

The Stadium that Changed Everything: Building the Astrodome

by Scott Sosebee

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Scott Sosebee is Executive Director of the Association and can be contacted at sosebeem@sfasu.edu.

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(Jul 24, 2022) Fans attending professional and major college sporting events today are, to say the least, coddled. They sit in cushion-back seats, can actually enjoy “cuisine” instead of standard stadium fare such as hot dogs and popcorn, and never have to break a sweat as they cheer and jeer since they are cooled by the massive air conditioning systems of enclosed arenas. Well, it’s the twenty-first century and technology is supposed to make us comfortable.

Every innovation has a beginning, and today’s multi-use, enclosed, creature comfort filled, spectacles owe their birth to a facility that today sits forlorn and almost forgotten next to massive Reliant Stadium in Houston—the “Astrodome,” whose official name is and always was actually the Harris County Domed Stadium. While the Astrodome seems a bit quaint these days, at the time of its opening evangelist Billy Graham supposedly took one look and dubbed it the “Eight Wonder of the World.”

The Astrodome was the brain child of Judge Roy Hofheinz, a master promoter, politician, and showman whose outsized personality could only be produced in Texas. He was also a perfect fit for the boosterism and forward moving ideas that characterized the Bayou City. Hofheinz, the head of the Houston Sports Authority (HSA), knew that if Houston were to attract major sports teams as well as conventions and trade shows, something had to be done about the city’s brutally hot and humid summers. Since he couldn’t change the weather (although given his chutzpah no one would have put it past him to try), the Judge settled on building an enclosed stadium.

Since Harris County was paying the freight for the building, it had to be large and versatile enough for multi-use—not just baseball, but rodeo, conventions, and (it was Texas, after all), a football game if needed. Engineers had little doubt they could build a roof over such a stadium, but Hofheinz had other requirements. First, he wanted the entire place air-conditioned, and he also insisted on a grass field. Engineers would have to thus design a roof that emitted natural light. The facility had to be large, so an elongated design and a dome became the choice, and it was topped with lightweight plastic skylights to allow the sun to shine through. A Texas A&M agronomist recommended the field be sown with a Bermuda grass hybrid that grew well in low-light conditions. Infamously, the grass died, but Hofheinz solved that as well. He contacted a subsidiary of the Monsanto Corporation, who was developing a synthetic grass for playgrounds and schools. He commissioned the company to “carpet” his new stadium and the surface has been known as “astroturf” ever since.

For its day, the Astrodome was an engineering marvel: the dome had a clear span of 642 feet and a height of 218 feet (approximately twenty stories high). The roof could flex over five inches in any direction and withstand hurricane-force winds. The air-conditioners kept the inside cool at a comfortable and constant seventy-five degrees. Perhaps the most striking feature of the new stadium was its massive, almost 500-foot long centerfield scoreboard—one that could flash electronic messages and images and more information about each player than the back of a bubble-gum card.

The new building was still known as the Harris County Domed Stadium and opened in April 1965, but Hofheinz had plans for that as well. Houston’s Major League baseball team was the Colt 45’s, but Hofheinz (in his capacity as head of the HSA) took advantage of Houston’s ties to the space industry and renamed the team the “Astros.” Since the now Astros were the stadium’s primary occupant, he nicknamed the new facility the “Astrodome.” The name stuck, to the consternation of Harris County officials, who chafed at the new public moniker. A county commissioner was aghast when everyone—media, fans, and travel guides—began calling the stadium by Hofheinz’s nickname. “The county built and the county paid for it,” he once told Hofheinz, “people ought to start calling it by its right name!” Hofheinz told him he could call it anything he wanted, “but the world is going to know it as the Astrodome.”

And so it did.

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