

Oregon Takes Skid Avoidance Program on the Road

By Era Horton

Over the last several years the agency has purchased a number of props that can be moved around the state to assist with training needs of the firefighters. The first prop purchased back in 2001 was the Flammable Liquid and Gas trailer. Two trailers were purchased with one unit assigned to the three eastern regional coordinators and one assigned to the four western coordinators. Each trailer consists of five props that generate live fire training scenarios applicable to the Flammable Liquids and Gas environment.

Next was the Mobile Fire Training Unit. This is a 53 ft. long trailer that can be configured to provide realistic fire situations, fire HazMat operations, search and rescue evolutions, and confined space training scenarios. This trailer is on a 24-month rotation and the Oregon Department of Transportation moves the prop from region to region.

Finally, each regional coordinator was given a trailer (with appropriate props) to conduct Mayday, RIT, and Air Management training. All of these programs have been given high marks by the Oregon Fire Service.

The latest addition to the Oregon Fire Training arsenal is the Skid Avoidance for Fire Apparatus Drivers program (SAFAD). This is a skid driving program similar to that used by the law enforcement community. The difference between the law enforcement training and that of the fire service is that we use a 20,000 pound Ford F-650 crew cab truck instead of a Crown Vic sedan. The F-650 is configured with a tire rack for carrying extra tires, a fifth wheel for pulling the trailer with all the necessary equipment, and a special customized side compartment for the hydraulic pump (used with the skid frames).

The concept of the program started several years ago and came together towards the end of 2008 and early 2009. Various training evolutions were considered but DPSST ultimately landed with the SkidCar Systems model. Dane Pittarresi of SkidCar Systems met with DPSST and, following precise measurements of the truck chassis, ordered the frames. The system consists of two frames, one mounting to the front axle and the other to the rear axle (Figure 1). Each frame weighs about 2,000 pounds. The frame hydraulic lines are connected to the truck hoses (from the pump) allowing for operation. With the computer control located within the cab, traction can be set at varying degrees of coefficient. The beauty of the computer is that DPSST instructors can set appropriate degrees of coefficient as encountered within the local driving area.



Figure 1 (F-650 with frames attached)

Upon arrival of the frames to DPSST, Dane Pittaressi came to the academy and conducted training for the program instructors. The first order of business was for the instructors to assemble the frames. They learned how the system worked as-well-as conducting trouble shooting techniques. Four days of intensive truck training ensued prior to certification as instructors. Gene Ditter and Era Horton were selected by DPSST to be the primary instructors for the program with assistance from law enforcement instructors Mike Johnston, Gary Workman, and Jim Hamilton. The law enforcement instructors will be used, if needed, within their local jurisdictions.

TriVan of Ferndale, WA earned the bid to construct the trailer to be used in the program. This trailer would need to hold both of the frames as well as tools, spare parts, and other equipment and supplies. Again, precise measurements were taken and the trailer was constructed. The trailer has a hydraulic stackable lift that supports both frames (Figure 2). A heavy duty wireless carbon fiber winch is used for retracting the frames. With the length of the frames being fourteen (14) feet, the trailer had to be fairly long to accommodate room for the other equipment. The overall length of the trailer is thirty three (33) feet and has a kingpin that attaches to the fifth wheel on the truck. A large capacity air compressor (for inflating frame tires to the necessary 150 psi) is carried in the trailer as is a 7kw generator for providing interior and exterior lighting. Also included, as part of the original bid specs, is a shoreline cable for providing power similar to a RV hookup.



Figure 2 (Frames stored in trailer)

The next order of business was to determine possible training sites around the state. Requiring a minimum 300' by 600' slab of smooth, open, level pavement proved to be a challenge. Sites that have been identified include the Public Safety Academy in Salem, Port of Portland, Redmond Airport, Klamath Falls, Pendleton Airport, North Bend, Roseburg, Medford Airport, The Dalles, Warrenton and Ontario Airport.

General information about the program:

Program Name: Skid Avoidance for Fire Apparatus Drivers (SAFAD)

DPSST Course Number: 09F024

DPSST Certified Instructors: Era Horton & Doug Bolthouse

Lesson Plan: Filed with Fire Standards & Certification (based upon the SkidCar Systems model)

Course Outline (if class is conducted at DPSST facility):

- 1 hr on classroom skid program
- 1 hr performing NFPA driver cone course

- 1 hr on classroom driver safety program
- 1 hr Skid Truck training

This format will allow staff to instruct 9 students in a 4-hour timeframe. Minimal prerequisite is holding current certification within the NFPA Driver/Apparatus Operator competency.

Course Outline (Regional Delivery):

- Classroom skid program to be delivered at constituent department by DPSST staff or via DVD
- NFPA driver cone course to be facilitated by constituent training officer
- Classroom driver safety program to be delivered at constituent department by DPSST staff or via DVD
- 1.5 hr Skid Truck training to be instructed by DPSST staff at venue

Regional delivery of this program will be a variation of the DPSST facility model. Minimal prerequisite is holding current certification within the NFPA Driver/Apparatus Operator competency. Prior to actual hands-on training, staff will conduct classroom training at constituent agencies. The local training officer will facilitate the cone course. Actual hands-on training with the Skid unit will be conducted over a 1 ½ hour timeframe. This model will allow for participating departments to shuttle crews back and forth between the skid training venue and home agencies—thus having less impact on backfilling of stations. Staff will devote 8 hours per day to actual drivers training.

Each location will have its own set of coordination issues and DPSST staff is still in the process of identifying potential training sites. Program logistics will be left to the Regional Training Associations with assistance from our regional coordinators.

To ease the burden of classroom delivery, the program has been put on a DVD. This was done with the assistance of Portland Fire Bureau. The disc will be sent to an agency for program delivery during customary training schedules. When the Skid truck becomes available within the local jurisdiction, the participating department will work with DPSST staff to facilitate the actual driving portion of the course.

Objectives of Training

Our goal is to provide each apparatus operator the psychomotor skills and mental attitudes that are essential to becoming the most competent, skillful and responsible driver possible. We expect to reduce Oregon's statistical numbers in the national list of accidents and injuries. In the last 10 years, we have experienced at least 16 firefighters killed in vehicle crashes while on duty. The program is geared to reducing the number of fatalities and injuries during vehicle operations.

