

Preface

The Brevard Transit Quality of Service (TQOS) Evaluation is a set of measures for the County's fixed-route public transit system. The outcome of this evaluation is a benchmark of transit performance that can be communicated to the state legislature and other decision makers. To achieve this initiative, FDOT requires all metropolitan planning organizations (MPOs) with fixed-route transit systems in their jurisdictions to perform an annual evaluation of transit service. Results of the evaluation are submitted to the FDOT Public Transit Office.

FDOT has developed a framework for evaluation, the Florida MPO Transit Quality of Service Evaluation Agency Reporting Guide, to ensure consistency across all MPOs. The framework applies the concepts presented in the Transit Capacity and Quality of Service Manual (TCRP Report A-15), and focuses on six key transit performance measures:

- Service frequency;
- Hours of service;
- Service coverage;
- Passenger loading;
- Reliability, and
- Transit vs. auto travel time.

Two of the measures – passenger loading and reliability – require a series of field observations. Such observations entail significant effort in terms of labor, and thus are only required every three years as part of a 'major update'. The 2005 Brevard TQOS Evaluation included a major update. Results of the 2005 passenger loading and reliability evaluations are included in this report. The 2007 TQOS Evaluation uses the FSUTMS travel demand model to derive required inputs, including origin-destination person trips and automobile travel time

While this year was not officially a major update year for the TQOS, all 90 origin-destination trip pairs were reevaluated to account for routing and scheduling adjustments made by Space Coast Area Transit in 2007. These included the combining of two routes, changes route schedules, and many routes that had increased hours and frequencies.

1.0 Agencies Involved in Evaluation

The Brevard MPO has contracted with Renaissance Planning Group (RPG) to perform the Brevard Transit Quality of Service Evaluation. RPG structured the evaluation process and performed the analysis.

2.0 Activity Centers Chosen for Analysis

Figure 1 shows the ten activity centers that were chosen for analysis. These locations are a representative cross-section of travel markets in the County, both geographically and functionally. They include residential, employment, educational, institutional and intermodal centers. Each of the County's five distinct geographic sub-areas is represented: north, central, south, Merritt Island and the beaches.

3.0 Evaluation of Service Measures

Consistent with guidance provided in FDOT's *Agency Reporting Guide*, an evaluation was performed of fixed route transit service in Brevard County. The following sections provide the results of each of the six level of service measures calculated for the 90 origin-destination (O-D) pairs resulting from the ten activity centers.

3.1 Service Frequency LOS

Service frequency measures the number of travel opportunities every hour between a given origin and destination. LOS scores range from "A" for greater than six buses per hour (greater than 10 minute headways) to "F" for less than one bus per hour. *Table 1* shows the service frequency LOS scores for the 90 O-D pairs. The mobility measures were determined using the most recent published SCAT schedules.

While most routes in the SCAT system operate on one hour headways, half of those connecting activity centers had headways of 30 minutes. Therefore, all of the O-D pairs had an LOS score of "E" or "D." Route 4 connecting Cocoa with the beaches, Route 6 serving the Cocoa area, Route 9 serving the beaches and Route 21 serving Melbourne operate on half hour headways. O-D trip pairs served entirely by these routes received an LOS score of "D."

