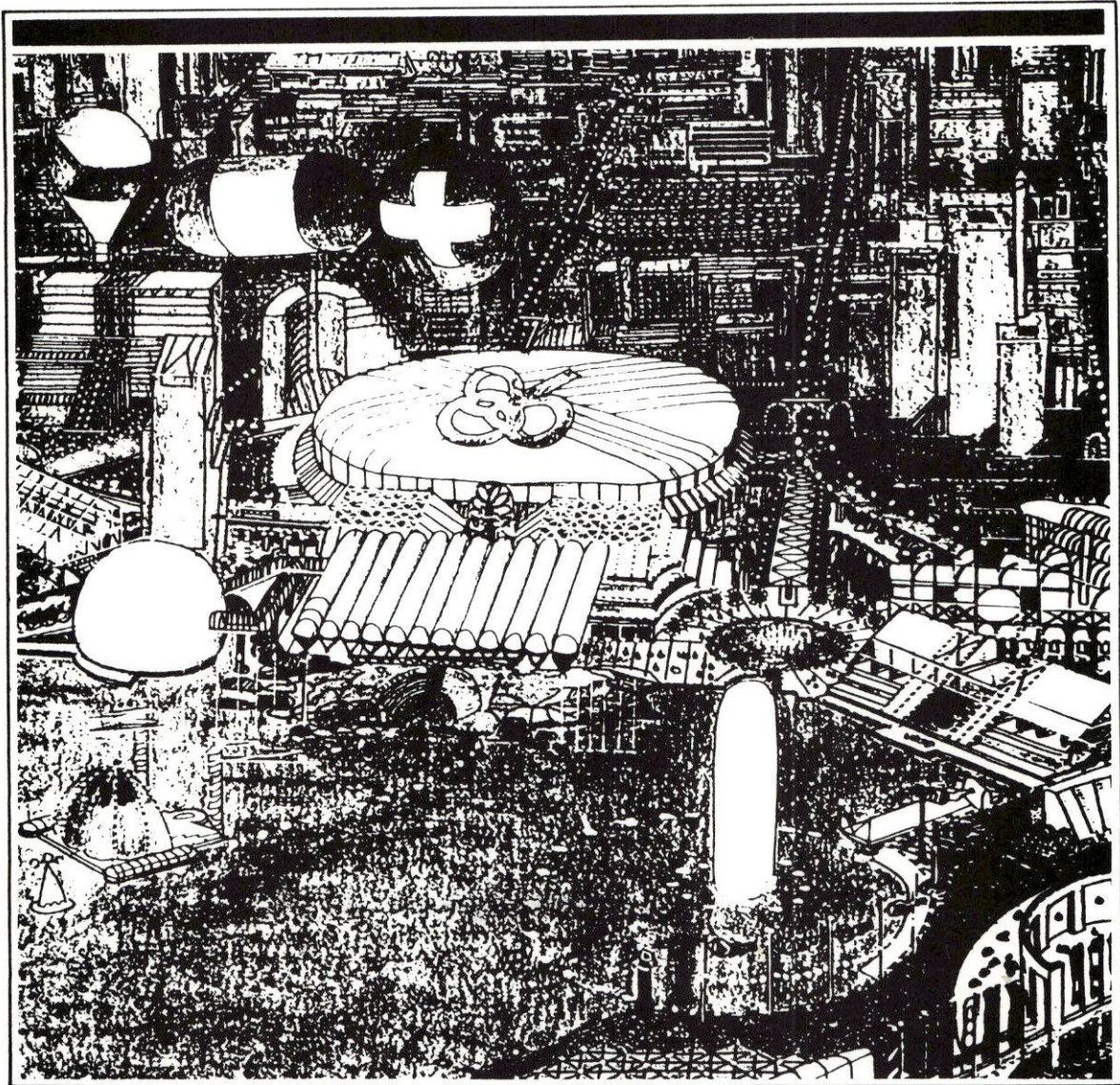


# **Transportation Impacts of the 1986 World Exposition:**

## **Final Report**



**Washington State Department of Transportation**  
Planning, Research and Public Transportation Division  
Research Office

**TRANSPORTATION IMPACTS  
OF THE  
1986 WORLD EXPOSITION**

**By**

**Rhonda L. Brooks**

**Washington State Transportation Center  
University of Washington  
Seattle, Washington**

**Final Report  
Research Project Y-2811  
Task 32**

**Prepared for**

**W.S.T.C. Department of Transportation  
In Cooperation with the  
USDOT Federal Highway Administration**

**AUGUST 1985**

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## PREFACE

The recommendations and implementation plans in this final report are part of an ongoing assessment of the impacts on Washington state transportation resulting from the 1986 World Exposition (Expo) in Vancouver, British Columbia.

Transportation activities or further Expo transportation issues will be coordinated by Mr. Don Griffith, Expo 86 Coordinator for the Washington State Department of Transportation. If there are any questions regarding this report, or if there are concerns with transportation activities related to Expo, please contact Mr. Griffith at the following address:

Washington State Department of Transportation  
Mail Stop KF-01  
Olympia, WA 98504  
Phone: (206) 753-7192

## DISCLAIMER

The contents of this report reflect the views of the authors, and the authors are responsible for the facts and the accuracy of the data. The contents do not necessarily reflect the official views of the Washington State Department of Transportation, nor do they constitute a standard, specification, or regulation.

## SUMMARY

An April 1985 status report--"Transportation Impacts of the 1986 World Exposition"--assessed various modes of travel and transportation facilities in Washington state that may be affected by Expo visitors. Recommended actions in response to potential Expo impacts were developed into implementation proposals for the Washington State Department of Transportation.

Several significant events have occurred since the last status report that influenced the proposed actions of the WSDOT, including the following: the Legislature adjourned; attendance projections for Expo changed; and many other agencies organized into task groups to accomplish specific activities for Expo.

The recommendations of this final research effort are largely based on the information and opinions of a WSDOT Expo 86 Task 2 Force. This committee comprises the following members: Don Griffith, WSDOT Expo 86 Coordinator; Don Sorte, Assistant Secretary, Marine Division; George Smith, Manager, Public Transportation Office; Rick Daniels, Public Affairs Administrator; Rich Bitner, Legislative Transportation Committee; Don Ernst, Highway Maintenance and Operations Manager; Ron Bockstruck, District 1 Administrator; Keith Dodge, District 1 Highway Maintenance and Operations; William Hamilton, Assistant Secretary for Aeronautics; and G. Scott Rutherford, Research Director.

The Department of Transportation received an appropriation of \$300,000 in the 1985-1987 Transportation biennial budget for specific Expo-related activities. Table 1 provides a financial summary of these funds. The Expo appropriation of \$300,000 does not represent all the WSDOT funds involved with Expo activities; some activities that are and will be conducted in response to Expo will be absorbed through existing agency resources. Funds to supplement current ferry operations will be requested, if necessary, from the 1986 Legislature.

Expo visitors who travel through Washington state will create a significant impact on the state's transportation system, particularly on the highways leading to the Canadian border. Highway officials will increase rest area maintenance and will provide additional sani-cans during the six months of the Expo event. WSDOT will provide transportation information to Expo visitors through publications, signs, and border crossing advisory information.

For the most part, implementation of WSDOT activities began in July 1985. Detailed implementation plans (Attachments 1 through 7) identify WSDOT actions and the benefit of such actions, discuss related institutional issues, explain the required funding, provide specific procedures for implementation, and describe time lines for accomplishments.

TABLE 1

1985-1987 APPROPRIATIONS FOR EXPO TRANSPORTATION IMPACTS  
FINANCIAL SUMMARY

Rest Area Maintenance	\$137,000
Additional Sani-cans	35,000
State-wide Expo Signing	25,000
Highway Advisory Radio (HAR) and HAR Signing	46,000
Repair and Restoration of Vandalized Facilities	25,000
Strip Map (Printing)	<u>32,000</u>
TOTAL	\$300,000

New transportation issues that have developed since the publication of the last status report are also discussed in this final research report.

## RECOMMENDATIONS

The major impact on Washington's transportation system by Expo visitors will be on the state's highways. Other transportation facilities, modes, and operations will likely experience lesser impacts. This report recommends that the Department of Transportation take the following actions in response to Expo visitors traveling through Washington state.

### BORDER TRAFFIC MANAGEMENT

The most feasible way to manage international border traffic crossings is to inform the public of peak travel periods and to provide them with current traffic status reports. This information will allow the public to plan Expo trips during times when traffic levels will be reduced.

WSDOT should use the Custer rest area traffic data--to be collected during the summer of 1985--to analyze peak border crossing times. This information, combined with existing data, will provide more current and reliable information with which to advise Expo visitors of traffic conditions at the U.S./Canadian border. An implementation plan for traffic data collection is described in Attachment 1.

A Highway Advisory Radio (HAR), installed at one location in the vicinity south of Bellingham will provide border traffic

conditions to motorists. Since there are four border crossings within a 20-mile range, the HAR will allow motorists to select the least-congested border crossing. An implementation plan for a HAR system is described in Attachment 2. If the U.S. and Canadian customs agencies are unable to provide current information for the Highway Advisory Radio system, then alternative operating resources should be explored and considered.

WSDOT should develop and implement a plan for responding to media and public requests for border traffic information during Expo. This plan should be coordinated with the HAR system and should utilize existing traffic data to provide the public with the most current border traffic information. An implementation plan for providing border traffic information to the media and to the public is described Attachment 3.

#### HIGHWAY AND REST AREA MAINTENANCE

Additional highway and rest area maintenance activities should begin in May 1986 (just before Expo begins) and continue through October 1986. These activities will include providing additional sani-cans where necessary, increasing litter pickup, and maintaining rest areas. An implementation plan for increased highway rest area activities is described in Attachment 4.

## PUBLIC INFORMATION

Expo will provide a unique opportunity to welcome tourists that travel in Washington State. WSDOT should provide visitor information on ferry schedules, directions to Expo, tourist information, border traffic status, and other travel information. This can be accomplished by producing an Expo strip map to supplement the state highway map. In addition, a publication for private aircraft pilots will provide important international flight regulations and customs-clearance procedures. Expo logos placed at strategic directions on the state's highway system will assist Expo visitors in traveling to British Columbia. Implementation plans for these public information activities are described in Attachments 5, 6, and 7.

## FERRY SYSTEM

WSDOT ferry system officials should anticipate an increase in ferry passengers during Expo. Adding ferries on the Anacortes-Sidney service should be considered. Additional operating expenses and authorization to increase ferry service should be accomplished before May 1986.

## RAILROAD CROSSINGS

Railroad crossing improvements in the north corridor should be expedited in the event AMTRAK service from Seattle to Vancouver is reinstated. These improvements will contribute to the operation of AMTRAK by relaxing speed restrictions at certain railroad crossings.

## INTERGOVERNMENTAL AGENCY COORDINATION

The WSDOT should continue to be represented at and participate in all multi-agency group meetings concerned with the Expo event. These meetings provide for the exchange of information and coordination of Expo activities.

## BACKGROUND

Vancouver, British Columbia, is hosting the 1986 World Exposition (Expo) focusing on transportation and communication. Approximately 20 to 24 million visits are expected to be made to Expo between May 2 and October 13, 1986. Figure 1 identifies the relative locations of Expo and Washington state to the rest of the United States. Most visitors from the Pacific Northwest and other parts of the U.S. will travel through Washington state, and the majority of them will cross the international border in northwest Washington along the routes described in Figure 2. This increased volume of travel will tax the existing transportation system to some degree.

In April 1984, WSDOT began analyzing the potential impact of Expo on Washington's transportation systems and operations. A WSDOT Expo 86 Task Force met and discussed various transportation issues associated with the future Expo event. The result of this group's meeting was a research effort to provide a comprehensive assessment and to determine what actions the Department should take to respond to any potential problems.

An April 1985 status report, "Transportation Impacts of the 1986 World Exposition," provides a comprehensive assessment of Expo related transportation issues. The WSDOT Expo 86 Task Force proposed specific actions in response to this assessment and

requested legislative approval of specific Expo related activities.

The assessment of Expo transportation impacts and the plans of WSDOT to respond to those impacts are the subjects of this final report.

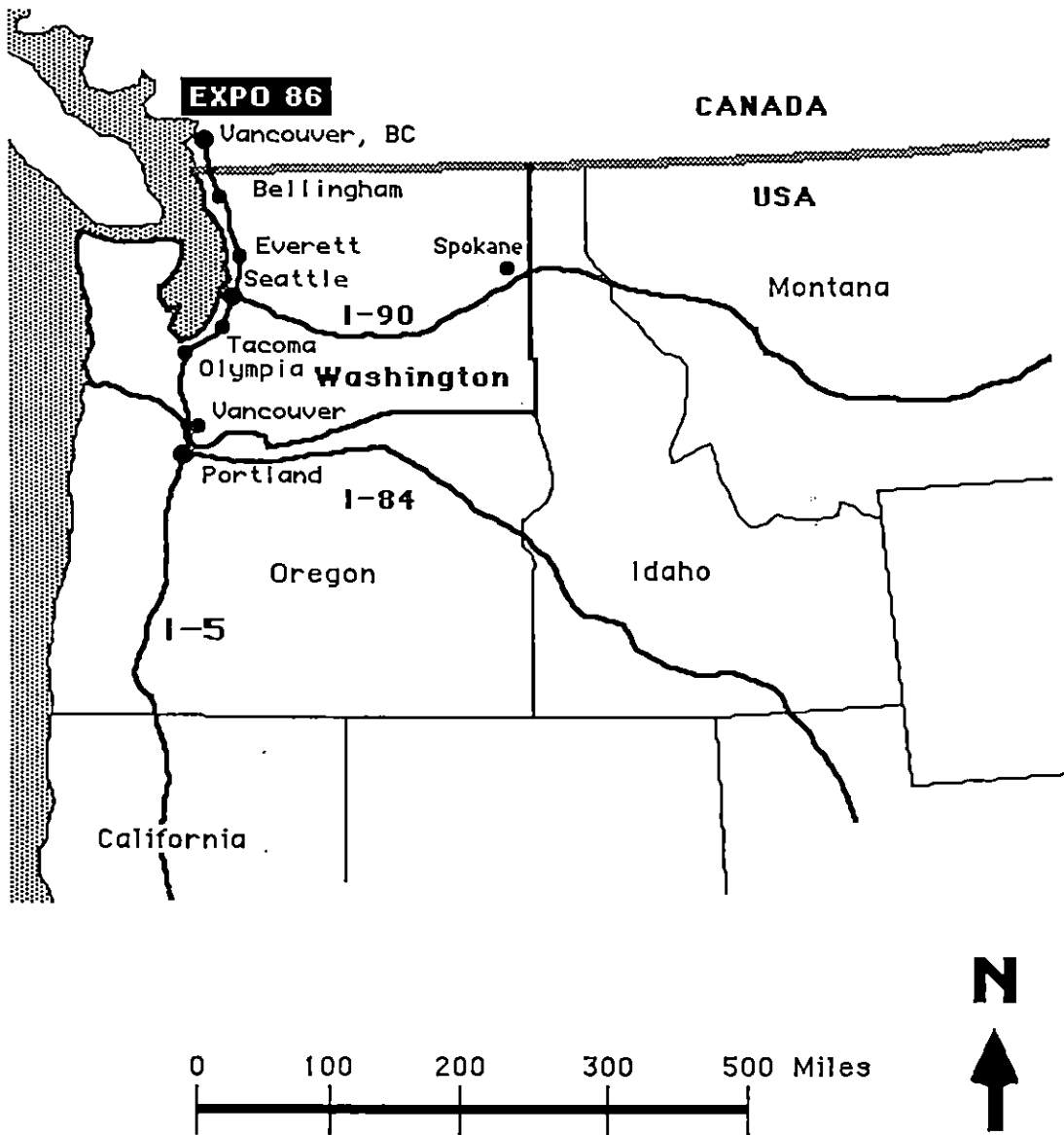


Figure 1. EXPO 86 and Washington State Vicinity Map.

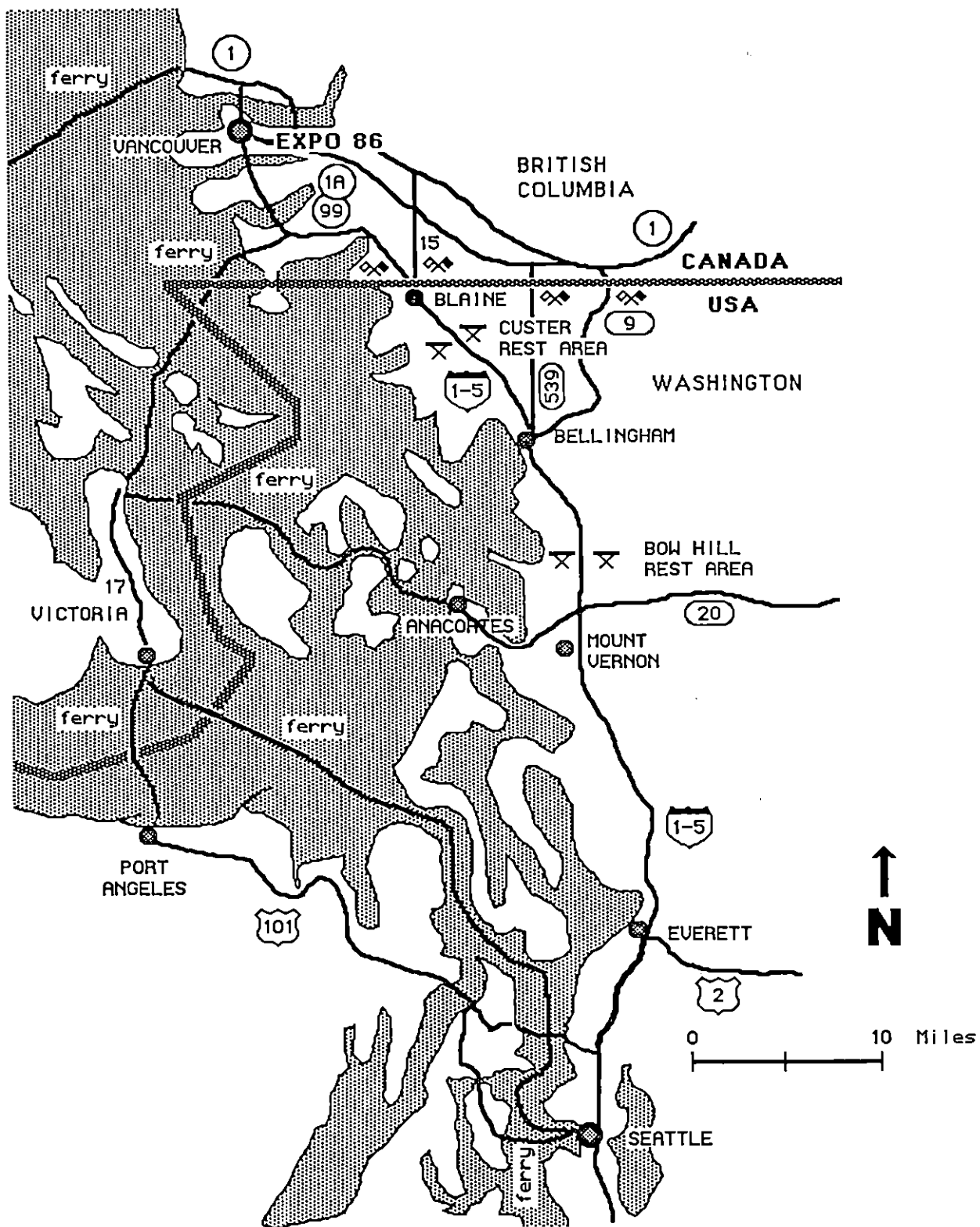


Figure 2. Routes to Vancouver, B.C., through NW Washington.

## ASSESSMENT OF TRANSPORTATION IMPACTS

This comprehensive assessment of transportation impacts in Washington state was made by studying all the potential transportation issues raised as a result of Expo. The WSDOT Expo 86 Task Force determined actions the Department would take in response to those assessed impacts. The following report discusses Expo related transportation issues and describes implementation plans for the Washington State Department of Transportation.

### EXPO TRAVEL PROJECTIONS

Figure 3 shows the historical average daily traffic volume trends and projections for the highways at the four border crossings in northwest Washington. The projections are simply extrapolations of past trends and do not include consideration of potential Expo traffic. In general, traffic levels have been and will continue to increase. Projections of visitors to Expo who will pass through Washington state have been extracted from market tracking studies conducted during the past three years for Canadian Expo officials. The most significant among the various data available from the studies are those for automobile traffic. Automobile travel will be the primary mode of travel for Washington residents and visitors passing through Washington en route to Expo. Over 400,000 auto trips are expected to be made from

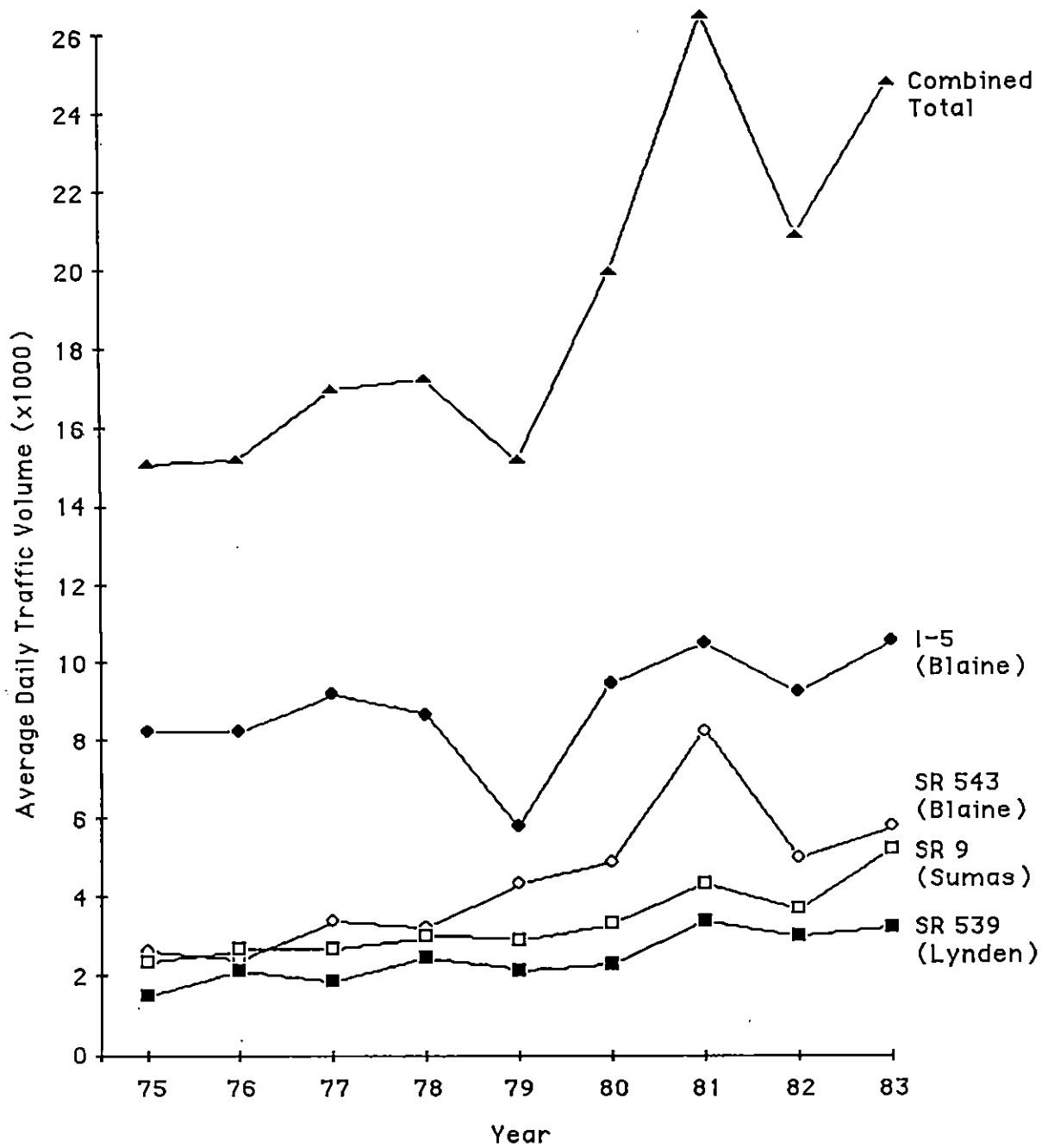


Figure 3. Highway Traffic Volumes at the Four NW Washington/Canadian Border Crossings.

within or through the state to Expo during the six months of the event. Although it is difficult to determine how many of these trips would have been made regardless of Expo, if the majority of these visitors cross the border on I-5, then the increase in average daily traffic volumes at the border during the six month period will be around 31 percent (see Figure 4). If the traffic is spread out across all four border crossings, then the increase would represent only 12.7 percent of the four border crossings' combined total traffic.

#### EXPO 86 TRAFFIC COMPARED TO OTHER EVENTS

Data gathered for the 1984 Louisiana World Exposition has been compared to traffic forecasts for the 1986 World Exposition in British Columbia. Table 2 compares the Louisiana forecasted traffic, the actual modes of transportation used during the event, and the forecasted travel for Expo 86.

The main difference in traffic to the two fairs is the forecasted amount of automobile traffic. Louisiana experienced a significant increase in automobile travel over what was forecasted. If the projections for the British Columbia Expo 86 are also underestimated, the magnitude of Expo-generated auto traffic through Washington state will significantly increase.

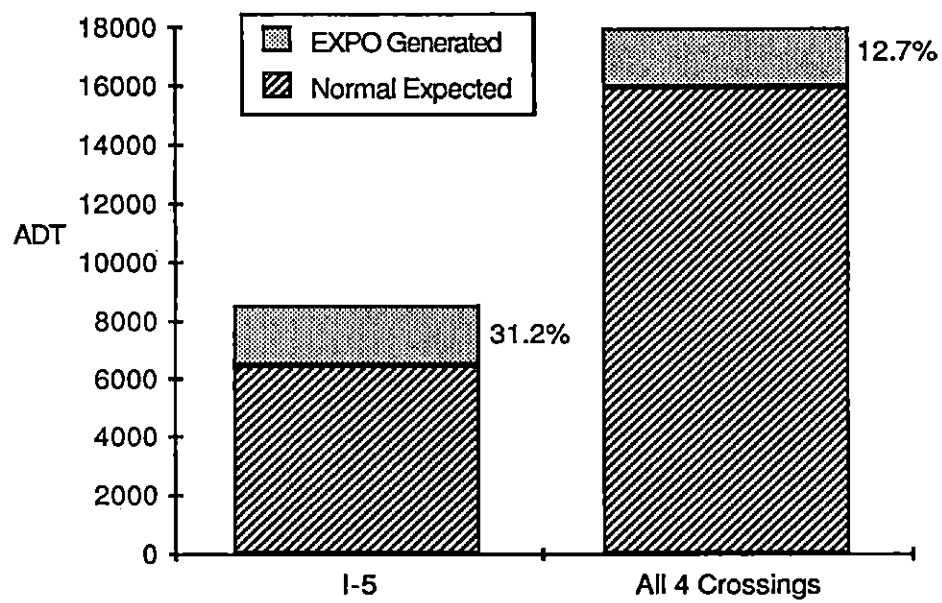


Figure 4. Estimated Average Daily Traffic, One Direction - May through October, 1986.

TABLE 2  
COMPARISON OF THE 1984 LOUISIANA WORLD EXPOSITION  
AND THE  
1986 BRITISH COLUMBIA WORLD EXPOSITION

MODE OF TRANSPORTATION			
	<u>NEW ORLEANS</u>		<u>EXPO 86</u>
	<u>Actual</u>	<u>Forecast</u>	<u>Forecast</u>
Car	71%	35%	52%
Bus	7%	20%	10%
Rail	1%	19%	4%
Air	21%		36%

AVERAGE NUMBER OF VISITORS PER PARTY

<u>NEW ORLEANS</u>	<u>EXPO 86</u>
3.8	3.1

AVERAGE NUMBER OF VISITS PER FAIR GOER

<u>Resident</u>	<u>Non-Resident</u>	<u>Resident</u>	<u>Non-Resident</u>
<u>NEW ORLEANS</u>		<u>EXPO 86</u>	
7.57	1.91	3.61	3.02

<sup>1</sup>Source: Wimble, J.E.; "A Transportation and Tourism Profile of Visitors to the 1984 Louisiana World Exposition in New Orleans"; ITE Journal, April 1985.

<sup>2</sup>Source: The 1986 World Exposition, "Attendance Projections Expo 86 (as of June 1985)"; Vancouver, B.C., Canada.

## PEAK TRAFFIC PERIODS

Based on past hourly traffic counts and on estimations from Customs staff, peak hour traffic on I-5 at the border represents approximately 12 percent of the average daily traffic and typically occurs at 11 a.m. to 12 p.m. Saturday and/or 4 to 5 p.m. on Sundays for northbound traffic. Peak hour southbound traffic usually occurs on Sundays between 2 to 5 p.m. Since the majority of this Expo related auto traffic will originate from within the state--with most of that being from the Puget Sound metropolitan areas--it is reasonable to expect much of that travel to occur during the usual weekend and holiday peak hours unless typical travel behavior is changed by means of traffic advisory information.

WSDOT has installed permanent traffic recorders for both north and southbound traffic on I-5, seven miles south of Blaine. An observation of hourly traffic data from these counters during the summer of 1985 will provide a more accurate sense of peak traffic occurrences during Expo.

## ESTIMATED FUEL TAX REVENUES DUE TO EXPO

Expo auto traffic in Washington state is estimated to provide approximately \$1.5 million in fuel tax revenues. This estimate is based on the previously mentioned projections and

does not include anticipated travel by Canadian visitors in Washington state, tour bus operations, Alaska and Hawaii tourists, or international visitors who use Washington as a destination point.

#### HIGHWAY RELATED TRAVEL

Maintenance and Operations. The most significant impact on the state's transportation system will be on the highways leading to the international border crossings in northwest Washington. The roads are in adequate condition and have ample capacities to handle Expo traffic. Figure 5 presents the capacities of the four respective highways in relation to anticipated peak hour traffic. It also indicates the 1986 capacity of both the U.S. and Canadian custom facilities to process traffic and clearly shows that the limiting factor with respect to traffic movement is the capacity at these facilities. Although the highways are adequate, an increase in Expo automobile traffic will require additional maintenance activities in the rest areas. WSDOT District 1 will increase rest area maintenance during Expo and provide sani-cans in areas expected to have heavy motorist traffic. The Legislature approved \$172,000 for these and other statewide maintenance activities.

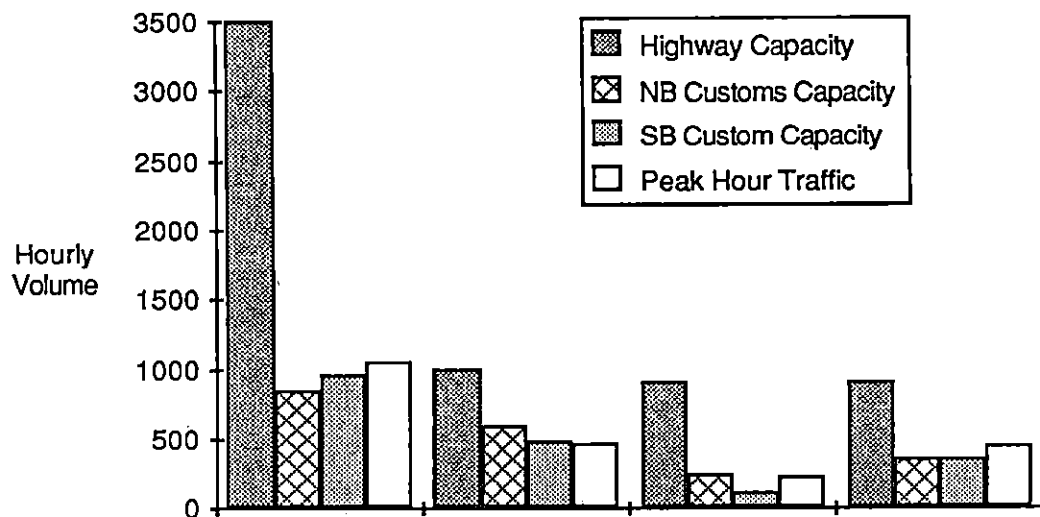


Figure 5. Estimated 1986 Border Crossing Facility Capacities and Peak Hour Traffic.

Border Customs Facilities. The anticipated traffic congestion at the border customs facilities has been the subject of discussion by transportation, law enforcement, customs, and local officials in both Canada and the U.S. There are 13 border crossings along the British Columbia/Washington state border. The following four border facilities, in northwest Washington near the Expo site, are identified as having the worst potential for traffic congestion problems. Other border facilities will probably receive some increase in existing traffic flows, but will not experience traffic congestion like those closer to Expo.

Customs agencies in both countries are planning to increase staffing during peak traffic periods while Expo is held. In addition, the following activities are planned for the four border facilities closest to Expo:

- o Peace Arch (I-5). The Federal General Services Administration (GSA) is considering some modifications to the southbound lanes entering the easterly inspection station. This alteration would enhance traffic flow.
- o Pacific Highway (SR543). A new Canadian customs facility will alleviate northbound traffic congestion by providing three truck inspection lanes, two bus lanes, and five general traffic lanes. State and local officials studied the problem of traffic overflow into

the City of Blaine. It was agreed that no improvements can be constructed at this crossing in time for the expo event.

- o Lynden. Construction on the new U.S. customs facility began in July 1985. Shoulder improvements on the road leading to the new facility will also be accomplished. These activities are expected to be completed in time for Expo. The new facility will alleviate some south-bound traffic congestion.
- o Sumas. No improvements or alterations are planned or funded at this time.

Border Traffic Advisory Information. Several methods of informing motorists of the traffic conditions at the customs facilities were assessed. Altering travel behavior during peak crossing periods can reduce traffic congestion and provide people the opportunity to avoid waiting in lines at the customs facilities. District 1 will be installing a Highway Advisory Radio (HAR) system south of Bellingham to advise motorists of traffic conditions at the international border. The WSDOT has received a preliminary agreement with the U.S. and Canadian customs agencies to assist with providing information for the HAR. Motorists who

tune to the assigned frequency will receive current border traffic information. An appropriation of \$46,000 has been authorized for installing the Highway Advisory Radio system.

It is expected that the Puget Sound media will provide the public with border crossing advisory information during Expo. In addition, there should be a source to advise the general public about the peak border traffic times so that people can plan their Expo trips during reduced traffic levels. The WSDOT Public Affairs Office will be developing a plan with the media and other organizations to provide this information to the public.

Canadian transportation and customs officials are also developing a motorist advisory system for southbound traffic. At the Expo site, the IBM Company is installing a transportation information system to inform visitors of parking and traffic information.

Highway Signing. New signing laws will allow businesses catering to the traveling public an opportunity to advertise along Washington's highways. The law has increased the number of businesses which can advertise in one location from four to six and the law allows such signs to be posted on sections of highway that pass through urban areas. The initial mileage limit for qualifying businesses to advertise is within 3 miles, but if there are fewer applicants than space is available, the distances are extended by 3 mile increments to a maximum of 15 miles.

Another new law expands the signing criteria to include temporary signing at locations selling agricultural products harvested at the sale location. Allowing signs for tourist attractions is another new feature of the law. WSDOT will install signs along non-interstate highways directing people to tourist activities. Federal and state laws do not allow such signs on interstate highways. Interest by businesses in displaying signs is active and WSDOT is now accepting applications for these expanded highway signing programs.

In order to assist Expo visitors with easy directions to Vancouver, WSDOT will place the Expo logo at strategic points on the major highways throughout Washington. A request to use the official Expo logo on existing directional signing has been made. A \$25,000 appropriation is authorized for statewide Expo signing.

Tour Bus Travel. It is unknown how much of an increase in tour bus traffic will occur during Expo. Beginning in the fall of 1986, Expo bus tours will be actively marketed. There have been several informal discussions regarding customs preclearance of tour buses, but without any resolution. It is unlikely that any preclearance procedures will be established in time for Expo because of the resources required to conduct such an operation. Also, there are no accurate Expo tour bus travel projections to indicate the procedure will be necessary.

Law Enforcement. Local law enforcement officials in Whatcom County have identified potential impacts in communities near the border due to the increase of Expo related traffic. These problems include local traffic congestion, increased crime, and the need for additional law enforcement personnel. The Washington State Patrol is increasing the number of troopers in the Whatcom County area, which will provide some assistance to local law enforcement agencies. In addition, the Department of Community Development will be able to provide \$250,000 in the 1985-87 biennium to assist with local law enforcement efforts.

#### AIR TRAVEL

Private Aircraft. Canadian and U.S. aeronautics officials have met on several occasions to discuss the impact of air traffic to Expo on existing facilities and operations. There will be two major Expo related aviation events in July 1986, which will likely attract many persons in the aviation community. During the 1970 Expo in Spokane, Washington, Boeing Field experienced an 11- to 12-percent increase in private aircraft traffic. Aeronautics officials examined other Expo type events around the country to determine if any significant impact occurred at airport facilities. Events in Lake Placid, New York, and New

Orleans, Louisiana, did not create a significant increase in private aircraft traffic.

The location of an international border close to Expo will create some unique problems for private aircraft pilots. The WSDOT Division of Aeronautics will produce a flight guidance publication for pilots. This brochure will describe air travel regulations in Canada and the United States. It will also provide pilots with important customs procedures and will highlight scenic attractions in the Northwest. Approximately 20,000 copies of the publication will be available to pilots. The guide will be advertised in various aeronautics publications and provided to pilot associations by WSDOT, Division of Aeronautics.

Commercial Flights. Expo visitors may take commercial flights to Seattle because of the limited capacity of the Vancouver International Airport and the cheaper air fares to Seattle. These visitors will likely continue their trips to Expo on chartered buses or rental cars, resulting in some additional highway traffic to Expo.

#### WATER TRAVEL

State Ferry System. Washington State Ferry System officials expect an increase in ferry usage during Expo. Data collected

from the 1962 Seattle World's Fair indicate that almost a 50-percent increase on the international ferry service occurred. The entire system experienced an 11-percent increase during this time. A review of providing supplemental ferry service is currently underway within the WSDOT Marine Division. The Department has made commitments to the Legislature to present a plan for supplemental service, if any, and to obtain any necessary supplemental budget appropriations during the 1986 session.

Moorage for Private Boating. There are many resource guides available to private boaters regarding moorage facilities and services in the north Puget Sound area and in British Columbia. The British Columbia Coast Guard is preparing an advisory manual for boat owners who will be traveling to Vancouver. The guide will inform boat owners that (1) moorage space in Vancouver will be limited and (2) that moorage accommodations should be confirmed before traveling to Vancouver. The publication will be distributed to boating clubs and organizations in Canada and Washington state. This will hopefully reduce the number of private boats stranded without moorage during Expo.

#### RAIL TRAVEL--AMTRAK

In 1984, WSDOT requested AMTRAK to provide a cost estimate of reinstating rail service from Seattle to Vancouver under the

403b service. AMTRAK officials reported that a state subsidy of at least \$622,000 would be required. The request for providing state funds to reinstate AMTRAK was provided to the Legislative Transportation Committee. Efforts were unsuccessful in Washington state to provide a \$622,000 state subsidy of the train's operation. However, officials of the Transport Canada Rail-Passenger Action Force have indicated that operating costs for the train are being considered by the Canadian government.

If the Seattle-Vancouver train is reinstated, speed restrictions resulting from a lack of protection devices at several grade crossings will create some time delays. State and local governments in Washington, however, have programmed about \$1,900,000 for improvements to a number of crossings in the north corridor. These construction activities will be accomplished and are considered necessary regardless of reinstating AMTRAK service. At this time, both Canadian and U.S. transportation officials continue to discuss the AMTRAK Seattle-Vancouver train service.

#### PUBLIC INFORMATION

General Tourist and Travel Information. Expo visitors who travel in Washington provide an opportunity for state and local tourist organizations and businesses to benefit by the increased

travel. Significant legislative changes to the state rest-area tourist information laws will allow the WSDOT to build structures in highway rest areas and recoup costs from participating organizations. WSDOT's Public Affairs Office is currently working with local tourism organizations to develop criteria for building structures in the rest areas and a process for managing the tourist information program. The program is expected to be completed in October 1986. The existing display panels in rest areas will also be renovated to withstand the effects of harsh weather and vandalism.

WSDOT will be providing Expo tourists with travel and tourist information through the publication of a strip map. This map will supplement the existing state highway map by highlighting the major interstate highways leading to Vancouver and tourist attractions along these routes. In addition, the strip map will provide ferry service and other travel information. A \$32,000 appropriation for printing this publication has been approved. The map will be available to state and local tourism organizations and for publication in other tourist information.

#### LODGING

Lodging accommodations for Expo visitors in Vancouver may be insufficient during the months of July and August 1986. British Columbia officials have encouraged local citizens to make rooms

available in their homes for renting to Expo visitors. The lodging capacities south of British Columbia were assessed to determine the availability of rooms should there be an overflow of visitors from Vancouver. There are about 1,240 rooms currently available in Whatcom County for accommodating Expo visitors. At least 2,014 campground and RV sites are also available in the county. Whatcom County's Visitors and Convention Bureau estimates that during summer months, lodging accommodations in Whatcom County are typically 67 percent full. It has been concluded that Expo visitors who lodge in Whatcom County and commute to Expo will not significantly impact the projected border traffic patterns.

#### BICYCLE TRAVEL

Information regarding existing bicycle routes to Expo is available from the WSDOT Bicycle Map and other publications produced by the British Columbia Tourism Office. These publications will be made available to bicycle associations in Washington state and to other tourist organizations. The Washington State Bicycling Advisory Committee has expressed concern about bicycle access to Expo. A letter outlining the committee's concerns will be forwarded to the Canadian Ministry of Transport.

## CONCLUSIONS

After assessing all the potential transportation impacts of Expo, the Washington Department of Transportation will be responding in a variety of ways, as follows:

- o Congestion at customs facilities at the U.S./Canadian border will create traffic backups into border towns. The capacity of the traffic lanes approaching the border crossings has been analyzed for adequacy. The analysis points out that the custom inspection stations govern the border crossing capacity. The highway lanes in all cases are more than adequate to handle the anticipated traffic. The new U.S. and Canadian customs facilities--scheduled for completion in time for Expo--will alleviate some traffic congestion. Expo visitors will be able to avoid waiting in lines at the border (1) if they tune to the Highway Advisory Radio frequency, or (2) if they plan their trips to avoid traffic congestion by taking into account peak crossing time information that will be distributed through the media.

- o The additional WSDOT highway and rest area activities during the six months of Expo will maintain a high quality of highway operations in Washington state.
- o WSDOT Public Affairs will enhance Expo visitor travel in Washington State by providing local tourism information, locations and directions, and other travel information (e.g., ferry schedules and bicycle routes). Expo logos on strategic directional signs will also facilitate Expo visitor travel through the state.
- o Local tourism efforts will be enhanced by new legislation that allows the WSDOT to construct display panels and other information structures in rest areas. The new signing laws will also allow additional businesses to advertise on the highway system.
- o Reinstated AMTRAK service between Seattle and Vancouver would alleviate some border traffic congestion by providing another, alternative travel mode for Expo visitors.
- o Washington state airport facilities will have ample facilities to accommodate private aircraft. Providing pilots with information regarding travel regulations in

Canada and the U.S., customs clearance procedures, and Northwest tourist attractions will enhance private air travel to Expo.

- o The ferry system will receive an increase of ridership, particularly on the Anacortes-Sidney run. Increasing ferry service on this route will allow more Expo visitors to travel by this mode.
- o Boaters who plan to stay overnight in the north Puget Sound or in the Vancouver area should secure moorage reservations before they travel. A Canadian Coast Guard advisory will be issued to boating associations.
- o Bicyclists will be able to cross the border and travel to Expo on identified routes. The WSDOT Bicycle Map and other British Columbia-produced publications will describe the allowable bike routes to Vancouver.
- o WSDOT's participation in future interagency Expo meetings will provide the coordination necessary to ensure all relevant transportation impacts of Expo are addressed.

## ATTACHMENT 1

### IMPLEMENTATION PLAN: TRAFFIC DATA COLLECTION

DESCRIPTION OF ACTION: Collect traffic data from the permanent traffic recorder installed at the Custer rest area.

BENEFITS OF ACTION: This traffic data will provide current and reliable information for determining peak border crossing times.

INSTITUTIONAL ISSUES: The Transportation Data Office will monitor and record the data on a weekly basis. This information will be analyzed and provided to District 1, Headquarters' Public Affairs Office, and other interested parties.

FUNDING REQUIREMENTS: Funding for installing and monitoring the traffic counter has been assigned through existing agency resources.

### IMPLEMENTATION PROCEDURES:

1. The WSDOT Transportation Data Office will monitor and collect data from a permanent traffic counter located at the Custer rest area beginning in the summer of 1985. This data collection will continue indefinitely.

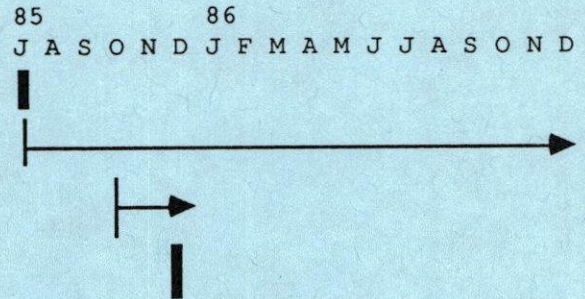
2. The information will be analyzed by the Transportation Data Office and provided to District 1 traffic officials, the Headquarters' Public Affairs Office, and other parties upon request.

3. WSDOT's Public Affairs Office will use the traffic information to advise the media and public of the recommended times for Expo visitors to cross the border.

IMPLEMENTATION PLAN: Traffic Data Collection

**TASKS**

1. Install Hardware
2. Monitor & Record
3. Analyze Data
4. Provide Analysis of Peak Border Traffic



## ATTACHMENT 2

### IMPLEMENTATION PLAN: HIGHWAY ADVISORY RADIO

DESCRIPTION OF ACTION: Install and operate a Highway Advisory Radio (HAR) system to advise motorists of border traffic conditions.

BENEFITS OF ACTION: Border facilities are being enhanced to facilitate Expo-generated traffic. The public can also contribute to traffic management if they plan their border crossings to avoid congestion. The HAR will provide motorists traffic information so that they will be able to plan their border crossing time and location.

### INSTITUTIONAL ISSUES:

District 1 Traffic Operations will coordinate the installation and operation of the HAR system.

Customs agencies located at the border will be required to participate if the HAR system is to provide current information.

Access to the HAR information will be available to citizens if they tune to the appropriate frequency.

The HAR message can be changed from remote locations with the appropriate telephone connections.

FUNDING REQUIREMENTS: WSDOT is appropriated \$46,000 for the purposes of installing and operating the HAR system.

IMPLEMENTATION:

1. Obtain FCC approval for permit.
2. The Canadian customs agency has been requested to provide current information for the HAR. No response has been received.
3. One location in the vicinity of College Street in Bellingham has been identified for the HAR installation.
4. Determine the specifications for HAR equipment procurement.
5. Secure operating agreement with customs agencies to update border traffic information.
6. Procure equipment upon FCC permit approval.

7. Install HAR system.

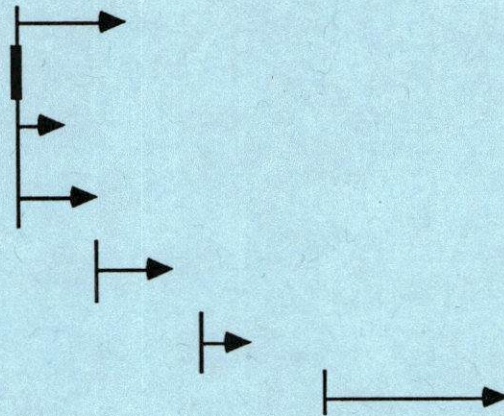
8. Begin operating HAR in May 1986 and discontinue in October 1986.

IMPLEMENTATION TIMELINE: Highway Advisory Radio

**TASKS**

1. FCC License
2. Locations Identified
3. Specifications for Equipment
4. Customs Cooperation
5. Procure Equipment\*
6. Install Equipment
7. Operate System

85                      86  
J A S O N D J F M A M J J A S O N D



\*Depending on FCC Approval

### ATTACHMENT 3

#### IMPLEMENTATION PLAN: BORDER TRAFFIC INFORMATION PLAN

DESCRIPTION OF ACTION: Provide the public and media organizations with current information regarding the traffic status at the border during the Expo event.

BENEFITS OF ACTION: This information will allow the public to plan Expo trips with minimal delays and to reduce traffic congestion at the customs facilities.

INSTITUTIONAL ISSUES: The WSDOT Public Affairs staff will work with District 1, the Washington State Patrol, Washington State Ferries, and media organizations to develop a plan that provides the public with information on border conditions.

FUNDING REQUIREMENTS: Funding is provided through existing WSDOT resources.

PROCEDURES:

1. WSDOT Public Affairs will coordinate with other organizations to develop an information plan beginning in January 1986.

2. The border traffic information management plan will be completed by May 1986.

3. The plan will be implemented from May 1986 through October 1986.

IMPLEMENTATION TIMELINE: Border Traffic Information Plan

**TASKS**

85

86

J A S O N D J F M A M J J A S O N D

1. Develop Plan with Appropriate Agencies



2. Implement Program



#### ATTACHMENT 4

##### IMPLEMENTATION PLAN: HIGHWAY AND REST AREA MAINTENANCE

DESCRIPTION OF ACTION: Increase highway and rest area maintenance in order to mitigate the impact of increased visitor usage.

BENEFITS OF ACTION: The Department of Transportation will continue a high quality of maintenance and operations on the state highway system.

INSTITUTIONAL ISSUES: District 1 highways and rest areas will receive the primary impact of Expo auto traffic, although other districts may also experience a slight increase in traffic.

FUNDING REQUIREMENTS: WSDOT received a \$137,000 appropriation to provide additional highway and rest area maintenance. A \$35,000 appropriation is made for acquiring sani-cans and \$25,000 is allocated for repairing vandalized property.

IMPLEMENTATION PROCEDURES:

1. Identify locations for increased rest area maintenance.
2. Temporary staff to perform preparation work and to provide additional sani-cans in rest areas will be hired in April 1986. Two FTEs are planned for this work in District 1.
3. After July 1, 1986, through October 1986, an additional 3.5 FTEs are planned for maintenance activities in District 1.
4. To repair and restore damaged facilities by the traveling public, 0.5 FTE will be required in District 1.

# IMPLEMENTATION TIMELINE: Highway Rest Area Maintenance

## TASKS

85

86

J A S O N D J F M A M J J A S O N D

1. Identify Locations

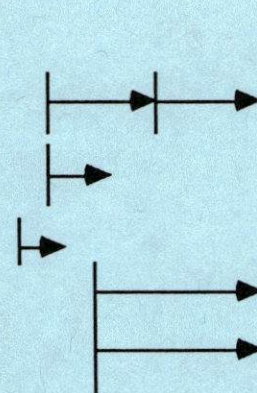
2. Hire Staff

3. Conduct Preparation Work

4. Provide more Sani-cans

5. Cleaning & Litter pickup

6. Restore Damaged Facilities



## ATTACHMENT 5

### IMPLEMENTATION PLAN: EXPO HIGHWAY STRIP MAP

DESCRIPTION OF ACTION: Produce a strip map to supplement the state highway map. This publication will provide Expo travelers information on local tourist attractions and other important travel information.

BENEFITS OF ACTION: Expo visitors' travel experiences in Washington state will be enhanced by providing travelers with a strip map of attractions and directions along the I-5 corridor. The map will also provide important information regarding customs clearance and border crossings, and other transportation (e.g., ferry schedules).

INSTITUTIONAL ISSUES: The WSDOT Public Affairs Office will develop and distribute the publication. Other agencies and organizations may use the map in their publications.

FUNDING REQUIREMENTS: WSDOT received an appropriation of \$32,000 to print the strip map, which the Public Affairs Office will coordinate.

IMPLEMENTATION PROCEDURES:

1. WSDOT Public Affairs will begin the design and production of the map in October 1985.
2. The strip map will be printed in January 1986.
3. The map will be distributed to local tourist organizations and other interested parties.
4. The map will be available for publication in other tourist information.

IMPLEMENTATION PLAN: Highway Strip Map

**TASKS**

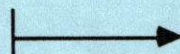
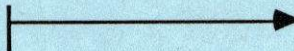
1. Design and Production

2. Printing

3. Distribution

4. Available for Other Publications

85                      86  
J A S O N D J F M A M J J A S O N D



## ATTACHMENT 6

### IMPLEMENTATION PLAN: EXPO SIGNING

DESCRIPTION OF ACTION: Provide Expo direction signs at points of entry and other strategic locations in Washington state. The Expo logo will be placed primarily on existing signs, although some additional sign structures may be required.

BENEFITS OF ACTION: Out-of-state visitors who travel to Expo through Washington state will be able to easily identify which route to take.

INSTITUTIONAL ISSUES: WSDOT is requesting authorization to use the official Expo logo on state-wide signing. WSDOT Highways Traffic Division will coordinate the Expo logo signing.

FUNDING REQUIREMENTS: WSDOT is appropriated \$25,000 to be used for state-wide Expo signing.

### IMPLEMENTATION PROCEDURES:

1. Headquarters traffic personnel will identify locations by October 1985.

2. One full-time equivalent (FTE) will be required to place the Expo logo on existing signs and to construct additional signs in March 1986.

IMPLEMENTATION TIMELINE: SIGNING

**TASKS**

85

86

J A S O N D J F M A M J J A S O N D

1. Approval of Logo Use



2. Identify Locations



3. Hire Required Staff



4. Conduct Work



## ATTACHMENT 7

### IMPLEMENTATION PLAN: EXPO FLIGHT GUIDANCE

DESCRIPTION OF ACTION: Publish and distribute flight guidance information to private aircraft pilots who fly to Expo.

BENEFITS OF ACTION: Private aircraft pilots must be aware of flight regulations and customs procedures in both Canada and the U.S.

FUNDING REQUIREMENTS: WSDOT Aeronautics Division will use existing funds for printing the publication.

### IMPLEMENTATION PROCEDURES:

1. DOT Aeronautics Division will prepare the copy for publication. Information will include air travel regulations, customs information, and northwest tourist sights.

2. The pamphlet will be published in October 1985 and will be distributed to pilot associations and other interested parties.

IMPLEMENTATION PLAN: Flight Guidance

**TASKS**

1. Design & Production
2. Printing
3. Distribution

