structure investment needs to bolster disaster preparation and mitigation. Computer-based network systems modeling and analysis methods are applied to vulnerabilities in congested urban transportation networks, logistical networks, supply chains, the Internet, and other systems.

The authors explore many network activities: the behavior of network users, demands for resources, resulting flows, and associated costs. Three sections address network fundamentals, efficiency measurement, and vulnerability analysis; applications and extensions; and network integration, mergers and acquisitions, and areas of cooperation. Potential areas for risk reduction and disaster readiness are identified, along with possible synergies that can assist in disaster recovery.

The Beginner’s Guide to Aviation Biofuels

To advance the use of biofuels in aircraft, the Geneva-based Air Transport Action Group (ATAG) has published The Beginner’s Guide to Aviation Biofuels. Unlike biofuels derived from food crops such as rapeseed and corn that are often unsuitable for use in aircraft, “second-generation” aviation biofuels are sustainably produced, meet performance and safety standards for aviation fuels, and are derived from nonfood crop sources that can be mass-grown in many geographic regions. Several airlines have successfully tested jet fuels from alternative sources such as camelina, jatropha, and algae. The pamphlet examines the key safety and technical criteria in the use of aviation biofuels, outlines the testing process currently under way, and looks at technical and sustainability challenges.

TRB PUBLICATIONS

Human Performance: Infrastructure, Information Systems, and Simulation
Transportation Research Record 2069
Authors study the effects of fog on car-following performance, run-off-the-road crashes involving over-correction, the decision dilemma zone at a signalized intersection approach, two-way stop-controlled intersections on divided highways, left-turn warnings, auditory road safety alerts, wireless communication and entertainment devices’ effects on driving, warning messages and variable speed limits, right-turning vehicles and pedestrians approaching from the right side, traveler information delivery mechanisms, and pretrip public transport information use.


Concrete Materials
Transportation Research Record 2070
Presented are papers on internal curing, impact echo scanning for void detection in posttensioned concrete, chloride permeability and microstructure of mortars incorporating nanomaterials, autoluminescent surfaces for concrete pavements, properties of concrete containing vitreous calcium aluminosilicate pozzolan, modulus contrast between near-surface material and deeper material in concrete pavements, the influence of curing conditions on strength development, and strategies for shrinkage mitigation.

2008; 67 pp.; TRB affiliates, $37.50; nonaffiliates, $50. Subscriber category: materials and construction (IIIB).