



*This sign for the Interstate Highway System salutes President Dwight D. Eisenhower, who initiated the system in the 1950s. (Photo by Carol M. Highsmith)*

## Dwight D. Eisenhower and the Birth of the Interstate Highway System

The millions of travelers who use the U.S. Interstate Highway System each year may take for granted the system's history, which sheds light on its importance to U.S. society.

■ By Lee Lacy

**O**n June 29, 1956, President Dwight D. Eisenhower signed legislation funding the construction of the U.S. Interstate Highway System (IHS)—something Americans had dreamed of since Detroit started building cars.

The Missouri Highway Commission awarded the first contract to

begin building the interstate along the famous Route 66 in rural Laclede County, 160 miles southwest of St. Louis. However, construction on the first section of interstate actually began in St. Charles County, Missouri, on Aug. 13. Kansas and Pennsylvania have also made competing claims that their states were first to possess sections of interstate.

No matter who was first, the enthusiasm for a uniform system of roads, bridges, and tunnels was very high in 1956, nearly 50 years after the introduction of Henry Ford's Model T automobile. The building of the IHS, formally known as the Dwight D. Eisenhower National System of Interstate and Defense Highways, proceeded rapidly

throughout the country, and by the early 1990s, nearly 45,000 miles of interstate highway were complete.

In order to understand the IHS's importance in U.S. society, let's examine its history. President Eisenhower is widely regarded as the catalyst for the IHS. His motivations for a highway network stemmed from three events: his assignment as a military observer to the First Transcontinental Motor Convoy, his experience in World War II, where he observed the efficiencies of the German autobahn, and the Soviet Union's 1953 detonation of the hydrogen bomb, which instigated a fear that insufficient roads would keep Americans from being able to escape a nuclear disaster.

### **The First Transcontinental Motor Convoy**

In the summer of 1919, Lt. Col. Eisenhower was a dejected mid-career Army officer. He narrowly missed out on overseas service during World War I and anticipated a reduction in rank as the Army shrank and prepared for peacetime operations. Adding to his discontent, he was physically separated from his wife and infant child because of a shortage of military housing.

Eisenhower was assigned as an observer to an unprecedented military experiment: the First Transcontinental Motor Convoy. The operation was a road test for military vehicles and was used to identify the challenges of moving troops from coast to coast on the existing infrastructure. The excursion covered 3,200 miles from Washington, D.C., to San Francisco. It included 79 vehicles of all sizes and 297 personnel.

During the expedition, Eisenhower gained some insight for the creation of a network of connected roads and bridges. Eisenhower's report to Army leaders focused mostly on mechanical difficulties and the condition of the patchwork of

existing roads. He reported a mix of paved and unpaved roads, old bridges, and narrow passages.

Narrow roads caused oncoming traffic to run off the road and encounter added difficulty when re-entering the roadway. Some bridges were too low for trucks to pass under. Eisenhower pointed out that the roads in the Midwest region of the United States were impracticable, but the roads in the east were sufficient for truck use.

Eisenhower singled out a western section of the Lincoln Highway, a transcontinental road with routes through Utah and Nevada, as being so poor that it warranted a thorough investigation before government money should be expended. He praised California for having excellent paved roads. Lastly, he observed that the different grades of road determined much of the convoy's success.

### **World War II**

During World War II, as the supreme Allied commander, Gen. Eisenhower was the architect of the defeat of Nazi Germany. As Allied armies raced across France and into Germany, he marveled at the vast highway system built by the Germans prior to the war. Eisenhower wrote in his presidential memoirs, "During World War II, I had seen the superlative system of German autobahn—[the] national highways crossing that country."

This advanced European highway system helped the Allies. The autobahn aided the Allied victory by enabling the Allies to efficiently resupply forces that pursued the German Wehrmacht across France and into Germany.

The famous Red Ball Express was a magnificent achievement that kept swift-moving Allied field armies resupplied. In August and September of 1944, an around-the-clock operation of 6,000 trucks delivered materiel to forces on the move. It involved a 300-mile divided road that eventually converted to

a super highway. The road extended from the Normandy beachhead to terminals near Paris. Later, a second super highway extended from Paris into Germany.

Instrumental in the logistics success following the D-Day landings was Lt. Gen. Lucius Clay. He was a key aid to Eisenhower during the war and later when Eisenhower ascended to the presidency. Eisenhower knew Clay, a West Point-trained engineer, was a respected troubleshooter, an effective administrator, and politically adept.

In 1954, Eisenhower appointed Clay to head the President's Advisory Committee on the National Highway System. The so-called "Clay Committee" began work to develop a national highway plan, and its outcome was a report to Congress on the National Highway Program.

The resulting "Grand Plan" obligated \$50 billion of federal funds over 10 years to build a "vast system of interconnected highways." The committee based its proposal on four points. The first point appealed to safety. It cited 36,000 traffic fatalities each year and their multibillion dollar effect on the economy.

Next, the report cited the physical conditions of existing roads and their effect on the cost of vehicle ownership. It was thought that poorly maintained roads adversely affected the economy by increasing transportation costs, which were ultimately borne by the consumer.

The third point involved national security. The pervasive threat of nuclear attack in the United States called for the ability to execute the emergency evacuation of large cities and the quick movement of troops essential to national defense.

The last point appealed to the health of the U.S. economy. Improvements in transportation must keep up with the expected increase in the U.S. population. Moreover, road improvement is essential to the economy and an efficient use of taxpayer money.

The Clay Committee concluded its report by stating that the positive economic attributes of the highway system were the potential for economic growth and the well-being of the economy through “speedy, safe, transcontinental travel” that could improve “farm-to-market movement.”

**The Cold War**

The IHS was the largest public works project undertaken in the United States and came at a time when the Cold War consumed not only a large part of the federal budget but also the attention of the U.S. public.

The Cold War played a pivotal role in the creation of the IHS. Shortly after Eisenhower took office in 1953, Soviet leader Josef Stalin died, setting off a power struggle

in the Kremlin. It was not until September that Nikita Khrushchev emerged as the general secretary of the Communist Party of the Soviet Union.

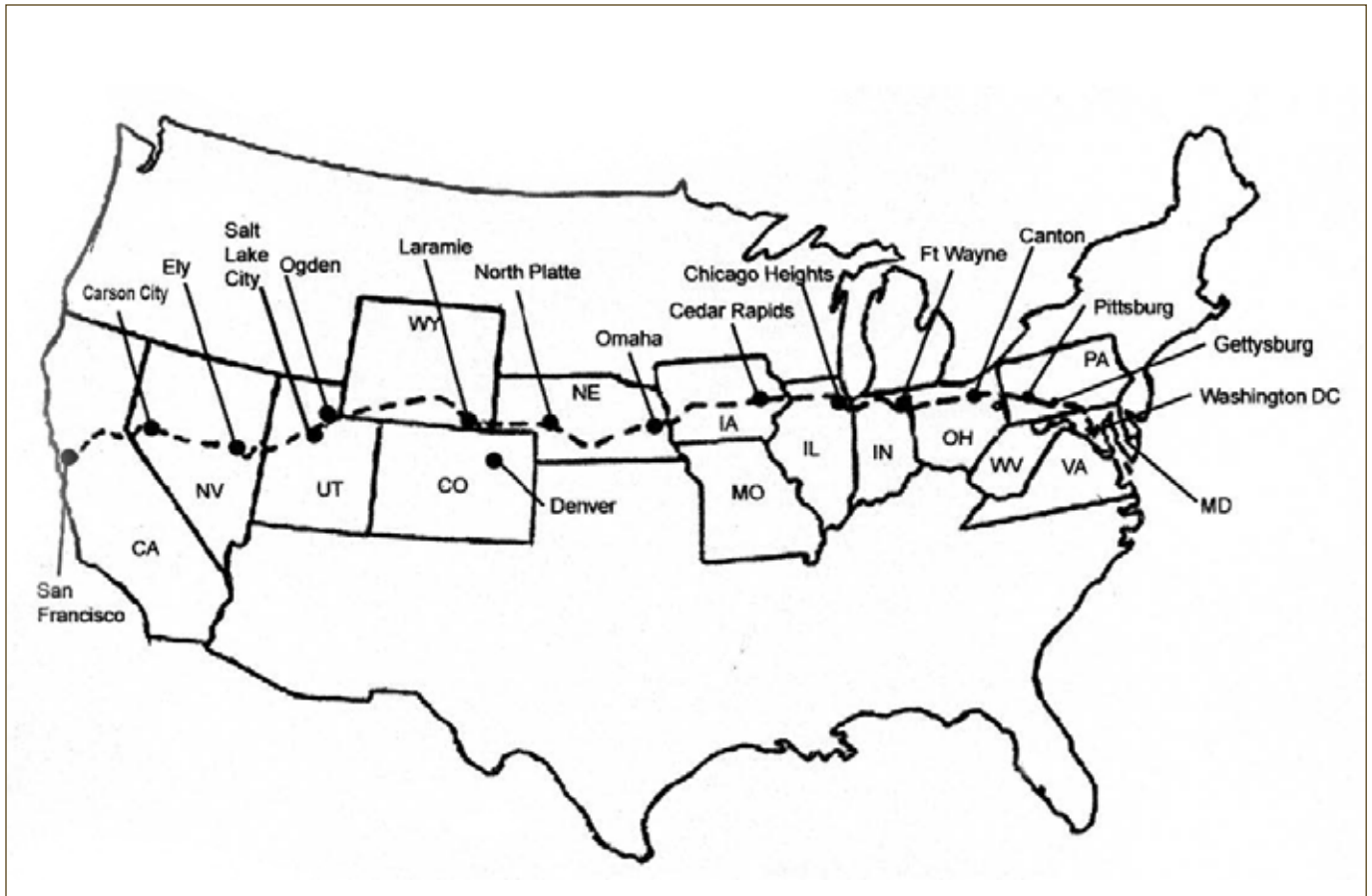
On Aug. 12, 1953, the Soviets exploded their first hydrogen bomb, thus moving closer to the United States in nuclear parity. It was unsettling to have a superpower with an unstable government armed with the latest nuclear weapons technology. This event further jolted an already rattled U.S. public, which routinely engaged in civil defense drills. Citizens built bomb shelters, stockpiled food, and prepared for imminent nuclear war.

In a July 1954 speech to the Governors’ Conference, Vice President Richard Nixon expressed concern over the “appalling inadequacies” of the existing U.S. road infrastructure

and its inability to meet the needs for responding to a national emergency on the scale of atomic war. Nixon mentioned atomic or atomic war no less than 10 times in the speech.

This topic was on the minds of most Americans. Seventy-nine percent of the public thought a nuclear conflict between the United States and the Soviet Union was imminent. In the event of war, 70 million urban residents would require evacuation by road.

The Clay Committee also warned of the need for large-scale evacuation of cities in the event of nuclear war. Furthermore, it cited federal civil defense authorities who were worried that a withdrawal from urban areas would be the largest ever attempted. The Committee soberly stated, “The rapid improvement of



*This map of the First Transcontinental Motor Convoy shows the route the convoy took across the United States. The 1919 operation was a road test for military vehicles and was used to identify the challenges of moving troops from coast to coast on the existing infrastructure. The excursion covered 3,200 miles from Washington, D.C., to San Francisco.*

the complete 40,000-mile interstate system, including the necessary urban connections thereto, is therefore vital as a civil-defense measure.”

### **National Defense and the Testing Phase**

A large-scale urban evacuation drill conducted in June 1955 drove home the importance of an evacuation plan. The ensuing confusion coupled with crowded evacuation routes seemed to make President Eisenhower’s case for the IHS. Moreover, the administration was serious about the role of a uniform system of roads for national defense and directed Department of Defense (DOD) involvement.

When the IHS began in earnest, a testing facility was created in central Illinois to evaluate pavement, road standards, and construction techniques, among other things. The DOD contributed equipment and personnel for the tests.

Military leaders knew from their experiences in the two previous world wars that roads were vital to national defense. During World War I, military truck traffic destroyed roads. In World War II, defense plants were often supplied by truck, but the lack of road standards sometimes impeded timely delivery.

Over a two-year period, Army trucks drove 17 million miles on the test roads. Some vehicles carried blocks of concrete in an effort to see how long a 24-ton truck would take to destroy roads and bridges. Highway building and maintenance standards were developed from the tests.

### **The Interstate We Know**

Congress passed the Federal-Aid Highway Act of 1956 creating federal funds for interstate highway construction. As the IHS developed, so did its ability to support national defense. For example, throughout the system, mile-long stretches of concrete pavement double as emergency landing strips

for military aircraft. Many Army posts, especially where division-level units are garrisoned, are near interstate highways. For example, the 1st Infantry Division at Fort Riley, Kansas, is adjacent to I-70, and the 1st Armored Division at Fort Bliss, Texas, is close to I-10.

During Operations Desert Shield and Desert Storm, the IHS

tion’s infrastructure.

At the time of the incident, approximately 150,000 of the nation’s nearly 600,000 bridges “were considered either structurally deficient or functionally obsolete,” according to a 2012 ABC News report. Since the I-35 incident, political leaders have called for a major investment in the nation’s infrastructure.

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contributed to the success of mobilizing the military for war in the Middle East. Military planners were emboldened by the ability to move personnel and materiel with ease during national emergencies.

### **An Aging System**

Despite its convenience and ease of movement, the IHS is showing its age. When funding was appropriated in 1956, planners knew that, at some point, roads, bridges, and infrastructure would deteriorate. The IHS was expected to last only into the 1970s when improvements would be needed. The 1956 appropriation ran out in 1972, and current funding is sustained by the motor fuel tax, which is funneled into a trust fund.

The IHS’s disrepair was highlighted in July 2007 with an unfortunate tragedy in Minnesota. On a summer day near Minneapolis, a section of a steel arch bridge on Interstate 35 collapsed into the Mississippi River. The accident killed 13 people and injured another 145.

The accident remains one of the worst bridge failures in the history of the United States, and it highlights the poor condition of the na-

Most Americans see the IHS for what it is: a quick, efficient, and convenient means of travel. The automobile culture, which hit its stride in the 1960s, thrived on networks of paved roads and inexpensive gasoline. Along the way, an entire segment of the economy was born. Businesses catered to travelers. Hotels, motels, restaurants, and service stations appeared at interstate exits to serve weary motorists.

The IHS is an icon and marvel of man’s ingenuity. Great leaders such as Dwight Eisenhower and Lucius Clay had the foresight to conceive and build a network of interconnecting highways that helped to shape and define postwar America. Who from the current generation of leaders will repair, rebuild, and expand the IHS?

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