

Semi-Annual Progress Report

Fiscal Year 2002

Date of This Report July 22, 2003 Project Number 0-4568 / TPF-5(055) RMC 5

Period Covered by This Report March 1, 2003 – August 31, 2003

Project Title Rapid Bridge Replacement Techniques

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1. Requested Changes for Possible Project Modification

Project Termination: The current contract is scheduled for completion on August 31, 2003, with product deliverable P1 and report deliverables 1 and S, due on 10/31/03. A no cost modification request to extend the above deliverables due dates to 2/29/04 has been discussed and will be submitted.

Project Personnel: No change in project personnel occurred during this report period.

Funding Needs: No additional funding is required nor excess funds anticipated.

Work Plan: As discussed with the PD and PC, 20 Case Summaries are recommended for substitution in lieu of the last Case Study. This will allow a much broader coverage of case material and is equivalent in effort and scope of work.

Deliverables Table: The only change in the deliverables table is the due dates as noted in the "Project Termination" paragraph above.

2. Program Development Information

This project is scheduled for termination at the end of FY 2003.

3. Equipment

No equipment in excess of \$5,000 was purchased under this project agreement.

4. Progress to Date, by Task

Phase I

Task 1: A large number of articles and information sources have been identified, acquired, and reviewed. The literature review process will continue throughout the project as additional sites and information become available. A list of TxDOT critical structures have been reviewed, and the predominate types of superstructures and substructures have been identified. Additional information addressing substructure repair and replacement techniques will be identified and reviewed during the next report period. A large number of potential case study incidents and projects have been identified, reviewed, and summarized.

Task 2: A literature review summary and strategic plan was presented to TxDOT personnel on August 15, 2002, and again to representatives from the participating pooled-fund states on September 10, 2002. Both presentations were held in Austin, Texas. A positive decision was made to continue Phase II of the project.

Task 3: The required strategic plan development was completed during the summer of 2002, and it was presented and approved at the 2 meetings identified in the Task 2 write-up above.

Phase II

Task 4: Collection of expedient repair and replacement techniques and materials has continued along with summarization of the information for inclusion into the project report.

Task 5: The 1998, Interstate 95 @ Chester Creek Bridge incident Case Study is nearing completion. The 2002, Interstate 40 @ Webber Falls incident Case Study is 75% complete. The New York Thruway @ Route 100 incident is 50% complete. It was suggested and agreed upon that 20 Case Summaries be substituted in lieu of the last Case Study. Twenty-nine potential incidents have been identified and 3 line summaries written. An additional 10 seismic incidents have been identified but very little information has been found today. Contacts at CALTRANS are being pursued for information on the identified seismic events for possible inclusion in the 20 Case Summaries. The 3-line summaries of the potential incidents will be submitted to TxDOT with recommendations for the top 20 to be included in the Case Summaries portion of the project report. This change in direction is the reason for the request to extend the deliverables due date as discussed in paragraph 1 above.

Task 6: Identification of how incentives and advanced preparations can impact emergency bridge repairs or replacements has been ongoing through reviews of potential case studies, discussions at meetings, and reviews of emergency response plans and documents. A draft of comments and recommendations related to Emergency Response Procedures was submitted to TxDOT on March 7, 2003.

5. Progress on Development of “Product” Deliverables

Product #	Product Description	Progress to Date & Implementation Status
P1	Expedient bridge repair and replacement techniques.	Work is progressing and is 60%. A request is being made to extend this product’s due date to Feb. 29, 2004.
P2	Presentation of Case Study #1	Presented at Aug. 10, 2002 meeting in Austin prior to original contract agreement deadline.

6. Meetings/Conferences

Texas Tech University research staff meetings have been held on a weekly basis. Preliminary project results and materials were presented by Dr. Randy Burkett at the AASHTO Subcommittee on Bridge and Structures Annual Meeting to the Technical Committee on Security (T-1) in Albuquerque, NM, on June 2, 2003. In addition, Dingyi Yang, of TxDOT, will present preliminary project results and summary at the AASHTO Region 4 ARC meeting on August 5, 2003. Three members of the TTU research staff traveled to the US Army COE, Waterway Experimental Station, Engineering Research and Development Center (ERDC) in Vicksburg, MS, and met with personnel there on May 22, 2003. Military applications and approaches to rapid bridge replacements were discussed.

7. Possible Candidates for Formal Presentations at the Upcoming RMC Meeting

Results from this project should be considered for presentation at the June 2004 RMC meeting.

8. Miscellaneous

Nothing at this time.