

Image: US holiday transportation web seen from orbit

November 27 2013



Credit: Jesse Allen and Robert Simmon, using Suomi NPP VIIRS and DMSP OLS data provided courtesy of Chris Elvidge (NOAA National Geophysical Data Center)

Thanksgiving is a time for family, for feasting, and for gratitude in the United States. It is also a time when the nation's transportation network is clogged with travelers. According to the American Automobile Association, an estimated 43.4 million Americans will travel 50 miles (80 kilometers) or more during Thanksgiving week, with the average

round trip being 600 miles (1,000 kilometers). More than 90 percent of them will use cars or trucks, while the rest will ride planes or trains.

The United States has more roads—4.1 million miles (6.6 million kilometers)—than any other nation in the world, and roughly 40 percent more than second-ranked India. About 47,000 of those U.S. miles are part of the Interstate Highway System, established by President Dwight Eisenhower in the 1950s. The country also has 127,000 miles (204,000 kilometers) of railroad tracks and about 25,000 miles (40,000 kilometers) of navigable rivers and canals (not including the Great Lakes).

The imprint of that transportation web becomes easier to see at night. The Visible Infrared Imaging Radiometer Suite (VIIRS) on the Suomi NPP (National Polar-orbiting Partnership) satellite acquired two nighttime images early on Oct. 1, 2013, for this natural-light, mosaic view of the continental United States. The VIIRS instrument uses a "day-night band" of wavelengths that is sensitive to low light levels and manmade light sources. The images were collected just three days before the new moon, so reflected light from space and the atmosphere was relatively low. It was also a rare night when most of the nation was cloud-free.

Provided by NASA

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