



Commercial Truck and Bus Safety Synthesis Program: A Status Report

DETAILS

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COMMERCIAL TRUCK AND BUS SAFETY SYNTHESIS PROGRAM

Sponsored by the Federal Motor Carrier Safety Administration

Subject Areas: IV Operations and Safety, VI Public Transit,
and VIII Freight Transportation

CTBSSP Manager: Christopher W. Jenks

Research Results Digest 4

COMMERCIAL TRUCK AND BUS SAFETY SYNTHESIS PROGRAM: A STATUS REPORT

This is a staff digest of the progress and status of the Commercial Truck and Bus Safety Synthesis Program, which is administered by the Transportation Research Board. Individual studies for the program are managed by Christopher W. Jenks, Manager, Commercial Truck and Bus Safety Synthesis Program.

BACKGROUND

The Commercial Truck and Bus Safety Synthesis Program (CTBSSP) is a cooperative research program sponsored by the Federal Motor Carrier Safety Administration (FMCSA) and administered by the Transportation Research Board. The program was authorized in late 2001 and began in 2002 in support of the FMCSA's safety research programs.

The program initiates three to four synthesis studies annually that address concerns in the area of commercial truck and bus safety. A synthesis report is a relatively short document (40 to 60 pages) that summarizes existing practice in a specific technical area based typically on a literature search and a survey of relevant organizations (e.g., state DOTs, enforcement agencies, commercial truck and bus companies, or other organizations appropriate for the specific topic). The program is modeled after the successful synthesis programs currently operated as part of the National Cooperative Highway Research Program (NCHRP) and the Transit Cooperative Research Program (TCRP). The primary users of the syntheses are practitioners who

work on issues or problems using diverse approaches in their individual settings.

A program oversight panel has been formed for the CTBSSP. Major responsibilities of the panel are to (1) provide general oversight of the CTBSSP and its procedures, (2) annually select synthesis topics based on an industrywide solicitation, (3) refine synthesis scopes, (4) select researchers to prepare each synthesis, (5) review products, and (6) make publication recommendations.

Suggestions for synthesis topics may be sent to the CTBSSP Manager at any time. Topics suggested must be accompanied by a brief scope statement, including a discussion of the problem (a paragraph or two). A title (preferably 10 words or fewer) and the name and affiliation of the submitter are also necessary. Identification of the intended synthesis audience, agencies to be surveyed, and information sources is appreciated. Table 4 provides a suggested format for recommended synthesis topics. The CTBSSP Program Oversight Panel meets periodically to select new topics based on funding available.

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INTRODUCTION

Administrators, commercial truck and bus carriers, government regulators, and researchers continually face problems on which much information already exists, either in documented form or in terms of undocumented experience and practice. Unfortunately, this information is frequently fragmented, scattered, and underevaluated. Often it is unknown to the person normally responsible for making decisions related to the topic. As a consequence, full knowledge of what has been learned about a problem is frequently not brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

A storehouse of information exists on nearly every subject of concern to commercial truck and bus safety. Much of this information has resulted from both research and the successful application of solutions to the challenging issues faced by practitioners in their daily work. Because there has been no systematic means for compiling such useful information and making it available to the entire commercial truck and bus safety community, the CTBSSP was established to undertake a series of studies to search out and synthesize useful knowledge from all available sources and to prepare documented reports on current practices in the subject areas of concern. Reports from this endeavor constitute the CTBSSP synthesis series, which collects and assembles the various forms of information into single concise documents pertaining to specific commercial truck and bus safety problems or sets of closely related problems.

THE CTBSSP

This synthesis series reports on various practices in specific technical areas. Each document is a compendium of the best knowledge available on measures found to be successful in resolving specific problems. To develop these syntheses in a comprehensive manner and to ensure inclusion of significant knowledge, available information assembled from numerous sources, including a large number of relevant organizations, is analyzed. The program oversight panel guides the researchers in organizing and evaluating data collected on each topic and reviews each synthesis report.

For each topic, the project objectives are (1) to locate and assemble documented information; (2) to

learn what practice has been used for solving or alleviating problems; (3) to identify all ongoing research; (4) to learn what problems remain largely unsolved; and (5) to organize, evaluate, and document the useful information that is acquired.

Each synthesis is an immediately useful document that records practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As advancement continues, new knowledge can be expected to be added to that now on hand; eventually the synthesis may need to be updated or redone.

Selection of Topics

The CTBSSP Program Oversight Panel meets periodically to select topics for study as funds are made available. The membership of this panel is given in Table 1. Current funding allows for initiation of approximately three to four syntheses per year.

The following factors are considered in the selection process for synthesis topics:

- The problem should be widespread enough to generate broad interest in the synthesis.
- The problem should be timely and critical.
- The problem is appropriate if current practice is non-uniform or inconsistent from agency to agency or if the validity of some practices appears to be questionable.
- The quality and quantity of useful available information should indicate a need to organize and compress that which has already been learned and written on the topic.
- The topic should not be one for which ongoing research or other activities in progress might be expected to render the synthesis obsolete shortly after completion.

The continued success of this program depends on a constant supply of worthy synthesis topics. Candidate topics are suggested by members of the program oversight panel and various other sources, including commercial truck and bus carriers; regulatory enforcement agencies; state DOTs; equipment and service suppliers; research organizations; FMCSA; relevant associations such as the Commercial Vehicle Safety Alliance, American Bus Association, American Trucking Associations, and Owner-Operator Independent Drivers Association; organized labor; and TRB committees. The interest of those who have

Table 1 CTBSSP PROGRAM OVERSIGHT PANEL

| | Name | Affiliation |
|---------|-----------------------|--|
| Chair | Stephen Campbell | Commercial Vehicle Safety Alliance, Washington, DC |
| Member | Kenneth Campbell | Oak Ridge National Laboratory, Oak Ridge, TN |
| Member | Thomas M. Corsi | University of Maryland, College Park, MD |
| Member | Dennison Cottrell | New York State DOT, Albany, NY |
| Member | Nicholas J. Garber | University of Virginia, Charlottesville, VA |
| Member | Alex Guariento | Greyhound Lines, Inc., Dallas, TX |
| Member | Clyde J. Hart, Jr. | American Bus Association, Washington, DC |
| Member | Scott Madar | International Brotherhood of Teamsters, Washington, DC |
| Member | James W. McFarlin | ABF Freight System, Inc., Fort Smith, AR |
| Member | David Osiecki | American Trucking Associations, Alexandria, VA |
| Member | John Siebert | Owner-Operator Independent Drivers Association, Grain Valley, MO |
| Member | Larry F. Sutherland | HNTB Corporation, Columbus, OH |
| Member | Carl Thomas | FedEx Freight East, Harrison, AR |
| Member | David K. Willis | Texas A&M University, College Station, TX |
| Member | R. Greer Woodruff | J. B. Hunt Transport, Inc., Lowell, AR |
| Liaison | Martin Walker | Federal Motor Carrier Safety Administration, Washington, DC |
| Liaison | Albert Alvarez | Federal Motor Carrier Safety Administration, Washington, DC |
| Liaison | Doug McKelvey | Federal Motor Carrier Safety Administration, Washington, DC |
| Liaison | David Smith | Federal Highway Administration, Washington, DC |
| Liaison | William Mahorney | Federal Highway Administration, Washington, DC |
| Liaison | Michele McMurtry | National Transportation Safety Board, Washington, DC |
| Liaison | Christopher Zeilinger | Community Transportation Association of America, Washington, DC |
| Liaison | Greg Hull | American Public Transportation Association, Washington, DC |
| Liaison | Leo Penne | American Association of State Highway & Transportation Officials, Washington, DC |
| Liaison | Richard Pain | Transportation Research Board, Washington, DC |
| Liaison | Charles Niessner | Transportation Research Board, Washington, DC |

Table 2 SYNTHESIS STUDIES—In Progress as of December 2005

| No. | Title |
|-------|---|
| MC-09 | Alternative Commercial Truck and Bus Inspection Strategies (mid spring 2006) |
| MC-10 | Technology Utilization in Commercial Truck and Bus Safety Strategies (on hold pending completion of related research) |
| MC-12 | Commercial Motor Vehicle Driver Training Curricula and Delivery Methods and Their Effectiveness (late 2006) |
| MC-13 | Commercial Motor Vehicle Carrier Safety Management Certification (late 2006) |
| MC-14 | The Role of Safety Culture in Preventing Commercial Motor Vehicle Crashes (late 2006) |
| MC-15 | The Impact of Behavior-Based Safety Techniques on Commercial Motor Vehicle Drivers (late 2006) |
| MC-16 | Health and Wellness Programs for Commercial Vehicle Drivers (late 2006) |

recommended topics is sincerely appreciated, and they are urged to continue to suggest topics.

Conduct of the Studies

Throughout the year, following the program oversight panel's selection of topics, studies are

initiated in the order of priority assigned by the panel.

An agreement is negotiated with a consultant to gather information on the topic, synthesize it, and draft a report. Typically, the agreement covers a period of 10 months. Information gathering and preparation of the first draft of the synthesis report usually

takes 8 months. This draft is then reviewed by the program oversight panel. A revised final synthesis report is subsequently submitted. This revised final report is then published in the CTBSSP Synthesis series.

Studies in Progress as of December 2005

Work is currently under way on the topics listed in Table 2. Questions on these topics should be addressed to Christopher W. Jenks, CTBSSP Manager (e-mail: cjenks@nas.edu and 202/334-3089).

Available Publications

The syntheses completed under this project are listed in Table 3. Electronic copies of these syntheses can be found at <http://www4.trb.org/trb/crp.nsf/reference/appendices/ctbssp>. Hard copies of these syntheses can be obtained from the Publications Office, Transportation Research Board, 500 Fifth Street, N.W., Washington, D.C., 20001; by calling 202/334-3213; and through the Internet at <http://www.trb.org/trb/bookstore>. Please send check orders to TRB, Lockbox 289, Washington, D.C., 20055 or fax to 202/334-2519.

Table 3 PUBLISHED CTBSSP SYNTHESSES

| No. | Title/Pages/Price |
|-----|---|
| 1 | Effective Commercial Truck and Bus Safety Management Techniques (2003) 100 pp., \$17 |
| 2 | Security Measures in the Commercial Trucking and Bus Industries (2003) 50 pp., \$15 |
| 3 | Highway/Heavy Vehicle Interaction (2003) 96 pp., \$21 |
| 4 | Individual Differences and the “High-Risk” Commercial Driver (2004) 88 pp., \$22 |
| 5 | Training of Commercial Motor Vehicle Drivers (2004) 46 pp., \$19 |
| 6 | Operational Differences and Similarities Among the Motorcoach, School Bus, and Trucking Industries (2005) 47 pp., \$15 |
| 7 | Motorcoach Industry Hours of Service and Fatigue Management Techniques (2005) 46 pp., \$15 |
| 8 | Commercial Motor Vehicle Driver Safety Belt Usage (2005) 52 pp., \$16 |
| 9 | Literature Review on Health and Fatigue Issues Associated with Commercial Motor Vehicle Driver Hours of Work (2005) 196 pp., \$29 |

Table 4 SUGGESTED FORMAT FOR RECOMMENDED SYNTHESIS TOPICS

| Commercial Truck and Bus Safety Synthesis Program | |
|---|--|
| TITLE: | Preferably 10 words or fewer. |
| SUBMITTED BY: | Name of submitter and organization. |
| SCOPE: | This statement should be brief (i.e., one or two paragraphs), but there is no limit on length. It should describe the problem and identify the parts to be covered by the synthesis. The proposed study should be able to be accomplished in approximately 400 hours of professional time. |
| SYNTHESIS AUDIENCE: | Indicate the primary audience(s) for a synthesis in this topic area. |
| AGENCIES TO BE SURVEYED: | A synthesis typically includes a survey of relevant agencies to obtain information on current practices in the synthesis topic area. Identify agencies (e.g., state DOTs, enforcement agencies, commercial trucking companies, and other appropriate organizations) that should be surveyed for the proposed topic area. |
| INFORMATION SOURCES: | Optional—organizations, individuals, or literature references. |
| | Submit topics to: Christopher W. Jenks Manager, CTBSSP Transportation Research Board 500 Fifth Street, NW Washington, DC 20001 FAX: 202/334-2006 e-mail: cjenks@nas.edu |

These digests are issued in order to increase awareness of research results emanating from projects in the Cooperative Research Programs (CRP). Persons wanting to pursue the project subject matter in greater depth should contact the CRP Staff, Transportation Research Board of the National Academies, 500 Fifth Street, NW, Washington, DC 20001

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