

Commercial Truck and Bus Safety Synthesis Program  
Sponsored by the Federal Motor Carrier Safety Administration  
**RESEARCH RESULTS DIGEST**

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

Responsible Senior Program Officer: Christopher W. Jenks

## 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 new 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 industry-wide solicitation, (3) refine synthesis scopes, (4) select researchers to prepare each synthesis, (5) review products, and (6) make publication recommendations.

### 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 undervalued. Often it is unknown to the person normally responsible for making decisions related to the

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. If a topic is not selected, the problem statement must be resubmitted the following year to be considered. Annually, synthesis topics are typically due by August 1. The CTBSSP Program Oversight Panel meets in the fall to select new topics based on funding available.

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 PROGRAM

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 the processes of advancement continue, new knowledge can be expected to be added to that which is now on hand; eventually the synthesis may need to be updated or redone.

### Selection of Topics

The CTBSSP program oversight panel meets each year to select topics for study using funds from the upcoming

fiscal year. The membership of this panel is given in Table 1. Current funding allows for initiation of approximately 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 project depends on a constant supply of worthy synthesis topics. Candidate topics are suggested by members of the program oversight panel and by a variety of 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, Motor Freight Carriers Association, and Owner-Operator Independent Drivers Association; organized labor; and TRB committees. The interest of those who have recommended topics is sincerely appreciated, and they are urged to continue.

### 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 November 2003**

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](mailto:cjenks@nas.edu) and 202/334-3089).

**Available Publications**

The syntheses that have been completed under this project are listed in Table 3. 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 1  
CTBSSP PROGRAM OVERSIGHT PANEL

Name	Affiliation
Chair	Stephen Campbell Commercial Vehicle Safety Alliance, Bethesda, MD
Member	Rebecca M. Brewster American Transportation Research Institute, Atlanta, GA
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	Mark L. Edwards Consultant, Longwood, FL
Member	Nicholas J. Garber University of Virginia, Charlottesville, VA
Member	Thomas D. Gillespie University of Michigan, Ann Arbor, MI
Member	S. William Gouse American Trucking Associations, Alexandria, VA
Member	Alex Guariento Greyhound Lines, Inc., Dallas, TX
Member	David Hopps The Service Master Company, Memphis, TN
Member	Scott Madar International Brotherhood of Teamsters, Washington, DC
Member	William Mahorney American Bus Association, Washington, DC
Member	James W. McFarlin ABF Freight System, Inc., Fort Smith, AR
Member	William C. Rogers Motor Freight Carriers Association, Washington, DC
Member	John Siebert Owner-Operator Independent Drivers Association, Grain Valley, MO
Member	Larry F. Sutherland Ohio DOT, Columbus, OH
Member	C. Michael Walton University of Texas – Austin, Austin, TX
Member	David K. Willis Texas A&M University, College Station, TX
Liaison	David Smith Federal Highway Administration, Washington, DC
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	Duane Perrin National Highway Traffic Safety Administration, Washington, DC
Liaison	Joseph Osterman 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 November 2003

No.	Title
MC-04	Individual Differences and the “High Risk” Commercial Driver: Implications for Carrier Human Resource Management
MC-05	Training of Commercial Motor Vehicle Drivers: Best Practices
MC-06	Effective Motorcoach Industry Hours of Service and Fatigue Management Techniques
MC-07	Operational Differences/Similarities Between the Motorcoach, School Bus, and Trucking Industries
MC-08*	Alternative Commercial Truck and Bus Inspection Strategies
MC-09*	Technology Utilization in Commercial Truck and Bus Safety Strategies

\*On-hold pending future funding

TABLE 3  
PUBLISHED CTBSSP SYNTHESSES

No.	Title/Pages/Price
1	Effective Commercial Truck and Bus Safety Management Techniques (2003) 108 pp., \$17
2	Security Measures in the Commercial Trucking and Bus Industries (2003) 50 pp., \$15
3	Highway/Heavy Vehicle Interaction (2003) 94 pp., \$17

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 not a 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.
	<p>Submit topics to:</p> <p style="margin-left: 40px;">Christopher W. Jenks            Manager, CTBSSP            Transportation Research Board            500 Fifth Street, NW            Washington, DC 20001            FAX: 202/334-2006            e-mail: cjenks@nas.edu</p>

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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