



# FSMS Pioneers

*A series that honors the legends of surveying in the state of Florida*

By Dominic Levings

## E.R. Brownell

*After building his reputation in a different era, Brownell has tales few surveyors can equal*

Sixty-five years have passed since Edwin Rowland Brownell obtained his survey license, LS928, in February of 1953. In that same time span, over 6,000 individuals have become licensed surveyors in the state of Florida.

“I guess I’m one of the few left that still has three numbers,” Brownell said.

And perhaps there is not a more accomplished man to whom that distinction could belong to.

Born in Tampa on September 19<sup>th</sup>, 1924, during Calvin Coolidge’s first term as President of the United States, Brownell’s parents moved to Miami when he was only six months old.

In the near-century since, Brownell established himself as a journeyman surveyor, an incredibly successful businessman, and a respected leader and advocate in the surveying profession.

Growing up, Brownell did not have any family members employed in the profession. His path into the career started with his work at Biscayne Engineering Company, the oldest engineering firm in South Florida. He worked on a survey crew with the firm during his summers home from college.

He graduated from the University of Florida in 1947 with a degree in Civil Engineering. He obtained his license six years later at 28 years old, after passing the official exam on his first go-around.

Now 94 years old, Brownell is still remarkably sharp, able to recall memories from decades ago and recite seemingly obscure details. Stories from his heyday as a surveyor illustrate a different time in America, when it seemed as if there was still much to be discovered and explored.

And if there was any surveyor fit

for that time period, it was Ed Brownell.

### Odysseys in the Field

After receiving his license, Brownell quickly opened his own firm, E.R. Brownell & Associates, in 1954 in Miami. His location in South Florida inherently made him a prime candidate for clients seeking surveys in the Caribbean and beyond.

“I was given various assignments that would prove to be interesting,” Brownell said.

“Interesting” is perhaps not a strong enough word.

In the early 1960s, at the height of the Cold War, Brownell was contacted by the federal government about a potential project. However, Brownell soon learned that this project was anything but a run-of-the-mill federal infrastructure or construction project.



*Ed Brownell's boy scout picture, circa 1934, when he was about 10 years old.*

This project – incredibly – was a top-secret project.

“When I became involved at first, they asked me a lot of questions, and then I was examined by the FBI, and they questioned by neighbors and clients and other acquaintances,” Brownell recalled.

After this initial screening by the FBI, Brownell was flown to Washington D.C. and escorted to the Pentagon. It was at the Pentagon, in a secret velvet-padded conference room, that he learned of his assignment from a group of naval officers and other officials.

“I was then told I was to be part of a program to develop jet torpedoes, and to be part of a program to [research] the caves in Andros,” Brownell said.

Andros, the largest island in the Bahamas, lies 138 miles southeast of Fort Lauderdale. Brownell was specifically tasked with satisfying research development for the Atlantic Underwater Test Evaluation Center (AUTEC), which is still based on Andros today.

During this time period, Andros was of importance to the United States

government for several reasons. Fresh off the Cuban Missile Crisis, the government knew that communist ships often passed near Andros to reach Cuba, and wanted to conduct research as to why they did.

The government was also interested in a deep underwater cave located within the island's steep shelf. The cave, Brownell remembers, was big enough and deep enough to house a submarine. The government wanted to make sure a Russian submarine wasn't already there, and to potentially station a submarine there themselves.

Brownell then assembled a survey crew and was flown to Andros. He was tasked with surveying certain sections of the Andros shoreline, and to map out the underwater cave using bouncing radio waves.

Later in the 1960s, Brownell was contacted by a local engineering company in Miami and asked if he was interested in surveying Antigua, an island southeast of Puerto Rico. With just a one-week's notice, Brownell assembled a four-man crew to take with him.

The crew was to depart in a twin-engine C47 plane from the Opa-locka Airbase, in northern Miami-Dade County. Brownell remembers that take off was delayed extensively due to an unspecified plane malfunction.

“We waited, and waited, and then the A/C had broken, and it became very hot...our clothes became soaking wet with perspiration,” Brownell recalled. “We cheered when the plane began to move.”

In hindsight, that cheer may have been premature.

“The first two hours of the flight were uneventful, but then an oil leak developed in one of our engines,” Brownell said.

As a result of the oil leak, the pilot had to shut off an engine. He advised that while they could continue to fly with only one engine, it was safer to land and assess the damage.

The nearest landing strip was on Mayaguana, the easternmost island in the Bahamian chain. After flying for nearly 45 minutes with only one engine, the C47 landed safely.

The co-pilot evaluated the damage and determined that a routine repair was not possible. He then arranged for necessary parts, along with two mechanics, to be flown in from Miami.

“This meant we had to spend one or two nights on Mayaguana while repairs were made,” Brownell said.

Mayaguana is the least developed and most isolated of the Bahamian islands. Brownell was told that 312 natives inhabited the island at the time. Even today, some 50 years later, that number remains the roughly the same.

While waiting for the help to arrive, the small band of four surveyors set out to wander around and explore a portion of the island. It



*Brownell in 2018, at age 94.*





*An aerial view of Mayaguana. The airstrip where Brownell landed some 50 years ago is circled, and the arrow indicates Betsy Bay.*

wasn't long before they came across a peculiar sight.

They chanced upon a gang of native men constructing a crude road. The men were smashing large boulders into smaller rocks to fill in the road with. But this was not the unusual part.

The work gang of 10 men were supervised by one woman, who, according to Brownell, was over six feet tall, over 300 pounds, and very muscular.

"She ruled over her gang of men with a drill sergeant attitude. She directed and chastised them as they worked," Brownell recalled. "The men referred to her as Big Ruth, but not to her face."

Later in the afternoon, the crew wandered into a small settlement where some of the work gang lived. The buildings were made of wood and stone, with thatched roofs.

There was a small store in the settlement that had an outdoor counter with stools. It was at this store that Brownell and his men came upon Big Ruth once again. She was seated on a stool, with a beer in her hand.

"One of my young, brash survey rodmen went up to the counter and ordered a beer, and then asked 'How are you, Big Ruth? Did you have a nice day?'" Brownell said.

Big Ruth was not amused.

"She grabbed him by the front of his shirt, with one fist, and said 'The name is Ruth, not Big Ruth, do you understand?'" Brownell recalled, laughing.

Aside from their encounter with Big Ruth, Brownell remembers that the native inhabitants were extremely friendly. The last leg of the surveyors' journey took them to a small settlement known as Betsy Bay, where they found several crops being grown.

Despite his adventures on the island, perhaps what Brownell remembers most about his time in Mayaguana was the serene natural beauty of the island.

"It had unspoiled beaches, excellent fishing and scuba diving, and was covered in palm trees and *lignum vitae* trees," Brownell reminisced.

"It had tangled underbrush with all sorts of warblers and humming birds, and there were also ospreys and kestrels and herons...a group of flamingos were spotted feeding nearby. Mayaguana is really a bird lover's paradise."

According to Brownell, the largest project his firm ever undertook was to survey the boundaries of Everglades National Park in the 1970s. The project, he estimates, took about two years and thousands of man-hours. The work was unpredictable, dangerous, and arduous.

"I have actually walked coast to coast through the swamp," Brownell said about his time overseeing the project.

Angel Lopez, who became co-owner of E.R. Brownell & Associates after Brownell's retirement, remembers working on the Everglades surveys. He vividly remembers the wildlife they commonly stumbled upon – namely, snakes.

Lopez remembers that the alligators were not so much of a problem, because they were always expected to be near canals and little ponds.

"But the snakes were hidden. Bad ones, like moccasins. Those are my worst nightmare. We had to take emergency kits in case we got bit. Someone else would have to suck out the venom..." Lopez recalled, with the hesitation of someone experiencing an unhappy flashback.



*The skin of a massive rattlesnake that Brownell killed in the Everglades.*

During one survey, Brownell and his crew were navigating a canal in the Everglades in an airboat when it suddenly experienced mechanical problems and broke down. Then, one of the crewmembers began to experience heart attack-like symptoms, miles away from any medical help.

Brownell made the decision to split the group up. He and one crewmember would go and seek help, while the other crewmember remained on the airboat with the ailing man.

While trekking through the swamp, Brownell and his partner came across a cabin.

They approached the cabin to ask for help, only to find exactly the opposite: the cabin was occupied by men who had recently robbed a bank and were hiding out in the swamp.

The robbers, suspicious of them, proceeded to tie up Brownell and his partner.

Brownell tried to convince the robbers that they were not with law enforcement, and had no intention of turning them in. He expressed that their friend was experiencing health problems and that they had to get help immediately.

The robbers eventually conceded and let the two men go. After making it out of the swamp and arranging for help to be sent, Brownell - like any good surveyor - promptly called the cops and told them the location of the cabin.

As a result of his extensive work in the area, Brownell is considered an expert witness for the Everglades. His long-time association with the Everglades also led to a friendship with the Miccosukee Tribe of Florida, and a personal relationship with Buffalo Tiger, the longtime leader of the tribe who died in 2015.

## The Founding of FSMS

Brownell was present when the Florida Society of Professional Land Surveyors, the forerunner to what is now FSMS, was created in 1955.

"I went to pre-formation meetings in various cities and finally we met in Orlando, and that was the meeting it was formed at," Brownell recalled.

Brownell remembers having a good relationship with H.O. Peters, the man who is recognized as the founder and first president of FSMS. At the time,



*Brownell's FSMS President's Portrait, from 1973.*

Brownell was 30 years old, and Peters was 52. Peters passed away in 1986 at age 83.

"He was a person who was interested in perfection...he was a kind of mentor to many people. H.O. Peters was a good man," Brownell said.

Brownell indicates several factors that led to his involvement with the society, but there is one issue he emphasizes most: the profession's lax education requirements at the time.

"We had a lot of people who came in and called themselves surveyors and went into business. That was a problem," Brownell said.

Brownell served on the first FSMS Board of Directors, and ultimately became president of the society in 1973. His main goal as president was directly related to his original involvement with the society.

"I was interested in promoting education. That was my primary goal," Brownell stated.

"Surprisingly enough, I had a lot of opposition in establishing a survey degree program. There were those who didn't want that at all."

Not surprisingly, however, was the fact that Brownell's commitment to education reform for the profession didn't end at the state level. He was also the first President of the National Society of Professional Surveyors (NSPS) in 1978, and president of the American Congress of Surveying and Mapping (ACSM) in 1980. The ACSM would later merge into NSPS in 2012.

## It's All In The Family

Brownell operated E.R. Brownell & Associates in Miami for 36 years, before retiring in 1990. At one point, Brownell owned 10 firms located across the state. The largest, Tri-County Engineering in Naples, Florida, had 102 employees.

Those who worked for him say that Brownell's surveying and business acumen were unmatched, and his leadership style fostered an efficient workplace.

"He led by example. He was very knowledgeable. He was a boots-on-the-ground surveyor," said Tom Brownell, Ed's nephew who took over the firm with Angel Lopez in 1990.

"I have a lot of respect for him. He's my mentor...I leaned a lot from him. He's an exceptional business man - very smart. He knows how to run a business," Lopez said.

Evelyn Mika, one of Brownell's



daughters, points to her dad's "extreme generosity" as the defining trait of his leadership.

"He's the kind of person who will turn the other cheek and give people chances. He's always been the kind of person who is very fair. He's the kind of boss you want," Evelyn said.

Elaine Dorrans, Evelyn's sister, remembers that every year around Thanksgiving, her family would purchase turkeys for every employee and their families as a sign of appreciation.

"Our mom would always say that without their support, we wouldn't be able to do what we're doing," Elaine recalled.

"[My parents] always brought it down to the first step and valued every piece of the puzzle. Because without one piece, it's incomplete. They kept value on employees high – I don't remember much turnover at all."

Elaine also remembers the close bond that her family would forge with the employees.

"Their kids baby sat me, and I ended up babysitting their kids. Even today we're still in touch with some of the former employees," she said.

Tom, who is also the current Vice President of FSMS, is often confused as Ed's son. In reality, he is the son of Ed's only brother.

"Ed Brownell is my uncle and infamously he's been called my father so many times I quit counting," Tom joked.

Tom credits his uncle with introducing him to the surveying profession. He started working for Ed as a crewman during summers in high school. After graduating college in 1971 with a degree in ocean engineering, he went to work for E.R. Brownell & Associates.

Tom recalls that it was sometimes tough, yet rewarding, working for a relative.

"He didn't treat me any different than the next joe. I appreciated that. It brought a sense of accomplishment that nothing was given to me, that I had earned it," Tom said.

Tom's son now works for him at the firm, and he follows his uncle's blueprint on how to approach managing a relative in the workplace.

"I treat him the same way. You know, you've got to get it – show me. I can basically thank Ed for guiding me in the right direction," Tom said.



*Brownell with his wife of nearly 51 years, Blanche, in 2005.*

Brownell's immediate family also worked for him. He has four daughters: one from a previous marriage, Nancy, and three – Elizabeth, Evelyn, and Elaine – with his wife of 51 years, Blanche. Elizabeth passed away in 2012.

Blanche left her job as a teacher to help run the office after they were married in 1967.

"She ran that office. She was the glue that kept it all together," Evelyn said.

Brownell's daughters remember working at the office when they were young. They helped their parents with various odd-jobs and have happy memories of time spent at the office as children.

"We helped out with putting checks in order on the office floor, alphabetizing things, filing stuff, running prints and plats, collating binders, all when we were itty bitty," Evelyn recalled.

Elaine also remembers going to the office quite a bit in her youth.

"I learned how to run blueprints through the blueprint machine. I had a little stepstool - I couldn't even see the top of the machine. But I could run that blueprint machine," she said, laughing.

Later, in their teenage years, both daughters would hold paid positions with their dad. Evelyn worked as a secretary at the surveying firm throughout high school, and Elaine worked as an operator at a bank that Brownell owned.

Whether they were on the job or at home, the sisters remember that their father constantly taught them and helped them grow.

Elaine remembers one instance when the family was driving to the office in Naples. She was taking an advanced math class at the time and was struggling to complete her homework.

"I remember my mom driving, and he sat with me the entire drive down Tamiami Trail helping me with my algebra until I got it," Elaine said. "It was awesome."

Evelyn says that her dad would use every opportunity to help them learn and that everything was viewed as a chance to grow.

"If I asked for help with my homework, and I didn't know what a word meant, he would get a dictionary and use even larger words to



*Ed and Blanche in 2017 on their 50th anniversary.*

teach us,” she recalled.

“He was always giving us second chances and helping us to teach us lessons.”

### **Retirement and Beyond**

After retiring in 1990, Brownell came into the office sparingly over the next few years to help and advise when needed. But for the better part of the last 28 years, Brownell has enjoyed the perks of retirement.

“I enjoyed golfing, and I golfed about four days a week to start with,” Brownell said.

However, Brownell hurt his knee and underwent an operation. After the doctor advised that he would need a second operation if he didn’t stop playing golf, Brownell had to give it up for good. Now, he mostly plays bridge.

“At least I can’t hurt my knee again,” Brownell joked.

Reflecting on when he was heavily involved with the profession and serving with multiple organizations, Brownell is satisfied that he helped contribute to the improved educa-

tional standards of the profession.

“I would say the biggest change is probably in education. When I started out, there were very few educational requirements. There were no degree requirements. And there is today. And I’m proud I was part of getting that instituted,” he said.

He knows that a lot more than just education has changed over the years. For instance, he fondly remembers the now-archaic equipment that he used to survey with.

“Technology has changed remarkably. When I started, a transit and a tape was about all you needed to be a surveyor,” Brownell said. “Now they would not be used very often except in exceptional circumstances.”

In 2017, Brownell was honored in front of hundreds of people at the Church of the Little Flower in Coral Gables. He was recognized as the oldest living alumnus of what used to be St. Joseph’s School, which he attended through high school and graduated from in the early 1940s. Today, it is known as St. Theresa Catholic School.

One of the last living surveyors in Florida with three numbers on his license; the oldest living member of his former day school – in his advanced age, Brownell is used to such designations.

In fact, when asked who else could be interviewed for this story – whether it be friends, coworkers, or other acquaintances – he responded simply:

“When I think of these people, most of them have died.”

Be that as it may, surely all of them, if alive today, would be pleased to know that Ed Brownell - who turns 95 next September - is doing just fine.



*Brownell being honored at the Church of the Little Flower in 2017.*