
APPENDIX J TRAVEL TIME ASSUMPTIONS

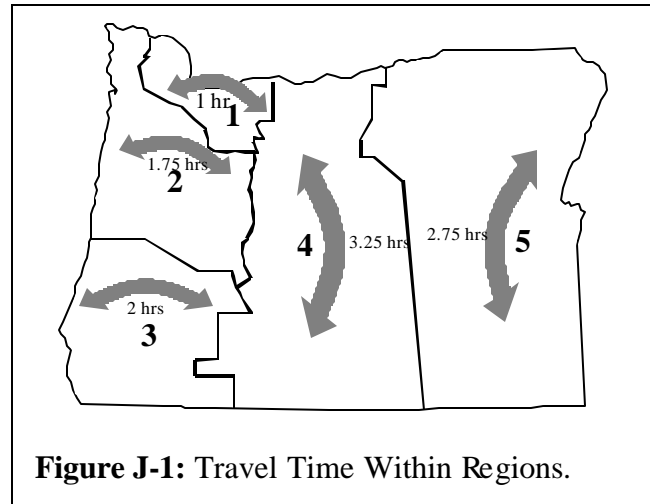
Depending upon the location of a repair need and the location of the staff dispatched to make the repair, there may be four different sets of travel times. This section describes each of these combinations, and how travel time estimates were developed for each one.

J.1 Between Field Components Within Region

This set of travel times is applied when staff people qualified to do the repair are located in each of ODOT's regions, and are dispatched to make repairs within their region. This may represent the travel time between successive repairs, such as for preventative maintenance activities, or for isolated repairs, involving a simple round trip from the dispatching center.

These estimates were developed using the following steps:

- A list was made of the cities with the largest population in each Oregon county as well as cities at which ODOT district maintenance facilities are located.
- These cities were grouped within each of ODOT's five regions.
- For each group of cities within a region, travel times were calculated using the travel time utility provided on <http://www.freetrip.com/>.
- Average travel times were calculated within each ODOT region.
- Average travel times were rounded up to the nearest 15 minutes. An additional 15 minutes were added to travel times within Region 1 to reflect the effects of urban congestion.



The resulting travel time estimates are shown in Figure J-1.

J.2 From Centralized Support to Field Devices

For some skill levels, ODOT maintains support only in Salem. To estimate the travel time to access these devices, the following steps were used.

- Travel times between Salem and the most populous city in each county were estimated using <http://www.freetrip.com/>.

- Travel times were also estimated between Salem and the maintenance district facility in each district using <http://www.freetrip.com/>.
- Average travel times were developed for each region under each method, and then were averaged.
- The average travel time value was rounded up to the nearest fifteen minutes.

The resulting travel times are shown in Table J-2.

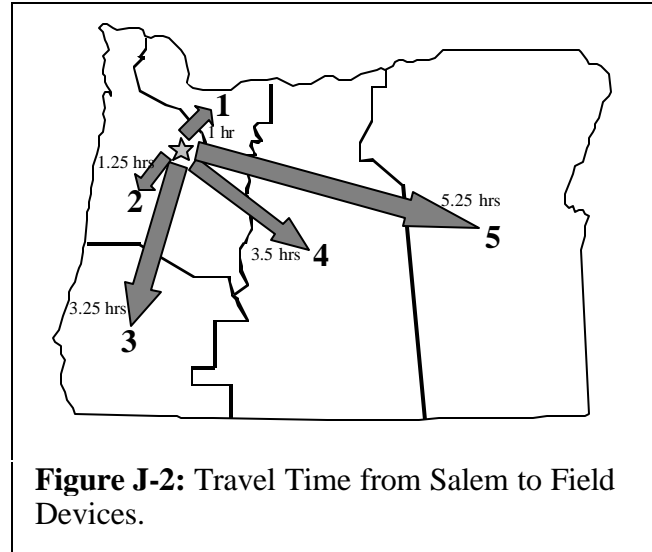


Figure J-2: Travel Time from Salem to Field Devices.

J.3 From TOC to Same TOC

Some maintenance activities are performed at the TOCs from where a maintenance technician would be dispatched. In this case, travel time would be zero for all regions.

J.4 From Region 2 TOC to Other TOCs

There may also be maintenance activities performed at the TOC that require centralized help from Salem. Travel times were estimated using <http://www.freetrip.com/>, with additional travel time applied in order account for congestion in Portland. The resulting travel times are shown in Table J-3.

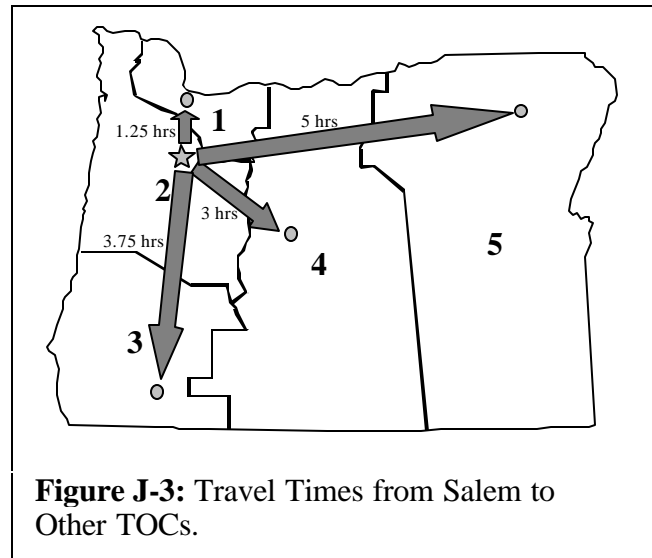


Figure J-3: Travel Times from Salem to Other TOCs.