protect yourself.
$>$ Notify appropriate authorities.
$>$ Protect student and others.
$>$ Assist students and others.
$>$ Quarantine victim.
$>$ Assist emergency responders.
- Notify authorities by explaining:
$>$ Your exact location and condition.
$>$ Type of injuries and/or symptoms.
$>$ Victim locations and positions.
$>$ Indicators of activities and objects.
$>$ Wind direction and weather on scene.
> Witness statements or observations.
$>$ Existing or potentially dangerous conditions.


## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

- Responses to protect others:
> If explosive device is suspected outside the school bus, open the doors and windows of the bus and if the vehicle can be safely moved, relocate vehicle upwind and away from the danger.
> If CBR release is outside the school bus, first shelter in place by staying in the vehicle, shutting HVAC off, closing windows and doors and if the vehicle can be safely moved, relocate the vehicle upwind and away from the danger.
> If explosive device or CBR release is inside the school bus evacuate student 1000 feet upwind and upgrade from the vehicle and prohibit the use of cell phones within 300 feet of the vehicle.
- Responses to assist others:
> Enlist the assistance of students or others to help victims.
$>$ Do not move injured victims unless they are in danger of further harm or exposure.
> Do not do things that you are incapable of doing or have not been trained to do.

Refer to individual school crisis plan.

## MANAGING THE STUDENTS AT THE SCENE

The school bus driver may well be required to manage the area where an explosive device was detonated or a chemical, biological or radiological agent was released until such time as first responders arrive on the scene.

## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

The following are actions to be taken by the driver until help arrives:

- Protect self and student passengers by getting as far away from the source of the incident as possible either on foot or in the vehicle, depending upon exposure location.
- Recruit responsible students to assist as may be necessary.
- Report the incident to dispatch and/or the appropriate authorities; include such information as location, injuries or symptoms, indicators of explosions or release, wind direction and the potential safest access route.
- Be alert for the potential of secondary explosive devices.
- Keep calm and reassure student passengers that help is on the way.
- Insure that no one uses cell phones or radios within 300 feet of the source or incident.
- Identify yourself to first responders upon their arrival.
- Inform first responders about what has occurred.
- Await direction from the Incident commander, be they fire department, emergency medical services or law enforcement and await direction form management.

Steps in assisting emergency responders include:

- Identifying yourself to arriving responders.
- Informing responders as to the nature of the threat or hazard.
- Informing responders as to the location and number of victims, as well as to the types of injuries and or symptoms.
- Explaining to responders what you've done so far.
- Remaining available to assist in any way possible.


## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

When communication with students in an emergency, always remain calm, work at communicating clearly, continuously update them on the situation, keep them under control in a safe location and be mindful of their age.

## HANDLING CONFLICT AND ACTS OF VIOLENCE ON THE BUS

When there is a potential threat of violence on board the bus the driver should always look for a way to diffuse the situation. The driver should also look for a way to alert their agency and/or law enforcement of the potential foe on vehicle violence. Ways to alert authorities regarding problems on the bus include radio communication, radio codes and/or a predetermined "catch phrase". Other way of communicating the need for emergency response might be to employ four way flashers or amber lights, to flash the high beams, to use a silent alarm button if the bus is so equipped, or to turn on internal vehicle lights if it is dark outside.

The bus should not be operated when threats of violence are occurring inside the bus. Park the bus in a public and well lit place with the doors opened.

If an individual is on the bus with a weapon, the school bus driver should never try to grab the weapon or make any sudden movements. If the driver is operating the vehicle he should let the assailant know verbally each move being made, such as turns, lane changes, stops, etc. Every effort should be made t make the assailant feel that the driver is cooperating and not making any attempt to resist.

When requesting emergency response it is critical that the school bus driver identify himself, provide an exact location and any other information about the vehicle as may be appropriate.

Once an event has taken place and has been resolved, it is critical that the driver complete all required reports and forms.

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## HOSTAGE SITUATIONS

The easiest way to prevent a school bus from being commandeered is to stop any suspicious looking person from actually boarding the bus.

- When approaching a staging area or student pickup/drop off point, school bus drivers should survey the area in order to identify any suspicious individuals or activities and pay particular attention to potential locations where a person(s) could hide.
- If the driver spots something very suspicious early enough and feels the presence of a direct threat, he should immediately call for assistance and drive the bus out of the area even if students are waiting to board.
- If the driver spots someone suspicious after having stopped the vehicle, he should not open the doors. Communicate with the individual through the drivers' window until a decision is made to either let the individual board or to quickly driver the bus away and report the incident.
- If a suspicious individual is seen at a railroad crossing do not open the school bus door. Contact the dispatcher.
- School bus drivers should be particularly concerned about anyone carrying what might be a weapon or a suspicious package. They should avoid boarding these individuals and immediately call dispatch and/or the appropriate authorities.
- Do not confront an individual who has a weapon. Act as if you don't see it. Stay calm and focused. If possible pretend the bus is broken down and get everyone off the vehicle and then contact dispatch about the situation.
- If an individual does board and commandeer the vehicle through the use of weapons, force or intimidation, the driver should follow all instructions given by the hijacker and avoid student passengers or self. The time immediately after a hijacking begins is the most critical in determining a peaceful out come. The driver must remain calm and not show outward signs of panic.


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- If the vehicle is parked, the driver should attempt to open or keep open the doors and allow every opportunity for passengers and the hijacker to exit the vehicle. If it seems appropriate, the driver may ask the perpetrator if the vehicle can be de-boarded but don't push too hard to end the situation.
- If asked to drive, the school bus driver should stay on their route, if possible, but don't stop at the usual stops so someone might notice and report it.
- The driver should employ methodologies to alert authorities about the situation. These might include deploying a silent alarm if the bus is so equipped, flashing high beams, employing four-way flashers or amber lights, turning the interior light on, using the horn, or using the radio, particularly with emergency codes. No action should be taken that could potentially increase the risk to the driver and/or student passengers.
- Talk to the hijacker and try to create a relationship. Stay in touch with the hijacker and don't antagonize the person. Continue to communicate and be both patient and assertive.
- In the end the best reaction to a vehicle being commandeered is to stay calm, use common sense, and follow the instructions of the perpetrator without going out of the way to assist him and either wait for emergency response to arrive or find a way to escape.


## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

## Bomb Threat Procedures:

Most bomb threats are received by phone. Bomb threats are serious until proven otherwise. Act quickly, but remain calm and obtain the most information you can with the checklist found on the opposite side of this page.

## If a bomb threat is received by phone:

- Remain calm. Keep the caller on the line for as long as possible. DO NOT HANG UP, even if the caller does.
- Listen carefully. Be polite and show interest.
- Try to keep the caller talking to learn more information.
- If possible, write a note to a colleague to call the authorities or, as soon as the caller hangs up, immediately notify them yourself.
- If your phone has a display, copy the number and/or letters off the window display.
- Complete the bomb threat checklist (next page) immediately. Write down as much detail as possible. Try to write down exact words.
- Immediately upon termination of the call, do not hang up, but from a different phone, contact 911 or proper authorities with your information.


## If a bomb threat is received by handwritten note:

- Call 911 and/or proper authorities.
- This includes supervisors, dispatch, etc...
- Handle note as minimally as possible


## If a bomb threat is received in an email note:

- Call 911 and/or proper authorities.
- This includes supervisors, etc...
- Do not delete the message.


## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

Signs of suspicious package by building, on/or around your bus, or bus stop:

- No return address
- Excessive Postage
- Stains
- Strange odor
- Strange sounds
- Unexpected delivery
- Poorly handwritten
- Misspelled words
- Incorrect titles
- Foreign postage
- Restrictive notes


## DO NOT:

- Use two-way radios or cellular phones; radio signal have the potential to detonate a bomb.
- Evacuate the building until police arrive and evaluate the threat.
- Activate all alarms, fire etc...
- Touch or move a suspicious package.


## HOMELAND SECURITY/EMERGENCY PREPAREDNESS



## HOMELAND SECURITY/EMERGENCY PREPAREDNESS



## HOMELAND SECURITY/EMERGENCY PREPAREDNESS

## GLOSSARY

1. NAPT 901 SCHOOL TRANSPORTATION SECURITY ASSESSMENT
2. SCHOOL BUS WATCH TRAINING MANUAL AND DVD - NAPT/NSTA/HIGHWAY WATCH, NATIONAL ASSOCIATION OF STATE DIRECTORS OF PUPIL TRANSPORTATION SERVICES
3. NEW MEXICO SCHOOL BUS DRIVER SECURITY TRAINING PROGRAM
4. SCHOOL TRANSPORTATION SECURITY AWARENESS, TRANSPORTATION SECURITY ADMINISTRATION - DVD
5. ZONAR DVD
6. SCHOOL BUS HELD HOSTAGE, STRATEGIES TRAINING SYSTEMS - VIDEO
7. HANDLING THE PARENT CONTACT, STRATEGIES TRAINING SYSTEMS
8. CAVE CREEK UNIFIED SCHOOL DISTRICT EMERGENCY OPERATIONS PLAN AZ DEPT OF EDUCATION, AZ DIVISION OF EMERGENCY MANAGEMENT AUGUST 2006

## ACCIDENTS AND EMERGENCIES

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## ACCIDENTS AND EMERGENCIES

Discuss transportation procedures, liability issues, insurance carrier requirements, etc.

Emphasize that the school bus driver is not to make any statement of liability.

## INTRODUCTION AND OBJECTIVE

The objective of this section is the prevention of accidents and other emergencies. We know that they do happen, so you need the skills to handle them. School bus drivers who are stressed, ill, or unskilled are more likely to be involved in an accident than healthy, well trained drivers.

General conclusions based on statistics indicate that at least half of all school bus accidents are preventable. A large number are due to faulty judgment of distance. Some accidents involve backing the bus. Most accidents involve the collision between a school bus and another vehicle or stationary objects. With the exercise of good judgment, awareness, caution and observations, most accidents could be prevented. (In other words, by being a defensive driver.)

If a school bus accident is caused by mechanical failure, the failure is more likely to be brakes than any other system.

While vehicle collisions, especially school buses, get a lot of attention, statistics indicate that more students are seriously injured or killed approaching or leaving the bus than on board the bus.

Personal liability is a job factor that each driver possesses. You may be held accountable for acts separate from any decision regarding the school's or employer's liability. If a violation of the law is involved, the driver is the one cited.

Your primary responsibility is to your passengers! Therefore, it is essential to stay calm. Your actions will influence your passenger's actions. If you are physically unable to perform your duties, direct a responsible person to do them for you.

## ACCIDENTS AND EMERGENCIES

STRESS: Activities inside the bus, such as screaming or throwing objects, can distract a driver and lead to a collision.

## WHAT CAN BE DONE TO AVOID COLLISIONS?

- Instruct passengers on school bus rules and enforce those rules. Consistency is the key to conforming students to conforming to the rules.
- Instruct passengers about safety precautions. Make sure passengers wait safely for the bus; that they approach and leave the bus safely.
- Pay close attention to the driving task. Driving is a full-time job requiring your full attention.
- Gain the proper skills necessary to maneuver the bus and use common sense - DO NOT MOVE THE BUS IF IN DOUBT!
- Conduct a thorough inspection to detect vehicle defects that may produce a crash or mechanical failure. You and your school district are both accountable for maintaining a safe vehicle.


## HOW TO ENSURE STUDENT SAFETY

- Account for all passengers by obtaining a list of names, addresses, and where they are seated in the bus. Two copies will be needed.
- Check for injuries; use the passenger list to indicate injuries.
- Check for possible fires:
> Ruptured fuel tank, leaking or broken fuel lines.
> Hot tires, etc. DO NOT TOUCH a SUSPECTED HOT TIRE. Place your hand near the tire to see if heat is being radiated.
- Don't leave students unattended and/or unsupervised.
- If you must leave the students to attend to the vehicle or warning devices, have an adult or a trustworthy student supervise the remaining students on board.


## ACCIDENTS AND EMERGENCIES

Discuss the following situations where you may want to remove students from the bus:

- If there is a fire. This includes being in the presence of fire or near flammable liquids or gases.
- Low visibility
- If the bus is in danger of being hit by other vehicles or a train.
- If the brakes fail, the bus could roll into further danger such as into deep water or over a cliff.

Discuss standing in a group, line, etc. An older student may watch out for smaller students by using the "BUDDY SYSTEM".

Make sure the hazard warning lights are activated immediately following an accident.

## POST-ACCIDENT PROCEDURE

When you're in an accident and not seriously hurt, you need to act to prevent further damage or injury. The basic steps to be taken at any accident and/or emergency are to:

- Assess the situation.
- Protect the area. DO NOT MOVE the school bus until authorized to do so. Remain at the scene.
- Notify authorities.

If your bus is involved in the accident, you will need to decide whether the passengers are to remain on the bus or if they should be evacuated. If the bus is in a safe place, the passengers are probably best left on the bus. If you take them off there is a possibility of a student getting in the way of rescue personnel, or being hit by other vehicles. Also, ensure that none of the students wonder off or are taken from the scene without approval.

When a school bus is evacuated, the students should be taken at least 100 feet away from the roadway or as far as needed for the students' safety. Buses can be replaced, students cannot. Have the students stand or sit in a large group so you can conduct a student count.

Be aware that parents of the students on your bus who happen upon the scene will want to take their child with them. Reassure the parent that this procedure is necessary and when everything has settled down you will need to account for every passenger. Discuss district policy.

After you are sure your passengers are safe, then you should exchange information with the other driver. Your bus may be equipped with a form for you to fill out. Information needed will include:
> Name
$>$ Address
$>$ Driver license number

## ACCIDENTS AND EMERGENCIES

Refer to A.A.C.R-17-9104(E) -- Accident Notification

Discuss emergency exits. Use overheads to show exits. Moreover, explain how to use.
A.A.C. R17-9-

104(D)(30)

## $>$ Vehicle registration

## > Insurance information

You should also get the names and phone numbers and/or address of any witness.

## UNDER NO CIRCUMSTANCES SHOULD YOU DISCUSS THE ACCIDENT WITH ANYONE OTHER THAN YOUR SUPERVISOR OR LAW ENFORCEMENT PERSONNEL.

The Arizona Department of Public Safety requires that ALL accidents involving even as much as a transfer of paint, BE REPORTED to the Student Transportation Office.

It is the responsibility of a bus driver to immediately report any collision to their employer, regardless of the damage to the bus. Notification needs to be made before the vehicle is moved.

## EMERGENCY EVACUATION DRILL

The best way to prepare for any emergency is to train those who may be involved and to practice the proper procedures. All drivers are required to participate in all evacuation drills. Having a preemergency plan for each school bus and a route that includes all students being transported will save precious lives and time. In many emergencies, only 2 to 5 minutes are available to complete an evacuation before possible serious injury to passengers might occur.

## Minimum Standards for School Bus Operation:

"At least twice during every school year, a school shall conduct an evacuation drill that includes every passenger who rides a school bus and is in school on the date of the evacuation drill." Remember that even those students who do not ride the bus will participate in activity trips. Special needs passengers are not exempt from this requirement. The drills help every student who rides a school bus to learn what to do in an emergency requiring an evacuation of the bus. The drill also allows the driver to practice evacuation instructions to passengers and exit plans.

## ACCIDENTS AND EMERGENCIES

Recommended videos:
"Bus Evacuation Drill", "Emergency
Evacuation", "School Bus Emergency
Evacuation", or "We
Handled It Like a Family"

## EVACUATION DRILL PROCEDURE

Passengers should leave all personal belongings on the bus, except jackets if the weather is cold. Passengers should be instructed with demonstrations of the following:

- Location and operation of the two-way radio or cellular phone. Also where emergency telephone list is kept.
- Location and operation of all emergency exits including doors, windows, and roof hatch locations.
- Location and how to remove the reflective triangles, fire extinguisher and first aid kit. Demonstrate the use of each.

The driver is responsible for the following:

- Stop the bus, set the parking brake, turn off the engine and remove the key from the ignition.
- Open the door, stand and get the passengers' attention.
- Give the command, "Remain seated. This is an emergency evacuation drill."
- Discuss use of parking brake, ignition and two-way communication system.
- Evacuate passengers according to district/company policy.
- Evacuate alternating from side to side, one row at a time, until the bus is empty.
- When the last seat is empty, walk through the bus to see that no one is still on.
- Passengers should be at least 100 feet from the bus. The driver joins them and accounts for passengers.


## ACCIDENTS AND EMERGENCIES

INSTRUCTOR'S GUIDE
CONTENTS

Discuss: Drivers are to activate alternating flashing lights on routes to and from home and to school only!

Discuss communication devices and the importance and different types available.

Give hand out on placement of triangles.

Discuss the dangers involved if students set out triangles.

Have first-aid kit available to view.

## WHAT TO DO IMMEDIATELY AFTER AN ACCIDENT

The first thing to do at an accident scene is to keep another accident from happening at the same location.

- Activate hazard-warning lights.
- Place transmission in neutral or park.
- Set parking brake.
- Turn off ignition and take keys.
- Remain calm and reassure the passengers.
- Determine where you are. Give the exact location.
- Call, radio, or send for help.
- Set out the reflective triangles as specified in A.R.S 28-961.
**** Students should not put reflective triangles on the roadway!****


## EMERGENCY EQUIPMENT AND ITS USE

## First Aid Kit

A. A removable, moisture and dust proof first-aid kit is required to be properly secured and readily accessible to the driver. The location shall be marked.
B. If any item is removed from the first-aid kit, it must be replaced immediately upon returning to your base.

## ACCIDENTS AND EMERGENCIES

A.A.C. R17-9-110(2)

Have a Body-Fluid Cleanup Kit available to view.
C. The first-aid kit shall, as a minimum, contain the following:

- 2-1" $\times 21 / 2 "$ yards adhesive tape rolls
- 24 - Sterile gauze pads 3 " x 3"
- 8-2" adhesive bandages
- 10-3" adhesive bandages
- 2-2" x 6 " sterile gauze roller bandages
- 4 - Triangular bandages approx. 40 " $\times 36 " \times 54$ "(with 2 safety pins)
- 3 - Sterile gauze pads 24 " $\times 24$ "
- 3 - Sterile eye pads
- 1 - Rounded-end scissors
- 1 - pair of non-latex gloves
- 1 - Mouth-to-mouth airway


## Body-Fluid Cleanup Kit:

A. A removable, moisture and dust proof body-fluid cleanup kit is required to be properly secured and readily available to the driver.
B. If the body-fluid cleanup kit is used, It must be replaced immediately upon returning to your base.
C. The body-fluid cleanup kit shall, as a minimum, contain the following:

- 1 - pouch of solidifier with chlorine
- 1 - Pick-up scoop with scraper
- 1 - Pair of non-latex gloves
- 2 - Disinfectant hand wipes (antimicrobial)
- 2 - Plastic disposal bags with ties (marked BIO

HAZARD)

- 2 - Germicidal towelettes effective against HIV\& TB
- 2 - Paper crepe towels
- 1 - Easy to follow instructions

Red Reflective Triangles (3)

Demonstrate the assembly of reflective triangles.

## ACCIDENTS AND EMERGENCIES

INSTRUCTOR'S GUIDE
CONTENTS

Recommended video to show: "Just in Case" (suppression of fires on a school bus)

Stress: Students should not fight fires.

> A.A.C. R17-9-107-9

Discuss: In most cases a fire needs three things in order to burn: Fuel, Heat, and Oxygen. If any one of these elements are removed, the fire is extinguished.

## Fire Extinguisher

A. The bus shall be equipped with at least one pressurized, dry chemical type fire extinguisher, mounted in a bracket with a current inspection tag and a pin installed. The location shall be visible and readily accessible to the driver.
B. A pressure gauge shall be mounted on the extinguisher to be readable from the mounted position.
C. The fire extinguisher shall be the type rated not less then 2A-10-BC by the Underwriters Laboratories Inc. The operating mechanism shall be sealed with a type seal that will not interfere with the use of the extinguisher.

Extinguishing the fire. Here are some rules to follow in putting out a fire:

- Know how the fire extinguisher works. Read the instructions on the extinguisher before you need to use it.
- When using the extinguisher, stay as far away from the fire as possible.
- Aim at the source or base of the fire, NOT up in the flames.
- Position yourself upwind. Let the wind carry the extinguishing agent to the fire rather then carrying the flames to you.
- Continue until whatever was burning has been distinguished. The absence of smoke or flame does not mean the fire is out; it can and may start again.
- Only try to extinguish a fire if you know what you are doing and it is safe for you to do so.


## ACCIDENTS AND EMERGENCIES

Stress: Saving a bus is not worth risking injury or death.

See A.A.C. R17-9104(A) and A.A.C. R17-9-108(D) -- Operations Check

Refer to A.A.C. R17-9104(D)(25) -- Check Tires

Refer to A.A.C. R17-9104(D)(10) -- Fueling in closed building prohibited.

## Vehicle Fires

Vehicle fires can cause damage and injury. You must learn the causes of fires and how to prevent them. Know how to extinguish fires. The following are some causes of fires:

- After Accidents Spilled fuel, improper use of fuses or flares.
- Tires Under inflated tires and duals touching.
- Electrical System Short circuits due to damaged insulation. Loose fuel connections.
- Fuel Drivers smoking, improper fueling, loose fuel connections.
- Cargo
(On other vehicles)
Flammable cargo, improperly sealed or loaded. Poor ventilation.

Pay attention to the following:
Pre-Trip Inspection - Make a complete inspection of the electrical, fuel and exhaust systems, tires and cargo.

Enroute Inspection - Check the tires and wheels for heat whenever you stop during a trip (every 2 hours or 100 miles).

Follow Safe Procedures - Follow correct procedures for fueling the bus, usage of brakes, and other activities that can cause a fire.

Monitoring - Check the instruments and gauges often for signs of overheating, and use the mirrors to look for signs of smoke from the tires or engine.

## ACCIDENTS AND EMERGENCIES

## Classes of fires

## Class "A"

Fires of ordinary combustible materials where the "quenching" and "cooling" effects of quantities of water or solutions containing large amounts of water is of first importance. Example: Fires in wood, textiles fabrics, rubbish, etc.

## Class "B"

Fires in flammable liquids, petroleum, etc., where the blanketing or smothering effect of extinguishing agent is of first importance. Example: Fires in gasoline, oil and grease in tanks, containers, or open vats or running freely on the floor or ground.

## Class "C"

Fires involving electrical equipment where the use of a "nonconductor" extinguishing agent is of first importance. Example: Fires involving electrical switch boards, motors, or wiring.

Knowing how to fight fires is important. Fires have been made worse by drivers who didn't know what to do. Here are some procedures to follow in case of fire:

Pull off the road. The first step is to get the vehicle off the road and stopped. In doing so:

- Park in an open area away from buildings, trees, bushes, other vehicles or anything that might catch fire.
- Do not pull into a service station!
- Use your radio or phone to notify the fire department or follow your districts procedures to your problem and your location.
- Evacuate your bus.


## ACCIDENTS AND EMERGENCIES

Refer to A.R.S. 28-4033

- financial responsibility requirements

Keep the fire from spreading. With an electrical or engine fire, turn off the engine as soon as you can. Don't open the hood. Shoot the extinguisher through the louvers, the radiator, or from the underside of the vehicle.

Water can be used on wood, paper or cloth. However, do not use water on an electrical fire (you could be shocked) or a gasoline fire (it will spread the flames).

## LIABILITY AND THE SCHOOL BUS DRIVER

Drivers often ask "If I have an accident in a school bus, am I liable for the cost of the accident?" State and federal laws mandate that a school district, contractor, or owning entity carries basic amounts of insurance to protect their employees. These entities will generally carry more insurance then what is mandated under an additional policy called an umbrella policy. Both of these policies should be sufficient coverage. Should a lawsuit occur as a result of an accident or incident involving a school bus, the driver as an employee along with the owning entity, whether it is a school district or contractor would be named in the lawsuit.

## EMERGENCY EVACUATION DRILL PROCEDURES

To ensure the safety of school bus passengers in an actual emergency, every school bus driver assigned to transport students on regular routes should assign an evacuation team at the beginning of each school session; on activity trips or field trips the evacuation team should be assigned prior to each trip. The team may consist of teachers, coaches, students or any other passengers. Remember that walkers may, at times, ride a school bus on field and activity trips and should receive ridership training.

Passengers assigned to evacuation teams must be seated where they can effectively carry out their responsibilities in an emergency.

Each evacuation team should consist of at least the following:

- A passenger should be assigned to set the parking brake, turn off the engine, turn on the hazard lights, call in on the radio or other means, and report the incident to the transportation department in case the driver is unable to do so.
- A passenger should be assigned to leas passengers to a safe location at least 100 feet from the bus and to take the first aid kit off the bus.
- Two passengers should be assigned to stand outside the bus next to the exit doors, to help students exit the bus and to take the fire extinguisher.

In addition to assigning an evacuation team, the following information should be discussed and/or demonstrated at each evacuation drill during the school year and prior to each activity trip or field trip.

- Location and use of the fire extinguisher.
- Location of the first aid kit.
- Location of the warning reflectors.
- Location and use of all emergency exits.
- How to shut off the engine and set the parking brake.
- How to open the front door, to include safety releases on manual, air, or vacuum doors if so equipped.


## EMERGENCY EVACUATION DRILL PROCEDURES

## Suggested Presentation for Activity Trip Evacuation

"My name is $\qquad$ , and I will be your bus driver for this trip.

Even though a school is the safest means of transportation available, emergencies do happen so I want to remind you of the procedures that you and I must follow in the event of an emergency.

If it becomes necessary to evacuate the bus, you will follow these rules:

- You should remain seated and quiet until the bus is completely stopped. Do not change seats unless instructed to do so by the teacher or myself. You should face forward in the seat, keep your hands, feet and head away from the windows and inside the bus at all times. You should be courteous to others and pay attention to the bus driver, teacher and evacuation helpers.
- When you are moving to the proper emergency exit, do not push or shove. While leaving the bus, please use the handrails or be assisted by the evacuation helpers. Watch for traffic and/or pedestrians. Walk directly to a safe area and remain there with your group.
- Be sure you move away from the front, sides, or back of the bus. These are all areas where you cannot be seen from inside. If the bus was moved while you were standing in one of these areas you could be seriously injured or killed. These areas are called the danger zones. So, remember to stay away from the danger zone areas."

At this time you should appoint the evacuation helpers and leader. You have had time to evaluate the riders. Pick the older, more mature students. Assign their positions.

If chaperons or teachers are on the field or activity trip, they should be assigned to areas where they can be the most help in the event of an emergency.

The following presentation will vary with the type of bus and number of exits to be evacuated. Keep it simple.
"If an emergency situation happens, I will direct the assistants to their positions near the emergency exit door. I will then ask an assistant to open the emergency door and jump out to take position by the door. I will then have the next assistant jump out to stand on the other side of the door. The evacuation leader can then be helped out (if possible, take the first aid kit) and will lead the other students about 100 feet ( 50 paces) from the bus where all the passengers will regroup.

Then last passenger to leave the bus by the front door will pick up the fire extinguisher (if possible) and join the group. The fire extinguisher and the first aid kit are located $\qquad$ .

## EMERGENCY EVACUATION DRILL PROCEDURES

The evacuation leader will help you with any problems when you join the group. Please walk to the regrouping area and remain there quietly until everyone has evacuated the bus.

Are there any questions? Thank you for your attention. I'm glad to have such a group of passengers. I know if anything goes wrong you will be able to handle it. Enjoy your ride."

## Front-Door Evacuation

- Stop the bus and shut off the engine in a preselected location on the school grounds.
- Make sure the parking brake is set and the key is not in the ignition; then open the service entrance.
- Stand and face the students. Give the following command: "Remain seated. This is an emergency drill--front door evacuation. Leave all books, coats (unless cold), and other items on the bus."
- Dismiss students starting with the right-hand front seat, tap the shoulder of the student nearest the aisle. Direct the student to walk, not run, and use the handrail.
- Hold up your left hand to restrain seat occupants to the left side until it is their turn.
- Move down the aisle, dismissing seats of students alternately until the bus is empty.
- As students leave the bus, they should proceed in an orderly pattern behind the student assistant to a distance of at least 100 feet (about 50 paces) from the side of the school bus. Designation of a reference point is sometimes helpful.
- Students should remain quietly in a grouping defined by the student assistant until you are able to give them further directions.


## Rear-Door Evacuation

- Stop the bus and shut off the engine in a preselected location on the school grounds.
- Make sure the parking brake is set and the key is not in the ignition; then open the service entrance.
- Stand and face the students. Give the following command: "Remain seated. This is an emergency drill--rear door evacuation. Leave all books, coats (unless cold), and other items on the bus."
$>$ Train a student to carefully and properly open the rear emergency exit.


## EMERGENCY EVACUATION DRILL PROCEDURES

$>$ The student must understand not to open the door until you give the command.

- Explain and demonstrate the method to be used for exiting the bus.


## Shoulder-Guide Method

$>$ Two student assistants stand outside with their backs to the rear of the bus, one on each side of the door opening.
$>$ Students are to jump down while guiding themselves by placing their hands on the shoulders of the student assistants. Another method is to have the student sit down at the door opening and push off.

A third student assistant may be used to lead students quickly away from the bus in an orderly fashion.

## Helping Hand Method

Caution should be used whenever this method is enforced due to the danger of injury involved.
$>$ Two student assistants stand outside facing the bus, one on each side of the open door.
> The assistants extend helping hands to guide the students as they jump down.
> Let each student decide how much help he or she wants; avoid grasping a hand or arm.
> Explain how to jump from the rear door with knees flexed to absorb shock.
$>$ Remember, students may also sit down and slide out of the door.

## Front and Rear Door Evacuation

- Stop the bus and shut off the engine in a preselected location on the school grounds.
- Make sure the parking brake is set and the key is not in the ignition; then open the service entrance.
- Stand and face the students. Give the following command: "Remain seated. This is an emergency drill, front and rear door evacuation. Leave all books, coats (unless cold), and other items on the bus."


## EMERGENCY EVACUATION DRILL PROCEDURES

- Walk to the center of the bus between students sitting in seat row 6 (or to a point where there are an equal number of seats in front and back of your position) and face the rear of the bus.
- All students to the front and those sitting in row 6 to your left will leave by the front service entrance upon command.
- All students to the rear and those sitting in row 6 to your right will leave by the rear emergency door upon command.
- Use the same procedures outlined for front-door evacuation and rear-door evacuation, except that students will have to move out by themselves upon command.


## Suggested Evacuation of Special Needs Students

Transportation staff should have an emergency evacuation plan which considers the individual capabilities and needs of each student, the type of behavior which might be exhibited during an emergency evacuation, and the type of wheel chair support equipment being used for students.

## Issues to Consider in Establishing an Evacuation Plan

- Which students could help and to what extent.
- How to deal with individual emergencies such as seizures during the evacuation process.
- Whether students should be evacuated in their wheelchairs or removed from their wheelchairs before evacuation. Exercise caution: Some students have catheters or are tube fed. The hose or tubes have to be anchored somewhere and are sometimes anchored to the wheelchair. To evacuate them, bodily (including internal) hookups to the student are likely to be ripped from the body which could cause severe internal problems.
- How to disconnect or cut wheelchair securement and occupant protection equipment, including belts, trays, and other support equipment.
- Which students might run after evacuation so they can be evacuated last.
- The length of time a student requiring life support equipment or medical care procedures can survive if such service is interrupted or delayed during the evacuation process.


## EMERGENCY EVACUATION DRILL PROCEDURES

## Category

Deaf/Hard of Hearing

Deaf/Blind

Special Needs

Educationally Handicapped

Develop routines of word commands for evacuation.

Maybe a designated helper for blind students.
Evacuation Procedure
Have student evacuate by walking or crawling to nearest unrestrictive exit.

Have helper assist driver using fire extinguisher, if necessary.

Have helper control other students at control area.

Get attention by "tapping twice" on shoulder.

Use finger spelling to indicate evacuation.

Ambulatory (walk off).
With capabilities to help other students evacuate.

Have students assist driver by using a fire extinguisher, if fire present.

## Comments

Mild communication problem; look and speak directly at student.

No noted mobility problems.

Restricted communication problem.

No mobility problem.

Limited communication problem.

Assess each individual to determine if they can or cannot help.

## EMERGENCY EVACUATION DRILL PROCEDURES

## Category

Multihandicapped and
Orthopedically Impaired

Other Health Impaired and Seriously Emotionally
Disturbed Speech Impaired

Specific Learning Disability

Evacuation Procedure
Nonambulatory (confirmed to some seating device). May crawl or need to be carried to exit.

Use a firm tone and physically direct student to an emergency exit.

Student may have to be guided by another student to control area.

Have student evacuate by walking to nearest exit assisted by helper.

Speak slowly, clearly and use simple sentences.

Visually Handicapped

Can walk off with help of a selected helper.

Have student hold hands with another student while evacuating. Use same method in control area.

## Comments

May have extreme communication and mobility problem.

Difficult to communicate with students.

Students have mobility to walk off bus.

May not understand instructions in emergency situations.

Can communicate.

Has mobility.

## SUMMARY

Accidents do happen. When they do, it is too late to begin teaching an emergency procedure. The main purpose is the instruction of passengers at all age levels on their responsibility as school bus passengers. Knowing about all escape routes, where each is located, how each one works, and the proper procedure for leaving a school bus in an emergency is extremely important.
Front Door Evacuation

Rear Door Evacuation


## SIDE DOOR EVACUATION



## SIDE \& REAR DOOR EVACUATION



## REAR, SIDE AND FRONT DOOR EVACUATION



## FRONT AND SIDE DOOR EVACUATION


FRONT AND REAR DOOR EVACUATION


## LOADING/UNLOADING

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Danger Zone films are available in training kits.

Stress: Loading zones are death zones.

You are responsible for the health, safety, and welfare of the passengers who ride your bus. To keep them safe, you must be able to control them as well as you control the bus. But passengers aren't always as predictable as your vehicle. In this section, you will learn how to control your bus and your passengers:

- During loading and unloading
- During the ride
- In cooperation with school officials and parents


## LOADING AND UNLOADING

One of the most important maneuvers you make is the loading and unloading of passengers. Experience shows that this is the most dangerous part of a trip.

For every child killed as a passenger in a school bus, another three or four are killed in school bus loading zones. Of the children killed in loading zones, two thirds are struck by school buses. Children five and six years of age appear to be the most vulnerable to being struck by their own school bus.

Accident data shows that children are at greater risk of being killed in school bus loading zones than on board school buses, although, for non-fatal injuries the reverse is true. No other process requires greater communication and coordination between students and the driver than loading and unloading. Both the driver and the students must cooperate to maximize safety.

The driver must learn procedures for controlling traffic, for crossing passengers, for loading and unloading passengers, and for the proper seating of the passengers.

First, consider the equipment on the bus necessary to accomplish these purposes.

# LOADING/UNLOADING 

Refer to state law on
School Bus Flashing Warning Light System.

Refer to A.A.C. R17-9-104(B)(1) -Activate lights at a distance of 100 ft .

See A.R.S. 28-930 -Special lighting equipment on school buses.

Summarize this rule and provide a handout for trainees to refer to. As you summarize the rule, have the class take notes, particularly for the type of bus in your school district.

Refer to A.A.C. R17-9- 104(D)(32) -- Use of strobe light.

Refer to other sections of the law as applicable to loading and unloading.

## LIGHTS

Eight Light System. When an eight-light system is used, the alternately flashing amber lights on the school bus shall be activated a minimum of 100 feet before a school bus stop. On roads with higher speed limits, it is recommended that lights be activated 300 feet prior to making the stop. The alternately flashing red lights are to be activated and the stop arm extended whenever the school bus is stopped on a road for the purpose of loading or discharging pupils.

Four Light System. When a four-light system is used, the red lights will be activated a minimum of 100 feet before the school bus stop. On roads with higher speed limits, it is recommended that lights be activated 300 feet prior to making the stop. They will be activated and the stop arm extended whenever the school bus is stopped upon a road for the purpose of loading or discharging pupils.

Flashing Strobe. A white flashing strobe light may be used only during periods of low visibility.

## BUS STOPS

Every effort should be made to establish bus stops in the safest available locations. Consider the following:

- Is the visibility good?
- Are there heavy traffic problems?
- Would it be a safe bus stop?
- Is property damage to residences likely to happen?
- Are there animals nearby?
- Are there preschool children in the area?
- Are there commercial buildings nearby, such as liquor stores, quick stop food stores, massage parlors, pool halls, etc.?
- Should the designated bus stops be changed? If so, why?


## CONTENTS

If a situation should develop which would make a designated stop dangerous for the passengers, the supervisor should be advised so that corrective action can be taken.

When approaching a designated bus stop, the driver shall check all mirrors for traffic, gradually reduce speed with minimal brake usage without interrupting the flow of traffic, and activate the overhead flashing lights prior to the stop. Apply right turn signal indicators showing that you are going to move to the right, keeping 2-3 feet from curb or shoulder.

Refer to A.A.C. R17-9104(B)(3) -- Distance between stops must be 600 ft . and bus must stop as far to right as possible.

Refer to A.A.C. R17-9-104(B)(4) -- Bus shall not stop in a position from which passengers would load or unload on the traffic side of the bus.

Refer to A.A.C. R17-9-104(B)(5) -- must cross 10 ft . in front of bus.

The number of bus stops for the purpose of loading and unloading passengers shall be held to minimum and at no time closer than 600 feet intervals unless such stops are necessary for safety. The bus must be brought to a complete stop with the right wheels parallel to the curb, and as near to the right edge of the traveled portion of the street or highway as possible. When picking up students, always stop 10 feet from the nearest student. Stress to the passengers that they should stay in line, waiting 10 feet back from the bus until it has come to a complete stop and the front door opened. Have passengers go directly to their seats as prescribed by district policy. This provision does not apply to stops for special education students. A school bus shall never be stopped on a road in such a position that passengers are received or discharged on the traffic side of the bus.

After the bus has come to a complete stop, the driver shall extend the stop arm and activate the alternately flashing red lights, keep the right foot on the brake pedal, put the transmission in neutral and apply the parking brake. Give the motoring public a chance to react to the flashing red warning lights. Scan all mirrors to see if traffic is stopped and the road is clear in both directions before opening the door to load or unload. In most cases, the driver shouldn't allow students to get off the bus until passing cars have stopped. The driver is responsible for the safety of all students crossing the roadway, regardless of their grade level.

Students who must cross the road should line up 10 feet in front of the bus and look up at the driver. No one should go beyond the left front fender without checking traffic. The driver must check traffic in both directions and watch students to make sure they can safely cross. While performing this operation, remember that you, the school bus driver, are not a traffic officer, and have no rights other than a regular motorist. In other words, do not signal any

## LOADING/UNLOADING

Refer to A.R.S. 28-857
-- passing stopped school bus.

Refer to A.A.C. R17-9104(D)(5) and A.R.S. 28-901 -- passengers must be properly seated.

See A.R.S. 28-901 and also A.A.C. R17-9104(D)(6) -- Seating capacity.

Stress: Never back up while passengers are outside the bus.

Refer to A.A.C. R17-9104(B)(5) - Passengers crossing road.
motorist to do anything.
If the driver of a motor vehicle violates the law on passing a stopped school bus, write down and turn in the vehicle license number to the transportation supervisor for forwarding to the Arizona Department of Public Safety (AZDPS), Student Transportation office. (Forms available through the AZDPS Student Transportation office.)

Students are to walk, not run, and load or unload only at the verbal direction of the driver. In inclement weather, caution needs to be urged as steps and aisles may be slippery. Use of the handrail is necessary at all times. Buses shall not move until all passengers have been properly seated. Once seated, passengers should never change seats or move around in the bus while it is moving. Make sure there are no students running to catch the bus. Never move a bus when students are within the "Danger Zone" (the ten feet surrounding the bus).

Check all mirrors. Pay particular attention to areas close to the bus to ensure all students and other pedestrians are out of the "Danger Zone." Close the service door and deactivate the red flashing warning lights and stop arm as soon as possible. You should not make motorists wait an excessive amount of time. All students must be seated and not obstructing your view before you can safely move your bus. When you feel it is safe to move your bus, release the parking brake and put transmission into gear. Activate left turn signal and check all mirrors before pulling back into traffic.

Never exceed the legal passenger capacity of the bus. If a situation arises on the route to school, immediately advise your supervisor of the need for assistance and/or an additional bus.

Turnarounds. In a turn around situation, a driver:

- On an a.m. run, picks up students first, then turns around.
- On a p.m. run, turns around first, then discharges students.

Unloading Passengers. A bus driver shall not permit passengers to be discharged from a bus to cross a road until they may safely do so. Passengers shall cross at least 10 feet in front and never in back of the bus. The bus shall not move until all passengers who must cross the road have done so. A driver shall count each passenger who leaves the bus and be able to account for every passenger before

## LOADING/UNLOADING

Refer to A.A.C. R17-9104(B)(6) and A.R.S. 28645

Refer to A.A.C. R17-9104(B)(7) and A.R.S. 28642

Refer to A.A.C. R17-9104(B)(8)

Refer to A.A.C. R17-9104(B)(8) and A.R.S. 287901(8) -- frontage roads and rest areas

Refer to A.A.C. R17-9104(B)(15)(e) -- 200 feet from railroad grade crossings
putting the bus into motion. Pay particular attention to items that may have been caught in the handrail that would prevent a passenger from moving safely away from the school bus.

All mirrors, especially the cross-over mirror, must be checked before moving the bus. Mirrors must be maintained in proper adjustment at all times to allow the driver to see any passengers near the bus. The use of hand signals to direct students is discouraged due to the potential for increased liability for passenger injuries as well as being confusing to motorists.

Signalized Stop. In locations with signalized intersections, passengers shall be discharged no closer than 100 feet from the traffic control signal. Those passengers needing to cross shall use the traffic light.

Traffic Control Signs. At locations with stop signs, passengers shall be discharged no closer than 50 feet of the intersection.

Non-signalized Stops. At non-signalized, residential intersections, passengers shall be discharged no closer than 50 feet from the intersection.

Interstate Highways. No school bus shall stop on an interstate highway for the purpose of loading or unloading passengers.

- School bus stops may be established on frontage roads, where no passenger is permitted to cross a divided highway.
- School buses may stop in designated rest areas that are a part of or adjacent to an interstate highway.
- School bus stops for the purpose of loading or unloading passengers shall not be established within 200 feet of a railroad grade crossing. This provision shall not prohibit stops at a railroad station or on roads which parallel the railroad tracks.

Note: Regular routes should be set to avoid crossing railroad tracks, especially grade crossings with site distance problems.

## LOADING/UNLOADING

Refer to A.A.C. R17-9-104(B)(9-14) - school loading zones

At the School. Loading and unloading of school buses at the school should be done in an off-the-street area of the school grounds. Where this is not possible, the school bus shall be stopped in the curb lane or off the traveled portion of the road and with the service door facing the school.

- In all loading areas, no school bus shall back up on or adjacent to the school grounds unless an individual authorized by the school bus driver is standing at the rear of the bus in a position to be visible to the driver while directing the maneuver. This provision does not apply in garage and bus storage areas where students are not allowed.
- The driver of a school bus about to engage in backing shall sound the horn to warn other motorists and pedestrians prior to movement. This provision does not apply if the school bus is equipped with an alarm that operates automatically when the school bus is backing.
- During the time of loading or unloading of passengers at a designated school bus loading area at the school, the area is restricted to school buses, passengers, and school district employees assisting in the loading or unloading of passengers.
- School bus loading zones: one major item of importance. As school buses are lined up to load or unload in the school bus loading area, other buses that complete the loading/unloading process first are NOT to pass the other buses still in line. This is a very dangerous practice and can lead to serious injury or even tragedy. Even if the loading zone is wide enough for two buses, one bus is not to pass another. This should be done only in the event of an emergency or if a bus breaks down in line. If certain buses noticeably, always, take longer to load/unload, then those buses should be scheduled to line up at the end of the line.
- A school shall allow passengers in a designated school bus loading area only when the passengers are being loaded on or unloaded from the school bus.

Upon discharge, passengers are to move 10 feet away from the bus - out of the "Danger Zone."

## LOADING/UNLOADING

INSTRUCTOR'S GUIDE
CONTENTS

Refer to A.A.C. R17-9104(D)(30) -- Check for remaining passengers

Drivers of school buses are required to check the school bus for remaining passengers, left articles, and new damage after each trip, either at the school site or a short distance away from the school.

## WHEN EMERGENCY VEHICLE APPROACHES

- School Bus Approaching Stop or Stopped to Unload - The bus driver should keep the passengers inside the bus, deactivate the traffic warning light system and move slowly and cautiously to the far right side of the road and stop.
- Passengers Loading/Unloading - If there are passengers on the ground or in the roadway, the bus should remain stopped with the traffic warning light system in operation to complete loading or unloading. As soon as the bus driver loads all passengers onto the bus, or when the passengers have been unloaded and are clear of the roadway and roadside, the bus driver should deactivate the traffic warning light system and move slowly and cautiously to the far right and stop.
- Approaching Stop to Load - Based on the location of the passengers, the school bus driver must judge whether there is still time to pull safely to the right and yield to the emergency vehicle, or whether safety for the passengers would require the bus driver to complete the loading process.


## LOADING/UNLOADING

## LOADING PROCEDURES

A bus driver's responsibility starts approximately 150 feet from a stop or at the point where the passengers are visible.

1. When approaching the designed stop, start slowing down in preparation for the stop.
2. Activate the amber alternating flashing lights 100 feet before the bus stop; activate right turn signal.
3. Check all mirrors to see that the roadway is clear and it is safe to pull to the right and stop.
4. Approach passengers with extreme care, giving due consideration to the surface on which you are going to stop: dry, wet and slippery, gravel or rough ground. Also be aware of the passengers' actions.
5. Do not pull up any closer than 10 feet ("danger zone") from the awaiting passengers.
6. Place transmission in neutral and set parking brake.
7. Scan all mirrors checking passengers and traffic.
8. Open the front door when it is safe to board the passengers. The red lights will come on and the stop arm will come out. Stress to the passengers that they should stay in line waiting 10 feet back from the bus until it has come to a complete stop. One at a time should come through the door using the handrail.
9. Have passengers go directly to their seat. All passengers must be properly seated before the bus is put into motion.
10. Check mirrors before closing the door canceling the eight ways to stop arm making sure the "Danger Zone" is clear. Also check to be sure there are no students running to catch the bus.
11. Release parking brake and put into gear. Activate left turn signal and check all mirrors for traffic before pulling back into traffic.

Bus stops at intersections with a traffic signal shall be no closer than 100 feet of the intersection.

Bus stops at any other intersection shall be no closer than 50 feet of the intersection.

## LOADING/UNLOADING

## UNLOADING PROCEDURES

Unloading passengers poses added problems, especially on the return trip home. Follow the loading procedures with these additions:

1. You are responsible for the safety of all passengers crossing the roadway, regardless of their grade level.
2. Give the motoring public a chance to react to the flashing red warning lights and stop arm. Do not allow passengers to get off the bus until all traffic has stopped.
3. Passengers who must cross the road should cross at least 10 feet in front of the bus, making eye to eye contact with the driver. Stress to walk, not run.
4. Passengers should not go beyond the left front fender without checking traffic in both directions.
5. When passengers have safely crossed the road and are on the sidewalk and away from the bus, cancel the red flashing warning lights by closing the door. Double check all mirrors making sure the "Danger Zone" is clear.
6. Activate left turn signal and check all mirrors for traffic before pulling back onto the roadway.

## LOADING/UNLOADING

## LOADING/UNLOADING SAFETY TIPS

Every stop has room for safety improvements. It requires you, the driver, to initiate and maintain them.

- The most important safety device on the bus is you, the driver.
- You should reevaluate each bus stop to assure that there is at least 600 feet visibility to warn motorists.
- Your crossover mirrors may only partially eliminate the blind spot in front of the bus.
- You should count students while unloading; account for them until they are safely off the roadway.
- You should use only your designated stops.
- You can minimize traffic delays by loading toward the front. At the next stop, loaded students move back. (Exceptions: assigned seating).
- Statistics prove that high school students are as susceptible to getting hit in traffic as preschool children.
- Some motorists speed up around a school bus displaying amber lights. Use additional caution.
- Know the importance of your horn. Use it to warn students or motorists before a dangerous situation develops.
- You cannot afford to be distracted for even one moment when you are at a bus stop.
- Know the traffic picture ahead and behind well before you reach the stop.
- Know the number of students getting on or off at each stop. (If students are missing at a loading stop, increase vigilance.)
- Slow gradually; do not hurry to a stop.
- If loading, stop at least 10 feet from the students to insure that the students will not be pushed into the path of the bus.
- Students should be told never to run back into the road to recover papers, etc.
- Students should be given praise when they observe proper procedures.


## LOADING/UNLOADING

## LOADING/UNLOADING PROCEDURES (SCHOOL)

## Approaching Stop:

- Start slowing in time.
- Activate amber lights a minimum of 100 feet before stop.
- Check traffic.
- Approach loading zone slowly and carefully.
- Come to a full stop at a safe distance from the student (not less than 10 feet).
- Have them come to you, if necessary.
- Place transmission in neutral and set emergency or parking brake.
- Be sure all traffic is stopped before opening service door.
- Open service door, activating red lights and stop arm.


## Loading Procedures:

- Be sure all traffic is stopped.
- If student(s) cross road, driver maintains scanning traffic while watching student(s) cross. Refer to F-4 \& F-5 regarding the use of hand signals being discouraged.
- Permit no crowding or pushing.
- Get students seated immediately from back to front.
- Do not move until everyone is seated.
- Check all mirrors, be sure all is clear.
- Be aware of pedestrian traffic at or near stop.
- Proceed with caution.


## Unloading Procedures:

- Do not permit standing until bus is completely stopped.
- Approach stop; activate amber lights as in loading procedure.
- Make smooth stop.
- Keep students on bus until all traffic has cleared.
- Train students to cross at least 10 feet in front of the bus.
- Count students; know exactly how many get off, where they are and where they go.
- Check mirrors for traffic.
- Proceed with caution.
- Be aware of pedestrian traffic at or near stop.


## LOADING/UNLOADING



## Loading at a Turnaround Stop



Check mirrors, and secure responsible visual assistance if possible before backing -- always remember that there is an area in back of your bus that you can not see


Back into the driveway or street for turnaround

## LOADING/UNLOADING



1. Check to the rear for traffic Take your foot off the accelerator.
2. Begin to brake gradually. (When and how much depends upon your speed.) 35 mph may require 300 to 400 feet 20 mph may require about 200 feet.
3. Stay in the traffic lane so the bus can provide protection for the passengers.
4. Apply the foot brake. Look again to see if motorists are stopping or are preparing to stop.
5. WITH THE BUS COMPLETELY MOTIONLESS, activate the red flashers and stop sign. Open the door.
6. When the last pupil is on board (and no others are running to catch up), close the door and deactivate the sign and red flashers.




## WHEN LEAVING YOUR BUS: <br> Here's How to Cross the Road SAFELY

(1). WALK
(2) . $S T O P$
(3). LOOK \&WALK


Drivers SHOULD stop ... But THEY MAY NOT!
THE EIGHT LIGHT SYSTEM


## WHEN BOARDING YOUR BUS:

## Here's How to Cross the Road SAFELY



# Drivers SHOULD stop ... But THEY MAY NOT! 

## LOADING/UNLOADING

## REVIEW QUESTIONS

## Check whether the statement is mostly True or False

True: $\square$ 1. When an impending stop is approaching, there is no difference in the

False: distance required to warn drivers, between an 8-lamp system and a 4lamp system.

True:
False:
2. All traffic warning lights should be deactivated once the bus begins moving.

True:
3. State law requires at least a 100 foot warning before a stop.

False:
True:
False:
4. If an emergency vehicle approaches just as you reach the pick up point, you should pull over immediately to allow it to pass.

True:
False:
5. If the bus is overloaded the first day of school, a passenger may sit on the step in the stepwell.

True:
False:
6. On a divided highway, children may be picked up and discharged on either side of the road.

True:
False:
True:
False:

True:
False:

True:
False:10. Passengers may be discharged no closer than 100 feet from the traffic control signal at an intersection.

True:
False:
True:
False:
True:
False:

True:
False:
14. The bus driver should establish standards of behavior for both students and self.

## LOADING/UNLOADING

## Discussion:

1. Why must all mirrors, especially the cross-over mirror, be checked before moving the bus?
2. What is the "Danger Zone?"
3. List 5 safety rules a passenger should observe when boarding the school bus.
4. Why should an inside check of the bus be made following each trip?
5. Name 5 common sense rules when dealing with passenger control.

## ACTIVITY TRIPS

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## ACTIVITY TRIPS

INSTRUCTOR'S GUIDE

## OVERVIEW

Most schools at one time or another take activity trips. Activity trips are known under many different names; they could be sport, field, daily shuttles, or after school activity. Each district may be different and each school within a district may call their trips by different names.

Smaller school districts may not have many activity trips while larger school districts may have a lot of trips and to many diverse locations.

## OBJECTIVES

By the end of this section you, the driver, should be able to list how driving an activity trip is different from driving a normal bus route, including different conditions and situations that you may encounter:

- Activity trip training that may be added to better prepare you to perform safely and effectively.
- Safety concerns that may apply to certain types of activity trips specific to the local schools.
- Learning an unfamiliar route or location that may or may not be within your school district boundaries.
- Working with trip sponsors or chaperons (parents).
- Passengers who are unfamiliar with bus rules and bus evacuation procedures.
- Excesses in behavior due to the nature of the trip.
- Driving at times other than normal daylight hours and in different driving conditions.
- Transporting extra or oversize equipment in support of the activity trip.


## ACTIVITY TRIPS

INSTRUCTOR'S GUIDE
Identify more areas of training that may be required before the driver can take activity trips.

Identify additional local policies or procedures that may apply to this section.

Identify the types of buses that the driver may be using for the different activity trips.

## ACTIVITY TRIP TRAINING

There are different areas of training you should be familiar with before you are allowed to drive for activity trips. Some districts/ companies designate a period of time before the inexperienced driver is allowed to drive activity buses. This period of time, if established, is so that the additional training may be provided so that you are better equipped to perform these types of trips.

Some examples could be:

- Local policies may include that activity trips which have multiple buses may require that all buses leave and return as a group.
- Ensuring that all drivers have been trained and have conducted bus evacuation drills before being able to drive for activity trips.

An activity trip should be a positive experience for all people involved. The success of these trips depends greatly on the attitude, interest, and cooperation of the driver.

You should take advantage of all information and training available to provide the best service possible to the students, teachers and chaperons.

## SAFETY CONCERNS

Safety is always a priority and should be your primary concern when driving an activity trip.

Driver's Proficiency/and School Buses: The driver should be familiar with the specific type/make/model of the school bus that they will be driving on the activity trip.

Each driver that has been trained should have some training on each of the different types of buses owned or operated by the district or company.
(Opportunity to identify additional training requirements for driver trainees.)

Identify additional sources of information that may be available.

Provide other tips on safety and security of the buses. Give examples of what the driver should do depending on the circumstances.

All buses are not the same. Operator controls and systems may vary from bus to bus. For example: Some buses have child reminder systems/alarms or air conditioning systems that the driver must be familiar with prior to operating the school bus.

You may be required to drive a different bus than the one you normally drive for an activity trip. Reasons might be that your normal bus does not have sufficient passenger capacity for the trip or it might be out of service.

- Additional sources of information the driver may use for information about specific school buses.


## Examples:

$>$ The driver who normally drives the bus.
$>$ Consult with maintenance personnel.

## Safety/Security of the School Buses:

While on activity trips and the bus is unattended is it secured?
Does the bus have a vandal lock system?
Do you know how to operate the vandal lock system?
Are you going to be able to park your bus in a secure area while the bus is unattended?

Check you bus prior to each leg of the trip to ensure it has not been tampered with while it was unattended.

## ACTIVITY TRIPS

Identify other factors such as fatigue, night driving, local weather at specific times of the year.

Cite appropriate Minimum Standards requirement. (R-17-9-104(D)(3))

Give some other examples of contact information

Supervisor's phone numbers.

Maintenance shop phone numbers.

## ACCIDENTS:

Preventing accidents is of course, a primary concern in all aspects of training. The better your training, the better you will be able to recognize and avoid situations that may lead to potential accidents.

Accident reports indicate that many accidents that occur when drivers are on activity trips are caused by:

- Driver not properly trained.
- Driver being unfamiliar with the bus.
- Driver is unfamiliar with the area (mountains, rural driving vs - interstate driving, weather, etc.)
- Driver is unfamiliar with the route to be taken.
- The trip was not properly planned and the driver was not properly briefed.
- Equipment failure.


## STATE LAWS/SPEED LIMITS and SCHOOL BUSES:

You shall comply with all state laws while operating a bus. EXCEPTION: You shall not exceed 65 MPH or the posted speed limit, whichever is less, when operating the school bus on inter-state highways.

You should know emergency points of contact and phone numbers of people that you can get in touch with should some issue arise. Some information that should be available to you are:

- The dispatch office phone number(s).
- Emergency numbers for after-hours contacts.
- Phone numbers of school districts that you are traveling to with the activity trip.

Describe the types of trips that your district or company takes for activity.

Give some examples of the different times of the day that the drivers may be traveling for activity trips.

Brief trainees of any local policies about these trips (if taken).

Ask trainees if they can name any other resources they might be able to use.

Go over correct rules for drivers and railroad crossings.

Go over rules for light rail procedures.

## ACTIVITY TRIP TRAVEL/TIMES/ADDITIONAL INFORMATION FOR DRIVERS

Activity trips vary in type, distance, and destination location. Some are one-way, some may have multiple stops, and some might be a round trip to and from the destination.

Some activity trips may be to new locations although most will probably be to places and areas that your district or school travels to on a regular or semi-regular basis.

Different types of activity trips can go at different times of the day. These trips may be scheduled between the district's regularly scheduled bus routes or after the buses that are used for the regularly scheduled routes are finished for the school day.

Some districts or schools might have activity trips that are taken overnight. Usually these are sport trips for upper level schools.

- Overnight trips probably will require some special arrangements such as lodging, meals, etc.

There are many resources that you can use to find out about activity trip destinations/routes/and travel time.

- On-line sources such as mapquest.
- Construction notices that the transportation section receives from local governments.
- Newspaper articles.
- People at the destination.
- People who work with you that have been to the destination.

RAILROAD CROSSINGS: Always be aware of the correct procedures for railroad crossings. Some school districts are in areas where there are no railroad crossings. Know if you will be going into an area where there might be railroad crossings.

PHOENIX ARIZONA HAS LIGHT RAIL/METRO. THE RULES ARE DIFFERENT FOR LIGHT RAIL AS OPPOSED TO HEAVY RAIL.

Provide trainees with copy of the forms that your district uses for these trips.

Include all forms that are used for different trips.

Lead discussion for each example given.

Be specific on what the driver should do and what the driver should know about the trip according to your policies and procedures.

Discuss options that your district or company has for these trips.

Cite appropriate rule from Minimum Standards.

Most school districts and/or companies that provide school bus transportation have specific trip requests or reports concerning the activity trip that is to be taken.

These forms or reports usually contain specific information that provide the driver and the transportation department the details of the activity trip. While forms and reports may differ from location to location; basic information usually included is:

- The destination of the trip.
- What type of trip? Field, Sport, Shuttle, After school?
- The expected departure and return dates and times.
- Number of buses assigned to the trip.
- Approximate number of passengers on the trip.
- Grade levels that are going on the trip. Some trips are multiage/grade.
- Whether it is an overnight trip.

Other information that may be included can be:

- List of teachers/chaperons/children going on the trip.
- Whether there are to be any rest stops or special instructions regarding stopping for meals (either on the way to the destination or on the return trip).
- Will additional fuel be required for the trip?
- Do you receive a district or company credit card or are you reimbursed after the trip has been completed?
- Ensure that you unload all passengers prior to refueling your bus. It is against state law to refuel while passengers are on board.

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Discuss what to do if the buses do not have additional space for storage.

Cite appropriate rule according to the Minimum Standards. (R-17-9-104)

- Will you need a bus that has under carriage storage for baggage or equipment that the students or teachers will need while on the trip (e.g., band instruments or luggage)?


## WORKING WITH TRIP SPONSORS/CHAPERONS

The question is: Who is in charge on the bus?
In all matters concerning the safe operation and safe transportation of the passengers on the school bus, the driver is responsible.

It would seem reasonable to assume that the trip sponsor or chaperon should assist the driver with the behavior of the passengers on the bus.

Considerations:

- Usually there is one or more individual(s) from the school who are considered the sponsors for the trip.
- For trips with multiple buses there may not be enough sponsors for one to be on each bus.
- Schools ask parents to be chaperons for activity trips. Usually there is a ratio of chaperons to students for the activity trip.
- Activity trip sponsors should appoint one individual to be in charge of the passengers on the school bus.


## RESPONSIBILITIES

Sponsors/Chaperons:

- Assist with the behavior of the passengers on the bus.
- Some examples of behavior issues with groups on the activity trips:
$>$ Students not remaining in their seats while the bus is in motion.

INSTRUCTOR'S GUIDE

Identify any possible consequences for inappropriate behavior from the passengers on the activity buses.

Discipline policies for students on the activity buses.

Cite the appropriate reference from the Minimum Standards for driver authority.

Provide appropriate policies and/or procedures that are in place.

Cite appropriate reference from the Minimum Standards.

Identify any district schools that do not have bus service.

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$>$ Excessive noise such as cheering or singing that might distract the driver.
> Improper language.
$>$ Although rare, rocking the school bus from side to side.
$>$ Leaning out of the windows while the bus is in motion.

## IF THE SPONSOR(S) OR CHAPERONS ARE INEFFECTIVE ASSISTING THE DRIVER; YOU THE DRIVER, ARE THE FINAL AUTHORITY.

## OTHER TOPICS THAT CAN BE COVERED:

When the destination has been reached, make sure that all passengers (sponsors/chaperons/students) know which bus they are to board and at what time.

Make sure all passengers know the location of the boarding place. The loading zone and where you have to park the bus may be different.

Ensure that all passengers know that no student may board the bus at any time without the permission of the driver, trip sponsor or chaperon.

## BUS EVACUATIONS:

Arizona law states that each school that has school bus service must conduct school bus evacuation drills twice each year.

You must understand that some districts may have schools that do not have school bus service and therefore do not conduct bus evacuations during the course of the school year.

Go over basic bus evacuation rules and procedures.

Inform trainees if your district has a policy that allows for the administration of medications to passengers on school buses.

Inform trainees of any district/ transportation policies regarding the selection of drivers for activity trips.

Cite appropriate state and federal rules regarding these restrictions.

It is always a good idea to go over basic rules for bus evacuations prior to the trip (e.g., orderly conduct, fire extinguishers, appropriate distance from the bus, etc.).

## MEDICATIONS ON SCHOOL BUSES:

You as a school bus driver are not responsible nor will you take accountability for any medications that any passenger may have to take while on an activity trip.

## SELECTION OF DRIVERS FOR ACTIVITY TRIPS:

Some districts have different policies for selecting drivers for activity trips. The selection process may be based on senority or experience or a combination of both.

## DRIVER RESTRICTIONS FOR NUMBER OF DRIVING HOURS AND NUMBER OF HOURS ON DUTY:

There are federal guidelines for the number of hours a driver may drive - vs - the number of hours a driver can be on-duty. You may be subject to these rules and regulations.

# SPECIAL NEEDS TRANSPORTATION 

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## SPECIAL NEEDS TRANSPORTATION

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## OVERVIEW

Team work is the basis for all parties involved. To make the ride of the student and driver/attendant successful.

Example: If the attendant makes a decision to discipline a student, the driver needs to back up the decision.

If the driver feels the discipline was too harsh for the situation they should wait until all students are off the bus before discussing the issue.

Your primary purpose is to transport children to and from school safely, efficiently and dependably. While you might make allowances for specific situations for each students needs, the goal is the same for all children.

The success of programs for the students depends on the people who have daily contact with them. Such people should possess characteristics which are different in kind and degree from the average. They should have extra patience, mental alertness, flexibility, resourcefulness, enthusiasm, understanding and sympathy. As a bus driver, you should be able to develop and maintain a rapport with the students, and be able to exercise mature judgment in relation to both the care of students and the responsibilities of driving the bus.

Bus drivers should see themselves as a part of a cooperative team who can help the students tremendously. For many students, the bus ride is the "highlight" of the day and a sincere, warm and empathetic bus driver can add a touch of success to their day.

## SPECIAL NEEDS TRANSPORTATION

Qualifications should include the employee's physical ability to do deep knee bending and stooping, as well as strength in the hands to secure wheel chair securements and other necessary equipment.

EMPLOYER DISCRETION

## QUALIFICATIONS

Besides driver qualifications, you should be able to operate specially equipped or adapted vehicles. You should have knowledge and be familiar with the use of wheelchairs, chair lifts, tie downs, braces, etc.

You should be aware of the needs of each of the students who ride your bus; you should be familiar with the medical and physical aspects of each student's disability.

Through communication with the school personnel and parents, know when a student is on medication and what the effects of the medication will be. You should be able to determine when a child is behaving abnormally for their condition.

Confidentiality plays a large part in the care and handling of the student and their family. Remember that it is your responsibility to keep the conditions and concerns of the student confidential unless you feel the student is in danger. At this point you shall take the concern to your immediate supervisor!

# SPECIAL NEEDS TRANSPORTATION 

Go over the definitions of these terms briefly. Include explanations and terminology that may not be included in this list. These terms and definitions are provided for orientation and may become a useful reference in communication with special education teachers and parents.

Be sure to cover all expectations of your employer.

Educating one self about the needs of the students and understanding all of the disabilities is in the best interest of the student and the employee. Both the driver and attendant should have an understanding of how to best assist the student with their needs to make riding the bus a success. Some students simply need gentle persuasion to work together on the bus and others need the consistency of seeing the same faces daily to be successful.

## SPECIAL EDUCATION TERMS

Autism - A disorder of neural development characterized by impaired social interaction and communication, and by restricted and repetitive behavior. These signs all begin before a child is three years old. Autism affects information processing in the brain by altering how nerve cells and their synapses connect and organize. It is one of three recognized disorders in the autism spectrum (ASDs), the other two being Asperger syndrome, which lacks delays in cognitive development and language, and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS), which is diagnosed when the full set of criteria for autism or Asperger syndrome are not met. Autism has a strong genetic basis, although the genetics of autism are complex and it is unclear whether ASD is explained more by rare mutations, or by rare combinations of common genetic variants. It is distinguished not by a single symptom, but by a characteristic triad of symptoms: impairments in social interaction; impairments in communication; and restricted interests and repetitive behavior. Other aspects, such as atypical eating, are also common but are not essential for diagnosis.

Cerebral Palsy (CP) - A condition resulting form neurological damage occurring before, at, or shortly after birth, which interferes with normal control of the motor system. Resulting limits in movement and posture cause activity limitation and are often accompanied by disturbances of sensation, depth perception and other sight-based perceptual problems, communication ability, and sometimes even cognition. Cerebral Palsy is divided into four major classifications: spastic, ataxic, athetoid/dyskinetic, and hypnotic.

Convulsion - Sudden violent involuntary contractions of the muscles of the body. Often a loss of consciousness follows. Individual will not have control of their movements, resulting in a loss of bladder and bowel control. Individual can be assisted by observation and clearing objects out of harms way. Do not place objects in mouth or try to hold down other than to gently support the head from banging on hard surface.

## SPECIAL NEEDS TRANSPORTATION

Down Syndrome (Trisomy 21) - A chromosomal condition characterized by the presence of an extra copy of genetic material on the $21^{\text {st }}$ chromosome. Often Down syndrome is associated with some impairment of cognitive ability and physical growth, and a particular set of facial characteristics. Individuals with Down syndrome tend to have a lower-than-average cognitive ability, often ranging from mild to moderate disabilities.

Educable Mentally Handicapped (EMH) - Intellectual Disablility students whose retardation ranges from mild to moderate. These individuals have a lower than average IQ in the range of 50-75 and can progress to a level of basic proficiency on the sixth grade level. This can include trouble learning, socializing and communicating with others.

Trainable Mentally Handicapped (TMH) - Refers to students whose IQs fall below 50 but who are still capable of learning personal hygiene and other living skills in a sheltered setting.

Profoundly Mentally Handicapped (PMH) - The PMH student is a student who is profoundly impaired in intellectual and adaptive behavior and whose development reflects a reduced rate of learning. These students have limited response to most social stimuli and are sometimes unaware of their environment. Communication is often limited and they may display temper tantrums, self-injurious behaviors, and self-stimulation. Many of these children have other serious medical problems. A high level

In emotional disabilities a student could be prone to outbursts of violence or screaming where a seizure patient might immediately have a seizure from tension.
of structure and supervision is needed.

Emotional Disability (E.D.) - Students whose behavior is dangerous to themselves or others, or seriously interferes with their learning are classified as E.D. The causes may be genetic, biological, learned behavior or a combination of factors. Two to three percent of a school's population may be E.D.

## SPECIAL NEEDS TRANSPORTATION

Get to know your students and their behaviors and suggest to the driver and attendant that they might want to keep a cheat sheet on board for emergencies in case one of them is not there or unable to assist. A seating chart and evacuation plan of action is also recommended.
*** Replaced "Mental Retardation" following the passing of "Rosa's Law" on October 6, 2010.***

An emotional disability is a condition that, over a long period of time and to a marked degree, consistently interferes with a student's learning process and adversely affects the student's educational performance. An emotional disability may include, but is not limited to, one or more of the following conditions:
(1) A tendency to develop physical symptoms or fears associated with personal or school problems
(2) A general pervasive mood of unhappiness or depression
(3) An inability to learn that cannot be explained by intellectual, sensory, or health factors
(4) An inability to build or maintain satisfactory interpersonal relationships
(5) Inappropriate behaviors or feelings under normal circumstances.

Intellectual Disability - A generalized disorder characterized by significantly impaired cognitive functioning and deficits in two or more adaptive behaviors that appears before adulthood. It has historically been defined as an IQ score under 70, but the definition now includes both a component relating to mental functioning and one relating to individuals' functional skills in their environment.

- Mild mental retardation (IQ 50-69)
- Moderate mental retardation (IQ 35-49)
- Severe mental retardation (IQ 20-34)
- Profound mental retardation (IQ below 20)

Multiple Sclerosis (M.S.) - A progressive disease of the central nervous system. Wide ranging symptoms include tremor and shaking of limbs, paralysis and poor balance. Also known as disseminated sclerosis or encephalomyelitis disseminata, it is an autoimmune condition in which the immune system attacks the central nervous system (CNS), leading to demyelination. It may cause numerous physical and mental symptoms, and often progresses to physical and cognitive disability. There is currently no cure.

## SPECIAL NEEDS TRANSPORTATION

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Muscular Dystrophy (MD) - A genetic disorder that weakens the muscles that help the body move. Muscular dystrophies are characterized by progressive skeletal muscle weakness, defects in muscle proteins, and the death of muscle cells and tissue. The condition may also lead to mood swings and learning difficulties.

Physically Disabled - Any impairment which limits the physical function of limbs or fine or gross motor ability is a physical disability. Other physical disabilities include impairments which limit other facets of daily living, such as severe sleep apnea.

Sensory Disabled - Sensory disabilities relate mainly to sight and hearing. The inability to smell or taste is relatively rarer and is not always considered to be a disability.

Seizure - A temporary abnormal electro-physiologic phenomenon of the brain, resulting in abnormal synchronization of electrical neuronal activity. It can manifest as an alteration in mental state, tonic or clonic movements, convulsions, and various other psychic symptoms. The medical syndrome of recurrent, unprovoked seizures is termed epilepsy, but seizures can occur in people who do not have epilepsy. NEVER RESTRAIN THE STUDENT HAVING A SEIZURE. NEVER FORCE ANYTHING INTO A PERSON'S MOUTH.

## SPECIAL NEEDS TRANSPORTATION

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Be accepting and tolerant of individual problems which may be unpleasant such as drooling, wet or soiled clothing, etc.

Even if the good side of their behavior lasts for only 3 minutes, offer a verbal reward. Next time it could be longer.

When you correct a student, take into consideration, regardless of their age or size, their attention span. With some children, this can be rather short.

## BEHAVIOR PATTERNS/DISCIPLINE

Behavior patterns of each child should be understood. Each driver must treat each student separately. For example: Don't give a general direction to the entire bus load of students. You cannot assume everyone would understand this direction.

Behavior patterns of these students for any given day or hour of the day may change.

Many students with behavioral disorders have a low self concept. Their behavior reflects this low opinion of themselves. Self worth plays a major role in learning, emotion, motivation, perception, intelligence and self understanding. How a child feels about himself/herself is influenced by the past, the present, and in turn will influence the future.

Don't correct inappropriate behavior publicly when the matter can be handled gently and privately.

Show a positive attitude. EVERY RIDE IS A NEW DAY.
Maintain consistency - don't be afraid to set limits.
Be flexible - allow appropriate behavior within those limits.

## CATCH THEM BEING GOOD!

A student may behave differently from day to day because of medication which they may be taking. Many students are extremely hyperactive and use their excess energy to get attention from you or from someone else.

It is difficult to give guidelines for handling all situations. However, these are some courses of action that should prove helpful.

- Work with the students parents by talking over any problems.
- Work with the teacher.
- Work with the school administration.
- Work with your supervisor.


## SPECIAL NEEDS TRANSPORTATION

- Work with the student.

You are the adult in charge; you can engineer success or not. Prevention is easier than correction. Take the time to get to know your students so you will recognize the warning signs that trouble is about to happen and can take action before it starts.

Rewards could be stickers, stars, music and most importantly, verbal praise.

DO NOT USE THE WORD "TRY"- You don't want students to try anything...you want them to do it!

Specify whether your employer has a different policy.

Stress that discretion is important when discussing a student's problem with the parents.

## DISCIPLINE

Bus rules apply to special needs students as well as regular education students and sometimes disciplinary action needs to be taken. If a special needs student is misbehaving on the bus, it is important to find out if the student comprehends whether his/her actions are inappropriate or unsafe, or if the student's personal disability causes this action. In either case, the school must be involved in solving the problem. Students in an emotional disorder (ED) program generally behave a behavior modification procedure in place at school and at home. The bus ride should be a part of this program.

The most successful type of discipline program is one which reinforces good behavior with praise. Food should NOT BE USED AS A REWARD - the student may have an allergic reaction or choke and this kind of reward encourages eating on the bus.

Patience is the key to maintaining a safe bus with special needs students. Those with physical limitations may also have very short retention, due to less apparent disabilities. This may require that the driver repeat instructions frequently.

- Limit safety rules to a maximum of five.
- Post safety rules.
- Explain consequences if the student chooses to break a rule.
- Never make a threat if you cannot follow through.

Use your communication skills to encourage good student behavior. The more you praise, the better behaved the students will be. Try to say something nice and positive to every student every day.

## SPECIAL NEEDS TRANSPORTATION

INSTRUCTOR'S GUIDE
There may be reasons for not following the same loading and unloading procedures that are used for regular passengers. The bus may load in a driveway or other off-street area where traffic control is not necessary.

Working as a team is the most important part of bus ride. Always having a plan of action in place.

Attendants should be able to do deep knee bending and have the stability to move throughout the bus while it is in motion to tend to a student's needs.

Demonstrate how to get a student in a wheelchair onto the bus. Show use of lift and proper positioning of chair. Demonstrate tie downs and become familiar with all of the tie downs not just the ones on your assigned vehicle.

Be familiar with the WC-19 procedures and the different types of securement areas of each wheel chair.

See A.A.C. R17-9-104
(D) (28) - Setting parking brake.

## LOADING AND UNLOADING

Most transportation systems load and unload special education students in front of the student's home due to the fact that the student cannot be left unattended.

These students sometimes need driver/attendant assistance to board the bus. Some students might even need to be held during this process. Most buses used for this purpose are equipped with seat belts which should be used whenever possible.

The student that must have special equipment such as a wheelchair, braces, crutches, etc., has problems during loading and unloading process it is your responsibility to learn these problems and know how to handle them.

Remember, care and protection are two things which the parents and students expect from you.

## If an attendant is on the bus:

Be sure each person knows his/her role. In case of a misunderstanding, don't argue in front of the students.

Direct the attendant to guide the student onto the bus. Have the attendant assist/check to see that the seat belt is securely fastened before placing the bus in motion.

When specially equipped buses are used to accommodate wheelchairs, etc., or with the use of a lift, supervise/assist the attendant in guiding the chair onto the lift and securing it in place inside the bus.

## If an attendant is not used:

Put the bus in "park" or neutral, set the brake, turn off the motor and take the keys out of the ignition.

Leave the bus and guide the student on to the bus. (Student should be brought to the bus by a parent or other responsible person from the home.)

## SPECIAL NEEDS TRANSPORTATION

See A.A.C. R-17-9105(D) - The wheelchair lift mechanism shall be capable of lifting a minimum of 800 pounds.

See A.A.C. R17-9105(E) (1-6) -
Wheelchair and
Wheelchair Securement

Assist/secure the seat belt for the student on the wheelchair making sure the student is safely seated. (Always make sure that the responsible person from the home has secured the wheelchair equipped straps and securements properly around the student).

When applicable, check that the lift and side door have been securely fastened into a locked position after the student has entered the bus.

## Loading/Unloading of wheelchair students:

Driver and attendants transporting special needs students must have knowledge and skills necessary to manage special situation on daily routes and in case of an emergency.

- Drivers/Attendants should visually assess students for secureness and safety in their wheelchair. i.e. straps, buckles, trays, headrest, posture.
- Make sure their arms and legs are not "hanging out" beyond the chair coming through doorways.
- Back the wheelchair onto the lift platform when boarding. Front the wheelchair onto the lift when getting off.
- Wheelchair brakes shall be engaged to prevent rolling while on the lift. Never leave a student unattended while on the lift.
- If you notice broken or dangerous equipment on the wheelchair, contact a school official to help fix or correct the hazard. Holding the chair at the seat byte and firmly shaking from side to side the chair should feel secure.
- Be sure all straps and tie downs are tightly secure on all wheelchairs before moving the bus.

Non ambulatory students load last. (Students who use a wheelchair, scooter and/or require lift assistance.)

## SPECIAL NEEDS TRANSPORTATION

## Wheelchair Securement System

The front tie-down straps should anchor to the floor at points that are spaced wider than the wheelchair to increase lateral stability during travel.

It is best if the floor anchor points for the rear tie-down straps are located directly behind the rear securement points on the wheelchair.

The Special Needs Driver and Attendant should be familiar with the Wheelchair Tiedown Occupant Restraint System (WTORS).

It is important to use a complete WTORS to secure the wheelchair and provide the occupant with a properly designed and tested seatbelt system.

To protect the occupant, a seatbelt system with both pelvic and upper torso belts must be used.

WC19 - refers to a wheelchair that has been designed and tested for use as a seat in motor vehicles, often referred to as a transit wheelchair. These wheelchairs comply with ANSI/RESNA WC 19, a voluntary standard developed by safety and rehabilitation experts.

Most importantly, a WC 19 wheelchair has four crash-tested securement points to which tiedown straps and hooks can be easily attached. These points are clearly marked with a hook symbol.

It is best to attach the tiedown straps to welded junctions of the wheelchair frame or to other structural areas where the frame is fastened together with hardened steel bolts indicated by six raised lines or bumps on the bolt head.

DO NOT ATTACH TIEDOWNS TO ADJUSTABLE, MOVING, OR REMOVAL PARTS OF THE WHEELCHAIR SUCH AS ARMRESTS, FOOTRESTS, AND WHEELS.

It is best if the rear securement points are high enough to result in angles of the rear tiedown straps between 30 and 45 degrees to the horizontal.

## SPECIAL NEEDS TRANSPORTATION

Mixing wheelchair securement points between the seat and base can result in the tiedown straps becoming slack if the angle of the seat changes during a crash.

If the wheelchair occupant exceeds 275 lbs , two additional rear straps may be used.

## REAR STRAPS

- Hook the rear traps first in the inner tracks.
- Secure the straps at a 30 to 60 degree angle ( 45 degree angle is the best).
- Secure the upper part of the strap into the lowest point of the wheelchair on a secure part of the frame.
- Secure to a structurally firm location on the frame.
- After securing the straps, release the wheelchair locks and pull the straps tight.
- Reset the wheelchair locks.


## FRONT STRAPS

- Hook the front straps in the outer tracks.
- Secure the straps at a 30 to 60 degree angle ( 45 degree angle is best).
- Secure the upper part of the strap into the lowest forward point of the wheelchair on a secure part of the frame.
- Tighten straps.


## SPECIAL NEEDS TRANSPORTATION

Unloading at School - Follow same procedure as for loading.

- Transport students off the bus into the charge of a teacher or other school attendant.
- Check that all belonging of each student are taken off the bus.
- Report to the teacher/school staff member receiving the students, any applicable observations which may be appropriate, whether medical or behavioral.


## Special Needs Walkers

- Encourage students to be independent and to do for themselves.
- Usage of handrails when going up or down the stairs.
- To carry their own books, back packs, lunches, etc.
- To wipe own nose and to put tissue in the trash.
- To communicate their needs.


## Proper Order - Loading

Ambulatory means "to
walk"

- Load ambulatory students first.
- All semi-ambulatory students follow with assistance. (Students with crutches, cane, leg braces, walker, etc. Also passengers who suffer from partial paralysis, loss of muscle control, arthritis, etc.)

Non-ambulatory students load last. (Students who use a wheelchair, scooter and/or require lift assistance.)

## SPECIAL NEEDS TRANSPORTATION

## Unloading at School

Follow same procedure as for loading.

- Transport students off the bus into the charge of a teacher or other school attendant.
- Check that all belongings of each student are taken off the bus.
- Report to the teacher/school staff member receiving the students any applicable observations which may be appropriate, whether medical or behavioral.


## Unloading at Home

- Carry or guide each student off the bus into the charge of a parent or other responsible person. Be sure to follow the Transportation Request information for each student. Each student shall have a current request on file with the transportation office.
- Check that all belonging of each student are taken off the bus.
- Report to the parent any observations which may be appropriate, whether medical or behavioral.
- If an authorized person is not at home to receive the student, keep him/her on the bus. Contact dispatch for instructions. (You may have to return the student to school or deliver the student home later in your route.)


## ON THE ROAD

- Assign the bus attendant (if any) to ensure that all passengers remain safely seated (if no bus attendant, make periodic checks yourself.)
- If any student shows symptoms of illness that requires immediate attention, pull bus as far to the right of the road as possible in a safe location and stop; activate four-way hazard lamps. Notify dispatch and follow school guidelines. Notify the proper authorities.


## SPECIAL NEEDS TRANSPORTATION

- Always be aware of your passengers. Watch for unusual behavior that can and does occur. Be prepared.


## Lifting Techniques

The purpose of proper lifting techniques is to move the student without causing injury to yourself you or to the student.

## Basic Rules

1. Tell the student what you are going to do.
2. Never attempt to carry a student alone or lift a person by yourself who weighs more that half of your own weight unless the safety of the student is in immediate danger, or no assistance is available.
3. Always attempt to get help if you have any doubts about your ability to lift the student.
4. Be sure your path to the doorway is clear and you have a plan on how to lift the student and where you will go.
5. When lifting from a wheelchair, be sure the brakes are engaged. If lifting from the seat, slide the passenger to the edge of the seat closest to the isle. Stand with both feet firmly planted, about shoulder width apart, one foot in front of the other, for good balance.
6. Always bend at the knees, not from the back; use the thigh muscles rather than back muscles to do the lifting.
7. When lifting and carrying, keep the student as close to your own body as possible. Keep your back straight, relying on your shoulders and leg muscles.

## SPECIAL NEEDS TRANSPORTATION

8. Shift the position of your feet to move. DO NOT TWIST YOUR BODY. Take small steps to turn. Carry all tasks out slowly, smoothly and when using a partner, in unison.

## SINGLE PERSON LIFT

- Follow the basic rules 1-8. Most strains, fatigue and back injuries caused by lifting are due to using the WRONG muscles. Use your strong leg muscles by bending at the knees and hips, not your back muscles. Keep your back straight!!!
- Keep equal weight on both feet and lower yourself to the level of the student by bending your knees before lifting.
- Once in position, put one arm around the upper back and the other under both knees. Hold the student close to your body.


## TWO PERSON LIFT

- Follow the basic rules 1-8.
- To lift from a wheelchair:
> Position the wheelchair as close to your destination as possible. In an emergency situation, time is essential. Leave the chair where it is strapped and blanket pull or carry the student to the appropriate exit.
$>$ One person stand in front of the student, the other person stands at the back and to the side of the student.
$>$ The person in the back removes the arm rest (if easily detachable).
> The person in the front folds up the foot rest and removes the seat belt and any other positioning device.


## SPECIAL NEEDS TRANSPORTATION

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$>$ The person in the front, bending from the knees, lowers him/her self to place his/her arms under the student's knees.
> The person in the back places his/her arms under the student's armpits, reaching forward to grasp both of the student's wrists firmly.
$>$ Your right hand to the right hand of the student; left hand to the left wrist.
> Lift together on the count of three; remember to use your legs to lift.
$>$ Walk to the area where the student is to be placed and lower him/her on the count of three. Remember to bend from your knees.

## TO LIFT FROM A BUS SEAT

- Use the same procedures as above, but first, slide the student to the edge of the bus seat near the aisle before lifting.
- The weight of the student will dictate whether a one or two person lift is then used.

ALWAYS REASSURE THE STUDENT
DURING THIS THE STUDENT
DURING THIS
PROCESS
The physically stronger of the transporter team should be outside the bus.

## BLANKET DRAG

- Fold a blanket in half, lengthwise. Place it on the floor as close to the student as possible to the blanket. If a blanket is not available use a sturdy cloth such as a jacket, sweater or worse case your personnel clothing.
- Place the student's head in the direction of the exit.
- Pick up the end of the blanket from the head and drag the student to the exit.
- Using the blanket like a hammock, remove the student from the bus. Always supporting the head from dropping to the ground.


## SPECIAL NEEDS TRANSPORTATION

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- As soon as the student's upper body is out of the bus, lower the student to the ground and suing the blanket, drag the student to safety.


## ONE PERSON DRAG

Roll and lift the edge of the blanket by the student's head and slide to safety. Always supporting the students head from dropping to the ground.

## NO BLANKET DRAG

- The person doing the dragging should be positioned at the student's head. Squat down and place hands, palm up, under student's arms.
- Put elbows together so student's head can rest against forearms.
- Gently drag the student to the nearest exit for safety.
- Remember, jackets and coats may also be used.


## MANUAL BACK-UP SYSTEM

Each bus is equipped with a manual-type pump to lower the lift if there is a power failure. Remove the cover to the power unit and follow the manufacturer's directions.

Follow these easy steps when more than one wheelchair student is on the bus and evacuation is being done through the lift door:

1. Manually lower the lift half way.
2. Remove the wheelchair student that is lighter in weight first.
3. Bring chair to the lift area. With chair facing outward, tilt the chair back keeping body close to the chair and bracing with your leg and body. Roll the chair out and down using the wheels from the chair as tools to carry the weight onto the lift.

## SPECIAL NEEDS TRANSPORTATION

Refer to A.A.C. R17-9104(D)(30)

Evacuation drill procedures discussed in more detail in section on Accidents and Emergencies.

CHECK EMPLOYER POLICIES

Special education teachers, physical therapists and occupational therapists can be of help during a drill.
4. Bus driver and assistant lift the chair off the lift, one in the rear of the chair holding the frame, one in front holding the main frame. On the count of three, both lift together slowly, up off lift onto the ground.
5. The one on the lift will have to bend and squat to ease the chair to the ground.
6. Follow Step 4 until all but the last one is off.
7. The last and heaviest wheelchair is to be lowered to the ground by manually lowering the lift the rest of the way to the ground.

## LOWERING WHEELCHAIRS OUT THE REAR EXIT

Follow Steps 3 and 4 above.

## TO LIFT STUDENTS WITH POOR MUSCLE CONTROL

- Follow the basic rules 1-8.
- Curl the student up as much as possible. Keep the student's arms and legs from flopping loosely. This flopping could throw you off balance and cause a fall.
- Support the student's head and neck as you would an infant.
- Do not pick the student up by an arm or leg.


## SPECIAL NEEDS TRANSPORTATION

## EMERGENCY EVACUATIONS

## A BUS SHOULD BE EVACUATED ONLY IF THE DRIVER AND/OR ATTENDANT ARE SURE THE STUDENTS ARE IN GREATER DANGER INSIDE THE BUS THAN OUTSIDE OF THE BUS.

## REQUIREMENTS

State regulations mandate that an emergency evacuation drill be performed at least twice each school year so that every student will know what to do in an emergency requiring an evacuation of the bus. (This includes all students and staff that might attend a trip aboard the bus.) The drills also allow the driver to practice evacuation instructions to passengers and exit plans.

Special needs students are not exempt from this requirement.
In fact, there may be more need to practice emergency assistance and they may learn more easily through repetition.
(Practice gives the Driver and the Attendant a chance to secure an effective plan of action for an emergency situation.)

## PLANNING FOR AN EMERGENCY

The driver and the attendant should design an evacuation procedure for their bus. It should include:

- Exiting from different doors.

The order in which the students are to be removed:

- A break down of tasks to be done by each person.
- Making sure a confidential emergency information card for each student is completed and on the bus.
- Identifying any students who could be of assistance during an emergency evacuation.


## SPECIAL NEEDS TRANSPORTATION

While transporters will not be able to plan for every type of emergency requiring an evacuation, they can think of different situations that might occur on their route and talk about what each person would do. As new students are placed on the bus, or as students no longer ride the bus, the plan should be modified. (A good plan will include up to date seating charts.)

For transporters with students who are ambulatory and nonambulatory, remember to evacuate the students who can get themselves out of the bus first. While they are evacuating with the supervision of the attendant, the driver can begin preparing the students who are non-ambulatory for evacuation. If there is not an attendant on the bus, the driver must have a clear idea of how he/she would conduct the evacuation. The students will have a greater chance of being safe if the bus drivers are prepared.

## PRACTICE EVACUATION DRILLS

Drills shall be conducted twice a year.
By practicing with the students, bus drivers may decrease the chance of panic among the students if a real emergency should occur. (Calm voices and directions need to be utilized at all times to decrease the risk of panic.)

These drills require coordination and cooperation between the schools, the transportation office and the contractor if the buses are privately owned as well as the Driver and Attendant.

## ACCIDENT SCENE MANAGEMENT

A disabled vehicle or involvement in a minor accident may not be enough reason to remove student from the bus.

In a serious accident, however, evacuation may be imperative. When a vehicle is on its side or upside down, evacuation must occur immediately. When abnormal body positions are maintained, possible respiratory arrest, strangulation, restriction of circulation and other life threatening conditions warrant the evacuation of only those students being threatened. Other students not being threatened should not immediately be evacuated.

## SPECIAL NEEDS TRANSPORTATION

The body fluids of all persons should be considered to contain potentially infectious agents.

## HEALTH CONCERNS

Communicable Diseases and Transmission Concerns
Acquired immune deficiency syndrome or acquired immunodeficiency syndrome (AIDS or Aids) is a set of symptoms and infections resulting from the damage to the human immune system caused by the human immunodeficiency virus (HIV). This condition progressively reduces the effectiveness of the immune system and leaves individuals susceptible to opportunistic infections and tumors. HIV is transmitted through direct contact of a mucous membrane or the bloodstream with a bodily fluid containing HIV, such as blood, semen, vaginal fluid, preseminal fluid, and breast milk. This transmission can involve anal, vaginal or oral sex, blood transfusion, contaminated hypodermic needles, exchange between mother and baby during pregnancy, childbirth, or breastfeeding, or other exposure to one of the above bodily fluids.

The student transportation industry must consider the possibility, however remote, that transmission of the disease aboard the school bus, especially among special education students, who may bite, scratch, spit, drool, vomit, bleed, masturbate, urinate or defecate while being transported.

Develop procedures for all employees on what to do when faced with body fluids on the bus.

Hepatitis - Means "inflammation of the liver." Hepatitis B Virus (HBV) is the major infectious blood borne hazard you face on the job.

If you become infected with HBV:

- You may suffer from flu-like symptoms becoming so severe that you may require hospitalization.
- You may have no symptoms at all, being unaware that you are infected.
- Your blood, saliva and other body fluids may be infected.
- You may spread the virus to sexual partners, family members and even unborn infants.


## SPECIAL NEEDS TRANSPORTATION

Many people are unaware that they have been infected with HBV. However, ABV may severely damage your liver, leading to cirrhosis and almost certain death.

AIDS and hepatitis are not the only communicable diseases which should be treated with great respect. A school bus can be a breeding ground for all kinds of infectious agents. By developing and adhering to special procedures, you can minimize the risk of infection for passengers and drivers.

Review use of Body Fluid Clean-up Kit. Have kit available for view.

## GUIDELINES FOR HANDLING BODY FLUIDS IN SCHOOL BUS

Direct skin contact with body fluids should be avoided when possible.

Transportation of personnel who have open cuts or wounds should refrain from all direct student care without proper coverage.

Gloves should be worn when direct hand contact with body fluids is needed; treating bloody noses, vomit, saliva, urine, drainage, etc. Gloves should be changed after contact with each person.

Gloves and other materials used for this purpose should be put in a plastic bag or lined trash can. Plastic liners should be changed and disposed of after each trip.

## USE OF DISPOSABLE GLOVES

The purpose of gloves is to maintain a safer and healthier environment on the school bus when cleaning up any body fluids. It is very important that you follow the proper usage and disposal when using gloves.

## Procedure for using gloves:

- Take the gloves out of the body fluid clean up kit and remove from the bag.
- Lay gloves with the opening towards you.


## SPECIAL NEEDS TRANSPORTATION

CONTENTS

Mention that the bus should be thoroughly cleaned/disinfected.

Be aware of the student's needs when working with tracheostomies. If you hear the student coughing or choking you will want to alert the attendant and start looking for a safe place to pull off the roadway.

Know your driving area and if driving in a remote area, know the mile markers that will assist medical assistance to arrive quickly.

- Insert left hand into left glove and pull glove by the opening with the right hand toward your elbow.
- Insert right hand into right glove and pull glove by the opening with the left hand toward your elbow.
- On completion of task, remove gloves by the following method:

Take left glove off by pulling the opening over half way off inside out then pull right glove off by pulling the opening all the way off, then finish removing the left glove. Gloves will be inside out.

- Dispose of gloves in a plastic lined trash can.
- Gloves should be changed after contact with each person.
- Trash can liner when being removed should have ends together and tied after disposing of body fluids.
- The driver should wash hands with soap and running warm to hot temperate water.


## KEYS TO SAFELY TRANSPORTING STUDENTS WITH TRACHEOSTOMIES

Transporting the child with a trach, or trach and ventilator, provides many special challenges for the transportation team. Considerations include providing safe, comfortable seating, conforming to applicable laws, training personnel and ensuring that all the proper equipment is transported with the student.

All students with tracheostomies must be monitored by an adult who is prepared to provide emergency support. Some students may require an individual attendant at all times. The bus driver is responsible for safe operation of the vehicle and therefore cannot monitor the medical needs of the student. At the same time, a driver who has an understanding of the special needs of his or her passengers can help make the trip safe and relaxing.

## SPECIAL NEEDS TRANSPORTATION

A tracheotostomy tube often just called a trach or trach tube may be placed for a variety of reasons. For some students the placement of the trach tube bypasses a blockage in the airway to allow air to pass easily into the lungs. The trach tube may be placed to protect the airway from becoming blocked with food or secretions. A trach may also be placed so that a ventilator may be used to assist the child's breathing.

It is also important to remember that most students with tracheostomies may have difficulty communicating because the vocal cords depend on air passing over them to produce sound, which may be limited by the trach tube. In short, it is important to realize that each child with a tracheostomy is unique.

## PREPARE FOR EMERGENCIES

In addition to attendants, it is best if drivers are trained to respond to emergencies. A training session for drivers should include a brief overview of the types of emergencies that may arise with students who have trachs and how they can best assist the attendant. The most common problem is blockage of the trach tube with mucus, which requires suctioning. Another common problem is the accidental disconnection of the trach tube. Both of the occurrences require immediate attention and may require the driver to pull over and stop the vehicle in order to allow the attendant to properly care for the student.

## MAINTAINING SPECIAL EQUIPMENT

Each student with a trach should have a trach to go bag. This is usually a backpack with all of the equipment a student will need in an emergency. A copy of the transportation plan should be kept in the bag so it is readily available to those administering care.

## SPECIAL NEEDS TRANSPORTATION

INSTRUCTOR'S GUIDE

## General Guidelines

Know about your students and what they need.

Know where important information is located.

## 34 CFR Section 300 IDEA

The route
Manufacturer's Instructions for lifts and securement systems

The seating plan
Emergency information
DNR (Do Not
Resuscitate) Orders
Special medical information

Emergency equipment, (fire extinguishers, first aid kit, etc.)

Exercise universal precautions. You should have a body fluid clean up kit, latex gloves, and non-latex gloves at all times.

Don't use a lift without another experienced driver or aide until you feel comfortable.

## THE SCHOOL BUS DRIVER/ATTENDENT OF THE STUDENT WITH SPECIAL NEEDS

The school bus driver/attendant should know the characteristics of the disability and the equipment the student needs and uses.

The Individuals with Disabilities Education Act or IDEA guarantees students with special needs a free and appropriate public education (FAPE). Special education must be designed to meet each student's unique educational needs. Those unique special educational needs and how they will be addressed are laid out in the student's individualized educational program or IEP. One of the things that the IEP covers is transportation.

## The IEP Meeting

This is typically a meeting with the parents, the student and the school personnel. Transportation should be a part of this meeting if the student will be riding on the school bus in any capacity.

The IEP team determines that a student needs transportation as a related service and needs care or intervention exceeding that required for a student without a disability, or needs adaptive or assistive equipment.

## LEGAL CONSIDERATIONS

By law, this committee/team must consider several issues related to the student's educational program. When transportation is considered as a related service, there are a number of questions which must be addressed:

1. Can the student use regular transportation?
2. If not, can regular transportation be safely used if supplementary staff, equipment, and/or services are provided?
3. If not, what type of specialized transportation is required?
4. Is an attendant or other qualified personnel available?
5. Is a responsible adult available for pick-up and delivery of students?

## SPECIAL NEEDS TRANSPORTATION

INSTRUCTOR'S GUIDE
Only do what is within your technical expertise. There are lots of other resources to assist you.

Don't rush. Take your time. When in doubt, ask.

Note: Do not overwhelm the parents with negative behavior from the bus. They already know that their student has problems and they need to hear the positive. This will encourage them to work more closely with you and the transportation team.

## OPTIONS

In addition to the above considerations, it is often necessary to review various alternative transportation options to meet a student's needs. Some alternatives frequently considered and which must be allowable when determined appropriate are:

1. Parent or relative providing transportation.
2. Public or private transportation.

## Note

Consideration needs to be given to the Continuum of
Transportation Services available to students with disabilities. The range of options from least restrictive to most restrictive includes:

- walks to school alone or with peers
- uses public transit one way
- combines school bus with public transit
- uses public transit both ways
- rides school bus possibly with modification or lift
- rides school bus with support network with or without adaptive equipment
- rides public transportation with support network
- rides integrated school bus with support network; with or without adaptive equipment
- rides modified bus with students with disabilities; with or without adaptive equipment
- rides modified bus with attendant; with or without adaptive equipment
- specialized pick up or bus ride alone with attendant


## SPECIAL NEEDS TRANSPORTATION

- specialized bus ride with specialized attendant
- needs bus alternative for out of town travel
- transportation inappropriate for student (may be eligible for home/hospital teacher)


## SERVICE STATEMENT

The Individualized Education Program is a written statement of services a student is to receive. The IEP can only be changed by the IEP team. With regard to transportation, the IEP should provide the necessary specificity so the driver, school, parent and student know what services to expect.

## IEP STAFF

While participating on an IEP team, a transportation staff member should be particularly vigilant so as to challenge transportation requirements that would be impossible to provide (such as maximum riding time of 30 minutes when the student lives 45 minutes from school), or appear to be unsafe, or are not understood.

## DISCUSSION OF CONCERNS

If at some point after transportation has been implemented the driver, attendant, or transportation director find the transportation plans un safe, a student's behavior changes so dramatically as to create an unsafe environment, or the transporters need more information or assistance from the special education staff, any of the personnel listed can call an IEP meeting to discuss the concerns.

## SECTION 504

Part of the Rehabilitation Act of 1973, Section 504 is a civil rights law that extends to people with disabilities and prohibits discrimination against individuals on the basis of their disability. Once the school district has identified the services needed by the student with disabilities, it must provide those services.

## SPECIAL NEEDS TRANSPORTATION

## THE RESPONSIBILITIES OF THE SCHOOL BUS DRIVER

1. Safely driving the school bus
2. A pre-trip inspection of the school bus
3. Loading and unloading
a. Safely handling and maneuvering the student and his or her equipment
b. Loading wheelchairs using a lift
c. Securing wheelchairs and other equipment
d. Securing the student
4. Maintaining the equipment on the school bus used to secure the student and his or her equipment.
5. A post-trip inspection of the school bus
6. Communicating with parent/caregivers and teachers about situations that might affect the safe transportation of the student.

## Pre-trip Inspection:

1. Check whether each wheelchair has 4 securement straps, a lap belt, and a shoulder belt.
2. Check all straps and belts for defects such as cut, frayed, contaminated, or damaged webbing. Check buckles and hardware for broken and worn parts.
3. Make sure the floor tracks and plates are free of dirt and debris so the system fits into the track securely.
4. Make sure at least one belt cutter is on board.
5. Check each student's ITP (Individual Transportation Plan) for special instructions or precautions.

## SPECIAL NEEDS TRANSPORTATION

## PRIVACY AND THE SPED STUDENT

There are many laws that provide the student and their families the right to not have their personal information discussed with others.

While attending meetings you might find out very unusual things relate to the students disability. You might observe behavior from the parents or siblings that warrant questions and concerns but it is forbidden for you to discuss these items outside of the meeting except with your immediate supervisor or a member of the team.

FERPA is a commonly used term to the team. It is the Family Education Rights and Privacy Act on Confidentiality. This federal law protects the students' privacy and requires parental permission for others to access a student's education records except for "school officials" who have a "legitimate education interest."

Transportation personnel are considered "school officials" in their role as related service providers. Section 1002.22(1), F.S., also addresses confidentiality.

## DISCIPLINE CONTROLS

Federal statute and subsequent court rulings ensure students with disabilities cannot be permanently denied access to transportation. A student with disabilities may be suspended from transportation and instruction for up to 10 days cumulatively in a school year. However, students cannot be suspended for disruptive behavior if the behavior is a manifestation of their disability. A suspension of more than 10 days is considered a change of placement, and this can occur only after the student's needs are reevaluated in an IEP meeting. This meeting must occur on or before the 10 -day milestone. IDEA permits alternative placement of up to 45 days, and this alternative placement could result in changes to a student's transportation service. If the school believes a student with disabilities has dangerous behavior and the parents refuse alternative placement within 10 days, the school can seek court permission to change the placement, which can include alternative transportation, residential placement or in some cases home instruction. If the parent requests a due process hearing or appeals a hearing decision to the court, the student will remain in his or her current placement while the process is pending and until the dispute is resolved.

## SPECIAL NEEDS TRANSPORTATION

Students who have transportation on their IEP can be suspended from the bus without being suspended from program services. However, when a student with disabilities is suspended from the bus only, and not from program services, the law stipulates the bus suspension cannot result in a student missing education services. Therefore, if a student is suspended from the bus (bus not school) and the student has no other means of getting to school, the transportation provider must devise an alternative to bus service to ensure the student can receive IEP services. This alternative can include reimbursing a parent to transport their child. The days a student is suspended from the bus, if they do not include cessation of program services, do not contribute to the aforementioned cumulative 10 -day total unless otherwise agreed upon.

Bus drivers will initiate the discipline process based on observed behavior, but in most cases, school and/or transportation administrators will follow up with actual discipline. Drivers and attendants should be provided training in behavior management techniques and should keep written documentation on behavioral occurrences on the bus as they happen. In order to facilitate a safe bus environment, ongoing communications with parent, teachers, and site administrators is imperative. It is important to give parents sufficient and timely notification of any suspension. The district's discipline policies should be included in the transportation handbook for parents.

## AGE: WHAT ABOUT IT?

Age plays an important part in transporting students with disabilities. One must take under consideration that a student's physical age is not always the mental age and this makes a huge difference in how you will need to work with the student.

At the age of 27 months the special needs student is already being readied for school. The parents have had the child evaluated and the proper diagnosis should have been put in place. (This does not mean that other disabilities will not show up at a later date).

Over one million preschool age children ride school buses every day. These children are attending Head Start, and Early Intervention Programs to assist their learning process.

## SPECIAL NEEDS TRANSPORTATION

These children are required to be in child safety seats and/or child safety restraints systems (CSRSs). These items require that the driver and the attendant be trained in proper installation and use of such systems. There are a large number of different CSRSs on the market and we are expected to know which one is the right one for the student and their needs when the student comes to your area for transportation. It may take a few days to order in the correct equipment and it may take several different tries to find the perfect fit for the student's best interest.

A child properly secured in a CSRS is more protected in a crash or even a near-miss than a child who is not restrained.

The most widely used CSRS is the portable child safety seat. This seat requires a seat belt to be properly installed. Most large buses do not have seat belts. So now we have to figure the solution to providing safety for the student.

Large school buses don't have seat belts because the dynamics of a school bus crash are very different from an automobile crash.

Large school buses differ from passenger cars and light trucks in this way:

- They are heavier
- They experience less crash forces
- They distribute crash forces differently

Many Federal and non-Federal agencies and groups have decided that seat belts would provide little, if any, additional protection in a crash for the school-age child. Crash protection on large school buses is provided through "compartmentalization". In fact if children wear seat belts on a school bus and there is a crash, they may be worse off than if they hadn't been belted.

- If the seat belt is not worn low on the hips, it could ride up on to the abdominal area and cause internal injuries.
- Because the seat belt is a lap-only belt a child's upper body could strike the seat in front of them with enough force to cause injury to the neck, spine, or head.


## SPECIAL NEEDS TRANSPORTATION

Since school buses are so safe, most states exempt young children on school buses from the requirement to be secured in child safety seats. But recent Federal tests have shown that the SAFEST way to transport pre-school students is in child safety seats.

Think about these facts:
Do young children have trouble riding on regular school buses? (Yes, most of them do.)

- They can't climb up the stairs by themselves
- They can't climb up the stairs by themselves
- They can't see out the window

Do preschoolers stay in the seat by themselves? (No, most of them don't.)

They can be a problem to manage:

- If they can sit on the seat, they often won't stay put.
- If they are very young, they can't sit on the seat alone.
- If the bus ride is long, they get restless.

School buses were never designed for these young passengers. So, a CSS (child safety seat) will not only protect them in a crash, it will also help you manage them.

The National Highway Traffic Safety Administration recommends that all preschool age children be transported in a CSS when on a school bus.

Using a CSS or CSRS is a must for the safety of the preschooler and toddler when providing the safest transportation. However, installation of the systems is the number way to make the ride safe.

## SPECIAL NEEDS TRANSPORTATION

A CSS or CSRS usually comes with an instruction manual. It is imperative that this manual stay attached to the system for the safety of all involved. When a system is first acquired the driver and attendant should both read the instructions and practice installing the system properly under the supervision of your training personnel. Then the straps of each device should be adjusted to fit the student that will be riding in this equipment. If more than one student will be riding in the equipment, you will have to have an adjustable system that can easily be fitted for each student.

If the safety system is involved in a crash the system should be replaced immediately for the safety and integrity of the seat. Do not reuse the equipment, have it cut in two pieces and disposed of properly!

## LEGAL DEFINITION OF EMOTIONALLY HANDICAPPED STUDENTS

There are five characteristics of emotionally handicapped students. At least on of the following must be present:

- Inability to learn that cannot be explained by intellectual, sensory, or other health factors
- Inability to build and maintain satisfactory inter-personal relationships with peers and others
- Inappropriate types of behavior or feelings under normal circumstances
- A general pervasive mood of unhappiness or depression
- A tendency to develop physical symptoms or fears associated with personal or school problems

There are several general behaviors exhibited by emotionally handicapped students:

- They might have trouble looking at you
- They sometimes avoid communication


## SPECIAL NEEDS TRANSPORTATION

- They develop unusual fears
- They may be verbally or behaviorally unhappy, defeated, or withdrawn
- They frequently use aggressive behavior (fighting, verbally abusive to peers and/or adults in authority)
- They often use bizarre behavior (talking to self, inappropriate actions)
- They use inappropriate verbal responses (use of unacceptable vocabulary)
- They tend to be destructive
- They are easily frustrated, anxious
- They use immature behavior (frequent crying, temper tantrums)
- They are resistant to social standards and authority
- They have frequent referrals for disciplinary action
- They have difficulty adjusting to new groups
- They experience difficulty in establishing personal relationships
- They exhibit disruptive behavior which interferes with the learning of others
- They tend to be uncooperative
- They have a short attention span
- They are often hyperactive
- They are highly distractible
- They have low opinions of themselves
- They think that people pick on them and are unfair


## SPECIAL NEEDS TRANSPORTATION

- They are having great difficulty in school work
- They blame external forces for their problems
- They may perseverate
- They tend to have greater prevalence of vision and hearing problems
- They display strong emotional rations to situations

So how do you assist the emotional student to behave?

- Encourage and compliment
- Be consistent
- Give troublesome students a special assignment
- Involve student in an activity (or have them hold something)
- Develop bus pride
- Have some method of getting attention
- Model what you want the student to do
- Remain positive
- Set reasonable expectations
- Try to exercise a calm, patient attitude


## Things to ponder:

The pleadings of a child:

- Don't spoil me. I know quite well that I ought not to have all I ask for. I'm only testing you.
- Don't be afraid to be firm with me. I prefer it. It makes me feel more secure.


## SPECIAL NEEDS TRANSPORTATION

- Don't let me form bad habits. I have to rely on you to detect them in the early stages.
- Don't make me feel smaller than I am. It only makes me behave stupidly, "big."
- Don't correct me in front of people if you can avoid it. I'll take much more notice if you talk quietly with me in private.
- Don't protect me from consequences. I need to learn the painful way sometimes.
- Don't take too much notice of my small ailments. I am quite capable of trading on them.
- Don't nag. If you do, I shall have to protect myself by appearing deaf.
- Don't make rash promises. Remember that I feel badly let down when promises are broken.
- Don't forget that I cannot explain myself as well as I should like. That is why I am not always very accurate.
- Don't tax my honesty too much. I am easily frightened into telling lies.
- Don't be inconsistent. That completely confuses me and makes me lose faith in you.
- Don't put me off when I ask questions. If you do you will find I will stop asking and seek my information elsewhere.
- Don't tell me my fears are silly. They are terribly real, and you can do much to reassure me if you try to understand.
- Don't neglect me; I do not WANT to be a delinquent.

Use these practices on and off duty.

# SPECIAL NEEDS TRANSPORTATION 

## GLOSSARY

## Abbreviations Used in Special Education

| ADHD | Attention Deficit Hyperactivity Disorder |
| :--- | :--- |
| ADA | Americans with Disabilities Act |
| ADE | Arizona Department of Education |
| CFR | Code of Federal Regulations |
| CSRS | Child Safety Restraint System |
| CSS | Child Safety Seat |
| DCH | Development Centers for the Handicapped |
| DDD | Department of Developmental Disabilities |
| DIS | Designated Instruction and Services |
| DOE | U.S. Department of Education |
| DNR | Do Not Resuscitate |
| EAHCA | Education of All Handicapped Children Act |
| ED | Emotional Disturbance |
| FAPE | Free and Appropriate Public Education |
| FERPA | Family Educational Rights and Privacy Act |
| FMVSS | Federal Motor Vehicle Safety Standards |
| HI | Hearing Impaired |
| IDEA | Individuals with Disabilities Education Act |
| IEP | Individualized Educational Program |
| IFSP | Individualized Family Service Plan |
| IWEN | Individual with Exceptional Needs |
| LCI | Licensed Children's Institution (often used as a generic term to also |
|  | encompass foster family homes and residential medical facilities) |
| LEA | Local Educational Agency (i.e., a school district or county office of education) |
| LPA | Local Plan Area |
| LRE | Least Restrictive Environment |
| MH | Multi-Handicapped |
| S/LI | Speech or Language Impairment |
| VI | Visual Impairment |
| §504 | Vocational Rehabilitation Act of 1973 |

## TWO-WAY COMMUNICATION SYSTEM

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# TWO-WAY COMMUNICATION SYSTEM 

district's/company's policies on two-way communication.
Refer to unit on operations check and maintenance.

Refer to your

## INTRODUCTION

For the purposes of this chapter, cellular telephone use pertains to those districts/employers who use them as two-way communication.

The two-way radio and/or cellular telephone in your bus is there to improve transportation services. These two-way communication devices have proven to be efficient and effective, especially when it is imperative to transfer information rapidly... Success depends on the type of equipment being used, the way the school district is laid out geographically, weather conditions, and how you use the equipment.

The school bus driver is responsible for ensuring the two-way communication system is working properly.

## WHEN TO USE THE TWO-WAY COMMUNICATION SYSTEM

Operating rules must be established for the use of two-way communication systems. These rules must be followed to ensure that federal and state laws/rules and local school district policy will not be violated.

Examples of appropriate two-way communication usage could include the following:

- Heavy or unusual traffic conditions or hazards.
- Bus failure or malfunction.
- Accidents.
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- Any other event requiring police, fire or medical assistance.
- Lost or sleeping children.
- Field trip schedule adherence problems and communications with other field trip buses.
- Providing or requesting directions.
- Any circumstance in which you are in doubt as to the proper action to take.


# TWO-WAY COMMUNICATION SYSTEM 

The two-way communication system is never to be used for idle chatter between school bus drivers about subjects unrelated to your job. Conserve air time. Remember that individuals outside your district/company may be monitoring your school's assigned frequency. Refrain from transmitting any message that you do not want others to hear.

Emergency messages. If you receive any emergency or public service broadcast on your radio or otherwise learn that your frequency (or channel) is being used to transmit emergency messages, you are required to STAY OFF THE AIR.. In these instances you may use your radio only to assist in the emergency activities.

## FEDERAL COMMUNICATIONS COMMISSION REGULATIONS

What you transmit over the radio is not only the concern of the school district/company, but also the concern of the Federal Communications Commission (FCC). School districts are given the authority by the FCC to operate radio stations for the transmission of messages pertaining either to the efficient operation of the school bus service or the safety and general welfare of the passengers they are transporting. This authority is provided for in Title 47 of the Code of Federal Regulations, Chapter 1, Part 5, subpart B, section 5.89.

The FCC assigns frequencies, issues licenses, monitors the airwaves and enforces its regulations. FCC regulations forbid the following:

- Use of the radio system by unauthorized personnel.
- Repair or change of frequency by unlicensed personnel.
- Obscene, indecent or profane language.
- Transmission of unassigned call letters.
- False calls.
- Fraudulent distress calls.
- Superfluous and unidentified communications.


# TWO-WAY COMMUNICATION SYSTEM 

- Operation of the radio system during a civil defense test.

Violation of federal regulations may result in loss of license.
The FCC also regulates cellular telephone transmissions. Drivers are to follow district/employer policy regarding proper usage.

## PROCEDURES --TWO-WAY COMMUNICATONS SYSTEMS

The fundamentals of correct telephone usage apply to mobile radio. Choice of words, voice, volume, tone, good manners, friendliness and good speaking habits are just as important as knowing how to operate the equipment properly. These pay off in getting the job done quickly and easily.

The first step when using the radio or telephone is to think about what you want to say and condense the message as much as possible in your mind. Speak clearly and use a normal tone of voice.

## RADIO OPERATIONS

- Remove the handset from its cradle.
- Before pressing the transmit button on the handset, listen to see if another operator is already using the radio. If this is the case, wait and try again in a few moments. Avoid frequency interference - don't break into another conversation unless a real emergency situation arises.
- When the frequency is clear, press the transmit button on the handset, wait a second, then request permission to transmit. For example: "Route 123 to base." A light on the radio should come on, indicating that you are transmitting.
- After transmitting, wait a second, then release the button and wait for a reply. After 10 seconds, if you have not received a reply, try again. Remember: no one can transmit while you have your transmit button depressed.


# TWO-WAY COMMUNICATION SYSTEM 

## District/Employer Option

Emphasize that proper care and frequent operations checks will help maintain the equipment in good working order

- After the other operator acknowledges your call, talk directly into the mouthpiece in a moderate tone of voice. Speaking loudly will cause the transmission to "break up" or sound garbled. Speak slowly, distinctly and calmly.
- Keep your message brief and to the point.
- Follow the " 10 Codes" whenever possible.
- Do not use jargon, slang or obscenities.
- When repeating a message, speak more slowly, not louder.
- Get your message acknowledged and make sure you acknowledge messages.
- When you give an address it should be read digit-by-digit. For example: "1527" should be read: one-five-two-seven. If the operator asks you to repeat the message, it should be read: fifteen twenty-seven.
- Use the phonetic alphabet to "spell out" unusual words. Ask the operator to "spell out" a word if clarification is necessary.
- When an error is made in transmission, the word "correction" should be used and the correction made immediately.
- Clear the frequency when conversation is complete. Simply say, for example: "Route 123 clear." At the end of the transmission, return the handset to its cradle and check that the transmission light is out.

NOTE: Drivers must remember that others, not just those within the school district, may hear conversations transmitted by radio. Use caution when transmitting addresses of students. Refrain from using phrases like, "no one is ever home there."

## CELLULAR TELEPHONE USAGE

- Prior to beginning your route, turn the unit on.
- Check the telephone to ensure it is fully charged.


## TWO-WAY COMMUNICATION SYSTEM

CONTENTS

- Before using a cellular telephone while enroute, bring the school bus to a complete stop as required by Arizona Administrative Code R17-9-104(D)(28). This shall include Bluetooth devices or any other interactive wireless device, whether or not it is hands-free.
- Dial the number you want to call.
- Press the "send" button.
- Keep your message brief.
- Do not use jargon, slang or obscenities.
- Get your message acknowledged and make sure you acknowledge messages.
- Press the "end" button to terminate the call.
- Make sure the telephone is turned off at the end of the day to prevent discharging of the battery. This also helps prevent fraudulent use of the telephone.
- Recharge telephone, if necessary.

A district/employer may use cellular telephones, especially on special needs buses, when transmitting confidential information such as a student's address or when advising that no one is at the student's home. Although telephone transmissions provide more confidentiality than those by radio, a driver must use caution when providing sensitive information. It is possible for others to obtain access to the transmission and overhear the telephone conversation.

## TWO WAY COMMUNICATIONS MALFUNCTIONS

Report suspected radio malfunction (failure to transmit or receive), or cellular telephone malfunction, to the transportation supervisor at the end of your route. Before you report a suspected radio malfunction, check the following:

- Make sure the unit is turned on.


## TWO-WAY COMMUNICATION SYSTEM

- For radios that have multiple channels; make sure your radio is on the correct channel.
- Make sure the volume control is set high enough.
- Check connections at the handset and at the receiver to be sure they are secure and in tact.
- Make sure your vehicle is not in a location where transmission is impeded by the terrain or buildings. Simply move to another location and try the radio again.
- Make sure the transmit light is not on when the handset is in the cradle. If the transmit light is on, you won't be able to receive -- re-set the handset in the cradle.

Before reporting a suspected cellular telephone malfunction, check the following:

- Make sure the unit is turned on.
- Make sure the battery is charged.

If the equipment still does not work properly, report the malfunction as soon as possible.

## "10 CODES"

The " 10 Code" is a number identification system used to make radio conversation brief and to clarify messages. A list of some commonly used is:

10-1 Unable to understand. (This is the message used when the signal received is breaking up. Generally this can be corrected by moving the vehicle.)

10-2 Receiving well.
10-4 Acknowledge receipt and understanding of message.
10-7 Out of service at (location).
10-8 In service at (location).

# TWO-WAY COMMUNICATION SYSTEM 

10-9 Repeat message.
10-12 Special assistance needed.
10-20 My location is $\qquad$ , or what is your location.

10-21 Call by phone.
10-23 Stand by.
10-33 All units clear air for emergency traffic only.
10-86 No show.
Clear Message for closing conversation by last unit to talk.

When this system is used, it should be for a definite purpose, and general use for talking about something which can wait is discouraged.

In the event of an emergency, districts/companies may want to use special codes to identify the type of emergency. For example: accident, accident with injuries, fatality, bus involved in accident, bomb threat, etc. The use of codes may help prevent panic in emergency situations. Your district/company may also want to implement a code or "catch phrase" that would identify your school bus as being in some type of extreme danger. For example: bomb threat, weapon on the bus, threat of violence, hi-jacking.

## TWO-WAY COMMUNICATION SYSTEM

## PHONETIC ALPHABET

Pronounce words distinctly. Emphasize each syllable. The phonetic alphabet should be used for spelling out unusual names of streets, people or locations. The names used after each of the letters should be of assistance in the transmission of difficult names and will make them more easily understood. When using the phonetic alphabet, always give the letter and then the name.

For example: Main Street - $\underline{\mathrm{M}}$, Mary; $\underline{\mathrm{A}}$, Adam; $\underline{\mathrm{I}}, \mathrm{Ida} ; \underline{\mathrm{N}}$, Nora. Do not say $\underline{\mathrm{M}}$ as in Mary; $\underline{\mathrm{A}}$ as in Adam; $\underline{\mathrm{I}}$ as in Ida; $\underline{\mathrm{N}}$ as in Nora. This leads to a lengthy transmission and confusion.

The following is the phonetic alphabet:

| A - Adam | J - John | S - Sam |
| :--- | :--- | :--- |
| B - Boy | K - King | T - Tom |
| C - Charles | L - Lincoln | U - Union |
| D - David | M - Mary | V - Victor |
| E - Edward | N - Nora | W - William |
| F - Frank | O - Ocean | X - X-ray |
| G - George | P - Paul | Y - Young |
| H - Henry | Q - Queen | Z - Zebra |
| I - Ida | R - Robert |  |

## THINGS TO USE YOUR RADIO FOR

Your radio is for emergency purposes only. For example:

- An accident
- Out of fuel
- Bus won't run
- Serious discipline problem
- Road conditions
- Directions

DO NOT use your radio to report:

- Happy Birthday!
- "Meet you at the coffee shop"
- Any unnecessary conversation

REMEMBER, when you are using the radio, someone else can't. Something else to remember when you call base - only one person can talk to the dispatcher at a time. Don't overload them with things to do that you should be doing yourself. Before you make a call, always ask yourself these questions:
"Is this call necessary, or can I handle it when I get in?"
"Does it pertain to safety or the operation of equipment?"

## TWO-WAY COMMUNICATION SYSTEM REVIEW

True or False:
$\qquad$ 1. The State Corporation Commission gives authority to operate radio stations for transmission of messages.
$\qquad$ 2. You may repair your frequency even if you are not licensed.
$\qquad$ 3. Depressing the transmit button will allow you to talk.
$\qquad$ 4. It is permissible to use a cellular telephone, a Bluetooth, or other hands free device while the bus is in motion.
$\qquad$ 5. Regulations prevent you from correcting an error in transmission.
6. The " 10 Code" is used for radio conversation.
7. The phonetic alphabet should be used for spelling out unusual names.
8. Drivers of field trip buses are allowed to communicate with each other by two-way radio.
9. Others, not just those within your school district, may hear conversations transmitted by radio.
10. Buildings or terrain can impede radio/cellular telephone transmission.

## Discussion:

1. Briefly outline the message you would send if you were involved in a serious accident.
2. When and why is it a good idea to hang the handset out the bus window?

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Refer to A.A.C.
17-9-108(D) 5 \& 6

Refer to A.A.C.
R17-9-104(A) and
R17-9-108(D) --
Operations
Checks

Some districts /companies may require a more extensive operations check.

The operations check is one of the most important functions performed by school bus drivers. The reasons for inspection are safety, compliance with federal and state laws, prevention of breakdowns and district/company policy.

Before a school bus is operated for the first time each day, the driver must conduct a pre-trip operations check of the bus.

A driver is required to make a written/electronic report of the operations check, reporting any defect found to the employer so that the defects may be corrected. The operations check records will be made available for inspection and audit to authorized representatives of the Arizona Department of Public Safety at any time within the time frames outlined.

Although there are many different methods of performing operations checks, it is very important to perform the inspection the same way each time. The following instructions and memory aids will insure that all items are certain to provide a thorough inspection if performed as suggested.

## BEGIN PRE-TRIP

The inspection should begin as the driver approaches the vehicle. At that time, items such as fresh oil, coolant, grease, or fuel leaks are very noticeable, without actually getting under the vehicle. A vehicle that is leaning is also more obvious from a distance, which may indicate a broken spring, a flat tire, or other vehicle damage.

## ENGINE COMPARTMENT

- Coolant Level: The coolant cools the engine. Check the coolant by removing the radiator cap. NEVER REMOVE THE CAP WHEN THE ENGINE IS HOT. The coolant should be visible in the radiator. If a sight glass is used, coolant should be visible in the sight glass.
- Engine Oil Level: The dipstick is used to measure the amount of oil available to lubricate the engine. Check while the engine is not running. Pull the dipstick out, wipe it off and redip to measure the amount of oil. The oil level should always be between the full and add marks.

Note: Power Steering may be gear driven

- Power Steering Fluid: The power steering provides power to assist in steering the vehicle. It should be checked while the engine is not running. The fluid level should be maintained between the full and add marks.
- Transmission Fluid: The transmission fluid is used to lubricate the internal workings of the transmission. Fluid levels should be checked when the fluid is hot and the engine is running.
- Water Pump: The water pump circulates the coolant to keep the engine cool. Check for possible leaks.
- Alternator/Generator: The alternator provides electrical power to keep the battery charged. Check to see that the alternator is tight and wires are connected.
- Air Compressor: The air compressor pumps air for the brake system. The air compressor is either belt driven or gear driven. Note: Be sure you know which type you have on your vehicle.
- Belts: Check all belts as you check the power steering, water pump, alternator, and air compressor. Point to or touch each belt and check that the belt(s) is not frayed, there are no visible cracks, no loose fibers or signs of wear. Belts are adjusted properly if there is a $1 / 2$ " to $3 / 4$ " deflection when pressed in an area between pulleys.
- Leaks: While inspecting the engine compartment, check for leaks consisting of oil, coolant or power steering fluid. Indicate if there are any visible leaks.
- Electrical Wiring: Electrical wiring supplies power for all electrical accessories. Wiring should not be frayed, cracked or have broken insulation that would cause electrical shorts.
- Hoses: Check for cracked, frayed, swollen, or worn hoses. Couplings should be secure.

Emphasize lens covers must be kept clean.

- Frame: The frame consists of the structural members for supporting the body and vehicle load. Check for cracks, broken welds, holes or other damage to the frame or cross members.


## EXTERNAL LIGHT CHECK

- Turn on lights: Student amber lights, left and right turn signals, hazard lights, and headlights (both high and low beam). Check that they are working on the light panel, if equipped, and in your crossover mirrors. The "buddy system" of checking lights is strongly recommended.
- Open Door: Student lights should change from amber to red and be checked in the above manner. Be sure that hazard and headlights are on.
- Mirror secure: Side clearance light working, lenses in good condition.
- Front Clearance Lights working: Lenses in good condition.
- Eight Way Lamps: Lens covers in good condition and lamps are operational.
- Hazard Lights: Flashing and lenses good.
- Headlights: In good working order (both high and low beams).


## START ENGINE

- Parking brake on, bus in neutral.
- Check Clutch (if applicable). If the bus is equipped with a clutch, disengaging the clutch disconnects the engine from the drive train and reduces the load on the starter, while starting the engine. If the vehicle is equipped with an automatic transmission, place in neutral or park if the bus has a park position.
- Start Engine: Listen for unusual engine noises.


## OPERATIONS CHECK

Refer to A.A.C. R-17-9-107(11) -Emergency equipment

Refer to A.R.S. 28-4033
-- Financial responsibility requirements

Emergency DoorsLocks are different from bus to bus and door to door depending on the make and model of the bus. Special attention to the securement of these locks is important. Padlocks are prohibited on all doors. See
A.A.C. R-17-107(10)(h)

- Check Oil Pressure: To ensure oil pressure is normal, the gauge should move from zero to normal range upon starting the engine. If the bus is equipped with an oil light in lieu of the gauge, the light should glow when the ignition switch is in the on position, and should go out within a few seconds after the engine starts. This is to ensure there will not be any engine damage.
- Turn on the Communication System: Check for use. The two-way communication system is a very valuable tool, especially in an emergency. The equipment must be checked to ensure it is transmitting and receiving properly.
- Check Emergency/Safety Equipment: This equipment is used during a breakdown or at an accident scene. The emergency equipment consists of three reflective triangles, a properly charged and rated fire extinguisher, a first aid kit, a body fluid clean up kit, and electrical fuses if the bus is not equipped with circuit breakers.
- Bus Registration and Insurance Card: Knowledge of its provision and location.


## INSIDE WALK THROUGH

- Restraining Barrier is Secure: No damage to cover or padding.
- Correct Flooring: No damage or holes.
- Look for trash on the floor. Floor covering and metal stripping secure and clear of debris. Nothing is obstructing the heaters.
- Check for loose or damaged seat fronts and frames.
- Emergency Doors: The back door (if it's a front engine bus) and the side door (if it's a rear engine bus) is not blocked. If the bus has a side door, the seat must remain retracted and the buzzer must sound. On the rear engine bus, the window must remain open. The seal must be in good condition. Locks are required to be in the unlock position prior to engine start and during bus operation. Make sure the unlock position of the lock is securely fastened.


## OPERATIONS CHECK

- Emergency Window Exits/Roof Hatches: Open and buzzer sounds. Make sure that all emergency exits are not damaged, operate smoothly and close securely from the inside.
- Interior: Lamps have no damaged, cracked, or missing lenses. There are no exposed edges, damage to the ceiling or side walls.
- Seat Backs: Check for damage.
- Windows: Check that they are not cracked or broken.
- Air Conditioning: Check vents and filter for cleanliness and missing louvers.

Refer to A.A.C.
R17-9-108(B) --
Major and minor defects

## IN CAB

- Driver Seat and Belt: Must be secure and in working order.
- Noise Suppression Switch: This is used to silence radios, heaters, defrosters, or any other source of sound with the flick of a switch when approaching a railroad crossing. Check for proper operation.
- Heater/Defroster: The heater provides heat for the cab or passenger compartment. The defroster prevents frost or condensation from forming on the windshield. Check each for proper operation, be sure the motor works. The defroster is also a safety concern if it does not operate properly. The defroster will not work properly if the heater is not working.
- Auxiliary Fan(s): Must not block the driver's view of mirrors and shall be covered by a protective cage.


## FRONT DASH INSTRUMENTS

- Ammeter/Voltmeter: The ammeter or voltmeter indicates when the alternator is charging the battery. The needle should indicate a charge upon starting the engine, and will cutback or show a lesser charge after running for a short period. If the vehicle is equipped with a light in lieu of the gauge, the light should glow when the ignition switch is placed in the on position and should go out after the engine starts.
A.A.C. R17-9-104(D)
(10) -- Fueling -- Also refer to district /employer policy

Refer to A.A.C. R17-9106(22) -- Steering

See A.R. S. 28-954 -Horns warning devices

- Coolant Temperature: If equipped with a gauge, the temperature should remain in the normal operating range at all times. The engine should be turned off if the temperature exceeds maximum readings. If equipped with a temperature light, the engine should be turned off if the temperature light comes on during operation.
- Engine Oil Temperature: If equipped with a gauge, the engine should be turned off if the temperature exceeds maximum readings.
- Transmission Temperature: Some transmissions may also be equipped with gauges to indicate fluid temperature. These temperatures must be continuously observed so damage does not occur from overheating.
- Fuel Gauge: Maintain at least $1 / 2 \operatorname{tank}$ of fuel at all times.
- Windshield Wipers: The washers provide fluid for the wipers to clean debris from the windshield. Check the operation and fluid level.
- Steering Play: The steering play must be checked with the engine running on vehicles equipped with power steering. Observe the front tire while moving the steering wheel from left to right. Steering free travel should not exceed 10 degrees (approximately 2 inches at the rim of a 20 inch steering wheel), before the tire barely moves. Excessive steering play will make the vehicle difficult to steer.
- Horn(s): The horn is to warn other drivers or pedestrians. Check the horn(s) for proper operation.
- Mirrors: The mirrors are used to check traffic to the sides and rear of the vehicle. On a school bus they are also used to observe students who may be in front of or to the sides of the bus. The mirrors should not be loose or cracked and they should be properly adjusted and clean.
- Windshield: The windshield is clean, has no cracks, dirt or stone bruises (if so, please report). Windshield is free of illegal stickers and other obstructions. State inspection decal is current.

Air Brake Check -According to the manufacturer's specifications

- Sunshield (Visor): Ensure that the sunshield is clean, secure, transparent, and in working order. No additional film.
- Miscellaneous Instruments: Many vehicles are equipped with other instruments and gauges. School bus drivers should be familiar with their application and proper operation to ensure vehicle components are within normal operating range.


## AIR BRAKE CHECK

- Dual Air System (Spring Brakes): The following steps must be completed the first time the vehicle is checked each day.
- Rate of Air Pressure Buildup: With the engine at operating speed, (1200-1500 rpm), the pressure should build from 85 to 100 psi within 45 seconds.
- Air Compressor Governor Cut In/Out Pressures: Pumping by the air compressor should begin below 100 psi (you will know this is happening when the gauge starts rising). It will stop rising at 120-125 psi, which is the governor cut out.
- Test Air Leakage Rate: Be sure that your bus is on level ground, or chock the wheels.
> Static Test: With a fully charged system, turn the engine off and release the parking brake. Allow the system to stabilize. Check the pressure gauge, it should not lose more than 2 psi in one minute.
> Applied Pressure Test: Apply the service brake all the way down and hold for one minute. Check the pressure gauge. It should not lose more than 3 psi.
- Test Low Pressure Warning Signal: With the key on but engine off, step on and off the brake pedal to reduce the air pressure to the low air pressure buzzer and light come on (this should happen between 60-75 psi).

The next 2 steps may be completed now or after the walkaround inspection.

- Test Parking Brake: With the parking brake on, put the transmission in gear and apply gentle pressure to the accelerator pedal. The parking brake should hold.
- Test Service Brake: Release the parking brake and move the bus forward (about 5 mph ). Apply the brakes firmly. Check for "pulling to one side, unusual feel, or delayed stopping action."


## HYDRAULIC BRAKES/TEST FOR LEAKS

- Pump the brake pedal three times, and hold it down for five seconds. The brake pedal should not move (depress) during the five seconds.
- If the vehicle is not equipped with a back up system, then check that the warning dash light is off.
- If equipped with a hydraulic brake reserve (back up system), with the key off, depress the brake pedal and listen for the sound of the reserve system electric motor.
- Check the 3 B's...these are backup beeper, (if equipped), backup and brake lights. As you back the vehicle into the space, note that the backup and brake lights are working on the light panel if so equipped.


## WALK AROUND INSPECTION

- Mirror Secure.
- Windshield (check same as inside)
- Wiper blades: in good condition, hoses secure.
- Bumpers secure.
- Service Door: The glass is not cracked or broken, seal is in good condition. The grab rail is secure and the steps are the correct distance from the ground with the flooring in good condition.
- Right side of bus: Check for body damage, scratched paint, cracked or broken windows, missing or broken reflectors, missing rub rails and that the compartments are secured by latches.
- Suspension: The purpose of the suspension system is to smooth out the ride while maintaining control.


## FRONT SUSPENSION

- Leaf or Coil Spring(s): The springs are to absorb vibrations created by rolling over uneven surfaces. Check for broken/ distorted spring leaves (no more than $1 / 4$ missing or broken).
- Spring Hangers/Mounts, Shackles and U-Bolts: Check spring mounts for missing bolts, pins, and cracks. Check the U-bolts that attach the spring to the front axle for looseness or cracks. Check for damage/missing bushings; loose/missing axle parts.
- Shock Absorbers: Check shock absorbers for leaks and that they are secure (no missing/loose nuts or bolts).
- Steering Box and Linkage: The steering box contains the mechanical devices that allow the turning of the wheels. Inspect the steering box, mounting bolt, cotter pins and steering shaft for tightness, damage and leaks. Also check the steering linkage for excessive wear, cracks looseness, missing cotter pins and associated hardware.


## BRAKE SYSTEM

- Components used to slow or stop a vehicle. Some portions of the brake system may be more visible by observing the right hand brake from the left side and vice versa.
- Drums (all brakes): Check the drum for cracks, rust, dents, holes, or breaks. On most large vehicles, the brake lining may be observed through either an inspection hole in the drum or by observing the lining from the back side of the drum. Linings should not be dangerously thin (at least $1 / 4 "$ thickness) or show signs of grease or oil.
- Brake Chamber (air only): The brake chamber converts the air pressure to mechanical force to apply the brake linings against the drums. The chamber must be securely mounted and must not be cracked or dented.
- Slack Adjustor: if equipped-(air only): The slack adjustor is part of the linkage between the brake chamber and brake lining used to activate the brakes. It also contains the adjustment mechanism for the brake. Check for any broken or missing parts clevis pins, and their securement. You may check the adjustment by pulling on the slack adjustor, with brakes released. The push rod should not move more than 1" when pulled by hand.
- Hoses (all brakes): The hoses carry air or hydraulic fluid to the brake system. Check for cracked, worn, or frayed hoses. Ensure couplings are secure and there is no sign of air leaks.


## WHEELS AND TIRES (FRONT)

- Tires: Check tires for tread wear. Tread depth must be $4 / 32$ " on the front. Tread depth is measured at any point on a major tread groove, except where the bars, humps, fillets are located in the tread groove. Check to see that the tread is evenly worn with no bulges, cuts, or damage to the tread or walls, the valve stem and cap are in place, and the tires are properly inflated.

No retreaded, recapped or regrooved tires are allowed on the front wheels of a bus. No tire shall be retreaded, recapped, or repaired if worn through the breaker strip if there has been any separation in the outer walls of the casing or if the casing is otherwise damaged. Tires must be of the same size and type. Spare tires are not to be placed inside the passenger compartments, nor placed to block windows or doors. They must be securely fastened in a proper rack or compartment designed expressly for that purpose.

## OPERATIONS CHECK

Refer to A.R.S. 28-
958.01 and A.A.C. R17-

9-106(21) -- Splash
Guards. Refer A.A.C. R17-9-106-24(e)

- Wheels/Rims: Check the wheel/rim for cracks, missing, bent, or broken studs, lugs, clamps or spacers, and for loose or missing lug nuts. No welded repairs. Lug nuts must be tight no rust around them or shiny treads, and none missing or broken. (A trail of rust from around the lug nut toward the outer edge of the wheel indicates the lug nut is loose.) Cracked wheels will also have the same rust signs.
- Wheel/Hub Seals: Retain the lubricant within the wheel hub. Check the oil level, if a sight glass is present. Be sure that the wheel hub oil seal is not leaking excessively. Check for signs of fresh lubricant, denoting a leak. Seals may have a tendency to seep, causing dust and dirt to collect.
- Cargo or Baggage Compartments: Check that all cargo or baggage compartment doors are securely latched.
- Wheelchair Lift (if equipped): Inspect to ensure lift is working properly; that safety devices and restraining barriers are present.
- Emergency Exit: Check door for proper operation and that the seal is in good condition.


## REAR SUSPENSION

- Check items same as front suspension. If equipped with air bags, check that the air bag is secure and not leaking. Torsion bar is secure.
- Axle Seals: These seals or gaskets retain the lubrication in the axle/wheel assembly. Check for distortions on the wheel/axle mounting. Check for signs of leaking lubricant or loose axle nuts. Hub oil seals should also be checked to ensure that lubricant is not leaking from the interior $f$ the hub and getting onto the brake lining. Check for signs of lubricant dripping from the brake drum. Oil level is adequate.

Vehicles equipped with hydraulic brakes may show signs of hydraulic fluid dripping from the brake drum if there is a leak in the wheel cylinder.

BRAKES (REAR): Check the same as front brakes.

## WHEELS AND TIRES (REAR)

- Tires: Check the same as the front but tire tread must be at least $2 / 32$ ". Retreads are allowed.
- Wheels: Check the same as the front. Mud flaps no more than 8 inches from the ground.
- Spacers: Collars that keep dual wheels evenly spaced, centered and are not bent, damaged, or rusted. If the bus is not equipped with spacers, dual wheels must be evenly spaced.
Check for items lodged between the wheels.
- Drive Shaft: The drive shaft transmits power from the transmission to the differential. Check that the drive shaft is secure, and the U-joint appear to be ok. Also note that the large "U" bracket is around the drive shaft to prevent it from dropping if it becomes disconnected.


## REAR OF VEHICLE

- Observe body damage, broken or cracked windows, missing or broken reflectors, and the bumper for proper mounting. Check all the lights as you did on the front of the bus.
- Battery: Check that the battery is secure and that there are no leaks or bulges and if mounted on a tray, that the safety latch/pin is installed. Ensure that the battery compartment door(s) are securely latched.
- Exhaust System: The exhaust system is used to transmit the combustion gases from the engine to the outside of the vehicle. Check the exhaust system for sagging pipes and muffler, separated joints and broken or loose hangers.


## SIDE OF BUS

- Stop Arm: Fully extends; no air leaks, lights functioning.
- Circuit Breakers/Fuses: Secure. There should be spares for each.

The child alert system is used to help ensure that students are not left on the bus. There are various types of systems. Explain the version you have.

CHILD ALERT SYSTEM (if equipped): Is in working order.

There are three types of operations check: Pre-trip, Walk Around and Post-trip. After a school bus makes its final trip on each day, the school bus driver shall sweep and clean the interior of the school bus.

After completing each operations check, the school bus driver shall complete a written report. The disposition of the written report varies, dependent on the desires of the employer. However, the report should always be available for the next driver to review, prior to driving the vehicle. Any driver who finds inoperative or damaged items must immediately complete and submit a written repair order to the employer.

## OPERATIONS CHECK

## WHAT MECHANICS WANT YOU TO KNOW

- When pre-tripping your bus, do not idle it fast to warm it up. It doesn't help and could damage your engine.
- Shut off all electrical equipment like your heater motor, lights and accessories two miles prior to the point of turning off your engine. This will save your alternator.
- When you first notice any type of repair that needs to be done, write it up immediately. This could prevent a major repair later and be less costly to fix.
- If you have a rear, flat tire, do not drive on it. A minor cost can turn into an expensive replacement. It might also cause a fire.
- If equipped, make sure the engine-kill switch is pushed in on a diesel bus.
- If equipped, the glow plug on the dash on a diesel bus will go out when the bus is ready to start.
- If stopped and waiting, use your fast idle when your air conditioner is on.
- If tires are not properly inflated, please notify mechanics. Proper inflation saves fuel.






## BEHIND THE WHEEL

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## GLOSSARY OF TERMS

Accident: An unforeseen, unplanned circumstance.
Aligning the Bus: Positioning the bus so it is parallel to the ground reference.

Blind Areas: The areas behind, in front of, and on the side of the bus that a driver cannot see from the driver's seat.

Collision: An act or instance of colliding.
Convex Mirror: A mirror with curved glass that gives a driver a wide angle of vision. It is primarily used to eliminate blind spots around the bus.

Depth Perception: The ability to judge distance between two or more objects.

Flat Mirror: A mirror with flat glass, mounted on each side of the bus. These mirrors can be used for judging distance.

Full Lock Left: The turning of the steering wheel to the left steering stop.

Full Lock Right: The turning of the steering wheel to the right steering stop.

Gradual Backing Crossover: Backing the bus from one side to the other in a gradual movement.

Ground Reference: A point or object on the ground (a line, side of roadway, and so forth).

Interior Rearview Flat Mirror: A mirror with flat glass mounted on the inside of the bus directly above the driver's seat. This mirror may be used to view traffic behind the bus and to the right and left sides. The mirror is used to view the passengers.

## INTRODUCTION

Be patient, people learn at different rates.

The purpose of the behind the wheel training guide is to provide a basis for the development of operational skills by prospective school bus drivers. This instruction should follow the classroom phase of the pre service instruction. Behind-the-wheel instruction. Behind-the-wheel instruction should be devoted to observation, reemphasis of principles and procedures learned in the classroom, actual driving and evaluation.

This section has been developed to encourage maximum participation by each driver. The more a driver participates by observing, asking and answering questions, taking notes, and engaging in actual driving, the better the driver will achieve needed skills.

## FUEL EFFICIENT DRIVING

## AIR POLLUTION

Idling school buses can pollute air in and around the bus. Exhaust from buses at idle can also enter school buildings through air intakes, doors, and open windows. Diesel bus exhaust from excessive idling can be a health concern.

## WASTED FUEL AND MONEY

Idling buses waste fuel and money. Typical school bus engines burn about half a gallon of fuel per hour of idling. School districts that eliminate unnecessary idling can save significant dollars in fuel costs each year.

## ENGINE WEAR AND TEAR

School bus engines do not need to idle more than a few minutes to warm up. In fact, extended idling causes engine damage. Engine manufacturers generally recommend no more than 3-5 minutes of idling. Avoid excess idling. If the bus is parked for more than five minutes, stop the engine. Excessive idling can cause carbon buildup and/or excessive idling can cause the engine to slobber. This is harmful to the engine. Excessive idling reduces fuel economy, and may decrease oil life. A bus idling for 1 hour per day during the school year adds the equivalent of 1260 miles of wear on the engine.

## WAYS TO DECREASE BUS IDLING TIME

When school bus drivers arrive at loading or unloading areas to drop off or pick up passengers, they should turn off their buses as soon as possible to eliminate idling time and reduce harmful emissions. The school bus should not be restarted until it is ready to depart and there is a clear path to exit the pick-up area. Exceptions include conditions that would compromise passenger safety, such as:

- Extreme weather conditions
- Idling in traffic
- Buses that transport temperature sensitive special needs students
- At school bus depots, limit the idling time during early morning warm up to what is recommended by the manufacturer (generally 3-5 minutes) in all but the coldest weather.
- Buses should not idle while waiting for students during field trips, extracurricular activities or other events where students are transported off school grounds.
- In colder weather, if the warmth of the bus is an issue, idling is to be at a very minimum and occur outside the school zone. The "warmed" bus is to enter the school zone as close to pick up time as possible to maintain warmth and then shut down.


## IDLING MYTHS

Myth: It is important to warm up the engine with a long idle period, especially in cold weather.

Fact: With today's school bus engines, bus and engine manufacturers routinely suggest a warm up time of less than five minutes. In fact, running an engine at low speed (idling) causes significantly more wear on internal parts compared to driving at regular speeds.

Myth: It's better for an engine to run at low speed (idling) than to run at regular speeds.

Fact: Running an engine at low speed causes twice the wear on internal parts compared to driving at regular speeds.

Myth: Idling is necessary to keep the cabin comfortable.
Fact: Depending on the weather, many buses will maintain a comfortable interior temperature for a while without idling. Idling is also not an efficient way to keep the cabin warm. Bus routes should be timed so children and drivers do not need to spend a lot of extra time on the bus when it is en route, particularly in hot or cold weather.

## TRANSMISSION CONTROL AND SHIFTING PROCEDURES

## BUS SELECTION

The criteria for the selection of Buses are as follows:

- It is mandatory that the bus have a good working speedometer to indicate the bus's road speed (mph).
- It is strongly suggested that the vehicle have a good working tachometer to indicate the engine speed (rpm).

The above two instruments will provide the driver with the information needed to correctly shift the transmission and minimize wear on the transmission. These instruments, used correctly, will reduce maintenance cost.

- The bus should be in good working order and all the controls adjusted properly; for example, shift linkage, etc.

By using a bus that is in good mechanical condition, the drivers will be able to establish a proper frame of reference that they can use throughout their driving career. Always check the bus to be used for shifting range, either by speedometer or tachometer before taking the driver out.

- The instructor should have driven and have knowledge of the bus to be driven.


## SITE SELECTION

Site selection for this skills level is extremely important. The driver may be under a lot of stress during this time. Generally, individuals will comprehend and retain information better if they are under less strain.

The site selected for this lesson should be free from traffic, and the roadway must be as straight and flat as possible. By selecting this type of site, the instructor will be able to concentrate on what the driver is doing and not have to watch for traffic, thus relieving stress.

Success in this skills level depends largely on the ability of the instructor to select a proper and adequate training site. Searching for a suitable site may take time, but the difference it makes in the training program for this skills level will benefit everyone.

## SHIFTING PROCEDURES - AUTOMATIC TRANSMISSIONS

Automatic transmissions can be shifted two ways:

- The driver can put the shift lever in "D" (drive) position, and the transmission will shift automatically.
- The driver can "manually shift" the transmission, selecting and controlling each gear range as needed.


## PROCEDURES FOR ESTABLISHING EXACT SHIFTING POINTS

Note: Not all buses will have a tachometer.

- Determine the top tachometer setting to be used.
- Shift into the lowest gear range.
- Accelerate to the top tachometer setting.
- While holding the accelerator steady at the top tachometer setting, note the road speed (mph).
- Now that the top road speed has been established for that range, move the shift lever to the next highest gear range.
- In the next gear range, reestablish the top road speed of the last gear range. Be sure the bus is rolling at exactly the noted road speed and the accelerator is steady. Look at the tachometer and note the engine speed (rpm). This is the exact shifting point into the next gear range at that road speed.
- Repeat this procedure for each gear range in the transmission.

By setting up an automatic transmission, and establishing the exact shift point for up shifting and downshifting, and establishing the gear splits, a driver can manually control the vehicle in all situations.

- Selecting the proper gear range for the speed you are traveling can avoid undue searching by the transmission for the required gear. This generally occurs at less than freeway speed.
- When making frequent stops to load/unload, it keeps the transmission from shifting unnecessarily.
- Selecting the proper gear range at the right time may assist the driver in keeping the engine rpm in the correct range to avoid unnecessary lugging while climbing grades.
- Selecting the proper gear range while descending grades in order to help control the bus speed and help avoid heating the brakes.
- When driving in residential area, this will help keep speed down.

Note: Discuss the manual shifting method with your supervisor before using the method.

## STARTING AND STOPPING ON A GRADE

Most bus routes involve a multitude of driving situations which will require the driver to have expertise on starting and stopping on hills. The instructor must make sure that the driver can handle the bus in this situation.

- Observe all traffic in the immediate area.
- Make sure there is enough room between the bus and other vehicles.
- Downshift if necessary
- Depress the brake smoothly


## REFERENCE POINT DRIVING INTRODUCTION

In a complete program of driver training, it is essential that drivers be given an opportunity to practice driving techniques, so that under supervision and guidance, that may reach the required level of proficiency in handling of their bus. Supervised practice is particularly important in the training of personnel without previous experience in the operation of large vehicles.

The following basic maneuvers should be mastered by every driver. In addition to these basic exercises, it is possible to develop additional problems to stimulate special conditions which drivers may encounter or which may be causing a disproportionate share of collisions.

The training course may be set up as a complete unit where space is available. Where sufficient space is not available to set up a complete course, it is entirely proper to set up one obstacle at a time.

## DEFINITION OF TERMS

## Reference Point

A point on the bus which is in a direct line between the driver's eyes and another point.

Once established for an individual driver in a specific bus, the line from the driver's eyes to the reference point and beyond is constant.

Moving the bus will change only the point on the line beyond the reference point. This, in effect, acts like the front sight on a rifle and allows the driver to accurately position the bus. On Visual Aid KA-1, the blind spot in front of the bumper may be measured for both driver (A) and (B). If the measurement for taller driver (A) is 15 feet and the shorter driver (B) is 20 feet, driver (A) can now position the bus 15 feet from any point while driver (B) can stop the bus at 20 feet from any object.


## Turning Point

The point when the steering wheel must be turned to properly execute a right or left turn. This point is where an imaginary extension of the curb line intersects the right side of the bus for a right turn, or where an extension of the center line would intersect the left side of the bus for a left turn. These points must be determined by trial and error for each bus. Start by using the front bumper and maneuver the back of the bus as necessary to properly execute the turn. Turning points will vary with changes in speed.

## Pivot Point

The point to which the bus tends to pivot during a sharp right or left turn. Exact position must be determined for each bus. It will be somewhere in front of the rear axle when going forward and behind the rear axle when going in reverse.

Right-hand turns comprise the largest cause of bus collisions today. Most are caused by the driver not steering or driving the rear axle. Drivers tend to forget or were never aware of the characteristics of vehicles making turns.

When making a turn, all rear wheels will not follow exactly the tracks of the front wheels from a cart to the longest vehicle; this action is called "cheating". It is simply the rear wheels cutting across the arc of the front wheels. The longer the vehicle, the more pronounced it is.

Drivers must compensate for this by driving the rear axle. All buses have a pivot point. This pivot point is the rear wheel. The illustration in Figure 1 demonstrates the principle of cheating. Knowing that this action takes place, one can use it to their advantage.

Figure 1


At one point, the distance between the outer tracks of the wheels is $75 \%$ greater than the width of the vehicle.

On a bus, the rear wheels are not steerable and unlike the front wheels which change direction instantly when steered, the rear wheels must travel forward or in reverse some distance before they change direction.


Now relate actual driving experiences to the exercise and the value to be gained. (Caution: Make sure drivers understand this subject and make them practice it with a cone).


Collision \#3 will happen if the driver ignores the tail swing of the bus on a turn, either left or right. See figure 6.

FIGURE 6


If necessary review definition for "Turning Point"

Collision \#4 will happen if the driver has not positioned the bus close enough to the curb line to prevent a car or some other vehicle from passing on the right side. See Figure 7.


There is no reason to ever have a collision making a right turn. If the following procedures are executed for each and every right turn, you will not have a collision.

- Slow your bus to (5) miles per hour or less. Complete down shifting of gears if needed 50 feet before turn. Make sure turn signal is on at least 100 feet before turn. Check all mirrors before turning at least two to three times before turn.
- Drive the bus straight; bus should be parallel to lane line and out three (3) feet from curb.
- Continue forward until curb line or outside edge of parked bus is directly in line with your turning point for right turn. Turn wheel hard, with the bus in this position and traveling at five (5) miles per hour. It will not be possible to turn sharp enough to hit an object on the right side.
- Complete the turn by bringing the bus three (3) feet from curb.



## INSTRUCTIONS

To learn to judge turning radius, use the following procedures to find a reference point.

- Station bus at right turning point. One other person to be in intersection with a cone. Make turn at five (5) miles per hour with bus, and at extreme outer edge of your arc of travel (left front corner of bus). Set cone on that mark. See Figure 9.

- Reposition bus as before (right turn turning point). Mark a center line where the line of cones is approximately 30 feet long, parallel to right curb line.

FIGURE 10

CONE
CENTER LINE


- Again, sitting in the driver's seat in a normal driving position, notice the line put in the street and where it crosses the center post on the windshield.

- Mark the exact spot on the center post or windshield where the line crosses. You now have the reference point to judge distance needed to complete a safe right turn.

- If the imaginary line is touching or is above the reference point on the post, you will have enough room; however, if it is below that point, you will not have room to make a turn safely.



## REMINDERS

All drivers must find their own reference points because of differences in height and distance from the steering wheel.

Know when you pivot hard one direction that an opposite reaction takes place at the rear of your bus, some more pronounced than others. (See section on tail swing.


The tail swing will differ according to the distance. From rear axle to rear bumper, on a 35 foot bus, tail swing will be at least 18 inches.


Knowing this action and watching the mirrors before a turn is made will eliminate a potential accident.

When setting up reference points, the exact point will change with each vehicle and driver. Therefore, it is important that all persons know all reference points and how to find them.

## SQUARE LEFT TURN

## INSTRUCTIONS

The layout for this training will be as follows:

- A roadway with a center line 80 feet long
- A roadway on left with a center line 80 feet long
- Each roadway should be 30 feet wide with 15 foot lanes



## PROCEDURES

The driver will drive the bus in a straight line and be out 3 feet from the center line (left side) using reference points over the hood through windshield.

Check right and left mirrors for traffic at 150 feet and 100 feet and 50 feet before making turn.

As you approach intersection, be in proper gear; speed is no faster than 5 miles per hour.

Look to the left first, straight ahead, to the right and then to the left again.

Drive straight to the center of the intersection until you reach your turning point.

Before you make the turn, check for on-coming traffic. Check left and right mirrors. Keep wheels straight until ready to turn safely.

Turn wheel hard left when your turning point is in line with left hand center line.

Check right mirrors for rear back swing. Look for car making right turn into same lane you are turning.

Check left mirror to make sure car on left side did not move up on you, and to make sure you are not cutting the lane.

Your speed should not be more than 5 miles per hour.
Do not shift gears until you are straight and parallel in your lane.
Turn off turn signal.

## STRAIGHT LINE DRIVING

## INSTRUCTIONS

The straight line driving will have two rows of straight tennis balls, mounted upon a two inch section of radiator hose, with a short string attached to each other.

Distance from the pavement to the top of tennis ball to be $51 / 2$ inches.

Eight tennis balls will be placed in two parallel rows 25 feet apart for large bus, 15 feet apart for small bus (A).

The width will be equal to the maximum distance between the outer rear tires, at the tire bulge plus four (4) inches (B).


The driver is expected to proceed through the parallel rows of tennis balls, at three miles per hour by using the reference points, without knocking down any tennis balls.

Note: Mud flaps may need to be wired up to pass over tennis ball top.

## PROCEDURES

Drive bus parallel and straight to the tennis balls.
Utilizing the two inch reference point, (over hood, through windshield) enter the straight line driving using the reference point on the right row of tennis balls, not moving more than three miles per hour.

This point must be perfectly in line on your two inch reference point on the bus.

Keep bus parallel and straight through the tennis balls; continue slowly three miles per hour through each set, reaffirming your position with each upcoming set of tennis balls. Use reference points.


## BLIND SPOT REDUCTION



## FORWARD/BACKING INSTRUCTIONS

Using a bus, drive up a lane about 500 feet long and 15 feet wide, and then back the 500 feet distance using both right/left mirror in the same lane.

Demonstrate how weaving carefully down the roadway opens up greater visibility to the rear of the bus.

## FORWARD DRIVING

Note: 12:00 position on steering wheel when front wheels are pointing straight ahead.

Mark steering wheel if necessary.
Have the driver slowly drive the bus forward looking first in the left mirror. Turn steering wheel two (2) inches to the left, still looking into left mirror. See how the rear of the bus moves over so you can see behind your bus.

Do the same with right mirror. Look into mirror and move steering wheel two (2) inches to right.

As you can see when you move the wheel left, the back goes right, and when you move the wheel right, the goes left.

## BACKING DRIVING

Repeat the same maneuvers only this time while backing. Hold on to steering wheel at 12:00 o'clock using one hand. If driver cannot reach that position, use either the 3:00 or 9:00 o'clock position.

Each driver needs to remember not to turn wheel more than two (2) inches and not to stare into mirror.

Slowly turn wheel two (2) inches to left, look into left mirror, bring wheel straight ahead. Turn wheel to right and watch right mirror.

Do this for 500 feet back to start.
Each driver should do this five times.

## PARALLEL TO CURB OR LINE

To know if you are exactly parallel to a curb or a line when parking and moving forward or backward, use of mirrors is essential.

Looking into the right mirror, look at the curb or line and if the side of the body is parallel, you will see the curb or line extended behind the back of the bus and down the road in line with the bus body. Line should extend back from bus and not become hidden by bus body or angle away from bus.

If line becomes hidden by bus, front end is angled to the left.
If line angles away from bus, front end is angled to the right into curb. Think of it as looking for a triangle or piece of pie. If any angle is present, you are not parallel.

## LANE POSITIONING

There are three positions in a lane that the driver must learn and become accustomed to. These are:

- Centered in the lane.
- Positioning the bus in relation to the center line.
- Position of the bus in relation to right edge of roadway or curb line


## INSTRUCTIONS

## Right Curb Reference Point

- Place right side of bus body directly above edge of curb or painted line.
- Have driver sit in normal driving position. Look over the hood and select a reference point on the hood which will permit driver to return the bus to this position.
- Practice moving bus and returning to position.


## Center Line Reference Point

- Place left side of the bus body directly above edge of painted line.
- Have driver seated in normal driving position, look over the hood, and select a reference point on the hood which will permit the driver to return the bus to this position.
- Practice moving bus and return to correct lane position.
- Have driver, using right side reference point, practice putting the bus parallel to the curb at distances of two inches, six inches, twelve inches and three feet.
- Have driver, using left side reference point, practice putting the bus parallel to the center line at distances of two inches, six inches, twelve inches and three feet.


## CENTERING THE BUS IN A LANE

To teach the ability to center a bus in a given area, or to know exact position from an object, white line or edge of roadway, you must be aware that correct positioning is not done by the mirrors only but also by looking ahead and using reference points on the bus's hood, windshield/dashboard area. Using anything else such as the mirror, does not help when your hood and front bumper could be three to six feet from your mirrors plus be at the wrong angle.

Have the driver look at the right line down the road (about 50-75 feet) and follow that line toward the bus. As the line comes closer to the bus, it will become hidden by the front of the bus's hood or dashboard. Have driver precisely identify that spot.


To confirm, get out of the bus with driver still seated and walk in front of bus and hood or front of dashboard/windshield. Move your finger or pencil across from left to right and tell driver to stop your movement at the exact location where the right line disappears. Reaffirm this mark.


Repeat with the left line.

No driver can identify exact positioning without other help (mirror or you). Have driver move bus out of center and repeat centering technique without using mirrors or any other help. When driver has centered bus using the hood or dashboard, have them stop. Double check their position with the mirror. If it is correct, immediate confidence has been built. If not exactly centered, have them repeat until mastered. A valuable positioning tool has now been learned.

## SERPENTINE DRIVING BACKWARDS

Driving backwards through a serpentine can be done by using mirrors and pivot points to determine when to turn or not turn without hitting a cone.


## INSTRUCTIONS

The layout will include five separate obstacles (cones 18 inches high) plus two (2) additional double obstacles (cones). Place in pairs at each end of the layout. (See following diagram for spacing of obstacles)

- Back into entry cones watching both mirrors. Using left mirror, be within 6 to 12 inches from left cone (A) continue until cone reaches pivot point (rear of left rear tires). Turn hard left.

- Continue backing, watching right mirror until cone (C) comes into view in right mirror. Stop, straighten wheel. Back straight back until cone (C) comes within reference point (right rear wheel). Be about 6 to 12 inches out from cone. Turn hard left.
- Back straight watching left mirror. Be within 6 to 12 inches from left cone (D). Continue until cone reaches pivot point (rear of left wheel). Turn hard left.
- Continue backing, watching right mirror until cone (E) comes into view in right mirror. Stop, straighten wheel. Continue at that angle until cone (E) reaches pivot point (rear of right wheel) 6 to 12 inches out from wheel. Turn hard right.
- Continue backing, watching left mirror until cone (F) comes into view in left mirror. Stop, straighten wheel out, continue at that angle until cone ( F ) reaches pivot point (rear of left rear wheel) 6 to 12 inches from wheel. Turn hard left.

- Continue backing, watching right mirror until cone $(\mathrm{H})$ on right side comes into view in right mirror. Stop, straighten wheel out, continue backing and drive bus around cone (H).
- Check both mirrors for exit cones. Slowly turn right until bus is parallel to straight line of exit course.
- After this has been mastered, have driver practice forward through the course. Note that pivot point is now in front of rear wheels.


## SERPENTINE DRIVING FORWARD



- Enter serpentine entry cones with left side of bus 6 to 12 inches from left entry cone. Continue forward watching left mirror until left pivot point reaches cone (B) (Front of left rear wheels). Turn wheels hard right.
- Continue forward, watching through windshield until cone (C) will clear right side of bus by 6 to 12 inches (checking cross over mirror). Straighten out wheel. Hold that angle of travel (approximately $30^{\circ}$ ). Continue until cone (C) can be seen in front hood mirror. Adjust distance from cone as needed.
- Continue forward watching right mirror until right pivot point (front of right rear wheels) reaches cone (C). Turn wheel hard right.
- Continue forward watching cone (D) through windshield, making sure the left side of bus will clear cone by 6 to 12 inches. Straighten out wheel. Hold that angle of travel (approx $30^{\circ}$ ). Continue forward watching left mirror until left pivot point (front of left rear wheels) reaches cone (D). Turn wheel hard left.
- Continue forward watching until cone (E) will clear right front side of bus by 6 to 12 inches (checking cross over mirrors).
Straighten out wheel. Hold that angle of travel (approximately $30^{\circ}$ ). Continue forward until cone (E) can be seen in front hood mirror. Adjust distance from cone as needed.

- Continue forward watching right mirrors until right pivot point (front of right rear wheels)) reaches cone (E). Turn wheel hard right.
- Continue forward, watching cone (F) through windshield making sure the left side of the bus will clear cone by 6 to 12 inches. Straighten out wheel. Hold that angle of travel (approximately $30^{\circ}$ ). Continue forward watching left mirror until left pivot point (front of rear wheels reaches cone (F). Turn wheel hard left.

- Continue forward, watching through windshield until right exit cone (G) will clear right front side of bus by 6 to 12 inches (double check left exit cone (H) for clearance on left side of bus using left mirrors). Straighten the wheel and hold that angle of travel (approx $30^{\circ}$ ). Continue forward, making sure bus is centered between cones and watch for right cone and watch for right cone ( G ) in right mirrors. Correct position if needed. Continue forward, watching right mirror until exit cone (G) reaches pivot point (front of right rear wheels). Turn wheel hard right.
- Continue until bus is parallel with course and stop turning. Exit course.


## TAIL SWING OF A BUS

## PROCEDURES

This may also be shown by using a tall (36") cone or plastic barrel.
Place tall cones or plastic barrels in a straight line beside the left side of the bus from the rear tires forward.

Turn wheel hard right. Move the bus slowly.
Move each cone backwards until the rear bumper just misses them as it passes.

After the bumper has cleared the line of cones, call to the instructor's attention that their straight line has now turned into a gentle arc prescribed by the rear bumper as it swings out.

## BACKING - REFERENCE POINTS

## INSTRUCTIONS

This layout uses a bus and a 12 to 18 inch high cone.

## PROCEDURES

Place the cone behind the bus in line with the left side about 30 feet back. Have the driver back up with no coaching on your part and stop the back bumper 12 inches from cone. Have the driver stop. Driver gets out, checks position and repeats it two more times.

Now show how to set up the reference point. Have driver sit in driving position, look in left mirror while you place cone exactly 12 inches from rear bumper so driver can see it in mirror. All objects are to be sighted on the base where they touch the pavement. Objects vary in height yet all objects have a common reference point at ground level.

Looking at front base of cone in mirror, have driver draw an imaginary line from mirror where they see the object in the mirror to the base of the cone. On this line, ask what area of the bus touches or dissects this line (such as a rub rail, bottom or top of wheel well, etc.)

IMAGINARY
LINE FROM
MIRROR TO
CONE BASE


USE REFERENCE POINT ON BODY TO BASE OF CONE

Then take a pencil and start above the left rear wheel well and slowly start lowering it with instruction that the driver is to stop you when pencil is in exact line with the base of the cone. Have the driver tell you what part of the bus body it is pointing to if it is between rub rails or in a flat area. You move pencil to some object which is visible and in line either forward or back from where you are now. Have driver positively identify object. Now, move the cone back three feet. Ask where the imaginary line hits the side of the bus (it will be higher on the body).


Then walk to the cone, slide cone toward rear of the bus and have driver stop you when cone reaches the 12 inch reference point. If driver can do this now, they have learned the lesson.

Have driver move the bus forward 3 to 10 feet still watching left mirror, stop, and have driver back up until base of cone comes in contact with reference point and stop bus. If this does not happen, repeat using the reference point technique again until mastered.

Once the reference point is learned and the driver can consistently back up and stop bus precisely 12 inches from cone, the back-up reference point has been learned for left side.

Now, do the same using the right mirror.

## Notes:

## BACK UP STALL

A stall with limited space is identified by parallel white lines on the pavement 10 feet apart.

## INSTRUCTIONS

Each stall is identified by parallel white lines on the pavement 10 feet apart.


1. Travel forward parallel to curb - be 12 inches from curb line. Stop vehicle when turning point is reached.

2. Turn wheel hard left and continue forward until the front bumper is 3 inches from limit line. Stop vehicle. The second stall marker should be visible in right mirror.


Each front corner will be marked by up-right standards that will not interfere with the backing of the bus.

In order to limit the driver to establish maneuvering room, a front wheel limitation line will be placed on the pavement perpendicular to the parallel stall marker lines.

The approach to the backup stall will be made from the right hand side only. The distance from the front stall standards to the wheel limitation line will be as follows:

- Travel forward parallel to the curb. Be 12 inches from curb line. Stop bus when turning point is reached. (Center of front tire to second marker).
- Turn wheel hard left and continue forward until the front bumper is 3 inches from limit line. Stop bus. The second stall marker should be visible in right mirror.
- Straighten out wheel and slowly back up watching right mirror. Bus body should be slowly turning into right stall mark. Stop turn when 6 inches from stall marker and continue back again coming to right so pivot point (rear of right wheel) is 3 to 6 inches from marker.
- Note: Watch occasionally in left mirror at the beginning to make sure left rear will clear first stall marker.

- Turn wheel hard right, slowly backing up making sure right pivot point is clear. Continue backing watching both mirrors for rear stall markers which should be coming in view (left/right side); at the same time, front stall marker on the left so it does not hit side of bus.

- Continue backing slowly while centering bus in stall. Equal distance between stall and parallel stall.

- Continue backing in center of stall now using your 12 inch backing reference point and stop bus when you are 12 inches from end of stall. Secure bus. Bus should be centered in stall; 12 inches from back stall line.


## BACK UP STALL (GETTING OUT)

## PROCEDURES

- Move forward slowly coming over to the right forward marker with the right side of bus (within 6 inches). As the right forward pivot point (front of right rear wheel) is reached and seen in the right mirror, turn hard right.
- Continue forward at a hard right turn, watching both mirrors. The right mirror checking clearance and the left mirror making sure the left rear tail swing does not hit the left forward marker.
- Continue forward in a hard right turn looking forward to make sure the left bumper clears the limit line.


If corrections need to be made that require additional backing, by all means do so.

When mastered, try back up stall in opposite direction.

## PARALLEL PARKING

This demonstration will use pivot points, reference point, mirrors and depth perception.

## INSTRUCTIONS

The layout for training will be as follows:
A 3 inch straight line 80 feet long painted on the ground. Two upright barriers 4 feet high, 8 feet long. These two barriers will be placed at right angles to straight line.


Distance between the two barriers will be the length of bus plus 7 feet for large bus (A) and 6 feet plus length of bus for small bus (A). Driver will drive up to parallel park and back without hitting line (curb) with tire (right rear). Driver must park bus within 18 inches of curb in two backups.

Driver must then drive out from parking area without hitting curb barrier.

## PROCEDURES - PULLING IN

Drive your bus in a straight line using your reference points (windshield, hood).

Keep checking left mirror for traffic and warn motorist behind you by using right turn signal (100 feet before stopping) and step on brake a few times before stopping.

Approach the parking area using reference point, right mirror, to make sure you are parallel and six inches out from the first barriers.


Continue slowly past the second barrier until the backing pivot point (center of rear axle) is directly opposite (using right mirror) the end of the second barrier. Stop bus, place transmission in "R" turn wheel hard right. Check left mirror for traffic. Sound horn. Watch left mirror, start to back (only when it is safe). Make sure wheel is still turned full right. Back slowly, using left mirror.


When driver can see opening between rear barrier and side of bus, stop. Straighten out wheel.

Start backing slowly until right rear bumper reaches curb line (using right mirror). Stop; turn the wheel as sharp as possible, start backing. Use right mirrors to keep eye on right front corner of bus to clear front barrier. Stop, then turn wheel hard left.


Using your mirrors and keeping wheels turned, back slowly using your pivot point on rear axle. Bottom of right rear tire should be 12 inches from curb.

Front end of bus should be about three to four feet from front barrier.

When rear tire is six inches from curb, stop the bus and turn wheel hard right.

Using right mirror, drive the bus slowly forward until your bus is parallel with curb. Stop.


Back bus in a straight line, using your right mirror to keep you parallel to the curb.

Stop bus 12 inches from rear barrier using your rear reference point for backing.

Warning: If you are in doubt about where you are when backing, park the bus and get out and look. That is better than hitting something and then looking.

## PULLING OUT

Have bus transmission in " N ", activate left turn signal, turn wheel hard left. Check right mirror, cross over mirror, left mirror. Place transmission in "D".

When safe, pull out slowly, watch front barrier, watch right mirror for right rear tail swing. (Could hit poles, parking meters, and people).

(If you have to) Stop within one foot from front barrier. Turn wheel hard right. Back slowly keeping eye on right mirror. Do not hit curb with tire. (Watch for the poles) Back up about three feet again. Use right, left mirror to help you.

Stop and turn wheel hard left again. Check right mirror, left mirror. (Don't forget the cross mirror for checking that barrier end!) When safe to do so, pull out of parallel parking area.

When rear axle is directly opposite from barrier, straighten out bus into lane of traffic.

Turn signal off.

## CURB PARKING

This is a good exercise to reduce tire curbing.
Practice these moves in a parking lot, before attempting to practice them on an actual curb. Use the long parking strip lines as simulated curbs.

- With a helper, park the bus along a parking strip line. The distance should be two inches.
- Sit up straight in the driver's seat. Don't bend your body or move your head from left to right. This will change your reference point.
- With both eyes open, sight across the center area of the hood to the painted line. The point at which the line and hood meet is your REFERENCE POINT. (It may be the actual center of the hood, the ornament/handle or a point to the left or right of center.) On transit buses, the reference point may be along the dash, center post, wiper blade, defroster fan, etc.
- Move the bus forward along the parking line and maintain the original two inch distance as you go. THIS TAKES SOME PRACTICE!
- If you're too far from the curb, move the REFERENCE POINT to the left. If the bus is too close to the curb, move your REFERENCE POINT to the right.


## CONSTRICTED RIGHT-OF-WAY DRIVING

When driving through a constricted situation, sight ahead over the hood of a conventional or over the dash of a transit. LOOKING AHEAD KEEPS YOU FROM MOVING SIDE TO SIDE.

NOTES:

## OFFSET ALLEY - RIGHT SIDE

## INSTRUCTIONS

The layout for this training will be as follows:
A lane 15 feet wide will be provided in which the driver is to make the approach to the offset alley.

The first set of parallel barriers should be 10 feet long, 4 feet high, 10 feet apart.

The second set of parallel barriers should be the same as first set of barriers, but offset from the first set of barriers.

The distance between the two sets of barriers will vary with the length of the vehicle. See below:
$\qquad$
(A)

## (B)

Vehicle Size
17 ft . or less
17.1 ft . -24.9 ft .

25 ft . -30 ft .
Over 30 ft .

| A | B |
| :---: | ---: |
|  |  |
| $19 \mathrm{ft}$. | 9 ft. |
| $20 \mathrm{ft}$. | 9 ft. |
| length $+2 \mathrm{ft}$. | 10 ft. |
| length +3 ft. | 10 ft. |

The driver will drive the vehicle between first set of parallel barriers, turn right and drive through the second set of barriers without stopping.


## PROCEDURES

The turning points will be the same for both right and left turns (rear axle).

The driver will drive the bus in a straight line to the offset alley using the hood-windshield reference points.

As you start into the offset, stay as close as four to six inches and parallel to the right side of the alley.

Speed should not be faster than 3 mph and in the proper gear, the lower the better.

Drive the bus in a straight line until your pivot point (right rear axle) is at end of first set of parallel barriers (use your right mirror).


Turn wheel hard and fast to right, using your mirrors. Right for barrier - left for back swing.

Move extremely slowly (speed should not be more than 3 mph ), proceed forward holding the turn tight.


When the right front corner of the bus is in line with the right barrier of second set of parallel barriers, turn wheel hard left.


Use your left mirror to get parallel to barrier.
Use both mirrors to make any steering correction. Watch left mirror for left side of bus clearance from left barrier.

When bus is parallel to barrier, drive slowly through second set of barriers.

Do not shift until you are clear of second set of barriers.

## OVERHEAD CLEARANCE

## INSTRUCTIONS

Two upright standards set 12 feet apart with a crossbar (adjustable for height), 12 inches higher than roof of bus.

Driver will drive his bus slowly up to overhead crossbar centering the bus in lane using reference point (over hood/windshield) and stopping before the standards (space cushion).


## PROCEDURES

Sitting in normal driving position, find where crossbar is on windshield, mark point on windshield. This is your reference point for safe "clearance level". Anything above this mark is safe to go under. Anything below this mark is unsafe to go under.

## BEHIND THE WHEEL

Instructions for making overhead clearance.


# STUDENT TRANSPORTATION <br> APPLICABLE TRANSPORTATION LAWS (ARIZONA REVISED STATUTES) 

28-101.47
28-101.52
28-797
28-853
28-857
28-857.C
28-857.01
28-900
28-901
28-902
28-907.G. 3
28-910
28-930
28-947
28-954
28-958.01
28-959
28-960
28-961
28-984
28-3053
28-3101
28-3103
28-3152.4
28-3228
28-3312
28-4033

Definition of a school bus
Definition of street or highway
School crossings
Railroad grade crossings
Passing school bus
Covering words "school bus"
Passing school bus; school bus driver report
Rules relative to school buses
Maximum number in school bus
Sale of school bus; repainting
Child passenger restraint
Liability in flood areas
Special lighting equipment on school buses
Special restrictions on lamps
Horns and warning devices
Rear fender splash guards
Safety glass
Certain vehicles to carry warning devices
Display warning devices when vehicle disabled
School bus inspection
School bus advisory council
Driver license classes
Driver license endorsements
Driver license; residency requirement
School bus drivers; requirements
Mandatory disqualification of CDL
Financial responsibility requirements

