





Riding High

SANTA FE'S BIG MOVE OF 1956

“Hi-Level” cars for *El Capitan* were the last great innovation in private long-distance American passenger railroading

By Karl Zimmermann

Every now and then, even in the conservative American railroad industry, an innovation has proven to have legs, a bright future, and significant impact. Such was the Hi-Level car concept introduced 60 years ago for Atchison, Topeka & Santa Fe’s *El Capitan*, the fast, luxurious, extra-fare Chicago–Los Angeles coach train. It was these cars that inspired Amtrak’s Superliners, found today on all Western long-distance trains. Not only that, the *Coast Starlight*’s Pacific Parlour Cars, easily the greatest treat for sleeping-car passengers on Amtrak today, began life as *El Capitan*’s lounge cars.

In 1945, when World War II ended, America’s railroads, stalwart during the conflict, took a deep breath, licked their wounds, and looked ahead. In a move that some in hindsight have deemed a mistake, virtually every railroad helped

flood the major carbuilders — the Budd Company, Pullman-Standard, American Car & Foundry, St. Louis Car — with orders to re-equip their war-weary passenger trains. Streamlining, which began in

1934 with Burlington Route’s *Zephyr* and Union Pacific’s M-10000 and reached maturity in 1937 with Santa Fe’s *Super Chief*, was universally the mode. Although most new cars were just improved versions of pre-war coaches, sleepers, diners,

and lounge cars, there was one brilliant innovation: the dome car. Chicago, Burlington & Quincy, which would become the biggest dome-car operator, got the jump by applying a dome to a pre-war flat-top coach in 1945, before ordering factory-built dome cars from Budd. The dome concept prefigured and inspired Santa Fe’s Hi-Level cars.

Already in the works was General



Sensing the p.r. potential of the new Hi-Levels, Santa Fe arranged this “shoot” at Los Angeles Union Passenger Terminal.

ATSF, Kansas State Historical Society collection



Preceding the Hi-Levels were 16 Budd full-length “Big Domes” in 1954 for Santa Fe. In the Amtrak era, some (above) went to Auto-Train Corp. Pullman-Standard



The angled top window panel identifies the middle car as one of the two Hi-Level prototypes in this 1972 photo of Amtrak’s *Super-El Cap*. Tom Hoffmann

Motors’ four-car, all-dome *Train of Tomorrow*, built by Pullman-Standard and launched on national tour in 1947, intended to demonstrate passenger trains’ bright future. Clearances precluded dome-car operations on most Eastern roads, so just 16 North American carriers bought dome cars, which would total 236 in number. Some would find second owners, even before Amtrak, and many operate today in private ownership. Amtrak showcases its only remaining one, an ex-Great Northern full-length dome, on various services, and Budd domes built for Canadian Pacific’s *Canadian* in 1955 still serve on VIA Rail’s *Canadian* and a few other trains.

The postwar carbuilding boom lasted barely a decade, essentially ending in 1956 when CB&Q re-equipped its *Denver Zephyr* with Budd-built consists that included three domes. Also in 1956, Santa Fe placed in service a new train that would have a far greater impact in the long run: the Hi-Level *El Capitan*, which could be seen as an evolution of the dome concept. In 1964 Santa Fe took delivery of two dozen additional Hi-Level chair cars for the “*El Cap*,” to really write “*finis*” to the railroads’ appetite for new

passenger cars. This last order allowed some of the 1956 Hi-Levels to be transferred to the transcontinental *San Francisco Chief*, from Chicago.

COACH COMPANION TO THE SUPER

The first *El Capitan*, named for the grand rock-faced mountain in Yosemite National Park, debuted February 22, 1938, the same day the second *Super Chief* consist entered service. Operating on the same fast 39¾-hour Chicago–Los Angeles schedule, the trains were two sides of the same shiny coin — the *Super* was the epitome of all-Pullman luxury, while the *El Cap* was a standout among a growing nationwide crop of deluxe coach trains. (An interesting footnote: When the two new trains were moved from exhibition at Chicago to Los Angeles to be shown there, they operated as a single consist, the five *El Cap* cars ahead of the *Super*’s nine. This forecast what would become standard practice two decades hence during off-seasons.) The two original *El Capitan* consists, both built by Budd, allowed twice-weekly service. Each five-car train could accommodate just 192 passengers, so the consists were soon amplified in summer with addi-

tional coaches. In 1948, more new cars resulted in daily service.

By the early 1950s Santa Fe knew it needed more equipment for the *El Cap*, 50 cars minimum, since even two sections in summer and peak holiday periods couldn’t keep up with demand. New cars also would enable the potential redeployment of existing *El Cap* equipment to streamline heavyweight secondary trains such as the *Grand Canyon*.

Budd was suggesting a bi-level design for intercity cars as early as 1952, and Santa Fe, with considerable Budd loyalty, was inclined to listen. The Philadelphia firm was the pioneer in bi-level passenger cars, delivering during August 1950–January 1951 30 “gallery”-style coaches to the Burlington for Chicago suburban service. The new car type featured single window seats and an aisle on each side of the upper level, with the center open to the lower level, enabling conductors to lift or check all tickets from the lower floor. Over the next 15 years, Budd built 44 more bi-levels for the CB&Q, as well as similar cars for the Milwaukee Road. St. Louis Car and Pullman-Standard supplied bi-levels to Chicago & North Western, Rock Island, and Southern Pa-





After boarding Hi-Level coaches, passengers climbed stairs to the main seating area (above left), where end doors provided car-to-car access (above right). Luggage shelves were below (right).

Three photos, Santa Fe

cific. (In a sense, Long Island Rail Road had been the pioneer, with so-called “double-deck” coaches as early as 1932, but in these cars passengers stepped up or down to seats from a central aisle, so the cars were not true bi-levels.)

The Santa Fe Hi-Levels’ most immediate ancestors were 16 Budd full-length “Big Domes” acquired in early 1954 for

reaction and confirm operational practicality. Besides more capacity, the railroad no doubt eyed two other potential benefits of Hi-Levels: operational economies and grist for its active and successful public relations department.

“Riding High: Addition of unique passenger cars on El Capitan trial run another ‘Big Dome’ for ‘54,” headlined a story in the *Santa Fe Magazine* house organ for August 1954 that discussed the press, radio, and television unveiling on July 19 of “two experimental streamline ‘Hi-Level’ cars for test on the El Capitan” and described these chair cars in detail. (The “another Big Dome” comment is telling, for it suggests



that Santa Fe saw the Hi-Levels, though different in many ways, as somehow evolutionary kin of domes, particularly full-length ones, yet to come.)

SEATS ABOVE, EQUIPMENT BELOW

The Hi-Levels’ upper deck held only passenger seats — foam rubber covered

in blue needlepoint, with adjustable head rests and leg rests. These would number 67, compared to the 44 to 48 on existing *El Cap* chair cars, to be staffed by the same single coach attendant. The lower deck would hold spacious restrooms, far larger than on traditional cars, and luggage storage, plus “service equipment,” primarily air-conditioning units and diesel generators. End doors for passing between cars were on the upper level — a significant difference from dome cars. The Hi-Levels would be 15 feet 6½ inches tall, about a foot and a half higher than conventional equipment, but the same length, 85 feet. At 8 feet 7 inches above the rails, the upper level was 4 feet 3 inches higher than conventional coach floors. “Being farther from the rails,” the *Santa Fe Magazine* article promised, “passengers will ride with less noise and vibration.”



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Color artwork from 1958 Santa Fe fold-out El Capitan brochure



The “dome-type lounge cars” had “the sightseeing advantages of a dome plus the comfort and luxury of a lounge.” The upper level could seat 60 passengers, with a 26-seat lounge below.

Santa Fe

Naturally these cars featured the fluted stainless-steel construction that was Budd’s hallmark and had become the defining aesthetic for Santa Fe streamliners. Doors were at the centers of Hi-Level cars, which had no end vestibules. “Passengers entering the car step directly in from platform level and hand their luggage to a porter, who places it on shelves running along the corridor in the center of the car,” the magazine explained. “A special locking device enables the attendant to keep all baggage under lock and key until it is required.”

Accordingly there were no luggage racks above the seats in the passenger section, and the center aisle was depressed for more headroom, standard practice with dome cars. Another convenience was a separate opening in the side

of the cars for unloading luggage, leaving the vestibules clear for disembarking and boarding passengers. The magazine article spoke of the “row of wide picture windows running near the roof line. They are not dome cars,” it conceded, in spite of the article’s headline, though when the production trains arrived, their lounges would initially be called “dome lounges,” which they did resemble.

The two prototypes, Nos. 526–527, each with an aisle stairway down to the lower level at one end to provide access to single-level cars, would test as a pair on the *El Cap*, with the ends with upper-level passage abutting. Passengers polled were very positive, liking the high-level view, the smooth ride, and the quiet. Santa Fe was sold and authorized Budd to build 35 more Hi-Level chair cars (10

68-seaters with car-end stairs, 25 72-seaters without), 6 Hi-Level diners, and 6 Hi-Level lounges, enough cars for five *El Cap* consists plus a protection diner and lounge. The prototype pair would be part of the *El Cap* pool. In addition, six baggage-dormitory cars were fitted with cowling (basically airfoils, though of more cosmetic than practical value) to become “transition” cars.

There would be some changes from the prototypes to the production cars. One problem — the discomfort of mobility-impaired passengers forced to go down and up stairs to access restrooms — was solved by placing a restroom in the lounge car. Also, the chair cars would have overhead racks above seats for small items. On the other hand, no further mention was made of the ability to lock up luggage.

The decision to go for Hi-Levels was told in the April 1955 *Santa Fe Magazine*. “It has become increasingly evident to us that the trend during the last several years in the railroad passenger business has been toward chair-car travel,” said Santa Fe President Fred G. Gurley. “This new train will have greater customer appeal. The patron will receive more for his travel dollar. At the same time, this improved service will result in increased economy which we have been striving to reach in our passenger operations.”

How would the cars save Santa Fe money? The 12-car Hi-Level train (including existing low-level mail storage, baggage, and dorm cars) provided 496 revenue seats, compared with 350 for the normal 14-car conventional train and 438 for the 16-car summer *El Cap*. The Hi-Level diner seated 80, versus 74 for the two conventional lunch-counter diners it replaced, which meant two to four fewer waiters. All this yielded more seats but fewer cars, thus less weight to haul, not to mention fewer coach attendants and waiters. Budd advertising claimed that “10 of these new cars can do the work of 16 conventional cars” — perhaps a bit of a stretch, but not much of one.

TRAINS GETS ON BOARD

“The dome-lounge is a first cousin to the full-length dome,” said long-time TRAINS Editor David P. Morgan. He was among the first to sample the train, on a Pittsburgh–Washington press trip over the Baltimore & Ohio on June 16, 1956, then on board the July 7 pre-inaugural runs between Chicago and L.A., highlighted by a double christening when the trains met at Albuquerque.

Superliners

AMTRAK'S FLEET WAS Sired BY THE HI-LEVELS

While several Hi-Level lounge cars live on as Amtrak's Pacific Parlour Cars on the *Coast Starlight* [next page], a more significant legacy is the huge fleet of Superliners that operate on all Western long-distance plus a few others. These cars, some now approaching age 40, had a long gestation period.

On July 3, 1973, Roger Lewis, Amtrak's first president, sent a request for proposals to 13 companies — 6 engineering firms, 7 railcar and aerospace companies — for a “totally new rail passenger car.” Coverdale & Colpitts and Louis T. Klauder & Associates were finalists, and Klauder got the nod after preparing a detailed proposal with several floor plans, none of which made it intact beyond this first stage, although the firm was instrumental in other aspects of the planning.

“It was never explicitly stated that the cars were to be bi-level,” Michael R. Weinman, a Klauder subcontractor responsible for some of the design, said recently, “but it was assumed.”

Klauder's 20 suggested floor plans included a lounge car with multiple spaces for a variety of activities: a children's area, card room, and intimate cocktail bar. The dining car in part replicated an old Pullman (a nod to Victoria Station, a popular railroad-themed restaurant chain at the time). Klauder also submitted several sleeping-car designs, including a Slumbercoach configuration, a sleeper-lounge, and a deluxe roomette car with serpentine hallway (patterned after an Australian car) that obviated the need to raise the bed to use the toilet. Inspired in part by Seaboard Air Line's Sun Lounges, Weinman promoted the deep windows and skylights that grace the Sightseer Lounges and were considered for all the cars.

Although no Hi-Level sleepers were built, Budd did draw plans for one in 1957 when Santa Fe was considering re-equipping the *Super Chief*. On the upper level, eight roomy double bedrooms stretched across the car, but this would have required four sets of double-wide steps for access. With just six single rooms on the lower level, the total berth count of 22 would only equal that of the 10-roomette, 6-double bedroom configuration most common on single-level sleepers. The design adopted had 5 deluxe bedrooms (now “bedrooms” to Amtrak), 14 economy bedrooms (“roomettes”), 1 accessible bedroom, and 1 family room — 44 beds in all.

In August 1974 Budd, Pullman-Standard, Rohr, and Boeing attended a bidders' conference; Amtrak chose P-S. The first order comprised 284 cars: 102 coaches, 48 baggage-coaches, 70 sleepers, 39 diners, and 25 Sightseer Lounges (a late add-on). They were delivered during 1979–81. (Initial projections had called for up to 1,000 cars.) The Superliners replaced single-level cars first on the *Empire Builder*, then the

California Zephyr, *Southwest Limited*, *Sunset Limited*, *Texas Eagle*, and *Coast Starlight*. Eventually two Western trains added in the late 1970s, the *Pioneer* and *Desert Wind*, also got Superliners, until they were discontinued in 1997.

Beginning in 1993, Amtrak expanded the fleet with orders to Canadian firm Bombardier Transportation for 195 more cars, dubbed “Superliner II” and built in Vermont, which included 38 coaches, 49 sleepers, 30 diners, and 25 lounges. Though small tweaks based on nearly 15 years' experience were made, the Superliners IIs were mostly clones of the originals. However, the order did include new designs: 6 all-deluxe bedroom sleepers to be used on *Auto Train* and 47 transition dorm-sleepers to replace the former *El Capitan* coach dorms previously in use. In addition to *Auto Train*, the



Sleeping car 32009, appropriately named *George M. Pullman*, rides the transfer table as the last Superliner outshopped from the historic South Side Chicago Pullman works, December 23, 1981.

Joshua D. Coran

Capitol Limited, *City of New Orleans*, and (for a time) *Cardinal* were converted to Superliners with this order. The additional cars also allowed Amtrak to seasonally assign Superliners to some short-haul trains out of Chicago including the former *International* to Toronto, each consist including a coach with a snack bar on the lower level in place of seats.

Between August 2004 and August '06, Amtrak upgraded 41 Superliner I sleepers, with some bedrooms receiving a larger toilet/shower annex. Between November 2006 and June '08, 17 diners were converted to “Cross Country Cafe” diner-lounges for the *Texas Eagle*, *City of New Orleans*, and *Capitol*. The intent was to offer a casual, anytime service to better fit contemporary tastes, but passenger reception has been mixed at best, and those trains still usually carry a Sightseer Lounge, with only the diner section of the converted cars in use. Other changes, including tables in one end of the Sightseer Lounges' upper level, have been minimal.

It's fortunate that, 60 years ago, Santa Fe had a winning idea with its Hi-Levels. Since no replacements are in the pipeline, the Superliners are likely to serve Amtrak for some time. — Karl Zimmermann



Amtrak's Pacific Parlour Cars: STILL GOING STRONG

The story of *El Capitan's* Hi-Level lounges' second career began in January 1995 when Brian Rosenwald was appointed product manager of Amtrak's *Coast Starlight*.

"It was the first and only time in Amtrak history," Rosenwald has said, "that all decision-making was taken out of corporate headquarters and transferred into the field. If you had an idea that could make a train better, you had a real chance of getting it done. That was exhilarating."

With improving the *Starlight* in mind, Rosenwald was walking through Los Angeles' 8th Street Yard with Lee Bullock, vice president of Amtrak West, to whom he reported.

"We were looking at equipment and brainstorming what we might do to physically upgrade the train," Rosenwald said, "and we walked over to a group of Hi-Level lounges that had recently been bumped from the *Sunset* by Superliner Sightseer Lounges." He asked Bullock about them.

"They're being stored," Bullock said. "Do you think you might want to use them?" Bullock talked to Bob Burk, a friend and Amtrak's Chief Mechanical Officer, who thought it was a great idea, and before long the Pacific Parlour Car was born, just one amenity among many for Rosenwald's re-envisioned *Coast Starlight*. "We did what we could at 8th Street on the cheap," Rosenwald said, "adding some shelves for books and cabinets for board games. We figured if the cars were successful and ridership and revenues were up, then we could send them to Beech Grove for a dramatic overhaul."

All that came to pass, and within a few years the cars emerged from Beech Grove looking much as they still do today, which is great. — K.Z.



The 96.7-ton Hi-Level diner required six-wheel trucks. Each car sat 80, at 19 tables for 4 plus two pairs. The 36-foot, all-electric kitchen was below, with a dumbwaiter to move the food.

Pacific Parlour Car (top left), Bob Johnston; above, Santa Fe

The June trip began at the grand Pittsburgh & Lake Erie station, which B&O intercity trains used. After dead-heading from Chicago the night before, the train left at 9:45 a.m., heading east on the B&O to Eckington Yard in Washington, D.C., from where buses took the passengers to the Mayflower Hotel.

Aboard for the July trips were two groups of *TRAINS* readers. "Another BIG Rail Fan trip via Santa Fe" bannered a full-page ad in the May '56 issue. "Here's a dream trip," the ad read, "the once-in-a-lifetime chance to take part in the preview runs of Santa Fe's new-type trains." There would be photo stops in scenic areas, railroad staff on board to describe the new train's special features, along with a courier-nurse and an Indian guide.

Each Hi-Level chair car in which the *TRAINS* groups traveled weighed 79½ tons and the lounge 83, but both rode on four-wheel, swing-hanger trucks. Like a Big Dome, the 96.7-ton diner required six-wheel trucks. Its all-electric kitchen was on the lower level, making the dining room — with 19 tables for four and two pairs, no lunch counter as on the single-level trains — "quieter and more comfortable," Santa Fe claimed. Two "subveyors" (a type of dumbwaiter) brought food up from the 36-foot, full-width kitchen, the largest in any railroad car. Décor throughout the train was "Indian Southwest," typical of Santa Fe, which played out in the diner as a com-

bination of "Zuni Turquoise, frost walnut," and beige. Upholstery was red coral mohair. Deep-pile carpeting in all the cars was Santa Fe "Cactus Leaf."

The "dome-type lounge cars," according to an inauguration press release, "which are probably the most elaborate railroad cars ever built, feature the sight-seeing advantages of a dome car plus the luxury and comfort of a lounge car." The upper level accommodated 60 passengers in banquettes for four, tables for two,



and single easy chairs. At one end was a writing desk under an etched, one-way mirror. Behind it was the service galley, the mirror allowing an attendant to "check the needs of his patrons without being seen by them." On the lower level was a 26-seat lounge. In time, the upper level would be cleverly dubbed the "Top of the Cap Lounge" and the lower level the "Kachina Coffee Shop Lounge" where patrons could "enjoy a 'snack' from early morning until late at night."

As the Hi-Level cars arrived from



New "Warbonnet" FP45s are in charge of the combined *El Cap-Super Chief* at Glorieta, N.Mex., on June 4, 1968. The former Santa Fe Hi-Levels would carry on during Amtrak's early years.

Two photos, Tom Hoffmann

Budd, Santa Fe's practiced publicity machine was cranked up. Public exhibitions in the second half of June were planned in Washington, Pittsburgh, Cleveland, Detroit, Chicago, and Kansas City. While the train was in Chicago, special guests were invited on a round trip to Streator, Ill., with dinner on board. There were also dinner trips from Washington, with a menu that included Philadelphia pepper pot soup, roast tenderloin of beef with fresh mushroom sauce, au gratin potatoes, and new peas, chef salad, and fresh strawberry shortcake with whipped cream. After that the train headed to Los Angeles for exhibition there on July 2 and at other Southern California cities before starting east on July 7, to be part of the double christening the next day in Albuquerque.

On a single track at 2 p.m., the two *El Caps* convened, their "Warbonnet" F units nose to nose, across the speakers' stage in front of the Santa Fe station and Fred Harvey's Alvarado Hotel, where "delegations from both sides of the continent gathered," said the report in the August *Santa Fe Magazine*. This included "several thousand railfans from Southern California." The Santa Fe All-Indian Band from Winslow, Ariz., gave a concert while the crowd gathered, then struck up the "El Capitan March" as the streamliners ap-



proached. President Gurley's wife christened the eastbound train with a bottle of Lake Michigan water, while Albuquerque Mayor Maurice Sanchez's wife doused the westbound with Pacific Ocean water. Since the christening ceremony coincided with Albuquerque's 250th anniversary celebration, the Duke and Duchess de Albuquerque (the original spelling) were on hand from Madrid.

There was a parade, luncheon at the Alvarado, and "Enchantorama," a pageant depicting the city's history. Gurley gave the city a steam locomotive for display in Coronado Park, and Santa Fe's far older 2-8-0, by then dubbed *Cyrus K. Holiday* for its new, ceremonial role, steamed in to reenact the railroad's maiden arrival into the city.

Finally on July 15, all the hoopla over, the Hi-Levels entered regular service. By then the single-level *El Capitans* had logged nearly 18 million miles and hauled 2,338,065 passengers. The train had many miles, many passengers, and many years ahead, though, in its new guise. The 1964 final private railroads' major order for long-distance passenger cars brought 24 new Hi-Levels from Budd for *El Capitan* consists, allowing some earlier Hi-Levels to work on the *San Francisco Chief*. They were suitably introduced with a ceremony on that city's Embarcadero.

The *El Cap* and its cars soldiered on



virtually unchanged for nearly two decades, up to and well past the May 1, 1971, inception of Amtrak. Beginning in 1958, they would run combined with the *Super Chief* in the off-seasons. They performed so well they inspired Amtrak's huge fleet of Superliners, cars that in many ways are clones of the Hi-Levels, with sleeping cars added.

In further testament to the Hi-Levels' significance, the *El Cap* lounges survive today, as the Pacific Parlour Cars, Amtrak's only "non-revenue" cars exclusively for sleeping-car passengers. That these now 60-year-old "Top of the Cap" lounges are the draw they remain is yet further testimony to the wisdom and creativity of Budd and Santa Fe designers six decades ago. The cars are old, and nothing is a given in today's budget-driven Amtrak world, but for now they are wonderful survivors from a largely lost world of railroading. ■

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