

TNW ~~95-07~~ 96-04

Final Research Report

Research Project Agreement T9903, Task 7
Automatic Transit Location System

AUTOMATIC TRANSIT LOCATION SYSTEM

by

Daniel J. Dailey, Mark P. Haselkorn, Kelcie Guiberson, Pojung Lin
ITS Research Program
College of Engineering, Box 352500
University of Washington
Seattle, Washington 98195-2500

Washington State Transportation Center (TRAC)

University of Washington, Box 354802
1107 N. E. 45th Street, Suite 535
Seattle, Washington 98105-4631

Washington State Department of Transportation
Jim Slakey, Technical Monitor
Public Transportation and Rail Division

Sponsored by

**Washington State
Transportation Commission**
Department of Transportation
Olympia, Washington 98504-7370

**Transportation Northwest
(TransNow)**
135 More Hall, Box 352700
Seattle, WA 98195-2700

and in cooperation with
U.S. Department of Transportation
Federal Highway Administration

February, 1996

TECHNICAL REPORT STANDARD TITLE PAGE

1. REPORT NO. WA-RD 394.1 TNW96-04	2. GOVERNMENT ACCESSION NO.	3. RECIPIENT'S CATALOG NO.
4. TITLE AND SUBTITLE AUTOMATIC TRANSIT LOCATION SYSTEM		5. REPORT DATE February 1996
		6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) Daniel J. Dailey, Mark P. Haselkorn, Kelcie Guiberson, Po-Jung Lin		8. PERFORMING ORGANIZATION REPORT NO.
		10. WORK UNIT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Washington State Transportation Center (TRAC) University of Washington, Box 354802 University District Building; 1107 NE 45th Street, Suite 535 Seattle, Washington 98105-4631		11. CONTRACT OR GRANT NO. T9903, Task 7
		13. TYPE OF REPORT AND PERIOD COVERED Research report
12. SPONSORING AGENCY NAME AND ADDRESS Washington State Department of Transportation Transportation Building, MS 7370 Olympia, Washington 98504-7370		14. SPONSORING AGENCY CODE
		15. SUPPLEMENTARY NOTES This study was conducted in cooperation with the U.S. Department of Transportation, Federal Highway Administration.
16. ABSTRACT <p>This project provides a state-of-the-art review of AVL technologies which highlights King County METRO Transit's AVL System. This project further demonstrated the use of real-time transit information derived from the Metro AVL system to produce a prototypical display of real-time transit coach locations suitable for wide area Advanced Traveler Information (ATIS) use. This project demonstrated the viability of combining multi-agency data with different technology roots in a single development environment that encourages interagency collaboration in the creation of ITS applications and services. This was accomplished in a rich and flexible development environment, created at the University of Washington and used to leverage a proprietary AVL system to a public ATIS prototype.</p>		
17. KEY WORDS Automatic vehicle location, GPS, dead reckoning, distributed computing, digital maps, networking, ITS backbone, ITS architecture, development environment		18. DISTRIBUTION STATEMENT No restrictions. This document is available to the public through the National Technical Information Service, Springfield, VA 22616
19. SECURITY CLASSIF. (of this report) <p style="text-align: center;">None</p>	20. SECURITY CLASSIF. (of this page) <p style="text-align: center;">None</p>	21. NO. OF PAGES <p style="text-align: center;">49</p>
		22. PRICE

DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. This document is disseminated through the Transportation Northwest (TransNow) Regional Center under the sponsorship of the U.S. Department of Transportation UTC Grant Program and through the Washington State Department of Transportation. The U.S. Government assumes no liability for the contents or use thereof. Sponsorship for the local match portion of this research project was provided by the Washington State Department of Transportation. The contents do not necessarily reflect the views or policies of the U.S. Department of Transportation or Washington State Department of Transportation. This report does not constitute a standard, specification, or regulation.