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THE STRUGGLE for the Interstate

By Tom Kuennen

It was a long journey from the Good Roads Movement to the Interstate System, but the federal role persevered

Only six decades elapsed from the time the Good Roads Movement began to pull America up out of the mud (1892) and the year the Dwight D. Eisenhower National System of Interstate and Defense Highways was launched (1956). Only four decades separate the revival of the federal role in roadbuilding – the Federal-Aid Road Act of 1916 – and the Interstate era.

But those decades saw the growth of federal involvement in roadbuilding, leading to the greatest public works project in American history. They also saw economic boom, bust, and three wars, all of which had their own effects on the nascent federal highway system. But they predated Eisenhower's signature, which in 1956 kick-started the Interstate system's construction. Here's how it happened.

'Good Roads' Sparked National Role

The Good Roads Movement of the 1890s saw an explosion in the growth of local and national lobbying groups for improved roads. In that time, roads principally were managed by local counties and townships, with very little state, and no federal, entanglement.

Today's Dwight D. Eisenhower National System of Interstate and Defense Highways comprises 1.2 percent of the total road network, but carries 21 percent of the traffic.

Virtually all interstate passenger and freight shipment – with the exception of boats and barges – took place by rail, and roads were underfunded and neglected.

After decades of dominance by the railroad, the condition of the nation's roads was so unknown that in 1893 – in the wake of the Good Roads furor – Congress established the Office of Road Inquiry (ORI) as part of the Department of Agriculture, with Good Roads advocate Gen. Roy Stone as U.S. special agent and engineer in charge of road inquiry. On behalf of the rural population, the office would inventory road conditions and transfer technology on Good Road construction practice to the hinterlands.

The ORI was reconstituted in 1899 as the Office of Public Road Inquiry (OPRI). Now headed by Martin Dodge, the agency continued the educational and technology transfer enterprise started by Stone. In 1905, Congress established a permanent Office of Public Roads (OPR) to be headed by a chief engineer, Logan Waller Page. OPR would be replaced by the Bureau of Public Roads (BPR) in 1918.

The Good Roads' lobbying and demonstrated needs began to bear fruit. "Legislatures began to understand that much of travel on country roads was between counties, and hence statewide in nature," said William L. Richter in *Transportation in America*. New Jersey formed an early highway department in 1892, and Massachusetts in 1893.

This progress notwithstanding, by 1906 only 16 state road agencies had been established. But that was changing. "By 1917 almost all states had a state highway commission operating on the Massachusetts example," Richter wrote in 1995.

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Opposite: Asphalt paving in the 1920s. Above: Asphalt pavement resurfaces a rural concrete highway in this 1940s photo.

Postal Roads Anticipate Federal Role

In the meantime, an early federal role to provide improved mail service and road improvements unfolded during the Good Roads era, as Rural Free Delivery (RFD) became popular.

Prior to RFD, mail was delivered only to addresses in urban areas; residents outside of cities had to go into town to get mail. Beginning in 1896, the U.S. Post Office Department began limited RFD service in West Virginia, and the immensely popular program soon was expanded.

However, RFD routes had to be on roads that were at least gravel-surfaced, or surfaced with macadam, layers of coarse, intermediate, and fine aggregate tightly compacted and bound. The improvement of the roads was up to the local governments, and RFD brought pressure on state and local legislatures to improve roads.

In 1903, Rep. Walter P. Brownlow of Tennessee introduced a bill that would provide $20 million for RFD route improvements, but it was not made law. However, within nine years, RFD service would get the federal government back into local roadbuilding.

"While several states had ongoing programs, there was no federal highway program until 1912, when federal funds were provided for [RFD] highways for the first time since the early 19th century," said *The States and the Interstates*, a retrospective history produced by the American Association of State Highway & Transportation Officials (AASHTO, 1991). The experimental program, engineered by Logan Waller Page, provided $500,000 – with matching funds from counties – to improve post roads for RFD service.

It was not until 1914 that the first federally subsidized RFD route opened, in Alabama, and the federal government's involvement with funding postal road improvements lasted for only four more years. Still, the lobbying and compromising that resulted in the RFD subsidies softened the way for the federal aid legislation that would appear in 1916.

"The program quickly demonstrated the difficulties of working with thousands of counties, and convinced Page that any large-scale highway program could only be administered through state and federal cooperation," AASHTO said in its history. Two major themes emerged from this program: the founding of AASHTO in 1914, as the American Association of State Highway Officials (AASHO), and the integration of state/federal planning and partnership as the foundation for the future Federal-Aid Road Act of 1916.

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FEDERAL HIGHWAY ADMINISTRATION PHOTO

Top: President Dwight D. Eisenhower reviews a report put together by the Advisory Committee on a National Highway Program (Clay Committee, January 1955). Seen behind the president are, from left, Gen. Lucius D. Clay; Frank Turner, Bureau of Public Roads; Steve Betchel, Bechtel Corp.; Sloan Colt of Bankers' Trust Company; Bill Roberts, Allis-Chalmers Mfg. Co.; and Dave Bech, International Brotherhood of Teamsters. Above: A depressed urban highway in *Toll Roads and Free Roads* (1937) anticipates modern urban expressways.

Early Plan for an Interstate System

As the RFD program slowly brought the concept of federal funding for county and state road improvements to the forefront, one of the first permutations of an Interstate highway system began to be promoted around the country.

This was the brainstorm of Horatio "By Gum" Earle, a Good Roads promoter who was intensely involved in the venerable bicycle association, the League of American Wheelmen (LAW). Seeing the unbridled growth in American automobile ownership, and convinced that the automobile – not the bicycle – would drive road improvements in the new 20th century, Earle quietly left LAW and in 1902 founded ARM, the American Road Makers, predecessor of today's American Road & Transportation Builders Association (ARTBA).

ARM's founding premise was to obtain federal money for state construction and ownership of a "Capital Connecting Government Highway," an interstate highway system connecting every state capital and the national capital. Earle maintained the system would be the "Eighth Wonder of the World" and that it also would help secure national defense.

ARM lobbied intensively for the Capital Connecting Government Highway and, in 1907, developed a National Reward Road Bill, which was promoted by ARM in Congress. This bill would have gotten rid of the existing Office of Public Roads and decentralized the federal system. States were to have been compensated ("rewarded") with federal grants per mile of improved road for constructing roads that met standard specifications.

ARM's project failed, but contributed to the dialogue on the future role of federal funding for highways. Still, the concept of a uniform, coast-to-coast, Interstate highway system would not come to fruition until 1956.

Federal Role Cemented in 1916 Act

Even as policy makers and engineers debated the federal role in local and state road construction, tremendous pressure to do something about the roads came from a different direction: the new class of automobile and truck owners.

Government figures show that automobile registrations skyrocketed from 458,000 in 1910, to 2.3 million in 1915, and to 8.1 million in 1920. Trucks registered rose at a greater rate, from 10,000 in 1910, to 1.1 million in 1920. America's obsession with material goods and technology – coupled with economic prosperity that would continue until 1929 – fueled the development of better roads and federal government involvement in building them.

The result was the Federal-Aid Road Act of 1916, which created a steady federal highway program and was the forerunner of all surface transportation legislation to follow, including the 1956 act that funded the creation of the Interstate system. The act embodied cooperation between federal and state (not county or municipal) road agencies and maintained the rural focus of the RFD program.

The bill authorized $75 million over five years, with $5 million in the first fiscal year, increasing to $25 million in the final year of the bill. It provided 50 percent funding for roads with a 50 percent state match, and the money was to be used to improve RFD post roads. Significantly, if a state wanted to participate, the bill required the state to establish a road agency run by approved engineers. "The states were to plan, build, and maintain the roads, while the Bureau of Public Roads acted as inspector, encouraging efficiency, and preventing waste," AASHTO said in its 1992 history.

The inequities of a federal program in terms of taking from one group and giving to another shook the debate over the bill. Opponents of the bill were furious that the cities, which generated

Title II of the Highway Revenue Act of 1956 created the Highway Trust Fund as a dedicated source for the Interstate System. Revenue from federal gas and other motor-vehicle user taxes is credited to the Highway Trust Fund to pay the federal share of Interstate and all other federal-aid highway projects. In this way, the act guaranteed construction of all segments on a "pay-as-you-go" basis, thus satisfying one of President Eisenhower's primary requirements, namely that the program be self-financing without contributing to the federal budget deficit.

a great part of a state's revenue, got nothing from the bill. But rural interests said that the cities already were benefiting from federal subsidies, such as federal building and harbor construction.

After the dust settled, the 1916 act was deemed a failure. Munificent state highway bond issues in 1915 and 1916, in addition to the anticipation of the big expenditures of the 1916 act, brought many inexperienced road contractors into the road business. Many states did not have plans ready, and in some states matching funds weren't available until late in the season.

America's entry into World War I the following year led to enormous manpower and materials shortages, and federal red tape strangled projects. Additionally, there was a shortage of trained engineers, contractors, and construction equipment. Because the act did not require improved roads to connect to each other, improvements were isolated. By March 1919, only 13 miles of federal aid road had been completed.

MacDonald Transforms Program

As the war in Europe wound down, a new magisterial figure appeared in American road history: "The Chief," Thomas H. MacDonald. More than anyone at the time, MacDonald was the innovator many Americans can thank for the vision of the Interstate system.

"When Thomas MacDonald arrived in Washington in 1919, he found confusion and discouragement in the Bureau of Public Roads and impatience in Congress," wrote Tom Lewis in *Divided Highways: Building the Interstate Highways, Transforming American Life* (1997). "The Bureau of Public Roads had spent only about $500,000 of the $75 million Congress had voted it in 1916 ... [and] the little money it had spent brought controversy."

MacDonald eliminated the red tape that had entangled inspection procedures and reaffirmed the importance of cooperation in the federal aid program. "He effectively used AASHO to build solid bridges to state highway agencies, and suggested changes in the law that eliminated many criticisms of the program," AASHTO said in *The States and the Interstate*. "Most importantly, MacDonald recommended that federal-aid funds be used to build a formal system of primary and secondary roads, not just post roads. This system was to total 7 percent of each state's road mileage, subject to BPR's approval."

MacDonald also introduced another paradigm into roadbuilding. He and his allies in the state road agencies felt that user fees – gasoline and other motor vehicle taxes – should be dedicated to roadbuilding and maintenance. Thus, in 1919, the first state gas tax was instituted in Oregon, with others following shortly thereafter.

The Federal-Aid to Roads Act of 1916 expired after five years, and MacDonald worked assiduously to make the successor bill – the Federal Highway Act of 1921 – a winner.

"[Thomas H. MacDonald] snowed opponents with facts and figures while remaining apolitical," wrote Stephen B. Goddard in *Getting There: The Epic Struggle Between Road and Rail in the American Century* (1994). "His credibility with Congress was enormous. Typically, MacDonald spewed forth a barrage of charts, graphs, and tables to accompany his customary blizzard of facts, far beyond the capacity of any member to absorb but which nevertheless left the subtle, subliminal message: 'This man knows what he's talking about.'"

MacDonald's 1921 bill forced states to establish a state highway system, part of which had to be interstate in character. The act provided funds for a limited, interconnected system, and required minimum engineering standards.

It passed Congress in November 1921, and results were seen immediately. In 1922, nearly 14,000 miles of the federal aid system were improved, and by July 1925, 46,486 miles, or over one-quarter of the system, had been brought up to a good standard.

Eisenhower Sees the Need in Person

In the meantime, the boom in auto ownership spurred interest in motor tourism, and in 1913 an enterprising group of businessmen established what may be considered America's first transcontinental route, the Lincoln Highway.

The Lincoln Highway was simply a designation of a 3,300-mile assemblage of existing roads in all different conditions, but it fired imaginations and stimulated commerce as service stations, inns, campgrounds, shops, and stores appeared to serve tourists. The Lincoln Highway began in New York City and traveled through Pittsburgh, south of Chicago, to Omaha, Cheyenne, Salt Lake City, and Reno before terminating in San Francisco.

Another such tourist route was the Dixie Highway, promoted by Carl Fisher, who also backed the Lincoln Highway. The Dixie Highway stretched some 5,700 miles, from Sault Ste. Marie, Mich., to south of Miami, with numerous spurs and feeders.

The FHWA's predecessor – the Bureau of Public Roads – also designated Interstate routes in Alaska and Puerto Rico. But there's a big difference; unlike the mileage in Hawaii and elsewhere, the mileage in Alaska and Puerto Rico is exempt from meeting Interstate design standards. Alaska's Interstate highways are designated A-1, A-2, A-3, and A-4, totaling 1,082 miles, while Puerto Rico's routes are designated PRI-1, PRI-2, and PRI-3, and total 250 miles.

The Lincoln Highway faded in the late 1920s after federal route designation appeared, but not before most of it was traveled by a young U.S. Army officer fresh from World War I, in an Army caravan that captured the attention of the entire nation: Lt. Col. Dwight D. Eisenhower and the First Transcontinental Motor Train.

This caravan left Washington, D.C., on Monday, July 11, 1919, and traveled 3,250 miles across roads of every imaginable condition. The convoy was more than two miles long, with 81 vehicles, including trucks, cars, motorcycles, ambulances, mobile kitchens, and repair trucks. "Two months later they arrived in San Francisco, having averaged just five miles per hour," wrote Pete Davis in *American Road: The Story of an Epic Transcontinental Journey at the Dawn of the Motor Age* (2002).

This map of Baltimore from 1937's *Toll Roads and Free Roads* depicts a system of urban highways that remains basically unchanged today.

FEDERAL HIGHWAY ADMININSTRATION PHOTO

While Ike and his comrades were not the first persons to motor coast-to-coast, never had the journey been undertaken with such publicity and by so large a convoy. The trip was an adventure, a circus, a PR coup, and a war game all rolled into one, Davis wrote. "As road conditions worsened, it also became a daily battle of sweat and labor, guts and determination."

The trip focused America's attention on the need for good roads and provided a big boost for the nascent 1921 federal road act. But just as important, it gave Ike an inkling of how important it was for national security to have good roads available for movement of men and materiel in case of war emergency, when railroads might be tied up or destroyed.

"While the 'old convoy' started Eisenhower 'thinking about good, two-lane highways,' the autobahns of Germany made him 'see the wisdom of broader ribbons across the land,'" Lewis wrote in Divided Highways, quoting Eisenhower himself. While bombing could quickly immobilize a railway, the autobahns were much harder to destroy. Little wonder that in the 1950s, Ike saw divided, limited-access superhighways as a way to quickly evacuate a city in case of nuclear attack, and just one more reason to build an Interstate system.

Boom in Limited-Access Highways

But in the 1920s motorists wanted highways not for civil defense, but to drive fast and safely to new horizons. It was in the 1920s that limited-access highways gained popularity in America.

These limited-access highways first appeared in American cities, and they were bolstered as public works projects during the doldrums of the Great Depression (1929-1940). In urban areas, they were built using local funds, although that changed with the Depression. "With the Depression, the cities sought state and federal funds for urban road repairs and for municipal construction programs," AASHTO wrote. "Reluctantly, state legislatures assigned their highway departments to build and maintain 'the urban extensions' of state highway systems."

In New York City and Long Island, Robert Moses began constructing his magnificent system of parkways. Kansas City taxed property owners for the funds to build its sprawling parkways.

The story is repeated throughout the United States: In the L.A. basin, drivers on the Pasadena Freeway still use its superb Art Deco tunnels. In St. Louis, the Red Feather Expressway, now I-64, took a page from Moses in slicing right-of-way from existing parkland. And Chicago's sparkling Lake Shore Drive is a monument to the days of urban expressway building.

But ramps, overpasses, and controlled access were not confined to urban expressways. In Pennsylvania, far-thinking engineers and politicians created America's first superhighway, the Pennsylvania Turnpike.

"The turnpike does not extend outside Pennsylvania, yet its influence reaches across the nation in the form of the 43,000-mile Interstate highway system," boasts the Pennsylvania Turnpike Commission in its history, *The Pennsylvania Turnpike* (1995). "History shows that from an engineering and motoring standpoint, the turnpike was the direct conceptual predecessor of the Interstate system."

The turnpike was financed through tolls and revenue bonds, not fuel or property taxes. Following construction from 1938-1940,

ASPHALT INSTITUTE PHOTO

Material hauling in the 1930s. The size of the Interstate program would bring new technologies to roadbuilding.

motorists of the late Depression drove from surrounding states just to drive on the new superhighway. The era of the expressway had come to America.

The Great Depression had a murderous effect on American business, but road construction did not suffer as did other commerce. Local make-work projects kept workers busy, and a series of federal emergency relief and recovery acts sent federal dollars to roadbuilding projects, supplementing the conventional federal aid authorizations. The industry, however, had to fend off attempts to seize highway fuel taxes and use them for other relief efforts.

National recovery accelerated toward the end of the 1930s, but World War II put an end to the Depression altogether – and almost put an end to road construction. As total war raged overseas, roadbuilding in the United States came to a near-halt. Oil for gasoline, lubricants, and asphalt was absorbed almost entirely by the armed forces. Gas-rationing coupons remain an icon of those sorry days, as government programs urged consumers to curtail "unneccessary" travel. Cement, aggregates, and steel that would have built highways and bridges were used to build military facilities, warships, and tanks. Engineers and laborers who would have built the roads went overseas to fight and die.

Birth of the Interstate Network

But even during the nadir of road construction during the war, planning for roads continued. Fearful that the Depression would return after the war concluded, lobbying groups pressed for a revived postwar highway program.

As early as 1937, President Franklin D. Roosevelt asked the BPR under MacDonald to prepare a feasibility report on proposals to build transcontinental toll roads. The result was a landmark report, *Toll Roads and Free Roads,* which stated that such roads could not be self-sustaining, and instead recommended a separate network of high-performance "free" highways that would supplement the existing federal-aid primary system and urban roads. MacDonald's network of 1 percent of the nation's road mileage would carry 20 percent of the traffic (today's Interstate comprises 1.2 percent of the network

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The 44,629 miles of the Dwight D. Eisenhower National System of Interstate and Defense Highways – as it's now officially designated – represent the largest public works project in U.S. history, and perhaps the world.

and carries 21 percent of the traffic). "This proposal was the direct ancestor of the Interstate system," AASHTO wrote in *The States and the Interstates*.

The proposal also was important because until *Toll Roads and Free Roads,* the BPR simply had followed the states' leads in highway planning; It was the first time that the federal government had established a uniquely Interstate system based on its own traffic surveys and engineering.

During the war, the plan was further refined in the report "Interregional Highways," released in 1943 and distributed generally in 1944. "Interregional Highways" called for a 39,147-mile interstate-type system, with a 20-year life expectancy.

By war's end, in November 1945, MacDonald, now U.S. Commissioner of Public Roads, was able to write, "The much-talked-of post-war highway program, calling for an outlay of $1,500,000,000 in federal funds on a matching basis over a three-year period ... has advanced beyond the discussion stage and soon many projects will be in process of construction."

OREGON DOT PHOTO

In 1954, the Jacksonville Grade in Oregon challenged drivers. The coming Interstate system would simplify cross-country travel.

The Postwar Boom Drives Traffic

The feared postwar depression never appeared. Instead, returning G.I.s set up households in crowded cities, then constructed homes on suburban tracts and drove to the central city for work. In the meantime, MacDonald had demonstrated in *Toll Roads and Free Roads* that most "rural" traffic actually was intercity traffic.

"Automobile and truck traffic increased at a phenomenal pace," wrote Mark H. Rose in *Interstate: Express Highway Politics, 1938-1989* (1990). "In 1945, about 31 million vehicles of all sorts were registered: in 1946, state officials listed more than 34.3 million; and by 1950, they had registered 49 million, including 8.6 million trucks."

As prosperity returned and tax coffers filled, and as auto and truck traffic exploded, the highway establishment turned its eyes to fulfillment of MacDonald's plan. For this system, articulated in *Toll Roads and Free Roads,* limited access design was embraced. "Alignments were to be contoured to accommodate higher speed with greater safety," AASHTO said. "Dual carriageways would be built in each direction, so that slow traffic could be passed without delay or hazard. Intersections would be grade-separated to eliminate cross traffic. And all elements of design would be engineered for compatibility with travel speeds as great [as] 70 mph."

Exacerbating the situation was the unexpected outbreak of the Korean War (1950-1953) and the nightmare of world Communism undermining U.S. interests around the world and at home. The Korean War focused the need for defense highways, and military officers were outspoken in supporting the need for an Interstate system.

Powerful Hearst Newspapers also stoked the fire. In 1952, William Randolph Hearst, Jr., chairman of Hearst Newspapers, assigned an editor to cover nothing but the need for better, uncongested roads, with the articles to run in all Hearst papers. From late 1952 through 1955, on the eve of the 1956 act creating the Interstate, the Hearst papers printed nearly 3 million lines on the highway problem, enough to fill 1,229 full newspaper pages.

Eisenhower succeeded Truman in 1953, and MacDonald left the BPR, having served as "The Chief" of BPR through seven presidential administrations. In August 1954, eager to get the ball rolling, Ike asked retired Gen. Lucius D. Clay to establish a committee to look at speeding up the construction of MacDonald's Interstate system. On Jan. 11, 1955, the Clay Committee presented to Eisenhower its plan, which included a Federal Highway Corporation that would handle $2.5 billion of highway financing annually. But a bill based on the Clay Committee plan was defeated by the Senate in May 1955 and by the House that July.

"The nation badly needs new highways," Eisenhower said following defeat of the bill. "The good of our people, of our economy, and of our defense requires that construction of these highways be undertaken at once."

Major elements of the Clay Committee Report eventually were abandoned, and 1956 compromise bills – derived from legislation authored by Reps. Hale Boggs of Louisiana and George Fallon of Maryland, and Sen. Albert Gore of Tennessee – were passed. The final legislation was signed by Eisenhower on June 29, 1956.

These Federal Aid Highway and Highway Revenue Acts of 1956 launched a 13-year construction period beginning July 1, 1956, that was to be paid for mostly on a pay-as-you-go basis. The acts provided for a 90:10 federal/state share of Interstate construction, and a 50:50 share for primary, secondary, and urban projects, replacing the old short-term federal aid to states on a 50:50 basis.

And construction of the Interstate system began.

Bicycles, Cars and Trucks Forced Americans to Improve Roadways

By Bob Bushmeyer

Difficulty of travel was a major issue for Americans of the 19th century, from Lewis and Clark's grueling cross-country trek through the Louisiana Purchase territory in 1804, to the rigors of the Pony Express and the building of the transcontinental railroad system in the 1860s, and on into the Industrial Age. By the century's end, America's culture and economy was dominated by the need to move people and goods over vast distances reliably and efficiently.

Where commerce flourished, so did communities. Riverbank communities, such as St. Louis, New Orleans, and others along the Mississippi River, drew on river commerce while the rails fed cities like Chicago, Kansas City, and Denver. Communities in outlying areas served neither by railroads nor rivers relied primarily on horses or foot. Roads were little more than heavily-used trails or wagon ruts. It was a new mode of transportation – the bicycle – that helped bring smooth roads to such communities.

The call for smooth, reliable roads by bicycle groups like the League of American Wheelmen led to the passage of laws to improve roads across the country. Congress created the Office of Road Inquiry, which was later renamed the Office of Public Road Inquiries, and spent much of the turn of the 20th century showing America the potential for smooth roads and the techniques for making them possible.

By 1904, the United States had only 2,151,570 miles of roads – most of which were rural and unpaved – and nearly 55,000 automobiles using them. The next decade saw numerous efforts by Congress and the White House to properly fund a more sophisticated highway system for the young, industrious nation.

World War I limited the supply of men and materials available for roadwork, which was badly needed. Railroads were unable to handle all war shipments, giving the fledgling trucking industry the opportunity to fill the void – with even the best roads suffering under the strain.

Around the time when President Warren G. Harding enacted the Federal Highway Act of 1921, a highway improvement boom began that coincided with the continuing growth in auto travel. America had nearly 11 million automobiles and trucks registered that year, and returning soldiers were buying cars – with new colors and new features – like never before. As auto-touring became fashionable, campsites and filling stations began springing up all over. By the end of the decade, almost every family in America had a car. The nation's improving road system had become a key contributor to the nation's economy.

Congestion was becoming a problem in urban areas, while the higher speeds possible in the more powerful cars of the time combined with out-of-date highway designs contributed to rising safety problems nationwide.

Proposals to build a network of superhighways for the United States had become commonplace. After years of proposals in varying degrees of complexity and financial viability, President Dwight D. Eisenhower took office, and the Interstate system had its strongest advocate.

As a young officer in 1919, Eisenhower participated in the first transcontinental army convoy, which took nearly two months to go from Washington, D.C., to San Francisco, and instilled in him the value of good two-lane roads. During World War II, he had recognized the value of Germany's efficient autobahn network. Given his experiences, Eisenhower was committed to providing such highways for the United States. Over the next several years, he worked with Congress to launch the network so desperately needed by America's 50 million vehicles.

By 1956, Congress approved a plan for a 41,000-mile National System of Interstate and Defense Highways to be financed through a "Highway Trust Fund," which directed highway user tax revenue to highway purposes. In so doing, Eisenhower ushered in the Interstate era and completed a saga that began 80 years before with dissatisfied bicycle riders. He completed America's transformation from an agricultural society to an industrial superpower.

While the Dwight D. Eisenhower National System of Interstate and Defense Highways is now more than 46,000 miles long, America's network of highways will continue to grow as it adapts to the needs of a changing America.

Bob Bushmeyer is a long-time observer of the highway construction and maintenance industry.