

What it would take to repair our bridges

by Marcia Merry

On July 24, another incident was in the headlines, in which a major city bridge was restricted for use, because it was decrepit and dangerous. This time it was the 74-year-old Hanover Street Bridge in Baltimore, which has been carrying 50,000 cars per day across the Patapsco River. The bridge was listing heavily to the east, as some of its spans have sunk into the mud of the Baltimore harbor, by as much as 6.5 inches since 1971.

This latest incident exemplifies the general decay of basic infrastructure in the United States, which could be rapidly repaired and replaced if the economy were mobilized again around a great goal, such as a mission to Mars, as President Bush announced July 20.

No local government, corporation, or group of corporations could mount a campaign on the scale needed to restore crumbling infrastructure, but a federal government commitment to the space program and to the industrial capacity required for it would create the circumstances in which investment and labor power could be redirected into these areas.

Within the U.S. economy there has accumulated more than a \$3 trillion deficit in spending on maintenance and improvement of basic infrastructure since the early 1970s. The investment opportunities in such areas could amount to about \$300 billion per annum, and would provide job skill training in construction and related trades, instead of the "alternative economy" of hamburger flipping.

In its most recent comprehensive report to Congress, the Federal Highway Administration reported that, as of December 1986, some 220,000 of the nation's 576,000 inventoried bridges were either structurally deficient or obsolete.

Where is the money to fix them? The typical answer is the hopeless idea of playing off federal, local government, and private funds. In a shrinking economy, there will appear to be no solution, and the bridges will just be allowed to collapse.

Reflecting the attitude of federal versus local is the October 1988 report of the Government Accounting Office (GAO), "Bridge Improvements: States Exercise Discretion in Selecting Projects Using Federal-Aid Funds." This report analyzed how six states made decisions on how to request

and allocate federal funds. In each case, whatever decisions state engineers and officials chose to make, they could never get enough resources to deal with the problem.

Another proposed "solution" is equally woeful. In July, the Brookings Institution released a new book, *Road Work*, and held a briefing in Washington, D.C. on how localities must be free to use local innovations such as users fees for roads and air lanes to pay for highway and other infrastructure, since under no circumstances must federal government expenditures be increased.

The extent of the problem

The specifics of the Baltimore bridge deterioration illustrate the general condition of the decrepit bridges and other infrastructure nationwide.

The Hanover Street Bridge was built in 1915. Because of the present poor conditions of the columns under the northern part of the span, one engineer warned city officials that a "catastrophic failure" of the structure is possible. The city is now pulling together a \$5 million emergency repair contract to reconstruct several hundred feet of the structure and make other repairs, especially to the drawbridge mechanism. Temporary repairs have kept the bridge open for cars, but closed to heavy trucks.

The bridge has been repaired repeatedly over the years, because there is no firm bedrock bottom in the harbor area it spans. The *Baltimore Sun* listed 14 repair episodes, from the 1920s to the present.

The GAO's report outlines the scope of the crisis. More than one-half million of inventoried bridges (such as those over 20 feet in length, on public roads) are potentially eligible for federal Highway Bridge Replacement and Rehabilitation Program funds—if there were amounts adequate to the task.

The GAO surveyed six states, to determine how they computed whether a bridge was adequate to remain in service under its present conditions. The figures are as of Dec. 31, 1986:

In Maryland, 1,549 of 4,335 bridges in the state—or 35.7%—were deficient, according to Federal Highway Administration. This means that Maryland has the 26th highest percentage of deficient bridges nationally.

In North Carolina, 9,124—or 56.8%—of the 16,058 bridges in the state were deficient. This placed the state eighth in the national picture of deficient bridges.

In Maine, there were 787 deficient bridges out of a total of 2,590—or 30.4%. Maine ranked 33rd in the nation.

In Connecticut, there were 2,375 deficient bridges out of a total of 3,758—63.2%. This means that Connecticut has the third highest percentage of deficient bridges in the nation.

In Pennsylvania, 7,922 out of 22,000—or 35.4%—were deficient. Pennsylvania has the 27th highest percentage of deficient bridges.

In Vermont, there were 1,156 deficient bridges out of a total of 2,659—43.5%, placing the state 23rd in the nation.