

# QUARTERLY PROGRESS REPORT

to the

NATIONAL COOPERATIVE HIGHWAY RESEARCH  
PROGRAM  
(NCHRP)

on Project 17-18(3)

## LIMITED USE DOCUMENT

This Quarterly Progress Report is furnished only for review by members of the NCHRP project panel and is regarded as fully privileged. Dissemination of information included herein must be approved by the NCHRP.

for period

January 1, 2005 to March 31, 2005

from

CH2M HILL

NATIONAL HIGHWAY COOPERATIVE RESEARCH PROGRAM  
 TRANSPORTATION RESEARCH BOARD  
 NATIONAL RESEARCH COUNCIL  
**PROGRESS SCHEDULE**

PHASES 1, 2, 3 AND 4, and LEAD STATE ORIENTATION MEETING

NCHRP Project No.  
 Research Agency  
 Principal Investigator

17-18(3) Phases 1, 2, 3, 4 and Lead State Orientation  
 CH2M HILL  
 Ron Pfefer, Kevin Slack, Howard Preston, Nick Antonucci, Tim Neuma

Month March FY 2005

RESEARCH TASK	2005												2006					ESTIMATED % COMPLETION	
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M		
<b>PHASE 1</b>	COMPLETE																		100
<b>PHASE 2</b>	COMPLETE																		100
<b>PHASE 3</b>																			
1. Identify Strategies	COMPLETE																		100
2. Meet With Experienced Practitioners	COMPLETE																		100
3. Revise Guides	COMPLETE																		100
4. Agency Quality Review	COMPLETE																		100
5. Refine Materials																			63
	51	56	63	75	90	100													
<b>Phase 3 Percent Complete</b>	89%	90%	92%	94%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	<b>91.6</b>
<b>PHASE 4</b>																			
1. Identify Strategies	15	30	50	70	90	100													51
2. Meet With Experienced Practitioners		5	25	40	50	75	100	☆											14
3. Revise Guides							25	50	75	100									
4. Agency Quality Review									50	100	☆								
5. Refine Materials																			
6. Develop Data Guide																			
	5	10	15	20	30	40	50	60	65	70	75	80	85	90	95	95	100		14
<b>Phase 4 Percent Complete</b>	4%	8%	14%	20%	26%	31%	40%	48%	62%	76%	80%	83%	86%	91%	95%	97%	100%		<b>13.0</b>
<b>LEAD STATE ORIENTATION</b>	COMPLETE																		100
1. Lead State Orientation Meeting																			100
<b>OVERALL % COMPLETED</b>	82%	83%	84%	86%	87%	89%	90%	91%	94%	96%	97%	97%	98%	98%	99%	100%	100%		84%

FIG. A -- OVERALL PROJECT SCHEDULE

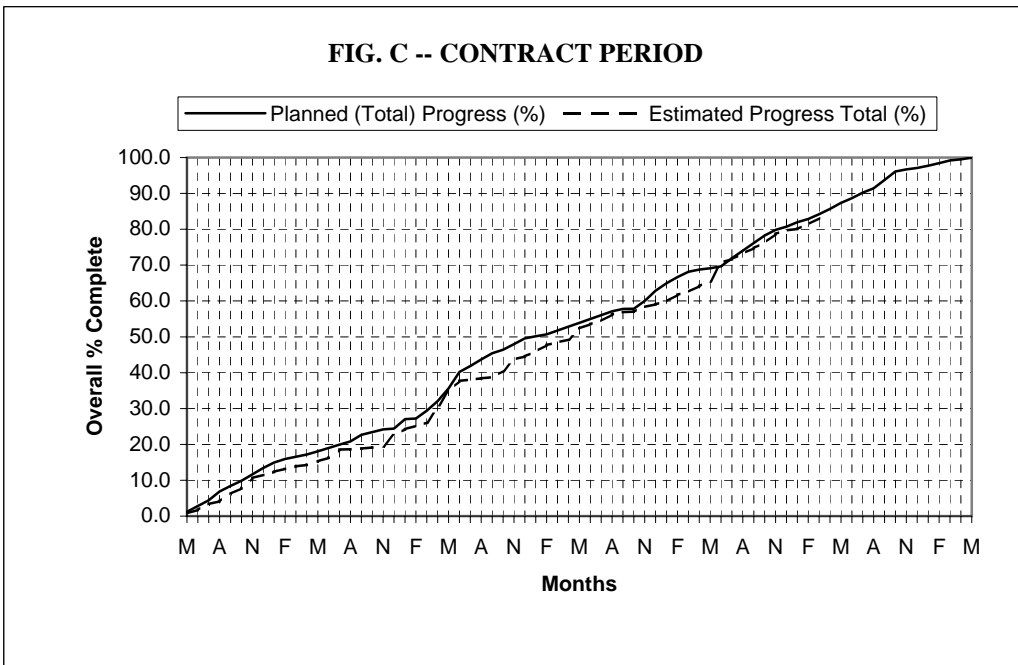
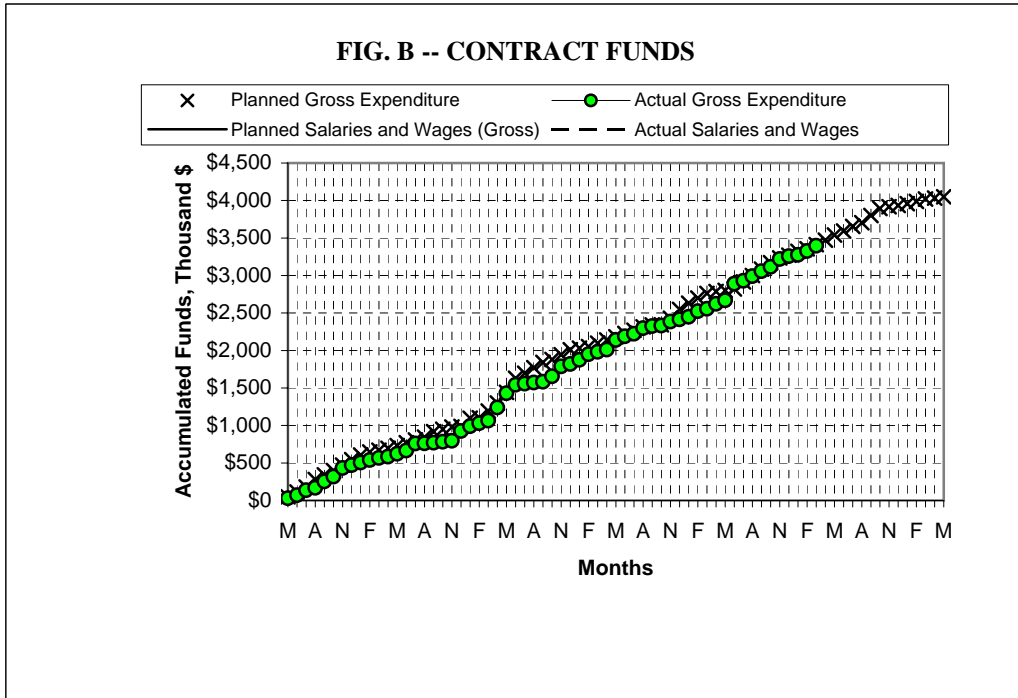
denotes scheduled work     
  denotes progress     
 ☆ denotes workshop

Overall Project Financials (Includes Phases 1, 2, and 3)

Funds Expended (All Phases)	84.2%	Time Expended	% 81
Contract Amount	\$4,051,574	Starting Date	01-May-00
Expended This Month	\$107,602	Completion Date	31-May-06
Total Exp. To Date	\$3,411,147		
Balance	\$640,427		
		Salaries and Wages Estimated This Month	\$54,072
		Salaries and Wages Spent This Month	\$107,602
		Accumulated Salaries and Wages To Date	\$3,411,147

NCHRP 17-18(3) Progress Report  
 Figures B and C

Feb-05



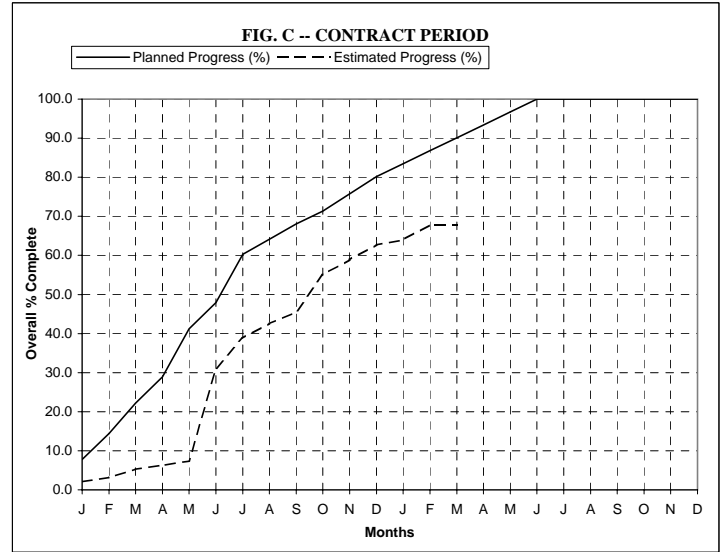
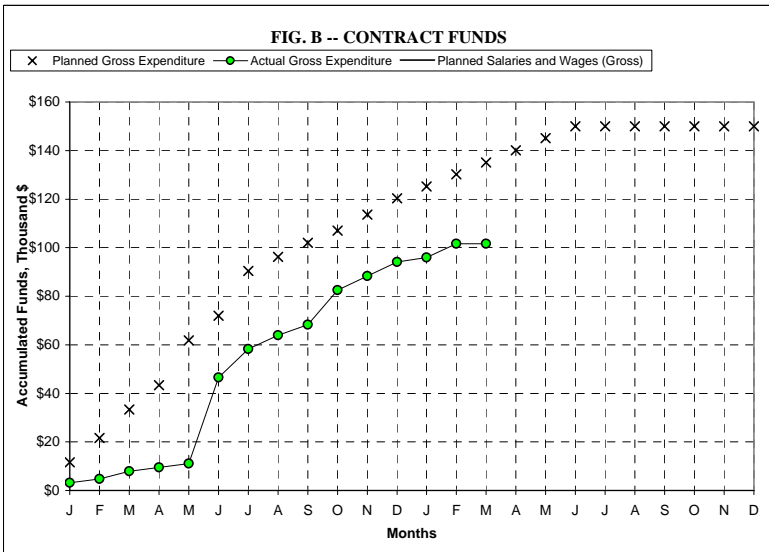
NATIONAL HIGHWAY COOPERATIVE RESEARCH PROGRAM  
 TRANSPORTATION RESEARCH BOARD  
 NATIONAL RESEARCH COUNCIL  
**PROGRESS SCHEDULE**

NCHRP Project No. 17-18(3A) Technical Support for Lead States FY 2005 Month March  
 Research Agency CH2M HILL  
 Principal Investigator Howard Preston & Kevin Slack

RESEARCH TASK	2004												2005												ESTIMATED % COMPLETION
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
1. Team Communications and Coordination	[Progress bars]												[Progress bars]												80
2. Technical Support to Lead States	[Progress bars]												[Progress bars]												90
3. Maintenance of Technical Content of Web Guides	[Progress bars]												[Progress bars]												
OVERALL % COMPLETED	8%	14%	22%	29%	41%	48%	60%	64%	68%	71%	76%	80%	83%	87%	90%	93%	97%	100%	100%	100%	100%	100%	100%	100%	67.7

FIG. A -- OVERALL PROJECT SCHEDULE

■ denotes scheduled work    ■ denotes progress



Funds Expended                   % 49  
 Contract Amount                   \$ 150,000  
 Expended This Month                   \$ 176  
 Total Exp. to Date                   \$ 73,508  
 Balance                               \$ 76,492

Time Expended                   % 83  
 Starting Date                   01-Jan-04  
 Completion Date                   30-Jun-05

Salaries and Wages Estimated This Month                   \$ 4,956  
 Salaries and Wages Spent This Month                   \$ 176  
 Accumulated Salaries and Wages To Date                   \$ 73,508

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## Summary of the Problem Being Researched

In the summer of 1988, the AASHTO Standing Committee on Highway Traffic Safety (SCOHTS) established a task force to develop a comprehensive highway safety strategy. The task force worked cooperatively with the TRB to produce the Highway Safety Strategic Plan: 1991-2000, in early 1990. The plan identified a number of strategies applicable to the driver, vehicle, highway environment, and traffic records. The strategies were estimated to cost \$1.46 billion annually, and to save a minimum of 64,000 lives over the coming decade.

In late 1996 and early 1997, in an effort to update and improve upon the existing plan, AASHTO, with assistance this time from FHWA and NHTSA as well as TRB, held workshops designed to arrive at a new plan. Nearly 100 individuals were involved, and they represented driver, vehicle, emergency medical service (EMS), safety management, pedestrian, and bicycle areas, as well as the areas of highway facilities and information management that are more typically identified as within the scope of AASHTO activities. It was a truly comprehensive effort, which involved several stages of development, between the invited experts and individuals acting in a "staff arm" capacity for the effort. The invitees included representatives from federal agencies and TRB, as well as many other stakeholders in the highway safety arena.

In 1998, AASHTO approved the Strategic Highway Safety Plan. The plan included strategies in 23 key emphasis areas that affect highway safety. The goal of the plan, as it moves from the research phase to the implementation phase, is to reduce fatality rate from 1.5 to 1.0 deaths per 100 million vehicle miles traveled (mvmt) by 2008.

### Project Objectives

The objective of the project has been to develop and validate guidance documents to assist state and local agencies in implementing strategies to reduce the fatality rate from 1.5 to 1.0 deaths per 100 mvmt. The targeted areas are being addressed as funding becomes available. The three phases of this project focus on the following areas:

#### Phase 1

- Aggressive Driving
- Head-on Crashes on Two-Lane Roads
- Run-Off-The-Road Crashes on Two-Lane Roads
- Drivers With Suspended and Revoked Licenses
- Hazardous Trees
- Unsignalized Intersections

#### Phase 2 [SPR-2(209)]

- Older Drivers
- Unbelted Occupants
- Pedestrians
- Horizontal Curves
- Signalized Intersections
- Utility Poles

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- Heavy Trucks

### Phase 3 [TPF-5(058)]

- Distracted/Drowsy Drivers
- Motorcycles
- Rural Emergency Medical Services
- Work Zones
- Alcohol

### Phase 4

- Head-on Crashes on Freeways [TPF-5(058)]
- Bicyclists
- Younger Drivers
- Speed Guide
- Data Needs, Sources, and Analysis

The implementation aspect of the first two phases of the project emphasizes program development, evaluation, testing, and measuring, through a demonstration process. The Phase 3 and Phase 4 guides will not be demonstrated but will undergo an additional agency review.

Accomplishment of the project objectives will require completion of seven primary tasks for Phase 1 emphasis areas (Tasks 0 through 6) and 5 tasks for Phase 2, 3, and 4 emphasis areas (Tasks 1 through 5). These tasks are outlined below with a brief description of the task objectives.

**Task 0. Amplified Research Plan** – Revise the research plan based on the panel’s comments to the original proposal dated October 25, 1999. This task is not required for the Phase 2, Phase 3, and Phase 4 emphasis areas.

**Task 1. Identify Promising Strategies** – Review appropriate reference materials and survey/interview appropriate persons to arrive at an initial list of promising strategies for each of the emphasis areas.

**Task 2. Establish Recommendations for Strategies and Their Implementation** – Build on the strategies identified in Task 1 through workshops and symposiums and prepare a summary report of findings and recommendations.

**Task 3. Develop Draft Implementation Guides** - Produce a user-friendly implementation guide that may be readily adopted and adapted by state or local agencies to implement one or more strategies in each of the emphasis areas.

**Task 4. Assist Selected States with Implementation Programs and Conduct Assessments** – Test implementation guides by using them to prepare implementation plans with demonstration agencies. Task 4 of Phase 3 & 4 will include an Agency Quality Review rather than this demonstration.

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**Task 5. Refine Guidance Documents** – Produce final set of implementation guides for each emphasis area by refining the draft documents based upon what was learned in Task 4.

**Task 6. Submit Final Report** – Provide a report that documents the efforts and results of the entire project. This report, originally part of Phase 1, will be deferred until the end of the project, as agreed upon in the modification to the contract made in October 2002.

### **NCHRP 17-18(3)A Technical Support for Lead States**

A separate contract was awarded to the CH2M HILL team for technical support as Lead States develop implementation plans to reduce fatalities related to the Phase 1 emphasis areas. The emphasis area managers will provide support as needed to the Lead States. This project also includes updating of materials in the web-based guides as needed, based on results of the Lead State efforts.

## **Activities This Quarter**

Work continued on Phase 2, Phase 3, and Phase 4 this quarter. Progress was made on Task 5 of Phase 2 and Phase 3 and Tasks 1 and 2 of Phase 4. The following is a review of progress made as of the end of March 2005.

### **Phase 2 [SPR-2(209)]**

#### **Task 5. Refine Guidance Documents**

Development of the web guides was completed. The guides were delivered to AASHTO and NCHRP and were posted on the AASHTO website along with the Phase 1 web guides.

### **Phase 3 [TPF-5(058)]**

#### **Task 5. Refine Guides**

Preparation of the preliminary Draft Guides continued. Emphasis area managers completed their revisions, and an internal technical and editorial review began. Guides are being submitted individually to NCHRP for a 30 day panel review.

### **Phase 4 [TPF-5(058)]**

#### **Task 1. Identify Promising Strategies**

Work on the first draft of the Phase 4 guides began. Emphasis area managers have developed a preliminary list of strategies for the guides, and have begun conducting interviews and literature reviews and assembling these materials into the draft guides.

#### **Task 2. Meet With Experienced Practitioners**

Workshops have been scheduled for July 18-19, 2005, at the Keck Center. Planning for the workshop has started and also the list potential participants to attend the workshops are being developed.

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## NCHRP 17-18(3) A Technical Support for Lead States

CH2M HILL and emphasis area managers for the Phase 1 guides provided technical support to Lead States as requested.

## Schedule and Budget

As of March 31, we estimate that we have completed 100 percent of the Phase 2 work. For Phase 3, we estimate that we are approximately 92 percent complete and for Phase 4 we estimate that we are 13 percent complete.



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Plans for Next Quarter

In the next quarter, work is planned on Phase 2 Task 5, and Phase 3 Task 5.

**Phase 2 [SPR-2(209)]**

**Task 5. Refine Guidance Documents**

Work on Phase 2 has been completed.

**Phase 3 [TPF-5(058)]**

**Task 5. Refine Guides**

As internal technical and editorial reviews are completed for the guides, the Preliminary Draft Final guides will be submitted individually to NCHRP, for a 30-day panel review. The project team will respond to panel comments.

**Phase 4 [TPF-5(058)]**

**Task 1. Identifying Promising Strategies**

Work on the first drafts will continue along with conducting interviews and literature reviews to assemble the material.

**Task 2. Meet With Experienced Practitioners**

Planning for the workshop will continue, along with contacting the potential participants for the confirmation of their participation will begin.

**NCHRP 17-18(3)A Technical Support for Lead States**

The project team will provide technical support as needs arise.

**Problems Encountered**

None to report.