

AASHTO Equipment Management Technical Services Program

Northeast and Midwest Joint Equipment Management Conference

June 15-18, 2015

Sheraton Westport Lakeside Chalet

St Louis, Missouri

Status of Current NCHRP Projects

Presented by George “Dennis” Halachoff, NCPP – June 16, 2015

NCHRP & Research

A forum for coordinated and collaborative research, the **National Cooperative Highway Research Program (NCHRP)** addresses issues integral to the state Departments of Transportation (DOTs) and transportation professionals at all levels of government and the private sector. The NCHRP provides practical, ready-to-implement solutions to pressing problems facing the industry.

The NCHRP is administered by the Transportation Research Board (TRB) and sponsored by the member departments (i.e., individual state departments of transportation) of the American Association of State Highway and Transportation Officials (AASHTO), in cooperation with the Federal Highway Administration (FHWA). Individual projects are conducted by contractors with oversight provided by volunteer panels of expert stakeholders.

Research

AASHTO Funded NCHRP Projects:

- NCHRP Project 13-04, FY 2014 - *Guidelines for the Development of Highway Operations Equipment Replacement Lifecycle Criteria*
- NCHRP Project 13-05, FY 2015 - *Guidelines for the Development of Highway Operations Equipment Utilization Measurement and Management*

Research

NCHRP Project 20-7 –Task 309:

Challenges and Opportunities: A Strategic Plan for Equipment Management Research – September 2011

(“Research Roadmap”)

- 9 topics, 5 potential research problem statements
- Final report of the workshop deliberations and findings completed and posted on EMTSP Website
 - (<http://www.emtsp.org>) ***“Challenges and Opportunities: A Strategic Plan for Equipment Management Research”***
- Research Topics were prioritized by attendees of the 2012 and 2014 National Equipment Management Conferences

BALLOT

Ballot for 2014 National Equipment Management Conference:

Ranking	Challenges	Avg. Ranking
6	Equipment Disposal and Remarketing	4.75
2	Fleet Management Cost of Service Analysis- In Development for 2015	2.78
4	Equipment Charge-Back System	3.73
3	Equipment Repair/Rebuild vs. Replace Decision Making	3.03
1	Equipment Replacement Planning – Submitted 2014, Voted #2 by SCOM > NCHRP and SCOR	2.66
5	Equipment Replacement Financing	3.91

NCHRP Research Project 13-04

ACTIVE

- Developed research problem statement titled Guidelines for the Development of Highway Operations Equipment Replacement Lifecycle Criteria
- Presented to AASHTO Subcommittee on Maintenance in July, 2012
- Ranked #1 by the subcommittee and submitted to NCHRP
- Favorably evaluated by NCHRP and designated as NCHRP Problem 2014-G-11
- Selected by the Standing Committee on Research (SCOR) for funding and designated as NCHRP Research Project 13-04
- Research project panel has been convened, the RFP has been advertised, evaluated and awarded in May 2015

NCHRP Research Project 13-04

ACTIVE

Project Data:

Funds: \$398,059

Staff Responsibility: Dr. Amir N. Hanna, Senior Program Officer,
NCHRP

Research Agency: Dye Management Group, Inc.

Principal Investigator: Ron Hamilton

Effective Date: 5/1/2015

Completion Date: 4/30/2017

NCHRP Research Project 13-04

ACTIVE

Project Background:

State highway agency equipment fleet assets are vital to the delivery of agency programs, projects, and services

- There is no widely accepted process for determining optimal replacement cycles.
- There is a need to identify current practices, review relevant information, and develop rational processes that will provide a realistic means for determining optimal replacement cycles.
- A Guide for Optimal Replacement Cycles of Highway Operations Equipment can then be prepared to facilitate use of these processes. Such a guide will help highway equipment managers and administrators with the task of equipment replacement.

NCHRP Research Project 13-04

ACTIVE

Project Objective:

- The objective of this research is to develop a Guide for Optimal Replacement Cycles of Highway Operations Equipment.
- The guide shall include processes and electronic tools for consideration in making decisions regarding the optimal replacement cycles of on- and off-road highway operations equipment used by state highway agencies.
- Accomplishment of this objective will require minimally the following of nine (9) detailed tasks prescribed within two (2) project phases.
- Agency research team will meet with project panel at prescribed intervals to give interim reports and progress presentations.

NCHRP Research Project 13-05

ACTIVE

- Developed research problem statement titled Guidelines for the Development of Highway Operations Equipment Utilization Measurement and Management
- Presented to AASHTO Subcommittee on Maintenance in July, 2013
- Ranked #1 by the subcommittee and submitted to NCHRP
- Favorably evaluated by NCHRP and designated as NCHRP Problem 13-05-F
- Selected by the Standing Committee on Research (SCOR) for funding and designated as NCHRP Research Project 13-05
- Research project panel has been convened, the RFP has been advertised, evaluated and awarded in May 2015

NCHRP Research Project 13-05

ACTIVE

Project Data:

Funds: \$399,998

Staff Responsibility: Amir N. Hanna, Senior Program Officer, NCHRP

Research Agency: Washington State University

Principal Investigator: Leila Hajibabai

Effective Date: 6/1/2015

Completion Date: 5/31/2017

NCHRP Research Project 13-05

ACTIVE

Project Background:

Measuring, monitoring, and reporting on asset utilization levels are necessary for the management of the equipment fleet and meeting the highway agency's business needs.

- A variety of processes have been used by highway agencies for utilization measurement and management, and there is no widely accepted process for determining utilization criteria, measurement, and management of fleet equipment.
- There is a need to develop a guide that incorporates rational processes and appropriate electronic-based tools to provide a realistic means for fleet utilization measurement and management.
- Such a guide will help equipment managers and administrators in making decisions regarding fleet size and composition to meet the agency mission.

NCHRP Research Project 13-05

ACTIVE

Project Objective:

- The objective of this research is to develop a guide for utilization measurement and management of fleet equipment used by state highway agencies.
- The guide shall include associated processes and electronic-based tools. This research is not concerned with equipment replacement cycles.
- Accomplishment of this objective will require minimally the following of eight (8) detailed tasks prescribed within two (2) project phases.
- Agency research team will meet with project panel at prescribed intervals to give interim reports and progress presentations.

Research

Due to NCHRP propriety guidelines and confidentiality processes:

- IF additional information is required about these NCHRP projects DO NOT contact the contracted Research Agencies
- Contact is Dr. Amir Hanna, Ph.D., P.E., Senior Program Officer, NCHRP. Email ahanna@nas.edu

Questions?



Presentation by George “Dennis” Halachoff, NCPP.

Contact information: halachof@egr.msu.edu or 480-440-3422