FIEF FLORIDA SURVEYOR

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1948 Flood Control Project How Florida Became a State From the Desk of Rick Pryce





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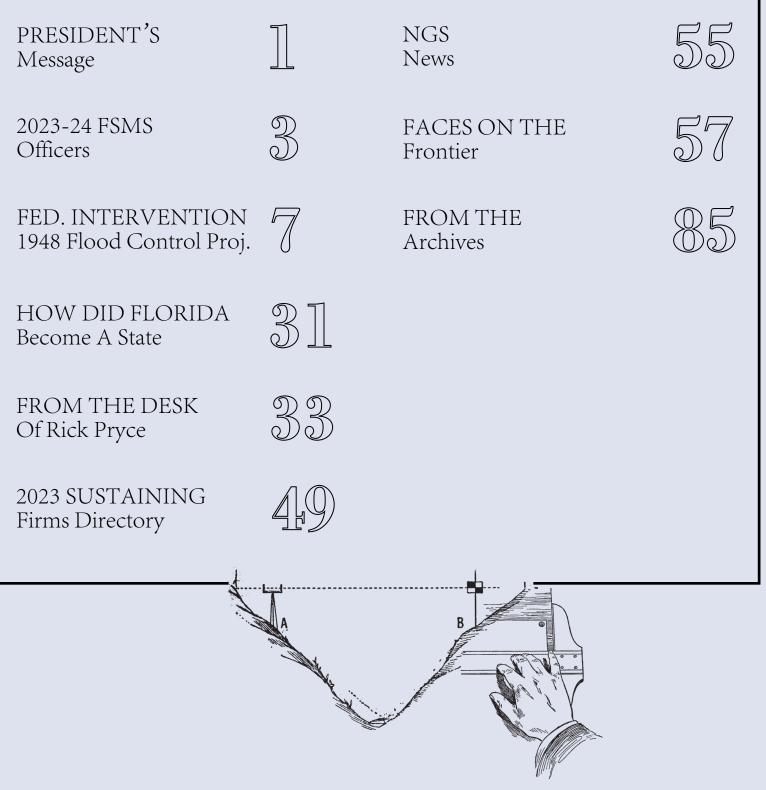
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PRESIDENT'S Message

November 7th, 2023



This past year I have noticed a difference in the FSMS meeting I've attended. Maybe in the past it was Covid or maybe the heaviness of the world or personal affairs that were weighing us down I don't know.

In this past year it's not our differences that come out at the meetings but the things we have in common. I see a lot more comradery, friendliness, and a willingness to tackle the goal before us and to make good things happen.

At each one of the Board meetings we open in prayer, stand for the pledge of allegiance and dive into the issue at hand. We see the common goal before us and strive for a solution. It is self-evident that we can do greater things together than apart. This goes well in our private lives as well. Together we are stronger than we are apart. We live in a great country that gives us the freedom to enjoy it.



President Howard Ehmke (561) 360-8883 <u>Howard@GCYinc.com</u>

The preamble of the Constitution reads: "We the People of the United States, in order to form a more perfect Union, establish justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare and secure the Blessing of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America."

Thank you.

Respectfully submitted.

Howard J. Ehmke II

The Florida Surveyor

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CHAPTER TWO



Federal Intervention: The Central and Southern Florida Flood Control Project, 1948

Schemes to drain the Everglades in the first half of the twentieth century had created problems that few people foresaw, including the destruction of plant and wildlife in South Florida, a textbook example of the law of unintended consequences. Other problems resulted from soil subsidence, saltwater intrusion into freshwater wells, and fires raging in times of drought. The financial difficulties of the state of Florida and the Everglades Drainage District (EDD) precluded any local solutions to these problems. In addition, two hurricanes in 1947 caused devastating floods, destroying millions of dollars of property and cropland. These problems convinced state officials and other Floridians that it was time for drastic action, and they once again turned to the U.S. Army Corps of Engineers for help. The Corps proposed a comprehensive water control plan in 1948 that would curb floods and supply water for urban and agricultural interests, alleviating fires, soil subsidence, saltwater intrusion, and plant and wildlife damage in the process. Congress approved this plan in 1948, thereby creating the Central and Southern Florida Flood Control Project. Even though this project proposed an entire water control plan for Central and South Florida, it still left some people uneasy as to how it would address Florida's valuable fish, wildlife, and plant resources. Floridians generally lauded the establishment of the project, believing that it provided secure protection against future flooding, but there were fissures in this consensus that would eventually become gaping crevices.

By the 1930s, drainage had opened up numerous acres of land in South Florida to agriculture and settlement. But the removal of water had some unintended ecological consequences. For one thing, the muck soil exposed by drainage easily caught fire when it became too dry. These fires generally occurred underneath the surface and produced heavy amounts of smoke, leading to rather bizarre scenes of trees with obliterated roots but no trunk damage sinking into the earth.¹ Such fires became numerous in the Everglades in the 1920s and 1930s; one periodical reported in 1931 that "there are areas in the glades . . . that have been burning underground for years."²

High rates of soil subsidence created other problems. The removal of water from the land oxidized bacteria in plant remains, thereby facilitating the complete decomposition of organic detritus. The subsequent soil loss sometimes amounted to as much as one inch per year. One observer claimed in 1942 that the city of Belle Glade was "six feet farther down than it was 25 years ago" and that Clewiston residents "add a new step to their front stoops every two or three years so they can reach the shrinking ground."³ Drainage also caused saltwater from the Atlantic Ocean to intrude into freshwater wells because a loss of surface water allowed saltwater to flow into creeks during high tide and permeate the limestone strata underlying the banks. Because of this, by 1938, more than 1,000 wells moved inland by the city of Miami in the 1920s and 1930s had saltwater contamination.⁴

The Florida Surveyor

South Florida History provided by US Army Corps of Engineers



A muck fire on the Rotenberger Tract. (Source: South Florida Water Management District.)

The prevalence of these problems, and the lack of state resources, led federal agencies, especially the Soil Conservation Service of the U.S. Department of Agriculture and the U.S. Geological Survey (USGS), to investigate solutions. The Soil Science Society of Florida, an organization formed by Florida scientists in 1939, aided these agencies in their efforts. At the first meeting of the society in 1939, R. V. Allison, its president and chief of the University of Florida's Everglades Agricultural Experiment Station, discussed soil and water problems. He explained that only in the last few years had scientists adequately understood "the duty of water and its relation to the soil as well as to the plant." Too much drainage had allowed subsidence to devastate soil levels, making it the most pressing soil problem affecting the Everglades. In order to curb subsidence, Allison proposed that a water control program be implemented that would flood uncultivated lands "as much of the year as possible" and consider the water needs of cultivated areas. Because Allison did not know what these needs were, he called for a "careful, exacting study" of "the handling of ground water" by cultivated tracts, "looking to economic plant response on the one hand and the best possible stabilization of the soil body on the other."⁵ He also called on federal, state, and local officials to recognize that the Everglades hydrologic unit consisted of three elements: the Kissimmee River, which served as the watershed; Lake Okeechobee, which operated as the storage basin; and the Everglades itself, which was the overflow area.

Others in the Soil Science Society agreed with Allison's assessment. H. A. Bestor, a drainage engineer with the U.S. Sugar Corporation, stated in 1943 that an orderly plan for

developing the Everglades needed to emphasize conservation of water over its disposal. Officials should institute "water control planning," Bestor continued, to preserve wildlife, to control soil subsidence and prevent muck burning, to utilize land for agriculture, and to preserve municipal water supplies. "All present land use," he concluded, "is challenged by lack of appreciation that conservation of its organic soils is vitally dependent on water control management."⁶

Meanwhile, the USGS, the Florida Geological Survey, and the Florida State Board of Conservation were conducting inquiries into saltwater intrusion and well contamination in South Florida. In 1939, the cities of Miami, Miami Beach, and Coral Gables, in conjunction with Dade County, entered into an agreement with the USGS to examine surface and well supplies in South Florida in order to receive information about how to prevent "a grave municipal water-supply shortage."⁷ USGS scientists, including geologist Garald Parker, investigated the substrata of southern Florida and found that saltwater was entering the Biscayne Aquifer (the only source of fresh ground water in the Miami region) from below. The problem was that drainage had upset the natural balance between salt water and fresh water in the aquifer by lowering the groundwater table. To restore this equilibrium, Parker argued, freshwater tables had to be kept at 2.5 feet above sea level. The main way to ensure this was to build control dams at the mouths of canals draining Miami and its surroundings, and to establish a better water control plan for the region.⁸

Scientists, then, were well aware of the destruction that drainage was wreaking on natural resources, but the general public needed something more accessible to move them to action. Publications in national magazines such as *Collier's* and *Audubon* helped, but the biggest boost came in 1947 when a 57-year-old journalist named Marjory Stoneman Douglas published a book chronicling the destruction of the Everglades. Born in Minnesota in 1890 and raised in Massachusetts, Douglas moved to Miami in 1915 to join the staff of her father's newspaper, the *Miami Herald*. She quickly became involved with the Florida Federation of Women's Clubs, which was one of the area's major promoters of conservation, and focused many of her *Miami Herald* articles on creating a healthy urban environment through zoning, public parks, and tree planting. Douglas also championed the beauty and distinctiveness of the Everglades, and she joined the Tropic Everglades National Park Association soon after its formation. When her friend Hervey Allen, an editor at Rinehart Books, invited her to contribute to his series focusing on American rivers, she readily agreed, deciding to write about the Everglades, which the Seminole had called *pahokee*, meaning grassy waters. Using that word for her inspiration, she published *The Everglades: River of Grass* in the fall of 1947, and it soon became a bestseller.⁹

Using stunning and beautiful prose, Douglas painted a picture of the geological and ecological life of the Everglades, describing how, before drainage, water from Lake Okeechobee spilled over the lake's south rim, combined with rainwater, and became the "river of grass," flowing slowly, almost imperceptibly, southward, giving life to the disparate flora and fauna in the region. Douglas chronicled the different drainage programs that the state had instituted, as well as land development schemes and hurricanes that had influenced the area. Then, in the crowning chapter, she outlined how drainage was killing the Everglades:

The endless acres of saw grass, brown as an enormous shadow where rain and lake water had once flowed, rustled dry. The birds flew high above them, the ibis, the egret, the heron beating steadily

South Florida History provided by US Army Corps of Engineers

southward along drying watercourses to the last brackish pools. Fires that one night glittered along a narrow horizon the next day, before a racing wind, flashed crackling and roaring across the grassy world and flamed up in rolling columns of yellow smoke like pillars of dirty clouds. . . . But in all the creatures of these solitudes where the Tamiami Trail and the long canals stretched their thin lines, and in the hearts of the Indians, there was a sense of evil abroad, a restlessness, an anxiety that one passing rainfall could not change.¹⁰

To restore the beauty and natural conditions of the Everglades, Douglas argued, "a single plan of development and water control for the whole area, under the direction of a single engineer and his board" had to be instituted.¹¹ With that plan, the different water demands of disparate sections in South Florida then could be coordinated, and areas could be developed for water conservation. Ultimately, she concluded, the people of South Florida needed to cooperate with the federal government to develop this project.

Douglas's declaration of the necessity of federal involvement rang true to many Floridians observing the financial and administrative difficulties of the EDD. She referred to the period



Marjory Stoneman Douglas signing copies of *The Everglades: River of Grass*, 1947. (Source: The Florida Memory Project, State Library and Archives of Florida.)

from 1931 to 1942 as "the era of utter confusion" in South Florida because of the financial straits of the EDD and the lack of a central authority in drainage matters. Florida's 1913 drainage law had authorized the establishment of subdrainage districts with their own taxing powers; when these districts were formed, they developed their "own plan of operation shaped to local desires."¹² By 1948, there were 12 of these districts covering approximately 100,000 acres of land.¹³ Moreover, in 1931, the state legislature removed the governor and state officials from the EDD board, replacing them with five local members appointed by the governor. According to EDD engineer Lamar Johnson, this action "completely divorced" the district "from direct Tallahassee control," resulting in

"non-payment of taxes, bond litigation, and little funds with which to operate for ten years."¹⁴ Meanwhile, Douglas argued, cattle ranchers and vegetable farmers on lands surrounding Lake Okeechobee wanted the maintenance of a low water level so that more agricultural land would be available, while residents of Broward and Dade counties desired a high level "to guard their own fields and their drying, over-used, city well-fields." These conditions produced "bad feeling, wrangling and confusion."¹⁵

After receiving financial help from the Reconstruction Finance Corporation, the EDD addressed some of the soil subsidence and other problems created by drainage, using studies conducted by the Soil Conservation Service and the Soil Science Society of Florida. In the early 1940s, the Soil Conservation Service had discovered that much of the land in southern Florida was unsuitable for agriculture because of an inadequate soil depth. The EDD's board wondered whether these tracts could be used for water conservation and storage, and asked engineers

Turner Wallis and Lamar Johnson to work with a Soil Science Society committee to investigate the possibilities. In May 1944, this committee suggested that the EDD use public lands as water conservation areas in order to improve wildlife and plant habitat and to stop soil subsidence and burning.¹⁶

Acting on these recommendations, Johnson, who became chief engineer of the EDD in 1946, drew up maps showing three possible water conservation areas in Palm Beach, Broward, and Dade counties, located mostly on acreage already owned by either the IIF trustees, the State Board of Education, the EDD, or the counties. The IIF trustees approved the plan, but the state legislature, influenced by a faction of landowners who wanted the land sold and the proceeds applied to the EDD's debt, mandated that voters in the three counties would have to approve the measure before any conservation areas could be created. "A popular referendum was usually considered a kiss of death at that period of Florida's history," Johnson later explained. "It looked dark for the future of the conservation areas at that point."¹⁷

In the meantime, settlement and economic development continued to increase in South Florida, especially around Lake Okeechobee and on the east coast. State officials noted in 1948 that there were "great tourist and business cities" along the coastal ridge of southern Florida, while agricultural communities clustered around the lake and on the western and northern side of the Kissimmee River Basin.¹⁸ Cattle ranches and dairies proliferated in the Kissimmee and St. Johns basins; one estimate placed the number of cattle in these areas at 410,000 head. In addition, numerous farmers raised truck crops on the drained soil south of Lake Okeechobee, including beans, tomatoes, eggplant, cabbage, potatoes, and celery. The Corps reported that 160,000 acres in the Kissimmee River Basin and south of Lake Okeechobee were planted to truck crops in the 1945-1946 growing season, producing \$67 million in vegetables. Citrus farms were also important, located from the Kissimmee Basin to Davie, southwest of Fort Lauderdale; approximately 268,000 acres of citrus groves existed in 1948. But cane sugar was the most significant crop in the Everglades. In 1934, Congress had passed the Sugar Act, which had divided cane sugar production into different quotas, thereby boosting prices. With this help, the U.S. Sugar Corporation and other companies planted 32,000 acres to cane, raising 873,000 tons of sugar in 1941. According to A. G. Matthews, chief engineer for the State of Florida's Division of Water Surveys and Research, the Everglades produced 2,330,232 tons of citrus fruits and vegetables from 1944 to 1946, as well as \$11,764,000 worth of sugar and 120,000 head of beef.¹⁹

The high production of agricultural crops and the rising number of people living around Lake Okeechobee and along the east coast meant that any kind of storm similar to the 1926 and 1928 hurricanes would have a devastating impact on South Florida. But because of the levee that the Corps had built around Lake Okeechobee, and because of the existing drainage works, settlers felt secure from flooding, a feeling reinforced after drought hit the region in 1944 and 1945. According to Lamar Johnson, "the Everglades vegetation and soil burned for months and the acrid smoke over Miami did not inspire the same sentimental emotions that the moon over that city does."²⁰ The Corps reported that between 1943 and 1946, "cattle died in the pastures of the Kissimmee Valley for lack of water; smoke from burning muck lands of the Everglades darkened the coastal cities; and salt water moved inland along drainage canals and through the underlying rock."²¹

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South Florida History provided by US Army Corps of Engineers

But in the first months of 1947, rain began falling on the Everglades in large amounts. On 1 March, a storm dropped six inches of rain, while April and May also saw above average totals. The situation became severe in the summer, the apex of Florida's traditional rainy season (which usually lasts from June through October). As September approached and the rains continued, the ground in the Everglades became waterlogged and lake levels reached dangerous heights. Then, on 17 September, a hurricane hit Florida on the southwest coast, passing Lake Okeechobee on the west and dumping large amounts of rain on the upper Everglades, flooding most of the agricultural land south of Lake Okeechobee.²² George Wedgworth, who would later become president of the Sugar Cane Growers Cooperative of Florida and whose parents were vegetable growers in the Everglades, related that his mother called him during the storm and told him, "This is the last call I'll make from this telephone because I'm leaving. . . . [W]e've got an inch or two of water over our oak floors and they're taking me out on a row boat."²³ Such conditions were prevalent throughout the region.

Before the area had a chance to recover from the devastation. another hurricane developed, moving into South Florida and the Atlantic Ocean by way of Fort Lauderdale. The amount of rainfall was not as severe in the upper Everglades, but coastal cities received rain in large quantities, including six inches in two hours at Hialeah and nearly 15 inches at Fort Lauderdale in less than 24 hours. The EDD, under the direction of Johnson. kept its drainage canals open to discharge to the ocean as much of the floodwater in the agricultural area as it could, exacerbating coastal flooding. East coast residents charged Johnson with



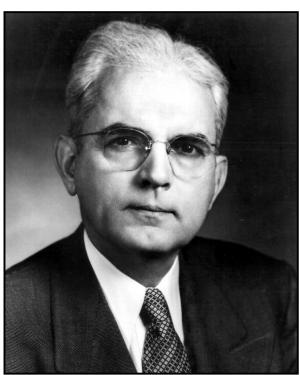
Damage caused by the 1947 hurricane. (Source: The Florida Memory Project, State Library and Archives of Florida.)

endangering their lives in order to please agricultural interests, but Johnson vehemently denied this, explaining that "the entire Everglades was flooded several feet and the flood was moving southward and eastward" – coastal cities would have been inundated regardless of the output from the drainage canals.²⁴

Whoever was to blame, the hurricanes had devastating effects. Although the levee around Lake Okeechobee held, preventing the large numbers of deaths that occurred in 1926 and 1928, over 2,000 square miles of land south of the lake was covered by, in the words of U.S. Senator Spessard Holland, "an endless sheet of water anywhere from 6 to 7 feet deep down to a lesser depth." The Corps estimated that the storms caused \$59 million in property damage throughout southern Florida, but Holland believed that the agency had "understated the actual figures."²⁵

The destruction shocked citizens of South Florida, both in the upper Everglades and in the coastal cities, and they demanded that something be done.²⁶

Acting on these concerns were Florida's two U.S. senators, Holland (who became a member of the Senate Public Works Committee in 1947) and Claude Pepper. Both were Democrats; Holland had served as governor of Florida from 1941 to 1945, while Pepper had served in the Senate since 1936. After the September and October hurricanes, the two were inundated with resolutions and pleas from residents and city and county governments requesting more stringent water control. The Soroptimist Club of the Palm Beaches, for example, informed Holland that



Senator Spessard Holland. (Source: The Florida Memory Project, State Library and Archives of Florida.)

"it is clearer than ever that an overall Glades water control plan must be established" in South Florida.²⁷ The city commission of the city of Stuart was more specific, asking that a water plan provide not only for the control of flooding, but also "include conservation of fresh water."²⁸

At the time, Corps leaders were already investigating flood control measures south of Lake Okeechobee, in part because of the flooding that occurred during the spring rains in 1947. With so many South Floridians in disparate parts of the region calling for flood control, however, Pepper became convinced that the Corps needed to expand its efforts. "The time has come when we have got to deal with the flood situation in the Peninsula of Florida, as a whole," he informed Lieutenant General R. A. Wheeler, Chief of Engineers, in October 1947. "It is all fundamentally one single problem and has got to be approached as a single problem with a single comprehensive program." Pepper therefore requested that the Corps "take steps . . to formulate plane for a comprehensive flood control

to formulate plans for a comprehensive flood-control

program for the whole flooded area."²⁹ Wheeler agreed with Pepper, explaining that he had already implemented measures to begin "a comprehensive study of the entire flood problem of south Florida from the headwaters of the Kissimmee River to points south of Miami." The "urgent need" for a solution to the flood control problems, Wheeler noted, meant that the Jacksonville District would devote much of its resources to complete an overall study and submit it to Congress "early in the coming calendar year." Wheeler told Pepper that the Corps already had enough congressional authorizations for "examinations, surveys and reports on individual streams and canals" to allow it to conduct a comprehensive study without additional legislation, meaning that the Corps could proceed immediately.³⁰

In its preparation of the flood control plan, the Jacksonville District, led by District Engineer Colonel Willis Teale, held public hearings where local agencies and the general public relayed their wants and needs. Most of the comments in these meetings echoed Pepper's claims that uncoordinated local efforts in the past had failed to solve any of the region's water problems and that a comprehensive plan was "the only possible solution."³¹ Listening to these concerns, Teale

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and the Jacksonville District formulated a plan recognizing that flood protection, drainage, and water control were all interrelated problems in South Florida. According to a Corps press release, the program

contemplates the protection of 1,000 square miles of rich agricultural muck land immediately south of Lake Okeechobee, improvement of water control in large conservation areas outlined by local interests, and providing the coastal cities with protection from floodwaters from the Everglades by impounding such waters within water conservation areas, encircled by levees large enough to retain all of the water entering them during a period of severe rainfall such as has been experienced this year.

Teale explained that the Corps had developed this plan through ongoing field surveys and office studies, as well as through consultations with "various federal, state and local interests."³² These included officers of the U.S. Sugar Corporation, the Palm Beach County Water Resources Board, Osceola Groves, and the Florida Division of Water Surveys and Research.³³

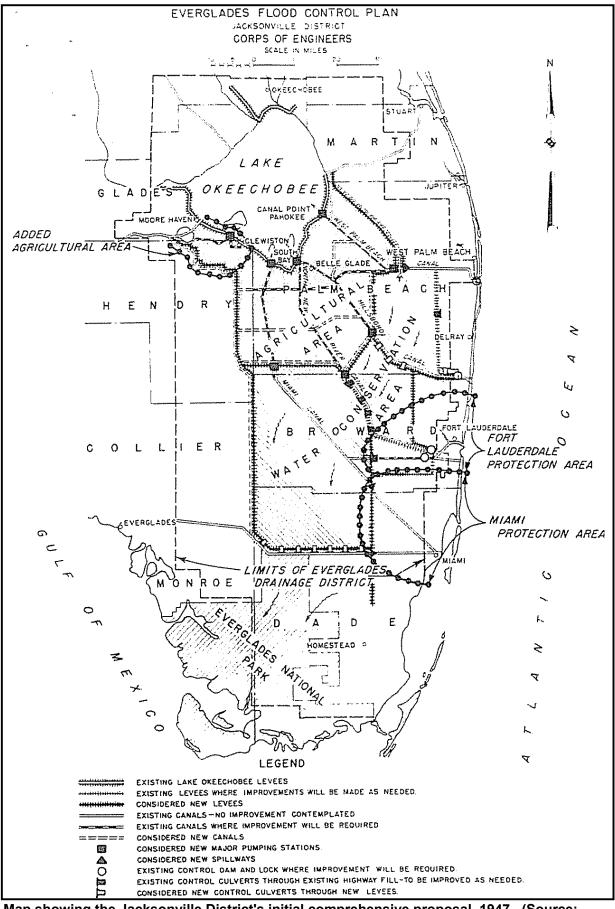


Senator Claude Pepper. (Source: The Florida Memory Project, State Library and Archives of Florida.)

Another important resource was the Soil Conservation Service. Because of the soil subsidence and muckburning problems in the Everglades, the Service had conducted numerous surveys, including those involving topography, subsurface rock strata, soil classification, and hydraulics. The studies, which were ongoing, had convinced Service officials that much of the Everglades could be "soundly developed for agricultural use," although specific areas, as explained above, were more fitting for water conservation.³⁴

Essentially, Teale took the Corps' own studies of the Everglades and Lake Okeechobee and coupled them with the Soil Conservation Service's report in order to develop a flood control and water supply program that proposed to solve all of South Florida's flooding, saltwater intrusion, and soil subsidence concerns. On 2 November 1947 – only a couple of weeks after the second hurricane had hit Florida and only five days after Pepper had requested a comprehensive plan – the Jacksonville District issued a press release delineating its preliminary proposal. This included the Corps' plan for the Everglades, as well as flood control structures within the Kissimmee and Upper St. Johns river basins (projects that were still tentative pending further District studies). In an innovative manner, given that the study of ecosystems and ecology had still not gained a wide audience in the United States, the District, influenced by the ideas of personnel in the Soil Conservation Service, declared that it would treat the whole area, from the Kissimmee headwaters to south of Miami, as "one watershed," or, essentially, as one ecosystem.³⁵

The press release left no doubt that, despite some attempts to control soil subsidence and saltwater intrusion, the proposal was primarily a flood control plan that would protect the east coast and allow for "a sound program of expansion of agricultural activities." Yet the Corps also



Map showing the Jacksonville District's initial comprehensive proposal, 1947. (Source: Claude Pepper Collection, Claude Pepper Library, Florida State University, Tallahassee, Florida.)

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promised "improvement of conditions favorable to the propagation and maintenance of fish and wildlife within the conservation areas." Accordingly, the plan provided for the construction of levees and canals protecting and draining a 1,000 square mile area "suitable for long-term agricultural use," as well as structures discharging floodwater into water conservation areas for the protection of coastal cities such as Miami and West Palm Beach. The Corps still had to conduct economic studies of the plan, the press release explained, as well as more intensive surveys of the Central Florida region, but the core of the program was in place.³⁶

Over the next several weeks, Teale, Holland, and Pepper held several public hearings with local interests to hear their comments about the plan. Although some flood control districts wanted an additional control canal to extend from Lake Okeechobee to alleviate high waters, few interests, if any, expressed any anxiety about the plan's effects on Everglades National Park.³⁷ Instead, most merely wanted something in place to safeguard South Florida from future floods. Pepper and Holland received numerous statements supporting the proposed program, and promised to keep in close contact with the Corps throughout the plan's preparation.³⁸

Based on this feedback, Teale revised the tentative plan and issued the Jacksonville District's final report in December. Although not significantly different from the program delineated in the November press release, especially in its focus on flood prevention (which, of course, was what most Floridians wanted), the December version was more complex, delineating measures to relieve saltwater intrusion and water supply problems. Teale noted that the program would be executed over a wide area in Central and South Florida, including the Upper St. Johns River, the Kissimmee River Basin, Lake Okeechobee and its outlets, the Everglades itself (defined as a 40-mile-wide "grassy marsh" extending 100 miles from Lake Okeechobee to the South Florida coast), and coastal areas in Palm Beach, Broward, and Dade counties.³⁹

According to Teale, who, again, was influenced by studies conducted by the Soil Conservation Service, the general problem affecting those areas was that drainage had "altered the natural balance between water and soil," causing "parched prairies and burning mucklands," saltwater intrusion, and flooding. A restoration of the "natural balance between soil and water" was necessary, and this could be accomplished through three means: flood control, water control, and water conservation.⁴⁰ Water conservation was especially key because the development of storage areas could prevent flooding and secure a more reliable supply for municipalities, agriculture, and the wildlife and plants within the Everglades. As later explained by Chief of Engineers Wheeler, the plan, which was for "flood protection, water control, and allied purposes," would eliminate flooding by removing water in wet seasons and storing it for use during dry periods. It would also control water levels to benefit agriculture and municipal water supplies.⁴¹

Recognizing that Everglades National Park had only been established the year before, Teale and the Jacksonville District also proclaimed that the "preservation of fish and wildlife" was an important element of the plan. Teale noted that South Florida had served in the past as "one of the greatest natural habitats for fish, birds, and game on the North American Continent," yet now, many of these species were "virtually extinct." The Corps had therefore consulted with the U.S. Fish and Wildlife Service to allow "full consideration" of fish and wildlife objectives in the comprehensive plan.⁴²

In fulfill the various desired objectives, Teale made recommendations for each area covered by the project. For the Kissimmee River Basin, Teale proposed that the Corps turn several lakes into storage basins for flood control, conservation, and water supply, building levees and control structures around them. The Kissimmee River itself would also be enlarged. Teale suggested that projects be commenced in the Lake Okeechobee/Everglades area, including enlarging the St. Lucie Canal and the Caloosahatchee River for better water control, and extending the levee around the lake from the St. Lucie Canal northward, tying it into the north shore levee. He proposed that another levee be built on the northwestern shore of the lake, and possibly another outlet canal as well. To provide flood protection to agricultural lands in the upper Everglades, Teale recommended the construction of a levee around the 1,027-square-mile region, as well as "a canal network connected to eight pumping stations on the perimeter of the system."⁴³

Following the EDD's suggestion, Teale also proposed that large parts of the Everglades be held as three water conservation areas, totaling 1,500 square miles in Dade, Broward, and Palm Beach counties.⁴⁴ As recommended by Teale, the conservation areas would be larger than those outlined by Johnson, but they would serve important functions. The pumping stations proposed for the agricultural areas, for example, could divert water into the conservation areas in times of excess rain, and could extract water in the same way during drought. Impounding water in the conservation areas would also prevent flooding in coastal cities, and the stored water could be used to "raise the ground-water table and improve water supply for the east-coast communities, ameliorate salt-water intrusion in the east-coast water supply well fields and streams, and benefit fish and wildlife in the Everglades." Teale proposed that the conservation areas be created by building levees from the West Palm Beach Canal south to the Tamiami Trail. The levee system would then follow the Tamiami Trail westward to the Collier County line, and then turn north where it would tie into the west rim levee blocking off the agricultural area south of Lake Okeechobee. Other levees would be built along the Hillsboro and North New River canals to divide the conservation areas into three sections.⁴⁵

There were other features to the program, such as improving existing canals and building control structures on waterways within Dade County for flood control and to prevent saltwater intrusion, but these were the essential features of the Corps' plan. Yet the proposal was vague on how it would allow for fish and wildlife preservation, even though the Corps considered this an "important feature" of the project. Outside of the conservation areas, which would allow for the protection of "large parts of the Everglades" and the "preservation of wildlife," the plan offered no firm proposals for how the project could benefit fish and wildlife. Regardless, Teale estimated that the program would cost \$208 million, with an annual operation and maintenance charge of \$3.7 million. He recommended that local interests pay \$29 million of the total cost, including 15 percent of all construction charges, and that the state establish an agency to coordinate the program locally.⁴⁶

On 31 December 1947, South Atlantic Division Engineer Colonel Mason J. Young concurred with Teale's report, although he admitted that "since construction of the comprehensive project will take place over an extended period, many features of the plan will require further detailed study prior to the initiation of construction." He also emphasized that "if the coastal and Everglades sections of south Florida are to continue to prosper and develop, conservation of their water resources is as important and urgent" as flood control and drainage. Young foresaw

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increasing demands on water in South Florida, and he insisted that the Corps make adequate provision in the planning process to store water "to the maximum practicable limit."⁴⁷

After gaining Young's approval, the Board of Engineers for Rivers and Harbors reviewed the report. During its deliberations, which included a public hearing on the plan, the board encountered some opposition; a few interests, such as the U.S. Sugar Corporation and the EDD, criticized parts of the plan. The board of commissioners of the EDD, for example, complained about the size of the water conservation areas, fearing that landowners in Palm Beach, Broward, and Dade counties would object to the impoundment of so much land. However, the EDD emphasized that it endorsed the program as a whole, believing that it was a sound plan for water management.⁴⁸

Others voiced concern that the project would take too long to provide flood protection. These feelings were heightened in the first months of 1948 because of the continued saturation of the ground in South Florida and the high levels of Lake Okeechobee. To alleviate some of these concerns, the Board of Engineers recommended that initial construction begin with those structures that would protect the coastal cities and the agricultural area south of Lake Okeechobee, as well as whatever works were necessary to control the level of the lake. However, the board also suggested that the Jacksonville District examine the plan prior to construction "in cooperation with a responsible local or State agency" and make any feasible changes that did not "adversely [a]ffect the principal objectives of the plan."⁴⁹

With the Board of Engineers' approval, the report went to Chief of Engineers Wheeler. Characterizing the plan as providing the works necessary "to prevent a repetition of recent destructive flooding" and "to stabilize the present agricultural economy of the region," Wheeler endorsed the project and recommended that it be presented to Congress.⁵⁰ He also suggested that Congress provide an appropriation of \$70 million so that the Corps could begin the first phase.

Although the \$208 million total cost of the project and the initial \$70 million appropriation was a considerable sum of money, especially in the 1940s, it was not as much as the federal government had spent on other projects. In 1928, for example, Congress authorized \$325 million for the Corps to conduct flood control efforts on the Mississippi River from Cairo, Illinois, south to the Gulf of Mexico. This was a much larger region than the South Florida flood control project would cover, but it still was a significant expense, especially considering that the total federal budget in 1930 only was \$3.3 billion. According to historian Martin Reuss, "no other water project involved as great a percentage of the federal budget at the time of its authorization as did Mississippi valley flood control."⁵¹ In comparison, the Corps asked Congress for less money for South Florida flood control, although, admittedly, the area was a great deal smaller and was confined to one state.

Before Congress received the report, the U.S. Department of the Interior submitted its comments on the plan. Assistant Secretary of the Interior William Warne explained that coordination with the Corps was essential because the project would affect the work of several Interior agencies, including the National Park Service (NPS), the Bureau of Indian Affairs, the USGS, and the U.S. Fish and Wildlife Service (FWS). Perhaps recognizing the plan's vagueness regarding fish and wildlife propagation, Warne noted that the NPS was especially concerned about how the project would affect Everglades National Park and its resources because the park

was formed specifically to preserve flora and fauna. Because the park's dedication had occurred only recently, the NPS had not conducted any studies on the possible effects, whether beneficial or harmful, of the proposed plan. Its major worry, Warne explicated, was whether the Corps could guarantee an adequate water supply for the park, especially to prevent saltwater encroachment and "disastrous fires" in "the hazardous season between October and May." In its proposal, Warne explained, the Corps never discussed "what definite regulations would be promulgated to insure the release of such waters," nor did it outline what specific structures were needed to facilitate water releases to the park. Warne also recommended that park and Corps officials develop "the details of the plan" to guarantee that the park's "unique" ecological resources were preserved in their "natural state."52

The preliminary nature of data also tempered the FWS's overall commendation of the project. Its main conclusion was that if the project truly provided "adequate restoration and control of water levels in a large part of the Everglades," it would "generally improve" fish and wildlife

SOUTHERN FLORIDA FOR FLOOD CONTROL AND OTHER PURPOSES LETTER FROM THE SECRETARY OF THE ARMY TRANSMITTING A LETTER FROM THE CHIEF OF ENGINEERS. UNITED STATES ARMY, DATED FEBRUARY 19, 1948. SUBMITTING A REPORT, TOGETHER WITH ACCOM-PANYING PAPERS AND ILLUSTRATIONS, ON A PRE-LIMINARY EXAMINATION AND SURVEY OF, AND A REVIEW OF REPORTS ON, RIVERS, LAKES, AND CANALS OF CENTRAL AND SOUTHERN FLORIDA FOR FLOOD CONTROL AND OTHER PURPOSES. MADE PURSUANT TO CONGRESSIONAL AUTHORIZATIONS May 6, 1948 .-- Referred to the Committee on Public Works and ordered to be printed, with five illustrations UNITED STATES GOVERNMENT PRINTING OFFICE 00243 WASHINGTON : 1949 **Cover of House Document 643.**

COMPREHENSIVE REPORT ON CENTRAL AND

conditions, especially if state or federal authorities operated the water conservation areas for fish and wildlife benefits.⁵³ But Warne emphasized that "loss of certain unique wildlife habitats" would result as well. The Corps' overall proposal "considers fish and wildlife as adequately as it can in light of the preliminary nature of the Service's findings," Warne explained, but the FWS still needed to coordinate closely with the Corps throughout project planning "to insure minimum damage to, and maximum benefits for, wildlife resources."⁵⁴

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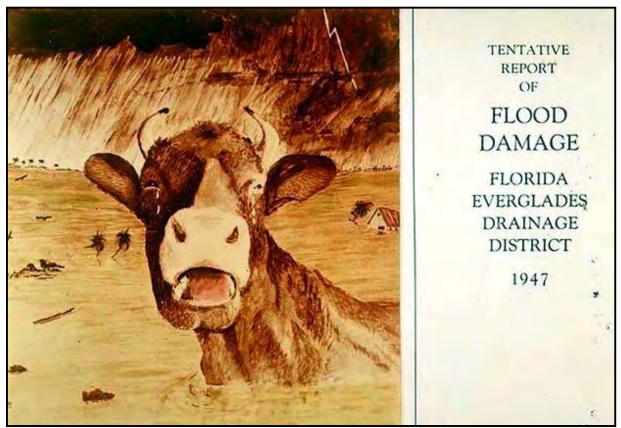
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The Corps responded to these concerns by assuring the Interior Department that it would remain in close contact with the pertinent agencies. Yet many Floridians were more concerned about receiving adequate flood control than they were with fish and wildlife issues, especially because saturated land and high water conditions in the spring of 1948 raised the specter of more flooding. According to Senator Holland, these conditions forced South Florida residents "to look ahead to next fall with great apprehension," leading Holland to place all of his efforts on getting the Corps project passed. "I shall continue to do everything in my power to get it enacted with the greatest possible speed," he declared, "and then to get the large appropriations which are required so that work can be started."⁵⁵

Such assurances were comforting to South Florida residents, but some still decided to take matters into their own hands. One way that they tried to foster support for flood control was by putting together a book of photographs of the 1947 flood, a proposal first floated to Claude Pepper by the Atlantic and Gulf Canals Association, Inc. Fearing that Congress would not approve the necessary appropriations for the comprehensive program, the association recommended that it compile 150 photographs of flood conditions and publish "a booklet containing news stories from over the 11 counties with illustrations" that could be given to Florida's congressional delegation, the Corps, and "each member of the Congress."⁵⁶ The Palm Beach County Resources Development Board, the EDD, and the counties of Palm Beach, Broward, and Dade brought this idea to fruition, issuing a book that included a startling front-cover picture of a crying cow standing shoulder deep in water. The document soon became known as the "Weeping Cow" book, and, according to Lamar Johnson, it was "an indication of the concerted effort of the citizens of the area to promote the flood control project."⁵⁷



Cover of the "Weeping Cow" book. (Source: South Florida Water Management District.)

South Florida History provided by US Army Corps of Engineers

Acting on these sentiments, and having remained in close contact with Corps officials as Teale's report made its way through the necessary channels, Holland and Pepper introduced a bill into the U.S. Senate in May 1948 to authorize the comprehensive water control project. The bill was referred to the Subcommittee on Flood Control and Improvement of Rivers and Harbors of the Committee on Public Works, and on 12 May 1948, the subcommittee began hearings. In order to expedite the authorization of the project, Florida's delegation presented a united front during the meetings, with Holland largely orchestrating the testimony that was presented. "The delegation is standing entirely together on this," Holland related. "Even those from the districts not directly affected are familiar with the plight which is the plight of the State, and, we think, of the Nation."⁵⁸ Dwight L. Rogers, one of Florida's representatives to Congress, agreed. "There is absolutely no dissension," he declared. "We are all united, State, Federal, and everyone else down there."⁵⁹

The testimony in the hearings almost solely focused on the flood control and water supply benefits were of the project. Almost all of the witnesses discussed the devastating damage of the 1947 flood and the necessity of preventing such a disaster from happening again. Moreover, the agricultural production of the region was emphasized repeatedly in order to convince senators that protection was necessary. There was little mention of the effects of the project on the South Florida ecosystem, outside of declarations that the water conservation areas would provide benefits to fish and wildlife. The only person in the hearings speaking solely as a representative of plant and wildlife interests was Eustace L. Adams, who represented the Dade County Conservation Council and the Florida Wildlife Federation; no officials from Everglades National Park, the FWS, or even the Florida Game and Fresh Water Fish Commission testified. It is unclear why this oversight occurred, but District Engineer Colonel R. W. Pearson of the Jacksonville District later claimed that it stemmed from the lethargy of the interested agencies. He accused the Florida Game and Fresh Water Fish Commission, for example, of evincing "a considerable lack of interest in the project" during these formative stages.⁶⁰

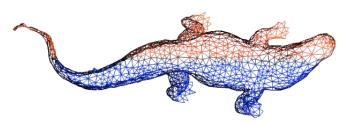
Regardless, the strong united front presented by Florida's congressional delegation convinced the Senate to include the project in its Flood Control Act of 1948, naming it the Central and Southern Florida Flood Control Project (C&SF Project). After some wrangling in the House of Representatives over the appropriation amount, the House passed the bill and President Truman signed it on 30 June, thereby authorizing \$70 million to be expended on the first phase of the project.⁶¹ This initial segment would include building levees and other flood control Works to protect the east coast communities from flooding, and constructing structures to control Lake Okeechobee levels and to protect agriculture south of Lake Okeechobee. With the legislation passed, the next step was for the state to find a way to raise its share of the construction cost and to determine what local agency would cooperate with the Corps in the building and operation of the project. "It certainly is a source of joy to me that we have made a constructive start on the flood control program," Holland reported, "and I hope that we may continue to work with the complete unity which has manifested itself so far."⁶²

The cooperation between the Corps, local and state agencies, and the federal government throughout the preparation of the flood control plan was remarkable, especially when compared to the development of a \$325 million flood control project in 1927 and 1928 for the Mississippi River. That process was marked by political wrangling, jurisdictional disputes, and discord

between Congress and President Calvin Coolidge. The development of South Florida's plan was not nearly as contentious for several reasons. For one, the Florida project involved only one state, rather than the multiple entities crossed by the Mississippi River. Among other things, this meant that Florida's plan did not receive the kind of national attention that the Mississippi River project garnered. For another, the overwhelming desire of most Floridians for some form of immediate flood protection necessitated that the Corps use all of the resources available to it in order to piece together a plan that could be passed as quickly as possible. Finally, Floridians were willing to pay part of the cost of the plan as necessitated by Congress, whereas local interests around the Mississippi River were more reluctant to share any costs.⁶³

With the authorization of the C&SF Project, the state of Florida finally had a program that promised to eliminate the flood and water supply problems of South Florida. Because of the imbalance of water that drainage created, the region faced either too much water, as evidenced by the flood of 1947, or too little of the resource, as shown by the fires, soil subsidence, and saltwater intrusion problems that plagued the area. To resolve these issues, the Corps developed a plan that would prevent flooding in coastal cities and in the agricultural land south of Lake Okeechobee, while also providing conservation areas for water storage and fish and wildlife habitat. With almost universal approval in Florida, the plan seemed to be the solution to South Florida's water woes and the mechanism by which increased settlement in the area could occur.

Yet there were slight discolorations in this seemingly beautiful picture, blotches that in time would stain the entire canvas. It was clear both from the Corps' proposal and from testimony before Congress that, although fish and wildlife preservation was regarded as an "important feature" of the project, flood control and water supply were the biggest concerns of most Floridians. The U.S. Department of the Interior, the NPS, and the FWS all claimed that fish and wildlife preservation had to take a prominent position in the project's operation, but the vagueness of the plan on how it would aid fish and wildlife, coupled with the clamor for flood protection and water supply, virtually guaranteed that fish and wildlife interests would take a backseat. This made Interior officials nervous about the project, but the looming fear of flooding felt by most Floridians steamrolled these concerns and created a groundswell of support for the project that Congress could not ignore. Even Marjory Stoneman Douglas, who had decried the destruction of the Everglades, believed that the Corps was on the right track. Because of the project, she wrote, "the rich earth will be saved" and "the vast supply of wonderful water will be controlled and used to their utmost needs by the people of Florida and their unborn generations to come."⁶⁴ The ensuing decades would, in some fashion, fulfill her prediction, but, in the eyes of many critics, only by manipulating and damaging the already-imperiled and over-engineered flora and fauna of the Everglades.



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Chapter Two Endnotes

¹ McCally, *The Everglades*, 142.

² John Chapman Hilder, "America's Last Wilderness: The Florida Everglades Are Going Dry," *World's Work* 60 (February 1931): 56.

³ Robert McCormick, "Lavish Land," Collier's 110 (8 August 1942): 66.

⁴ McCally, *The Everglades*, 145-146.

⁵ Dr. R. V. Allison, "The Soil and Water Conservation Problem in the Everglades," *Soil Science Society of Florida Proceedings* 1 (1939): 35-42; McCally, *The Everglades*, 147. This was not the first time that Allison had advocated these ideas. He had declared as early as 1928 that overdrainage caused more problems than underdrainage, and had told the Florida State Horticultural Society that year that muck fires could be stopped by storing water on undrained areas. Dovell, "A History of the Everglades of Florida," 559-560.

⁶ H. A. Bestor, "Reclamation Problems of Sub-Drainage Districts Adjacent to Lake Okeechobee," *Soil Science Society of Florida Proceedings* 5-A (1943): 164.

⁷ Florida State Board of Conservation, *Fourth Biennial Report, Biennium Ending December 31, 1940* (Tallahassee: Florida State Board of Conservation, 1941), 55; see also McCally, *The Everglades*, 146.

⁸ Garald G. Parker, G. E. Ferguson, S. K. Love, et al., *Water Resources of Southeastern Florida with Special Reference to the Geology and Ground Water of the Miami Area*, U.S. Geological Survey Water Supply Paper 1255 (Washington, D.C.: Government Printing Office, 1955); McCally, *The Everglades*, 146; Grunwald, *The Swamp*, 203-204.

⁹ Jack E. Davis, "Conservation is Now a Dead Word': Marjory Stoneman Douglas and the Transformation of American Environmentalism," *Environmental History* 8 (January 2003): 53-61.

¹⁰ Douglas, *The Everglades*, 349-350.

¹¹ Douglas, *The Everglades*, 383.

¹² Marjory Stoneman Douglas, "What Are They Doing To The Everglades?" 8, at Library of Congress, "Reclaiming the Everglades: South Florida's Natural History, 1884-1934" http://memory.loc.gov/ammem/award98/fmuhtml/everhome.html (3 December 2004).

¹³ House, Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes, 80th Cong., 2d sess., 1948, H. Doc. 643, Serial 11243, 30.

¹⁴ Johnson, *Beyond the Fourth Generation*, 85.

¹⁵ Douglas, "What Are They Doing To The Everglades?" 8.

¹⁶ Johnson, Beyond the Fourth Generation, 174-175; Blake, Land Into Water, 175.

¹⁷ Quotation in Johnson, *Beyond the Fourth Generation*, 155-256, 177-179; see also Blake, *Land Into Water*, 175-176.

¹⁸ A. G. Matthews, Chief Engineer, to Hon. George W. Malone, 19 May 1948, in Senate Committee on Public Works Subcommittee, *Rivers and Harbors – Flood Control Emergency Act: Hearings Before a Subcommittee of the Committee on Public Works, United States Senate,* 80th Cong., 2d sess., 1948, 269.

¹⁹ Matthews to Malone, 19 May 1948; Hanna and Hanna, *Lake Okeechobee: Wellspring of the Everglades*, 278-304; House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 8, 19-21; Vileisis, *Discovering the Unknown Landscape*, 174.

²⁰ Johnson, *Beyond the Fourth Generation*, 139.

²¹ House, Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes, 2.

Chapter Two Endnotes (continued)

²² Johnson, Beyond the Fourth Generation, 135-136; Blake, Land Into Water, 176.

²³ George Wedgworth and Barbara Miedema interview by Matthew Godfrey, Belle Glade, Florida, 9 July 2004 [hereafter referred to as Wedgworth and Miedema interview].

²⁴ Quotation in Johnson, *Beyond the Fourth Generation*, 139-140; see also Blake, *Land Into Water*, 176-177; Grunwald, *The Swamp*, 219.

²⁵ Senate Committee on Public Works Subcommittee, *Rivers and Harbors – Flood Control Emergency Act*, 141-142.

²⁶ Johnson, *Beyond the Fourth Generation*, 145.

²⁷ Irene B. Burnham, Corresponding Secretary, Soroptimist Club of the Palm Beaches, to Spessard L. Holland, Senator, 12 November 1947, File Flood Control (Oct.-Dec. 1947), Box 287, Spessard L. Holland Papers. Manuscript Series 55, Special and Area Studies Collections, George A. Smathers Library (East), University of Florida, Gainesville, Florida [hereafter referred to as Holland Papers].

²⁸ Resolution No. 406, 12 November 1947, File Flood Control (Oct.-Dec. 1947), Box 287, Holland Papers.

²⁹ Claude Pepper to Lt General R. A. Wheeler, Chief of Engineers, 28 October 1947, Folder 11, Box 33, Series 201, U.S. Senate Correspondence, Claude Pepper Collection, Claude Pepper Library, Florida State University, Tallahassee, Florida [hereafter referred to as Pepper Collection].

³⁰ Lieutenant General R. A. Wheeler, Chief of Engineers, to Honorable Claude Pepper, 3 November 1947, Folder 11, Box 33, Series 201, Pepper Collection.

³¹ House Committee on Public Works, *Central and Southern Florida Flood Control Project*, report prepared by the Library of Congress, 84th Congress, 2d session, 1956, Committee Print 23, 6.

³² Press Release, Corps of Engineers, Jacksonville, Fla., District, 2 November 1947, Folder 11, Box 33, Series 201, Pepper Collection.

³³ See, for example, Colonel Willis E. Teale, District Engineer, to Honorable Claude Pepper, United States Senate, 22 April 1947, Folder 11, Box 33, Series 201, Pepper Collection.

³⁴ H. H. Bennett, Chief, Soil Conservation Service, United States Department of Agriculture, to Hon. Claude Pepper, United States Senate, 9 September 1947, Folder 11, Box 33, Series 201, Pepper Collection.

³⁵ Press Release, Corps of Engineers, Jacksonville, Fla., District, 2 November 1947.

³⁶ All quotations in Press Release, Corps of Engineers, Jacksonville, Fla., District, 2 November 1947.

³⁷ See Pelican Lake Sub-Drainage District, et al., to Honorable Claude Pepper, United States Senate, et al., 13 November 1947, Folder 11, Box 33, Series 201, Pepper Collection.

³⁸ See "Notes Covering Meeting Held at the El Comodoro Hotel, Miami, December 7, 10 A.M. – 1 P.M.," Folder 11, Box 33, Series 201, Pepper Collection.

³⁹ Quotations in House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 15-18, 56-58; see also Hanna and Hanna, *Lake Okeechobee: Wellspring of the Everglades*, 352. For an example of a study conducted before 1947, see House, *Caloosahatchee River and Lake Okeechobee Drainage Areas, Florida (Side Channels)*, 79th Cong., 2d sess., 1947, H. Doc. 736, Serial 11059.

⁴⁰ House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 32-35.

⁴¹ R. A. Wheeler, Lieutenant General, Chief of Engineers, to The Secretary of the Army, February 19, 1948, in House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 2. A paper written by Harold A. Scott, Chief of the Planning and Reports Branch of the Jacksonville District, in 1951, stated that the major purposes of the project were to protect the agricultural area and east coast communities from flooding.

Chapter Two Endnotes (continued)

"Distribution of Water in the Central and Southern Florida Project," 26 September 1951, 2, South Florida Water Management District Reference Center, West Palm Beach, Florida.

⁴² House, Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes, 36.

⁴³ House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 38-42.

⁴⁴ Despite Johnson's bleak opinion about Florida referenda, residents of Dade, Broward, and Palm Beach counties, convinced by the devastation of the floods, had ratified establishment of the water conservation areas late in 1947. Blake, *Land Into Water*, 177.

⁴⁵ House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 42-43.

⁴⁶ House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 44, 46-54 (quotation on p. 36).

⁴⁷ Colonel Mason J. Young, Corps of Engineers, Division Engineer, to the Chief of Engineers, United States Army, 31 December 1947, in House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 59-60.

⁴⁸ Board of Commissioners of Everglades Drainage District by W. D. Hilsabeck, Chairman, to Board of Engineers for Rivers and Harbors, 27 January 1948, File Flood Control Permanent (January 1948), Box 287, Holland Papers.

⁴⁹ R. C. Crawford, Major General, Senior Member, to The Chief of Engineers, 9 February 1948, in House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 11-12.

⁵⁰ Wheeler to The Secretary of the Army, in House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, 1-5.

⁵¹ Reuss, *Designing the Bayous*, 111, 121.

⁵² William G. Warne, Assistant Secretary of the Interior, to Lt. Gen. R. A. Wheeler, 13 April 1948, in House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*, vii. Likewise, in January, Daniel Beard, superintendent of the park, had conveyed to Teale his understanding that "future [Corps] studies will give full consideration to the interest of the Everglades National Park and that the water problem in the park area will be a subject of cooperative study." Beard to The District Engineer, 28 January 1948, File 1110-2-1150a (C&SF) Proj Genl—Flood Control (May 49-July 49), Box 8, Accession No. 077-01-0023, RG 77, Records of the Office of the Chief of Engineers, Federal Records Center, Atlanta, Georgia [hereafter referred to as FRC].

⁵³ United States Department of the Interior, Fish and Wildlife Service, Region 4, "A Preliminary Evaluation Report of the Effects on Fish and Wildlife Resources on the Everglade Drainage and Flood Control Project, Palm Beach, Broward, and Dade Counties, Florida," October 1947, 1, 18-19, copy in Library, Jacksonville District, U.S. Army Corps of Engineers, Jacksonville, Florida; see also Willis E. Teale, Colonel, Corps of Engineers, District Engineer, to The Regional Director, Fish and Wildlife Service, 21 November 1947, File A—Policy Action Taken by Corps of Engineers, Box 3, Entry 57A0179, Wetlands, 1944-1956, U.S. Fish and Wildlife Service, Atlanta Regional Office, Office of River Basin Studies, RG 22, Records of the U.S. Fish and Wildlife Service, National Archives and Records Administration Southeast Region, Atlanta, Georgia.

⁵⁴ Warne to Wheeler, 13 April 1948.

⁵⁵ Spessard L. Holland to Honorable Edwin A. Menninger, Publisher, The Stuart News, 10 March 1948, File Flood Control Permanent (Feb. 16-March 31, 1948), Box 287, Holland Papers. Apparently, the hurricanes had changed Holland's view of flood control. In 1947, EDD engineer Lamar Johnson had enlisted Holland's aid to get an appropriation for flood control. At that time, Johnson reported, Holland "figuratively jumped on me with both feet. He told me that I had no business in Washington and that I should take my problem to [Chief of Engineers] Colonel Jewett." Johnson, *Beyond the Fourth Generation*, 158.

Chapter Two Endnotes (continued)

⁵⁶ Atlantic Gulf Canals Association Inc. to Hon. Claude Pepper, Senate Office Building, 7 November 1947, Folder 11, Box 33, Series 201, Pepper Collection.

⁵⁷ Johnson, *Beyond the Fourth Generation*, 160.

⁵⁸ Senate Committee on Public Works Subcommittee, *Rivers and Harbors – Flood Control Emergency Act*, 144.

⁵⁹ Senate Committee on Public Works Subcommittee, *Rivers and Harbors – Flood Control Emergency Act*, 165.

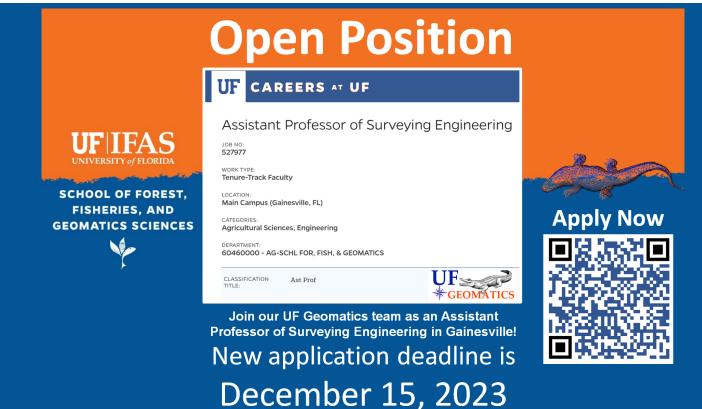
⁶⁰ Quotation in Pearson to Colonel B. L. Robinson, Corps of Engineers, U.S. Army, South Atlantic Division, 21 August 1950, File 1110-2-1150a (C&SF) Proj Genl—Flood Control (May 50-Aug 50), Box 9, Accession No. 077-01-0023, RG 77, FRC; see also Senate Committee on Public Works Subcommittee, *Rivers and Harbors – Flood Control Emergency Act*, 183-184, 216-217, 249. Interestingly, the NPS initially proposed that the law authorizing the C&SF Project be amended to state that no work could occur that would affect Everglades National Park until the director of the NPS and the Chief of Engineers had established a mutually agreeable plan of operation. It dropped its request a few weeks later after Corps leaders assured it "that any plan of flood control will be taken up with us insofar as it may affect the Everglades National Park." "Chronological Documentation of National Park Service Efforts and Corps of Engineers Responsibility to Assure Everglades National Park of Fresh Water Supply from Central and Southern Florida Flood Control Project," 5, File CE-SE Central and Southern Florida FCP Everglades National Park Basic Data, U.S. Fish and Wildlife Service, Vero Beach administrative records [hereafter referred to as FWSVBAR].

⁶¹ Act of 30 June 1948 (62 Stat. 1171, 1176).

⁶² Spessard L. Holland to Honorable Ray Iverson, 23 June 1948, File Flood Control Permanent (May-June 1948), Box 287, Holland Papers.

⁶³ For more information on the development of the Mississippi River and Tributaries Project, see Charles A. Camillo and Matthew T. Pearcy, *Upon Their Shoulders: A History of the Mississippi River Commission from Its Inception Through the Advent of the Modern Mississippi River and Tributaries Project* (Vicksburg, Ms.: Mississippi River Commission, 2004), 141-172.

⁶⁴ Douglas, "What Are They Doing To The Everglades?" 12.



How did Florida Become a State?

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St. Augustine

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St.Mary's R. Hacksonville

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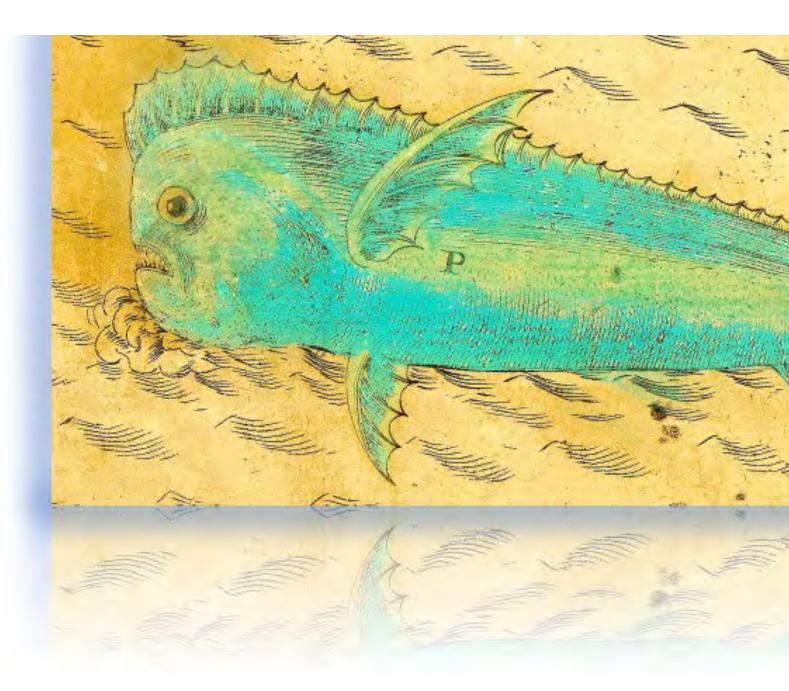




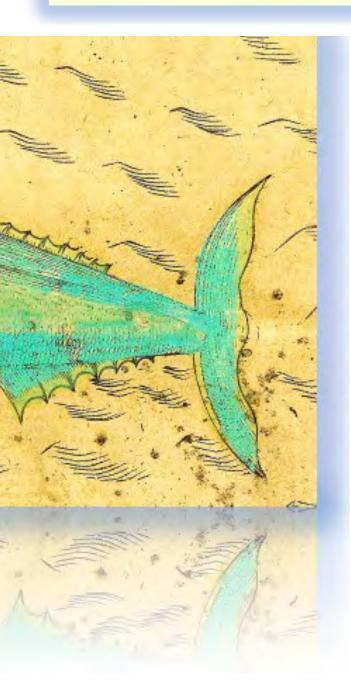
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From the desk of Rick Pryce:

The Dolphin (mahi-mahi) from the 1500's map and a description in olde English.



P The liuely purtraicture of a fifh called the Dolphin, which is of three feuerall coullours: the top of his backe and all his fins be blue, all his fides are of light greene, the belly white, his head almost all blue, the taile one parte blue, and the lower parte greene, he is very pleafant to beholde in the fea by day light, and in the night he feemeth to be of the coullour of gold, he taketh pleafure as other fishes do by fwimming by the ship, he is excellent fweete to be eaten, this fish lineth most by chasing of the flying fish and other small fishes, they are caught most commonly by our mariners with harping irons or fifgigs.

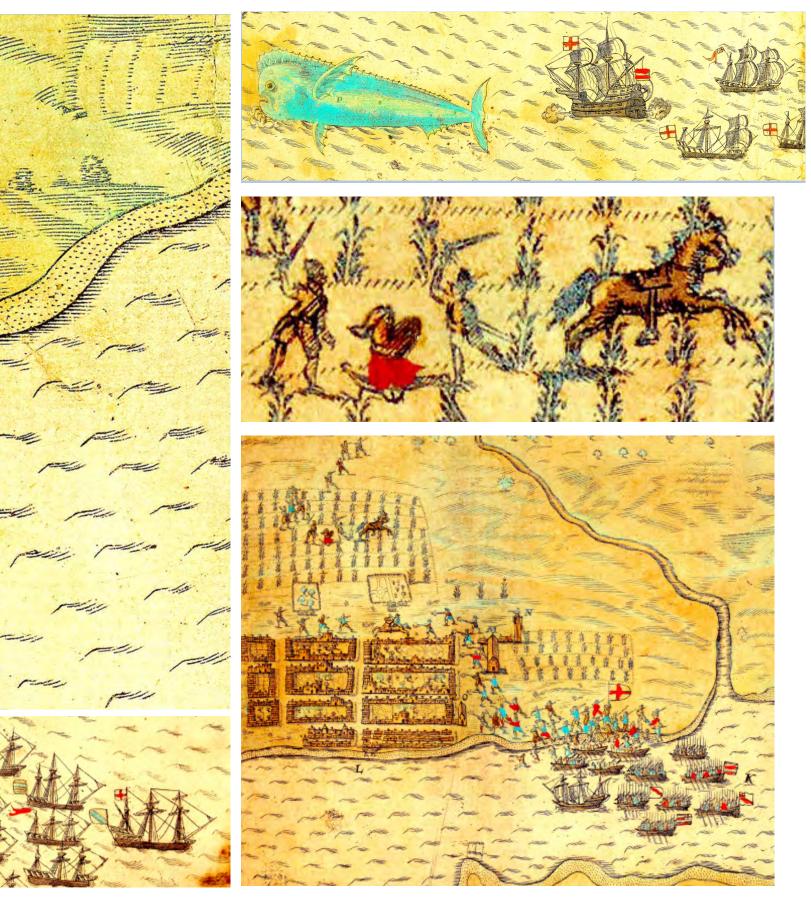


From the desk of Rick Pryce:

As we see from our maps, Florida went through some drastic changes over its history. The pl The following two maps show two different attacks against the Spanish Settlement, and each



ace that's seen the most and survived is none other than its oldest City, St. Augustine. In tell a different story.



November 2023



A The place where the whole Fleete came to ancker. B The place where the Pinnaces and Shipboats did fet vs on fhore. C A Beacon or high fcaffolde flanding on the fand hils, wherein the Spaniards did vieto difcouer fhips at fea. D The way which our army marched along the fand by the fea fide towardes their fort. E The place where our Pinnaces put our ordinaunce on land. F A lowe plane or meadow ground through the which our troupes paffed to go towards the woods right our again! the Spaniards forte.

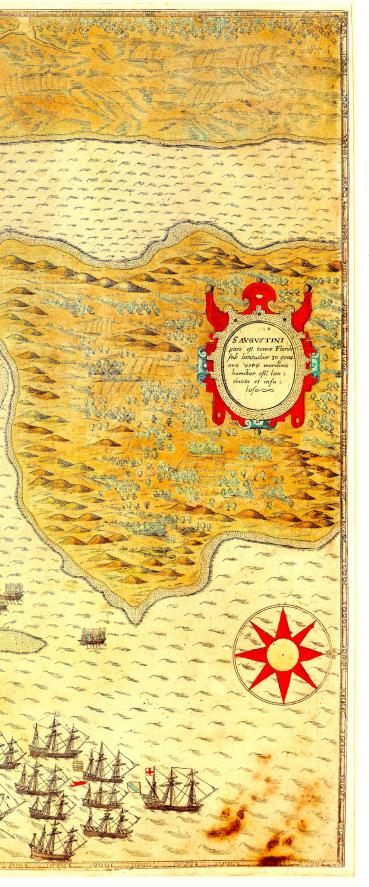
G Awood growing hard by the river fide, having betweene it and the river fide a high bancke of fande, in which wood our men encauped themfelues, and in the faid great bancke of fand, being fitted for the purpofe was placed alfo two peeces of ordinaunce to beate the Spanith forte, which was done with fuch expedition as they were planted and difchardged twife or thrife the fame day we landed, meaning the next day to have had more ordinaunce brought, and to have it planted on the fame fide of the river wherein the fort is, whither Mafter Carleill our Lieutenant generall was minded the fame night to transport him-

Saint Augustine.

Filf & fome part of the army, to lodge him (film fome trenches clofe by the fort, but the Spaniards perceiving the approch abandoned the place before the day. H A Pinnace which the Spaniards had lying hard by their forte in the little river. I The fort which the Spaniardes had made of the bodies of Cedar trees, they placed therein fome fourteene great and long peeces of artillery, which at our ariual there to the fand bancke played upon vs, the forte was called Saint John de Pinos which afterward we burned.

K Our Pinnaces as they rowed up the becaufe the way was not paffable were take the towne of Saint Auguftine, with parture barned to the ground.

- take the towne of Samt Auguitine, w parture barned to the ground. L The towne of Saint Auguitine w Spanith fouldiers. M The towne houle. N A high fadfold for a watchman. O The Church.



From the desk of Rick Pryce: The first Map

1586 – Sir Francis Drake and over 1,000 men left St. Augustine after burning the settlement to the ground on this date. The raid was part of a much larger Anglo-Spanish War between England and Spain which spilled over into the new world. Although the city was destroyed and much of their supplies had been plundered by Drake's forces, the people of St. Augustine were able to slowly rebuild with the help of the Spanish government, and eventually began construction on a permanent stone fort after subsequent attacks from others, now known as the Castillo de San Marcos.

The 1589 Map by Baptista Boazio shows the English version of the story in 1586 with a description below of everything about the battle and the fish (dolphin) they found within the waters. It also shows the original Spanish Fort that was burned to the ground.

Even though the British won out in the first round, between this battle and the next several battles the Spanish built the Castille de San Marcos. Construction began on the Castillo de San Marcos in 1672 and lasted 23 years until 1695. The fort came under fire for the first time in 1702. British forces, led by General Moore, burned the city but could not penetrate the Castillo's walls. Subsequent attacks in 1728 and 1740 yielded similar results, and the British were never able to take St. Augustine by force.

e river being all full of men, who faine to embarke them felues to hich being wonne was at our de-

ere dwelled a hundred and fifty

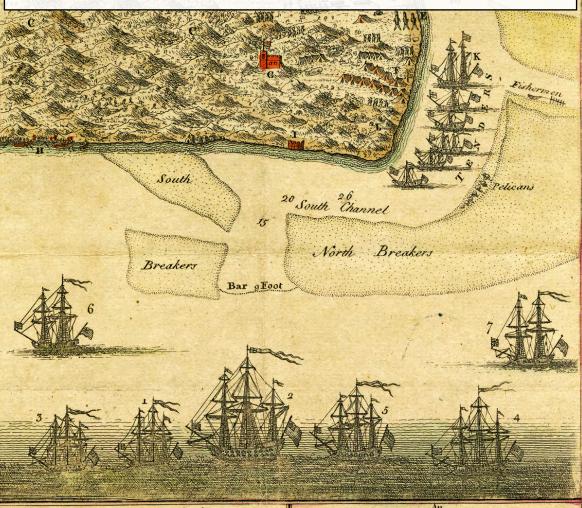
P The linely purtraichure of a fifh called the Dolphin, which is of three feuerall coullours: the top of his backe and all his fins be blue, all his fides are of light greene, the belly white, his head almoft all blue, the taile one parte blue, and the lower parte greene, he is very pleafant to beholde in the fea by dw light, and in the night he fement to be of the coullour of gold, he take the pleafure as other fifnes do by fivinning by the flup, he is excellent fweete to be eaten, this fifth hutch moft by chaing of the flying fifth and other fmall fifthes, they are caught moft commonly by our mainters with harping irons or fifgigs.

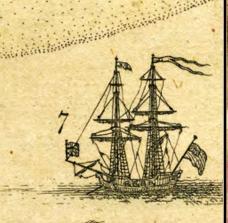
The Town * A GO AAT WWWWWWWWW The Caffle Matanza River STALLAS AND ALLASSA A A. A. inthe . (Add ARRA S 小的水水 Salasian Salasian South 20 South Channel North Breakers Breakers Bar gFoot BER

AVIEW of the TOWN and CASTLE of STAUGUSTINE, and the ENGLISH CAMP before it June 20.1749. by THO'S SILVER.

From the desk of Rick Pryce:

The second map is of the Battle in 1740 where the British tried once again by General Oglethorpe. On the 17th of June 1740, the General sent a summons to the Governor to surrender. And the Governor sent back word that he would be glad to shake hands with him in the Castille. Bad weather made the English war ships set back out to sea, and thus the Spanish held on. A full account of the battle is listed on the map.





licans

S. Marks River

North Channel

Col.Vander Dulen

A CONTRACTOR DESCRIPTION

Malinkinin

Fisherme

A. The English South Trench 1.3 18 . & 2 small. Mortars B. A. Marsh from whence we played with 20 Cohorns C. Eultatia Mand, which is chiefly Sand & Bushes C. Eultatia Illand, which is chiefty Sand & Bushes D. Sailors hawling Cannon in reach of the Castle E. M. North Trenchs, 18 & a Mortar of 24.5.10 w? F. Gen Oglethorp's Soldiers, Indians & Sailors Sents G. A. Look out taken the 2th of Sune M. Soldiers and Sailors landing Sune the 1.th A. Sand Battery quited at our Approach X. Cap Warren Commander over the Sailors hoisting the Union Flag on board a Schooner I. The Sailors wells to Water the Shiping.

Ships {1. Flamborough 2 Hector. 3 Squirrel 4. Tartar 5. Phænix Sloops 6 Woolf 7. Spence

Employ'd in this Expedition about 200 Seamen 400 Soldiers and 300 Indians

Forces of the Spaniards 1000 besides & Strong Castle and & Fortified Barks and a Shallow River hindring our Shippings Playing on them.

Account of the Siege of S'Augustine in a Letter from on Board & Hector May, so we arrived near St Augustine, State I Twee of the Flamborough , Cap' Pearse , the Phanix Cap. Fanshan the Flamborough, Cap! Pearse, the Phasnix Cap! Finshan, the Tarter Cap! Sownshend and the Squirrel Cap! Warren of 20 Guns each be-sides the Spence Sloop Cap! Laws, and the Wolf Cap? Dansfrige. On the 2^d Cot. Vander Dulen with 300 Carolina Soldiers appeard to the Jorth of the Town. On the 9th Gen Oglehorpe came by Sea with 300 Soldiers and 300 Indians from Georgs. On the 10th they were carried a Shore in the Men of Wars boats under the cover of the small Ships Guns. They Landed on the Hand Eufstain without Opposition and took the Look-out at G. 5 The 13th Cap. Warren in a Schooner and other (Irmed Sloops and Pedgaagers anchored in their Starbour, wat out of Canon Mot till

engaugers anchered in their Harbour, inst out of Cannon shot till a 26 " when the Sailors were employed in landing Ordnance and ther Surves within Reach of the Enemys Cannon . In which Occasion they discovered a surprising Spirit and Intropidity . The same night two

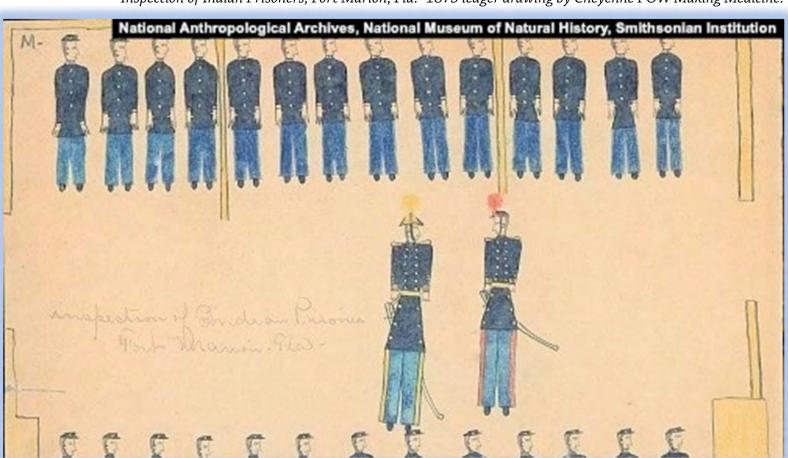
Batteries were raisd, but too far off. Batteries were raisd, but too far off. She 2th the General Sammard the Governows to Surrender, whosent word he should be glad to shake hands with him in his Castle. This haugh ty answer was occasion d by a dear bought Victory, which 500 Spaniants had obtained over 80 Highlanders 50 of whom were stain, but died like the should be shown be supported as the standard state of the should be shown by the shown by the shown be stated to be shown by the shown be shown by the shown Heroes killing thrice their number

The 29th bad Weather obliged the men of War to put to set, out of wet ut one man had been kill it . Here upon the Siege was raised .

From the desk of Rick Pryce:

Continuing with the St Augustine's history and stories within maps ...

St. Augustine, after Florida was relinquished by Spain into the new United States, took on a new role and the Spanish Fort "Castille de San Marcos" became "<u>Fort Marion</u>," and was used as a prison from 1837-1886 for indigenous Tribes across the country from Kiowa, Cheyenne, Arapaho, Comanche, Caddo, and Seminole during the Indian wars.



"Inspection of Indian Prisoners, Fort Marion, Fla." 1875 ledger drawing by Cheyenne POW Making Medicine.

During that time Fort Marion was used for additional purposes and as a Base of operations for the Coast Surveys.

The US Coast Surveys were being conducted by the then Superintendent A.D. Bache, (great grandson of Benjamin Franklin) and available on the following page is an 1862 map in full color and details of the Land, the Coast and the Hydrography around St. Augustine and within the surrounding rivers.

You could buy these maps for mere 60 cents in 1862, or roughly \$18.13 in todays money. Based on the pay scale back then probably only Officer's pay could handle that.

All in all a beautiful map and the download is available as well.

Link to Download: https://fsms.memberclicks.net/assets/docs/ SurveyingDocs/6C_SaintAugustineHarbor1862.pdf

U.S.COAST SURVEY

A.D. BACHE Supdt.

PRELIMINARY CHART OF

ST. AUGUSTINE HARBOR

FLORIDA

Triangulation by B.HUGER Jr. Sub-Assist. Topography by F.W.DORR Sub-Assist.

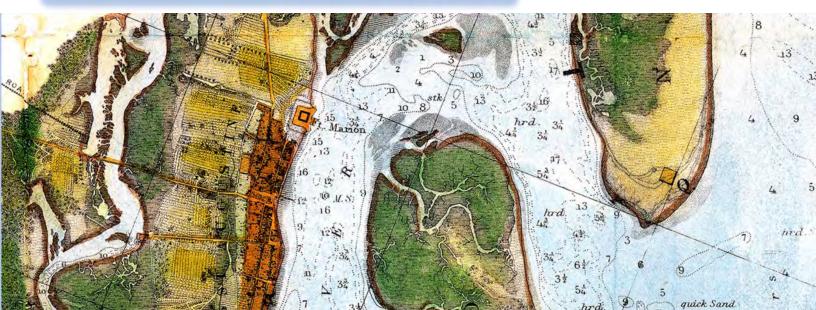
Hydrography by the Party

under the command of Lieut. Comdg. A.MURRAY U.S.N.A sist.

Scale 30,000

1862





Verified M.R.Pal



A.D. BACHE Supdt.

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Channel 1879.

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PRELIMINARY CHART OF

ST. AUGUSTINE HARBOR

FLORIDA

Triangulation by B.HUGER Jr. Sub-Assist. Topography by F.W.DORR Sub-Assist.

Hydrography by the Party under the command of Lieut. Comdg. A.MURRAY U.S.N.A sist. Scale 30.000

1862

Statute Mile 1 Mile Verific

1855

1860

HK. Palmer Cape Topl Engrs

-2:

The Triangulation was executed in The Topography The Topography The Hydrography

...do.

SAILING DIRECTIONS

To enter St. Augustine harbor. When in 6 fithboms water, bring the Old Tower to bear W.N. and then steer West, passing the Outer Burgo on either hand, but to the Southward of the Middle and Inner Burgs. Haul gradually around the North breakers and Sand Shad, giving the South shore the wider berth until opening the light House if of a point on the Port bow. Then you wilk be on the channel course for the North end of Anastasia Id. New Light House erected in 1873.

NOTE

As the Bar at the entrance is liable to shift, it should not be attempted by strange vessels without a pilot, unless by sending a boat in advance. Vessels drawing more than 5 feet should not attempt to cross the Bar

at low water. The anthornge is not good until after passing the point of North beach. In navigating either of the rivers the chart is the besc guide. The Courses and Bearings are Magnetic.

TIDES

Corrected Establishment	VIII ^h XXI ⁿ
Rise of Highest Tide observed above the plane of reference	
Fall of Lowest Tide	
Fall of Mean Low Water of Spring Tides belowdo	
Height of Mean Low Water of Neap Tides above. do.	
Mean Rise and Fall of Tides	
Mean	
Neandoof Neap Tides	
Mean Duration of Rise Reckoning from the middle of one	
Mean do of Fall stand to the middle of the next	
Vean do of Stand	0 22

SOUNDINGS

ABBREVIATIONS

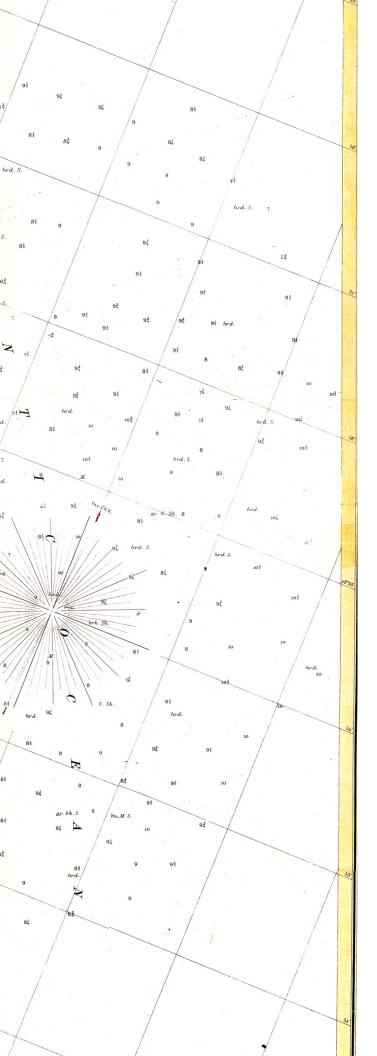
Materials in Capitals	Colors or Shades two small letters	Other qualities three small letters		
M. for Mud	bk. for black	hrd for hard		
S Sand	gy grig	sth sticky		
Sh Shells	bu blue	brk broker		

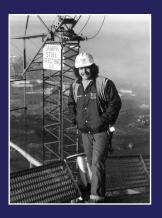
LIGHT HOUSE

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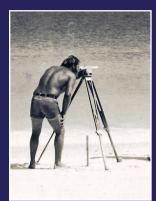
4" 6"E

Variation of the Magnetic Needle (computed) in 1860...... Present annual decrease 0.8















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DID YOU KNOW? Sir Robert Watson-Watt pioneered the technology that helped win the Battle of Britain, and was knighted for it in 1942.

Radio detection and ranging, radar for short, is now used to keep passengers safe by detecting the flight path of every commercial

aeroplane in the world, but it was developed as the threat of World War Two became more acute to warn of enemy planes on the move.

It was in Canada though, in 1956, that Watson-Watt got a glimpse of a less popular application for the technology he helped develop - when he was pulled over for speeding by a policeman using a radar gun. According to Mr Herriot: "He said, 'My God, if I'd known what they were going to do with it, I'd have never have invented it!'"

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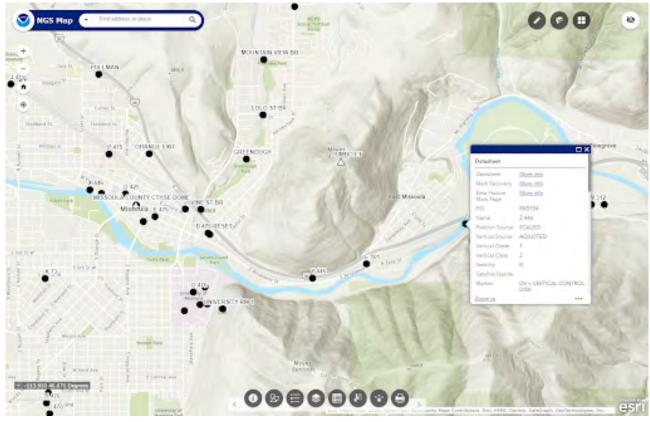
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FACES ON THE FRONTIER

FLORIDA SURVEYORS AND DEVELOPERS IN THE 19TH CENTURY

by Dr. Joe Knetsch

CHAPTER 2

BENJAMIN PUTNAM

n January 11, 1849, Representative John Tanner of Jackson County moved to make a change in the Senate bill entitled, "An Act to Organize the county of Hilaka." What Tanner wanted to do was to change the proposed county to Putnam. When Representative John P. Baldwin of Monroe County sought to strike this, he was defeated in his motion by a vote of 26 to 2. The ruler were then waived and the bill read a third and final time and approved overwhelmingly.¹ Although controversy has been raised over which Putnam the new county was named for, all of the evidence, both contemporary and historical, points to Benjamin A. Putnam as the individual so honored.²

¹Journal of the Proceedings of the House of Representatives of the General Assembly of the State of Florida (Tallahassee: Office of the Florida Sentinel, 1848), 197-98.

²Brian E. Michaels, The River Flows North: A History of Putnam County. Palatka, Florida (Putnam County Archives and Historical Commission, 1986), 74-80. I agree completely with the author's conclusion as to the origin of the name of the county and have followed the same assumption in this paper.

What sort of man would deserve such an honor as to have an entire county named for him? During his life, he had many contemporaries who were famous and have since had their reputations enhanced by inclusion in the history books. One needs only mention David Levy Yulee, William D. Moseley, Richard Keith Call, John Milton and inventor John Gorrie to see the point. Yet, with the exception of Senator Yulee, no other "great man" was so honored. To understand why this is so is to comprehend the life and times of Benjamin A. Putnam and the numerous endeavors in which he was involved. It is precisely this that the present study shall attempt to do.

As Putnam County's historian, Brian E. Michaels has told the basic outline of his life in *The River Flows North: A History of Putnam County*, the facts are familiar to many, but need to be repeated, to a limited extent, for a better understanding. Benjamin A. Putnam was born December 16, 1801, in the lovely port city of Savannah, Georgia. Unfortunately, his father, a former surgeon in the Revolutionary army, died a year later. His name, too, was Benjamin, son of Henry Putnam, who was killed in the Battle of Lexington. He was the grandnephew of another Revolutionary War hero, General Israel Putnam. It would appear that his lineage almost seemed to mark young Benjamin for future military laurels. However, he did, in all likelihood, receive the usual tutoring at the family plantation outside of Savannah, and, at an early age, was shipped off to New York for a year to prepare him for the rigorous curriculum at the famed Phillips Academy in Andover, Massachusetts. The only reason a student attends Phillips is to prepare for admission to Harvard, which is exactly what young Benjamin did.

Young Putnam's stay at the fabled institution on the "Square" lasted two years. This was not uncommon for young gentlemen of the day. A fouryear degree seldom opened any more doors than attendance and grooming. The primary purpose was to learn how to research, study and apply lessons for future use. Most of the young planters at Harvard (or any of the schools favored by the elite) attended to acquire these skills and associate with others of the same class. Many of the young planters, though by no means all, went for the practical reasons of learning enough of the law, mathematics, sciences and grammar to be able to communicate well and run a plantation, when the proper time came. Education was seen as a means to very practical ends, aside from the accepted moral training and social graces one acquired while attending.

Upon the completion of his second year, young Putnam returned home to attend to family matters, most notably an ill mother. It is presumed that he moved further south to St. Augustine, Florida in 1823 and studied law in a

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local office. By the following year, he had become associated with Territorial Judge Joseph Lee Smith, the father of Confederate General Edmund Kirby Smith and the offender of Ralph Waldo Emerson's sensitive ears with his profanity. Judge Smith had the backing of several prominent individuals on the frontier of East Florida. When his term was about to expire in 1832, many of these supporters petitioned President Andrew Jackson to continue his term of office. The list contained the names of numerous well-known leaders and pioneers, including John Lowe, Thomas Ledwith, Edward Wnaton, Thomas Flotard and members of the Osteen, Sparkman and Thigpen families.³ That Judge Smith was also controversial can be seen from the petition presented to President Jackson in 1829, defending the jurist from "accusations" made by Joseph Sanchez that were sent to Washington. This same petition contains the names of every recognized leader of East Florida and the name of his protege, Benjamin A. Putnam.⁴

³Clarence E. Carter, Editor, *The Territorial Papers of the United States*: Volume XXIV. *The Territory of Florida*, 1828-1834 (Washington: Government Printing Office, 1959), 597-98.

⁴Carter, Territorial Papers, Volume XXIV, 293-94.

Putnam's personal attachment to Smith became much stronger in 1830 when he married the judge's sister-in-law, Helen Kirby, in Charleston, South Carolina. She was the daughter of the prominent Litchfield, Connecticut, attorney, Ephraim Kirby. By this time, Putnam had already made a name for himself in St. Augustine. In May 1824, he had been admitted to practice law in the Territory for the Spring term of the Superior Court.⁵ In a seemingly bold move, he opened his own law office in August of the same year.⁶ By 1826, Putnam had become sufficiently respected to be elected Orderly Sergeant for the St. Augustine militia unit known as the Florida Rangers and, in November of that year, was elected to teh office of alderman.⁷ In 1830, the Putnam's only child, Catherine, always knows as "Kate" in the family, was born in St. Augustine. With mother, wife, law practice and reputation established, Benjamin A. Putnam was on the brink of becoming a very important citizen of the Territory.⁸

⁵St. Augustine *Gazette*, May 29, 1824, 2. The announcement also listed one

Thomas Correll as being admitted to the practice, however, little is known about Putnam's colleague at this time.

⁶St. Augustine *Gazette*, September 25, 1824. The announcement bears the date of August, 21, 1824.

⁷Benjamin Putnam biographical file, St. Augustine Historical Society, St. Augustine, Florida. All of the information through 1837 is taken from the *East Florida Herald*. The author would like to thank Jean Parker Waterbury for providing copies of this file for use in this piece.

⁸Michaels, *The River Flows North*, 80-81. Also see typescript, "Benjamin Alexander Putnam: Biography," by R. M. Burt, on file at the Putnam County Archives. This copy shows the corrections made to Burt's earlier work on its margins. The author would like to express his thanks to Janice Mahaffrey, Archivist, for her invaluable assistance in obtaining this and other information contained herein.

Putnam's involvement in civic affairs can also be seen in the numerous petitions to Congress and the Territorial Legislative Council he signed. To cite just two examples, on November 8, 1833, his signature is found affixed to the petition to make further repairs to the "King's Road" for twenty miles south of St. Augustine and about the same number of miles north of the Ancient City.⁹ And on April 7, 1834, he joined one hundred and forty-five fellow citizens petitioning the federal government for further repairs to Fort Marion for the dual purpose of historic preservation and its utilization as a supply depot.¹⁰ By 1833, he has risen high enough in the social and political community to be appointed Justice of the Peace for St. Johns County, a very important post during the Territorial Period.¹¹ Service to the community through cooperative petitioning, office holding and charitable work-he was appointed Vestryman in the St. Augustine Trinity Episcopal Church in 1840—brought recognition from his fellow citizens. In 1835, he served his first term in the House of Representatives of the Legislative Council. After attending the session, he became active in soliciting a charter for a railroad between St. Augustine and Picolata from the same legislature. Thomas Douglas and David Levy assisted the young legislator in drawing up the memorial, which was successful in getting the charter during the following

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session, although it did not prove to be a successful venture at the time.¹²

⁹Carter, Territorial Papers, Volume XXIV, 935-36.

¹⁰Carter, Territorial Papers, Volume XXIV, 997-99.

¹¹Michaels, *The River Flows North*, 80.

¹²Thomas Graham, *The Awakening of St. Augustine: The Anderson Family and the Oldest City: 1821-1924* (St. Augustine: St. Augustine Historical Society, 1978), 33.

In this period, the Legislative Council met once a year for about two months depending on the business to be disposed of. During Putnam's first session, he was appointed to the Judiciary, Banks, State of the Territory and Enrolled Bills standing committees. He served as Chairman of the latter. The issues that concerned him most in this important first session related to his interest in the law and personal property. On the first full day of business, he introduced a petition of Mary J. Fontane asking authorization from the Legislature to sell certain real estate holdings, something normally forbidden to women at the time.¹³ He also represented his constituency directly by asking for the incorporation of the Methodist Episcopal Church, and, later, other local churches as well.¹⁴ Putnam also took care to look after some of his legal clients when he presented a petition to exempt Peter Mitchel and other proprietors of the Arredondo Grant in Alachua County from taxation because their specific lands had not been designated by a court of law and, therefore, no one knew exactly what lands they held or their value.¹⁵ He soon observed that many of the acts being proposed by his colleagues were for revision or amendment of acts then in force. Because so much time was diverted to this effort, he felt obliged to move that all such revisions or amendments be first submitted to the Judiciary Committee for examination and report. This action would free up more time for all members to discuss and devise legislation of more immediate benefit.¹⁶ For Putnam, this meant work on the passage of bills to incorporate the St. Augustine Wharf Company, the partition of real and personal property and a bill to "enable Married Women to convey their real estate of inheritance in this Territory."¹⁷ In this latter bill and his votes in favor of granting divorces, Benjamin Putnam showed a concern for the rights of women that was considerably

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in advance of his time, although his motives were more based upon legal representation than actual concern for civil liberties.¹⁸

¹³Jounal of the Proceedings of the Legislative Council of the Territory of Florida (Tallahassee, The Floridian, 1835), 13. Hereafter, House or Senate Journal, year and page number.

¹⁴*Ibid*, 25.

¹⁵*Ibid*, 25.

¹⁶*Ibid*, 29.

¹⁷*House Journal*, 1835, 30-47.

¹⁸House Journal, 1835, 30-47.

One of the more important concerns of Benjamin Putnam was that for the benefit of public education. On January 24, 1835, he offered and read the preamble and resolution he had helped to prepare regarding school lands and their disposition. His resolution, which he presented thee days later, is one of the more revealing of the day regarding the problem of financing public education in Florida. Also, the sentiments expressed therein show a deep commitment to the ideals of sound government in a democracy:

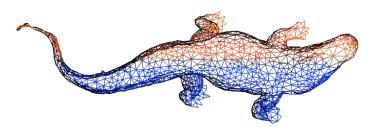
Whereas, It is important in all new and growing countries and especially under a Republican Government, which is based upon the general intelligence and virtue of the community, to provide for the education of the rising generation: And whereas, Florida is almost entirely destitute of the necessary means for that purpose, on account of the sterility of a considerable portion of the sixteenth sections, which have been reserved for the support of schools, and a large portion of the counties having been granted out to private individuals by the British and Spanish Governments before its transfer to the United States, without any reservation of School Lands: And, whereas, also owing to the great extent and conformation of our sea-coast, there are and necessarily must be, a great many fractional townships in this Territory, containing less than sixteen sections-each of which have no School Lands. Resolved, therefore, by the Governor and Legislative Council of the Territory of Florida, That Our Delegate in Congress be requested to use his exertions to procure the passage of a law authorizing the selection in such manner as the Governor and the Legislative Council shall direct, other lands in the place of such sixteenth sections as shall prove to be of little or no value, on account of the sterility of their soil, or any other cause. And also the selection and location of a quantity of lands equal to one thirtysixth of all the lands which may have been granted out as aforesaid by the said British and Spanish Governments, and of the said fractional township.

The young representative would then have the proceeds from the sales of such lands distributed to the counties according to a ratio of the white population in such counties.¹⁹

¹⁹*Ibid*, 51-52.

His votes on bills pertaining to internal improvements and related topics were also interesting and show him as someone not yet ready to vote for every improvement scheme that came along. For example, he voted against a bill to incorporate the Union Railroad Company and an act to amend an act to incorporate the subscribers of the Union Bank of Florida. Yet, during this same session, he cast his vote in favor of the South Florida Land Company. These votes appear, on the surface, to be contradictory.²⁰ However, because of a lack of correspondence or diary, the actual causes of his apparent inconsistency must await later analysis. It was in this same session that the act establishing the Southern Life Insurance and Trust Company was passed, yet the roll call vote for this controversial banking house was not recorded and we do not know Putnam's position relative to it. However, in reviewing his first legislative endeavor, Benjamin Putnam had much to be proud of, including the passage of his act for the collection of rents, the incorporation of the Methodist Episcopal Church, the incorporation of the St. Augustine Wharf Company and the act enabling women to convey real estate of inheritance.²¹

²⁰House Journal, 1835, 105-111.



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²¹Acts of the Governor and Legislative Council of the Territory of Florida (Tallahassee: William Wilson, 1835). See the listing of Acts in the front of the volume, ii-iv. By reading the listing and reviewing the *Journal of the House*, I matched those Acts passed with those Putnam sponsored from the floor.

The years of 1835 and 1836 were full of adventure, triumph and defeat for Benjamin Putnam. His election to the rank of major in the local militia had to fill him with pride. Yet, he did not return to the Legislative Council in 1836 and was instead, appointed to be a Notary Public for St. Johns County.²² The most significant event of his early life, however, was soon to take place at Dunlawton Plantation. Here a single defeat at the hands of the Seminole Indians was to have grave consequences for the remainder of his life.

²²*House Journal*, 1836, 114.

The disaster at Dunlawton was one of the first notable skirmishes in the Second Seminole War. In actual numbers, the engagement was small and neither side had over one hundred and twenty men. Because, however, it involved a detachment of men from St. Augustine under Major Benjamin Putnam, who were sent to protect the plantations of the area, the short battle received great attention. The most significant fighting took place before the St. Augustine men were forced to retreat because of a lack of ammunition and provisions. Forced to withdraw, the men made their way to the boats that had ferried them to Dunlawton, but found that the tide had ebbed and left their boats stuck in the mud. The men were thus exposed to withering fire from the guns of the Indians as they attempted to free them and took heavy casualties, four dead and thirteen wounded.²³ The loss inflicted on the battlefield later became a political liability to Major Putnam, even though he was later promoted to Colonel and Adjutant General of the Militia.

²³John Mahon, *History of the Second Seminole War* (Gainesville: University Presses of Florida, 1985), 137-38. This is the best history of the war and is the standard interpretation of Putnam's battle. I have also consulted other texts, especially the *Autobiography of Thomas Douglas* (New York: Calkins and Stiles, 1856), 118-19. Testimony about the engagement and the damage the war did to the plantations can be found House of Representatives Document No. 92, 27th Congress, 2d Session("Representatives of Francis Pellicer") and

Faces on the Frontier

Senate Document No.129, 25th Congress, 3d Session. (A report from the Committee of Claims)

The reaction of his political enemies was of considerable importance. He was characterized as inept and incompetent in some of the letters written in the aftermath of the enagement. His opponents filed court suits and claims to Congress, which kept the small battle in front of the literate public. His defenders noted that the troops he led were raw milita, relatively undisciplined, who responded as well as could be expected under the circumstances. They also argued that the militia did not have the necessary supplies and ammunition to effectively carry out the task assigned to it. Whatever the case, the young, inexperienced commander, with raw troops, under heavy fire and outnumbered, did the best he could. The only negative fact that cannot be disputed is that he lost track of the time and the cycle of tides, which left the boats and his men greatly exposed to enemy fire. For his enemies, this was enough to condemn him, which they loudly did in nearly every subsequent election.

Putnam did not take part in any other major battles of that war and remained in St. Augustine rebuilding his practice. Somewhat ironically, he represented many of those who put forth claims against the government for losses suffered during that tragic conflict. His reputation could not have been so bad as to cause him to lose either clients or elections during the remaining period of the war. His election and service in the 1840 House of Representatives, where he was to be the public voice favoring the division of the Florida Territory into East and West sections, gives sound evidence that his popularity with his St. Augustine constituents was not entirely destroyed.²⁴

²⁴*East Florida Advocate*, September 21,1839. This Jacksonville newspaper reported on the meeting of August 29, 1839, where Putnam made an important address favoring division of the Territory into East and West Florida. This was in opposition to the position taken by the Constitutional Convention, which had earlier convened in St. Joseph for the purpose of creating a constitution for a united Florida.

Throughout the 1830s, 1840s and into the 1850s, Benjamin Putnam was intimately involved in the resolution of the Arredondo claims. These extremely

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R DGE CHAPTER

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Faces on the Frontier

long and drawn out claims and counter claims attracted the best legal talent to be had in the Territory. John Rodman, Joseph Smith, John Drysdale, Thomas Randall and others all appear as legal counsel for one or more of the disputants in these complicated cases. Putnam's major role was in representing Peter Mitchel, the co-owner of the grant along with the Arredondos and Moses Levy, who held the largest amount of "stock" in the Florida Associates, a group of investors in Florida land had formed the association to meet the requirement of getting two hundred families to settle on the Great Arredondo Grant (roughly modern Alachua County) within a three-year time limit set by the conditions of the grant. Others bought into the settlement scheme and soon the project was under way with settlers recruited from New York, Europe and elsewhere. When the Supreme Court of the United States ruled the grant valid under the Adams-Onis Treaty in 1832, the rush was on by the surviving members or heirs thereof to get possession of the land due them by virtue of their investments. The attempts to legally divide the grant among these various shareholders led to seemingly endless litigation, with Putnam representing Mitchel and acting as one of three "appraisers" of the land, when one of the major suits was settled.²⁵ He also took part in the case of Brush vs. Prall, representing the interests of the Mitchel estate and other members of the Brush group of heirs. This case, which ended in the relatively successful division of the Great Arredondo Grant, stands as written testimony to Putnam's great perseverance in the face of very daunting odds.²⁶

²⁵St. John County Clerk of the Court Records, under care of the St. Augustine Historical Society. See the case of *Brush v. Prall*. The most important documents concerning the Great Arredondo Grant can be found in boxes 91, 92, 93 and 215. The author, while researching in these documents in conjunction with current litigation, became very impressed with the legal abilities of the St. Augustine attorneys arguing the case. The interrogatories and the responses to them are some of the most informative documents concerning the settlement of the grant.

²⁶Records in the holdings of the Clerk of the Court for St. Johns County, and archived by the St. Augustine Historical Society, St. Augustine, Florida. See Boxes 91 and 215 for most of the documents regarding this long, complex and vexatious litigation.

Dr. Joe Knetsch

Putnam was not wholly successful in preserving the interests of the Mitchel estate in the Great Arredondo Grant. In the case of *Benjamin A*. Putnam, Executor of Peter Mitchel, vs. John H Lewis, et ux, Putnam admitted being taken in by the lack of protest by Lewis to the estate claims of Peter Mitchel's heirs to land within the grant. Putnam, however, appears to have been too trusting of Lewis. As the court report states: "The petition alleged that petitioner had been lulled into security by the letters and declarations of John H. Lewis, that he had no design to assail the claim of Peter Mitchel, his testator, until about the time the cause came on for hearing, when it was too late to make any effectual resistance: That being taken hy surprise when the whole claim of Peter Mitchel in the said grant was most unjustly and unexpectedly assailed by said Lewis and wife, he was forced to submit to a compromise with the said Lewis and wife; and that he, under the circumstances, had consented to the said decree." The case was somewhat of an embarrassment to Putnam in that his lack of diligence costs his clients a large number of acres in the grant. In attempting to recoup his loss, Putnam appealed the decision until it reached the Supreme Court in the January Term of 1847. In opposition was the highly respected and able Thomas Randall. After many pages of legal arguments and citations to authorities, the Supreme Court decided against Putnam and upheld the lower court's ruling, with costs.²⁷

²⁷Florida Reports, *Volume 1* (Tallahassee: Samuel S. Sibley, 1847), 455-76. The case was actually decided on the technicality that you could not appeal a decree of a lower court that was interlocutory. It recommended a bill of review be brought in the lower court, however, I have not found where this was done and can offer no explanation for this inaction.

Another case argued by Putnam in front of the Florida Supreme Court was styled, John B. McHardy and the Creditors of Robert McHardy, Dec'd., Appellants vs. the Surviving Executor of Robert McHardy, Et. Al., Appellees. This case, which began in the Circuit Court for East Florida, St. Johns County, pitted Putnam against George R. Fairbanks (a former clerk in the office of the Superior Court) and the young George W. Call. Greatly simplified, the case revolved around the issue of who should be paid first from money obtained from Congress due to losses to McHardy's estate during the "invasion of the Province of East Florida" in 1811-13. The court ruled in favor of the clients of Fairbanks and

Faces on the Frontier

Call because they represented the legal creditors of the estate where money was actually set aside to pay all legal and just claims, regardless of the source of the money. Putnam had the unenviable job of attempting to argue that the money was paid for damages and belonged to the rightful heir(s) and that the debts of the estate must first come from any other gains or profits made by the sale or use of the property of the estate. The court, while ruling against Putnam and his clients, nevertheless complimented him on his professional ethics in not insisting upon an argument that would have greatly delayed the court's decision making process and cost the estate considerable money in attempting to justify its shaky legal position.²⁸

²⁸*Florida Reports*, Volume VII, No. I (Tallahassee: James S. Jones, Printer, 1857), 301-18. See, especially, the court's comments on 308-09.

In one of the more interesting cases in which Benjamin Putnam was involved, Phoebe, a slave woman belonging to the Anderson family was accused of attempitng to poison a Mr. Landon, to whom she had been leased. Mrs. Anderson appears to have had a strong personal attachment for the woman and hired Putnam to defend her in the winter term of the circuit court in 1842. Putnam was required to go to Jacksonville to accomplish the task of acquitting the beloved slave. However, as historian Thomas Graham noted, "Mrs. Anderson's lawyer, Major Putnam was not at all sure that Phoebe was innocent, despite the verdict of the court. 'She made a very narrow escape,' reported Putnam, explaining that the evidence against her was substantial." Phoebe, much beloved and chastened, was later sold in Charleston in 1851.²⁹

²⁹Graham, The Awakening of St. Augustine, 79.

Returning to the legislative career of Major Putnam, his record in the 1840 session gives clear indication where his future political allegiance lay. During this session, he served on the Committee on Internal Improvements and the Judiciary Committee. The crucial issue of banks took precedence in this legislature and the debates must have been more than tepid. On January 23, 1840, Putnam moved the resolutions put forth in the House be placed upon the calendar for the following day, at which time the Senate resolutions concerning investigations into Florida Banking practices came to the floor. In

both cases, Putnam voted in the negative, in opposition to the investigations and resolutions. On February 25, he signed a petition to the Speaker that questioned the legality of the legislatures investigation into the affairs of the Union Bank of Florida. He also voted against an act to amend the charter of the Bank of Apalachicola. Loosely construed, the position of Putnam in relation to the banking houses was favorable to their maintenance. This, of course, was exactly the position of the nascent Whig Party of Florida, which was then being formed.

Another position taken by many of the soon to be called Whigs, was in opposition to free or reduced costs of public lands. In the only major resolution to be introduced in this legislature related to preemptions, Putnam was found in opposition. Additionally, his vote regarding the bill to suspend the revenue laws for 1840 put him in opposition to the majority that favored such a move. Both of these votes showed the "conservative" side of Putnam and placed him firmly in the ranks of the future Whig Party. As one of the leading spokesmen in the legislature against these measures, his statewide reputation grew.³⁰

³⁰Journal of the Proceedings of the Legislative Council of the Territory of Florida (Tallahassee: J. B. Webb, 1840). Putnam's votes on the issues discussed in paragraphs concerning this session can be found on pages 49, 86, 100-01, 144, 150, 156-56 and 175. It is interesting to note that the majority of the House voted not to amend the charter of the Southern Life Insurance and Trust Company in which many of Putnam's closest St. Augustine associates, including Judge Smith and Peter S. Smith, were officers or major stock holders. (See pages 46 and 156-57.)

The position taken by Putnam in regards to the division of the Territory is also reflected in this session. Early in the session, he had voted with the minority in an attempt to table the motion to transmit certain documents related to the state of the Territory to the U. S. Senate. He supported the minority report of his colleague K. B. Gibbs in opposition to statehood, which opposed the majority report, which stated that a "large majority of the people are opposed to any division of the said Territory." And Representative Putnam also voted with the minority to attempt to get the minority report sent to Congressional Delegate Charles Downing.31 Along with many of his

Faces on the Frontier

East Florida constituents and his colleagues in the legislature, Putnam was in favor of the division of the Territory and opposed to statehood.

³¹*House Journal, 1840, 23, 77-78, and 125.*

As a Senator from the Eastern District, Putnam was elected to the 1845 session and was assigned to the Judiciary, Schools and Colleges, and Propositions and Grievances Committees. He was also selected to serve on the Joint Select Committee to report on those portions of the Governor's message pertaining to Faith Bonds and Guarantees. When he asked to be excused from service on this Select Committee, since he was the token minority voice, he was denied. The majority was from the ranks of the rapidly developing Democratic Party and Putnam and his colleagues from East Florida knew they were fighting a losing battle. However, this did not prevent them from attempting to derail the train to statehood at every opportunity. Amendments were offered and defeated, postponements were voted upon and lost and resolutions were read, but not put on the record. The most telling document related to the division issue was written by Putnam with assistance from I. D. Hart and Representative H. H. Phillips of Duval County and which contained most concise and clear arguments against statehood at the time and put forth the position of most of East Florida's voting population.³²

³²Journal of the Senate, 1845, pages 53, 69, 71, 74-75. The Minority Report can be found on pages 53-61.

This report immediately launched into the reasons why there should be a legal division of the Territory. Putnam argued that Spain had initially set up the Territories into two separate political entities, East and West Florida, with two distinct governments. The British, when they acquired Florida in 1763, kept this arrangement intact, as did the Spanish when they reacquired the Floridas in 1783-84. When General Andrew Jackson took over the Territory of Florida on behalf of the United States in 1821, he too, recognized the separate regions of the Territory by appointing two separate officers to govern each district. After putting forth the historical basis, he continued by noting that the people of East Florida had continually supported division of the Territory, even as late as 1844, in a resolution to Congress. There was nothing in the previous legislation of the Federal Government that could be construed, he pleaded, so as to enjoin the two Territories into one state. After stating the legalistic case, the senator then got to the political meat of his subject. The question of balancing the federal government betweeu slave and non-slave states was uppermost on many people's minds and Putnan flatly states, "Whereas, Present indications admonish us, in the most significant manner, of the necessity of preserving a just balance of power or influence between the slaveholding and non-slaveholding States, and make it most manifest that the true interests of the South generally, as well as of Florida, require that the Floridas should come into the Union as two States whenever they are admitted." To assist the South in this struggle for the balance of power, therefore, was one of the most important reasons for division. Specific to East Florida, Putnam clearly indicated that the territory was not in a condition to join in statehood because of the tremendous losses sustained as a result of the Indian war. The higher tax burden needed to repair the damage could not be expected to come from Florida itself, it needed to come from the federal government. Statehood, if passed, would place this burden squarely upon the shoulders of those least able to afford it. Finally, he argued that the decision for statehood belonged to the people of each Territory—implying that votes from each Territory should not be combined. He noted the familiar argument of the day that the constitution agreed to at St. Joseph in 1838-39 was not ratified by the people of the Territory and that there were too many unanswered questions regarding the tabulation of the votes. As he stated the case, "an instrument of so much importance as this, organizing a permanent government for the people of Florida, should not be forced upon them, when the contest for its adoption has been so warm, the disapprobation of the instrument itself so strongly evinced, and the issue so doubtful."³³ By drafting and presenting this Minority Report, Putnam placed himself in the leading position opposing the adoption of statehood.

³³Senate Journal, 1845, 53-61. For a reading of many of the documents from which Putnam drew his basic philosophy, see Dorothy Dodd, *Florida Becomes a State* (Tallahassee: Florida Centennial Commission, 1945).

The battle over statehood had been long and hard and left many with bitter feelings, which carried over into the elections for the first statewide offices. The old Dunlawton disaster was completely replayed. One

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newspaper, the *Florida Herald and Southern Democrat* of St. Augustine simply put "PUTNAM AND DUNLAWTON—Boys, remember them when you vote."³⁴ The candidates were all men well known to Floridians at the time. Richard Keith Call and Benjamin Putnam made up the ticket for Governor and Congressional Representative for the Whig Party and were opposed by William D. Moseley and David Levy Yulee for the Democrats. The election, itself, has been viewed as a contest between only Call and Yulee: however, this runs in the face of the facts and the reporting of the day. Neither Moseley nor Putnam were "unknown" outside of their districts, both men having been leaders in their respective groups and were often quoted in the press throughout the Territory. The highly partisan press of the era had a field day reporting on various debates among the candidates. On one occassion, at a meeting in Newnansville, the Florida Herald and Southern Democrat reported that, "Maj. Putnam was completely demolished, used up, by Mr. Levy." The debate, it may be noted, with all of its speakers and hoopla, lasted ten full hours.³⁵

^{34 & 35}Florida Herald and Southern Democrat, 20 May 1845, 2.

The election marked a low-point for the Whig party in Florida. It was poorly organized and lacked newspaper support in the Territory. It should be noted that the Whigs did not meet in any statewide convention but satisfied themselves with District meetings. The nomination of Call and Putnam appears to have been very haphazard and was thrown together with geographical balance more in mind than party compatibility. Indeed, historian Arthur W. Thompson characterized the nomination process as "informal". Without a true party organization and little newspaper support, the fate of Call and Putnam was predictable. The Democrats scored a landslide victory and captured most of the important offices throughout the State. Call and Putnam carried majorities in only four counties, all west of the Apalachicola River.³⁶ Putnam could only return to his home in St. Augustine, where, in partial recognition for his leadership, he was elected mayor in the November 1845 election.

³⁶For the best discussions of this election, see Arthur W. Thompson, *Jacksonian Democracy on the Florida Frontier* (Gainesville: University of Florida Monographs, No. 9, Winter 1961) and Herbert J. Doherty, Jr., *The Whigs of*

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Florida, 1845-1854 (Gainesville: University of Florida Monographs No. 1, Winter 1959). Both men viewed the election as a Call versus Levy race. This author does not agree that this is precisely the case.

The new state having been established, Putnam and his colleagues went about organizing the Whig Party of Florida. Little is known about the organizing process; however, it was to prove very successful in 1848. In this year, the Whigs took most of the major offices from the Democrats and returned Benjamin A. Putnam to the State House of Representatives, where he was immediately elected Speaker, with no opposition votes recorded. Politically speaking, this was Putnam's greatest triumph. During this session, he continued to vote conservatively and was frequently in the majority. He did, however, vote against some revisions to the new constitution, including the bill to limit the number of years a judge could sit. In this case, he strongly favored retaining judges for good behavior, while the bill proposed to limit the term to eight years. He was outvoted by a thirty-three-vote margin.³⁷

³⁷*House Journal, 1848*, 42. Also, see the entire *Journal* for all of the other votes. Considerations of time and space preclude a lengthy discussion of his role or voting record.

In the following year, Benjamin A. Putnam was rewarded with an appointment to the job of Surveyor General of Florida and set to work at his office on the corner of Artillery Lane and Hospital Street. This was an extremely important position and required long hours and attention to detail. The job was very large in scope because nearly half of the State of Florida was still unsurveyed at the time. There had been many questions raised on the national level about the accuracy of the work of Florida's surveyors and strong scrutiny of their work was a necessity. This job became even more important in the following year when Congress passed the Swamp and Overflowed Land Act. This act was to prove to be the most important legislation ever passed for the benefit of Florida. The act simply stated that any surveyable section of land that was fifty percent or more of a swamp and overflowed nature, but was capable of being artificially drained and made cultivatable could be patented to the State by the federal government. This would require a method of selecting such tracts, hiring competent surveyors to measure and decide on the proper selections and petitioning the General

Land Office for the patents. This was a very complex and controversial matter and had to be handled with the utmost care and delicacy. As the first Surveyor General to oversee the execution of this act, there were many details to be worked out and directions to be issued. Putnam, despite the attendant criticism, performed this task well. He also had to continue the controversial surveys of confirmed Spanish land grants, which entailed no end of squabbling. Finally, while perfonning his regular duties, he had to oversee the surveys in the area of the line drawn by General William J. Worth designating Indian Territory in southern Florida. With pressure from the U.S. Army and citizens eager to have the Indians removed—and attempting to work with the new Board of Internal Improvements—Putnam's days as Surveyor General of Florida were filled with hard work and great tension.

Following his term as Surveyor General, which ended in 1854, he served as Circuit Judge and was, again, elected Mayor of St. Augustine. Putnam also returned to private practice at this time, having his offices on Picolata Street.³⁸ He was originally appointed to complete the term of Judge Forward, and was subsequently reelected to the post in 1860. He served in this capacity until 1868. As the War Between the States approached, the Judge was looked to for leadership and his every move followed by the St. Augustine *Examiner*. Indeed, the local press was quite laudatory, exclaiming, "Judge Putnam, a resident of this place, discharges his duties with much ability, and with great satisfaction to the whole Circuit. Our citizens may well congratulate themselves in having so much legal attainment, impartiality and integrity on the bench. We certainly have no occasion to regret our system of elective judiciaiy."³⁹ By mid-May his travels in the Circuit were completed and the family, for reasons of health and relaxation, looked forward to their planned trip to Niagara and Upper Canada.⁴⁰ By the beginning of September, the Judge and his family had returned from their sojourn to New York and Canada, rested and refreshed.⁴¹ However, with the storm clouds upon the land, Putnam saw that others were looking to him for his opinion, which he gave to the St. Augustine *Examiner* on December 13, 1860. The paper reported the following, "It is a source of much pleasure to us to be enabled to State that, this Gentleman is with the South in the present momentous times. He gives it as his belief that the free and slave States cannot possibly continue together, owing to incompatibility of sentiment, and that our only hope of preserving our rights and liberties is in an immediate withdrawal from the

Faces on the Frontier

present Union, and the formation of a Southern Confederacy." This closing of the ranks was important for all concerned. But Putnam went further than most in his support of the cause. On February 14, 1861, Judge Putnam donated four hundred dollars to the State's coffers. As G. W. Means informed Governor Madison S. Perry, "Judge Putnam desires that the donation be expended by you in such way as may in your judgment be most conducive to the interests of his adopted, though much loved 'Land of Flowers'."⁴²

³⁸St. Augustine *Ancient City*, February 23, 1856. See advertisement on the bottom of page 3. The practice of having a judge also taking on private cases was not all that uncommon in this era.

³⁹St. Augustin *Examiner*, March 31, 1860, 2.

⁴⁰St. Augustine *Examiner*, July 7, 1860. This edition reported the family as leaving on the tour. The May 19 edition of the same paper noted the end of the session and Putnam's return to St. Augustine.

⁴¹St. Augustine *Examiner*, September 1, 1860.

⁴²Florida Department of State, Division of Library and Information Services, State Archives of Florida, Record Group 101, Series 577, Carton 1, Folder 8. G. W. Means to M. S. Perry. February 14, 1861.

The cool day in January, when the results of the Secession Convention became known, bode ill for the fortunes of the new Confederacy. Colonel Putnam, now in his capacity as local commander of the St. Augustine Blues, read a speech officially announcing the decision for independence. The War would not treat the commander well. During the conflict, he was forced to seek shelter away from St Augustine in Madison. In 1863, his beloved wife, who stayed behind with her older sister, the "notorious Mrs. Francis Smith," was sent, with other Southen sympathizers, to Hilton Head, South Carolina. The Putnams, Gibbs and other families had already been reduced to "living in windowless shack, subsisting on public charity," to use Thomas Graham's description. At the end of the War, Puinam's property was confiscated and sold to freedmen, forcing the judge to write advertisements in the local newspapers warning against people purchasing land under these claims. It Please email <u>communications@fsms.org</u> to notify us of upcoming events.



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Faces on the Frontier

was a very bitter experience for the proud Judge and his family.⁴³

⁴³Graham, *The Awakening of St. Augustine*, 84-133. This section of Graham's fine work gives many details of life in St. Augustine under Union rule. The portions on Putnam, cited in summary here, are well documented and written in a very readable style.

As a judge, Putnam was noted for his fairness on the Bench to all who came before him; however, after the bitterness of the War Between the States, which saw him move to Madison and have his relatives removed from St. Augustine by federal troops, his judgment may have been prejudiced. Most notably, in the murder trial of James Denton of Micanopy, he presided over a case that does not speak well for the justice of the day and adds to the negative stories of Reconstruction. In this famous case, Denton had openly murdered a freedman named Alec Johnson on the pretext that Johnson had acted insolent toward him. In Putnam's court, Denton was found guilty of manslaughter and sentenced to only pay court costs of \$225 and serve one minute in jail.⁴⁴ The incident in the Reconstruction of Florida does not speak favorably to the man who had done so much for the benefit of his constituents and state.

⁴⁴Jerrell H. Shofner, Nor Is It Over Yet (Gainesville, University Presses of Florida, 1974), 88.

After the war, with his land in St. Augustine confiscated and sold to freedmen, Benjamin Putnam moved his residence to Palatka in the county named for him. Here he not only continued as a judge, but experimented in horticulture, especially the loquat, or Japan plum. Like another Putnam County resident, F. L. Dancy, his work in experimenting with new plants helped to establish Putnam County as a leader in the growth of citrus and related crops. It was reported that these experimental seeds lasted and produced for over fifty years after the judge's death on January 25, 1869.

What can be said about a man who served in so many capacities throughout his life? As a lawyer, legislator and judge, he helped to mold the judicial system of state and territory. As a soldier, he led troops into battle and bravely withstood the onslaught of the enemy. As a politician, he fought his battles with the weapons of the day, admitted defeat when that was necessary and moved on to address other issues. As Surveyor General in a pivotal period, he helped to shape the landscape and mold the future of Florida. The very essence of the man was a boldness of action, an admirable honesty and a willingness to take risks he thought would benefit his constituents and his family. When taken as a whole, the life of Benjamin Alexander Putnam mirrored the age he helped to shape. By almost any measure of man, he was a statesman in the land.

Next Month ...

CHAPTER 3

A FINDER OF MANY PATHS: JOHN WESTCOTT AND THE INTERNAL DEVELOPMENT OF FLORIDA

Joe Knetsch has published over 170 articles and given over 130 papers on the history of Florida. He is the author of *Florida's Seminole Wars: 1817-1858* and he has edited two additional books. *Faces on the Frontier: Florida Surveyors and Developers in 19th Century Florida* is a history of the evolution of surveying public lands in Florida and traces the problems associated with any new frontier through the personalities of the majort historical figures of the period. As the historian for the Division of State Lands, Florida Department of Environmental Protection, he is often called to give expert witness testimony involving land titles and navigable waterways issues.

NGS Releases Tool to Dynamically Create CORS Short-term Time-Series Plots

NGS News

The <u>CORS Time-Series Tool</u> allows users to evaluate the performance of a CORS in the NOAA CORS Network over any period of time from October 27th, 2018, to the present (the former date coinciding with the completion of the Multi-Year CORS Solution II, or MYCS2). Currently, NGS only offers time-series plots for either the entire data record of a station, or for the past 90 days.

The new tool, currently on our Beta site, allows the user to enter a list of station names and a date range, and the output are:

- time-series graphs showing the residuals or deviations from the published coordinates, and
- a table showing the mean, standard deviation, and root mean square error of these residuals.

The data can also be downloaded.

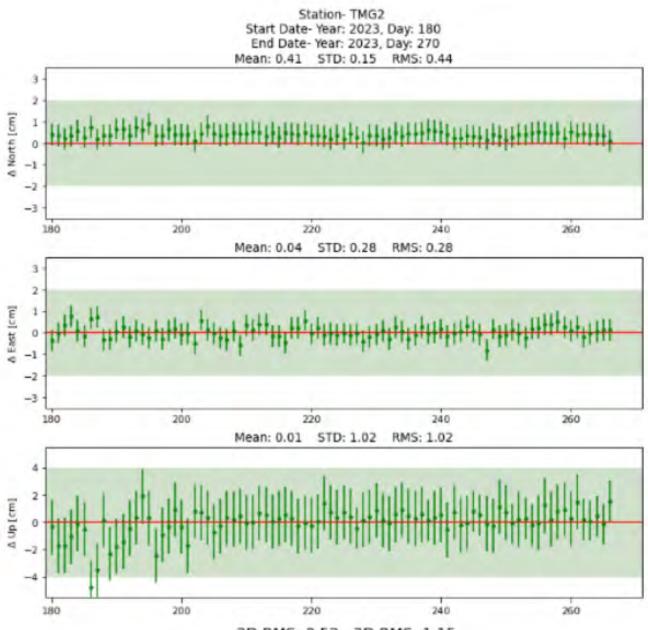
The tool also plots time-series graphs for multiple stations on the same page, which is helpful for quickly comparing stations. For processing projects older than 90 days, this new tool will provide users with helpful data when choosing stations for controlling their GPS projects.

NGS Welcomes Your Feedback

To help ensure that we are meeting your needs, NGS provides users with an opportunity to beta test our tools before their development is finalized. Please give this new tool a try and let us know what you think.

Email <u>ngs.feedback@noaa.gov</u> with your your comments and suggestions at any time.

Summary Table												
CORSID	# of points	Mean_N	Std_N	RMS_N	Mean_E	Std_E	RMS_E	Mean_U	Std_U	RMS_U	2DRMS	3DRMS
TMG2	87	0.41	0.15	0.44	0.04	0.28	0.28	0.01	1.02	1.02	0.52	1.15



2D RMS: 0.52 3D RMS: 1.15





PARTA I

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STRUCTURAL TABLES AND DESIGN MATERIALS OF STRUCTURAL ENGINEERING WATER TURBINES





The Florida Surveyor

SCENES

IN A

SURVEYOR'S LIFE;

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RECORD OF HARDSHIPS AND DANGERS ENCOUNTERED. AND AMUSING SCENES WHICH OCCURRED,

IN THE

Operations of a Party of Surveyors

 \mathbb{IN}

SOUTH FLORIDA.

By W. L. PERRY.

JACKSONVILLE: C. DREW'S BOOK AND JOB PRINTING OFFICE 1859.

CHAPTER II

The first thing done on arriving at Smyrna was to launch our little craft, and see that she was *light* and *taut* for the long voyage before us. The cargo was soon stowed smugly away on board, as she would only carry, besides ourselves, one barrel of pork, four sacks of corn, and other matters of plunder, such as knapsacks, blankets, compasses, etc.

Our little craft all ready to sail, and the Captain concluding to remain here till morning, let us have a word about Smyrna and its situation.

Like Enterprise, the citizens of this place are composed of the members of one family, and the town of one house—the residence of Mr. Sheldon. The situation is a beautiful one, on a high bluff on Musquetoc River, in the midst of a large orange-grove of spontaneous growth, whose every twig bows low under its heavy load of the ripe golden fruit. Musqueto river is simply an inlet or arm from the ocean, running parallel with the coast; the ridge of land dividing them in many places is not more than a stone's throw in width, and about forty miles in length.

Some two or three hundred yards from the house of Mr. Sheldon, on the bank of the river, are the remains of what is termed the T— Castle. If I have been correctly informed by those who ought to know, the history of those remains is about as follows: Many years ago, before this part of Florida was known except to the savages, a man named T— by some means or other got hold of a cargo of creoles on the island of Cuba, whom he landed at this spot, and endeavored to make slaves of them. He succeeded in inducing them to remain by exaggerated accounts of the bloodthirsty propensities of the Indians, whom he represented as cannibals of the worst character, then roaming like hyenas over every part of the country. By some quibble with the Spanish government, he obtained a large grant of land, which designed to improve and cultivate with his enslaved creoles. His first work was to erect a house of sufficient strength to defy the storms of Indian warfare. There being nothing left now but the ruins of the house, we cannot of course give the entire plan, but it was a large building, perhaps two hundred feet front and seventy or eighty in width, and three stories high, built of brick and cokena rock.

There still stands three of the twelve massive stone pillars which supported the piazza. The whole was enclosed in a stone wall, about five feet in thickness, and I presume, from the pile of rubbish, not less than twelve or fifteen feet high. All this, however, was not sufficient protection from the revenge of the red man. Not a great while after it was completed, while T— and his creoles were working in the field, the Indians came and battered down the walls, and burned the buildings. From the filed T— and his men saw the ominous pillars of black smoke rise up from the horizon like a flying cloud, and knew too well what it meant. They fled in small boats, and after some days of severe suffering arrived safely in St. Augustine. Thus ended a shrewd but ineffectual scheme to enslave the too-confiding creoles of Cuba.

At Smyrna we had a miserable camping place, being immediately on the sand beach, with no grass to spread our blankets upon, or fuel to burn; and there sprung up a keen north-easter at sunset, which lasted through the night, making it very unpleasant. At sunrise blankets were rolled up, and everything placed on board our little craft, preparatory to a voyage down Musqueto and Indian rivers of one hundred and sixty miles, with not a human habitation on the whole route. All hands on board, we found the gunwales of our little boat stood only about four inches above the surface of the water. It was too heavily loaded, but we had nothing on board but what was absolutely neccessary for us to take, and we determined to make the venture and risk the consequences. The anchor hoisted, the sails flung to the breeze, and we glided smoothly and beautifully out of the little harbor into the river. It was a boisterous morning. The wind, still blowing from the northeast, made it exceedingly difficult sailing among the islands in the many narrow and crooked channels, particularly for the first

fifteen miles. After this, however, the river gradually widened, the wind became more steady, and we moved along finely.

At noon we reached *Turtle Mound*, where we landed and ate dinner. This very singular mound, we think, deserves a passing notice.

It is composed entirely of oyster-shells, and is about one hundred and twenty-five feet high, and perhaps three or four hundred in diameter at its base. How, when, and for what purpose this immense structure of shell was thrown up here, will probably remain a mystery to the end of time. It is situated on the narrow sand ridge between the river and Atlantic—one side washed by the waters of the river and the other by those of old mother ocean, and appearances would indicate that her surging billows have thundered there for a thousand years. We climbed to the summit of the mound, and had a magnificient view of the ocean.

On top of the mound, where a little soil has collected, the growth is wild pepper, which was just ripening when we were there. It was a species resembling the cayenne, but not quite so pungent. We gathered a large quantity of it to serve up with the venison we expected to kill when we arrived at our place of destination.

At two o' clock we left the Turtle Mound, and sailed down the river at a rapid rate before a fine breeze. The river along here was generally narrow—not wider, perhaps, than two or three hundred yards. Our fine sailing, however, did not last long, for the wind that promised so much at noon completely died out at about four o' clock, and we were forced to take to the oars, and made but slow progress in the heavily laden condition of our boat.

At sundown we approached Musqueto lagoon, a tremendous lake, which spreads itself over an area of near two hundred square miles. There was no dry spot of ground on either side of the river, it being marshy and muddy; so we pulled for a small island discernable some three miles out in the lagoon, and reached it about dark. It was quite a small place, containing not more than half an acre of dry ground, and no wood save only such as is furnished by the mangrove bush. We suceeded, however, in collecting enough for culinary purposes, but not enough for keeping up a fire through the night. Between the want of fire to keep us unchilled, and the bites of musquetos, we spent anything but a comfortable night. Next morning when we rose, and each saw the other's face, no man felt called upon to ask "why was this stream called *Musqueto River*, and this body of water *Musqueto* Lagoon?" Some one of the boys even suggested that the island upon which we had camped was formed by a collection of a *small* number of that very pestiferous little insect inhabiting those regions, and propsed that we dub it *Musqueto Island*.

With the springing up of the morning breeze we left our little Musqueto island, and I do not now remember that either of the party expressed any regret at feeling the first flaw of the wind that was to waft us away from the inhospitable little lords of the soil, as daylight only brought fresh armies to relieve those who, doubtless, were fatigued by a whole night's incessant work.

Our course lay southward, through the middle of this immense lake; and I am free to confess that I for one felt some forebodings in launching out before so strong a wind, in so small a boat, and she loaded, too, within four inches of the water's edge.

The farther out we went the fiercer blew the wind, until it swelled into a stiff gale; and it soon became apparent that to weather the storm it would require the most skillful management. The Captain ordered a reef taken in the sails, which was no sooner said than done. In the meantime the water became restless, and from a gentle undulating motion of the surface, it gradually grew into tremendous waves, which thundered against our little craft as if maddened at her presence, and determined on her destruction. Firmly stood the Captain at the helm, while I swung to the sheet-rope to "let go" whenever it should become necessary to save us from a beam-end position, and the boys worked hard with buckets and cups to keep the water bailed out, which, in spite of all our efforts, would burst over the gunwales at almost every wave.

"Take another reef," said the Captain.

It was quickly done, and still she flew like a thing of life through the maddened sea of foaming white. On we plunged, not knowing what moment a more daring white-capped wave might break over our heads and send us all to Davy Jones' locker; but our little craft rode the billows nobly, and when, after three hours perilous sailing, we shot safely into the little lagoon leading to Haul-over canal, I am sure every man's heart beat freer, and every mind felt easier.

The Haul-over is a narrow canal cut from Musqueto to Indian rivers, at the narrowest point between the lap of the two bodies of water, and serves as a passage for small boats from one to the other. It is several hundred yards long, and about ten wide, with an average depth, perhaps, of three feet water. On the bars, however, at each end of the canal, there is generally not more than fourteen inches, which frequently occasions much difficulty with loaded boats, as was the case with us. We were forced to get out into the water and shove the boat through the mud and quicksand. We tarried here to take dinner and also to replenish our exhausted water-jugs from an old well made by those who cut the canal. The water was very bad, being very brackish; and the musquetos bit us so incessantly we could eat dinner in no peace. As soon as it could be despatched, therefore, we launched out upon the broad bosom of Indian river. When we entered it from the canal it is about six miles wide. Owing to an ugly coral reef, we were obliged to sail directly across to the opposite shore before we could lay our course. The wind springing up, we had quite a rough passage; but, by dint of good seamanship and the industrious use of bail-buckets, we made the run in safety. Passing the reef, we turned immediately south, and our course lay before us without deviation to the right or left. From this point to Fort Capron (one hundred and fifty-five miles) the river is perfectly straight. An air-line from the centre of the river here to the centre at Fort Capron would touch the land nowhere on either side. The width of this body of water varies from six or eight to twenty miles. The water is much more salt than that of the ocean, owing to the fact, I suppose, that it is shallow, and evaporation takes place rapidly. The number of wild-ducks seen floating on the water and flying in the air was truly astonishing. We frequently frightened up flocks of them extending almost from one side of the river to the other. When one of these large flocks rose in the air, it presented much the appearance and sound of an approaching thunder-cloud. Of course we feasted on their fat and delicious flesh during the entire trip.

The breeze dying out soon after passing the reef, we had again to take to the oars, and, in consequence, made but slow progress. At sunset we ran ashore at Sand Point, and encamped for the night near the beautiful white sand beach, on the edge of a dense hammock. This hammock, commencing at Smyrna, extends down the western side of Musqeto river, and also down the west side of Indian river, some forty miles, extending back some four or five miles from the rivers; it contains many thousand acres of land. The soil is exceedingly fertile, and, I think, peculiarly adapted to the cultivation of long staple cotton and sugar. The finest live-oak in Florida is said to be in this hammock.

We noticed on landing that the beach was lite-rally covered with bear tracks, of all sizes, from old bruin down to little cubby. One old bear and her two cubs, from the freshness of the signs, had evidently just passed along, and were only a short distance down the river. The Captain took a gun and went in pursuit, while the balance of us commenced preparations for an early supper, that we might get a good night's sleep to make up for time lost on Musqueto island. About dark we heard the Captain fire, some distance down the river, and not knowing what difficulty he might get into in that wild region, Sile and I ran down to assist him, but on arriving found that he had only shot some ducks.

At this camping place an accident happened, or very nearly happened, which was rather startling to all hands, but particularly so to the Captain and myself. After supper, the Captain had his trunk brought on shore to examine some papers which were in it, and when he had finished, instead of having it taken back to the boat, he suffered it to remain on shore. When bed-time came we spread our blankets—the Captain and I sleeping together—and placed the trunk at our heads for protection, as much as possible, from the cold wind, forgetting the fact that there were some eight pounds of powder in the trunk. On waking next morning we were dismayed to find that the leaves, which were thickly scattered around where we lay, had caught fire, and actually burned around us to the trunk! burned all the covering off the side farthest from our heads—burned several holes through it, and scorched some papers inside without igniting the powder, or doing any other damage.

Always a strong believer in the ever-present protecting influence of Omnipotence, this was not a circumstance calculated to lessen my faith. It may be safely inferred, ever afterwards the distance between fire and powder was kept was wide as possible.

We had a fine sailing-breeze on this day until about noon, when there came up a heavy storm of wind and rain, and the river became so rough we were forced to put into a little cove for protection, where we remained about an hour before we could venture out. When the storm passed over the wind ceased entirely; but it continued to rain, and the oars were ket in requisition all the afternoon, which, I still remember, we did not consider a particularly interesting or pleasant exercise in the heavy rain that poured down upon us the whole afternoon without cessation. At night we had to climb an almost perpendicular bank, some thirty feet high, to get a camping place. We had, also, much difficulty in preparing supper in the rain; but about nine o'clock it cleared off prettily, and we slept soundly in our wet garments.

I was much afraid this exposure would bring on a return of fever, but, fortunately, it had no such effect. The only inconvenience I had now to contend with, as the result of my spell of sickness at Enterprise, was a morbid appetite, which seemed to increase daily, and which I could at no time fully gratify, without the greatest suffering for my benevolence.

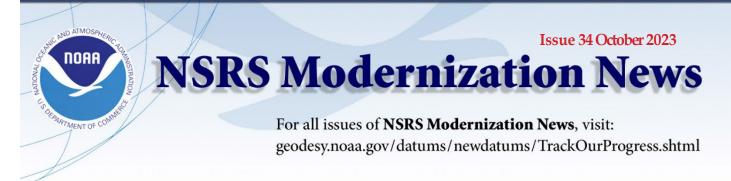
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National Geodetic Survey Positioning America for the Future



GRAV-D Reaches 100%

Congratulations!

On September 14, 2023, the GRAV-D mission flew the last of its planned 4,234 flight lines, bringing the number of planned lines flown to 100%! Congratulations to all members of the GRAV-D team—past and present—who, over the course of the last 16 years, have made this possible!

How'd we get here?

In 2007, NGS officially began planning to re-define the vertical datum of the United States using a gravimetric geoid model. To support this, they acquired their first airborne gravimeter, and published a tenyear plan, announcing the beginning of the GRAV-D (Gravity for the Re-definition of the American Vertical Datum) project, a bold initiative to canvas the entire civilian-populated regions of the United States with an accurate, consistent air-borne gravity dataset, capable of supporting a centimeter-accurate geoid model. Now, after five gravimeters, 18 aircraft and 16 years, all planned flight lines have been flown at least one time.

What's next?

Does that mean we are done? No, there are two big reasons the mission continues. The first is that a small percentage of flight lines collected in the last 16 years have issues that prevent them from fulfilling their role in an "accurate, consistent" dataset. We are attempting to re-fly all of those lines before the end of 2023. The second reason is that we long ago recognized that the geoid over North America could be improved if airborne data could be collected over areas that fall outside the original plan. Our geoid model would be improved by data collection over the Rocky Mountains in Canada and Mexico and over the Caribbean islands, with an especially significant impact in areas neighboring the collection sites. However, as NGS had to define a "finish line" for the data set that would go into GEOID2022, the gravity collected in these areas will not be used in the initial roll-out of GEOID2022, but will be used to improve future updates to it.

Multi-epoch Least-squares Adjustment Papers

Two papers, outlining the Multi-epoch Leastsquares adjustment (ME-LSA) problem have been published:

- <u>NOAA Technical Report NOS NGS 79</u>
- <u>NOAA Technical Report NOS NGS 80</u>

These papers, particularly #79, show how observations collected over many years can be projected through time to a single adjustment epoch, in preparation for a least-squares adjustment (LSA). This procedure will be at the heart of both OPUS and reference epoch coordinate (REC) estimates in the modernized NSRS. Both papers are highly theoretical, so additional papers are being written that provide details on implementation.





1956 - 1957 H.O. Peters



1957 - 1958 Harry C. Schwebke



1958 - 1959 John P. Goggin



1959 - 1960 R.H. Jones



1960 - 1961 Hugh A. Binyon



1961 - 1962 Russell H. DeGrove



1962 - 1963 Perry C. McGriff



1963 - 1964 Carl E. Johnson



1964 - 1965 James A. Thigpenn, III



1965 - 1966 Harold A. Schuler, Jr.



1966 - 1967 Shields E. Clark



1967 - 1968 Maurice E. Berry



1968 - 1969 William C. Hart



1969 - 1970 Frank R. Shilling, Jr.



1970 - 1971 William V. Keith



1971 - 1972 James M. King



1972 - 1973 Broward P. Davis



1976 - 1977 Robert S. Harris



1973 - 1974 E.R. (Ed) Brownell



1977 - 1978 Paul T. O'Hargan



1974 - 1975 E.W. (Gene) Stoner



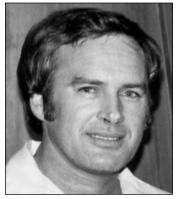
1978 - 1979 William G. Wallace, Jr.



1975 -1976 Lewis H. Kent



1979 -1980 Robert W. Wigglesworth



1980 - 1981 Ben P. Blackburn



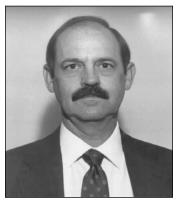
1981 - 1982 William B. Thompson, III



1982 - 1983 John R. Gargis



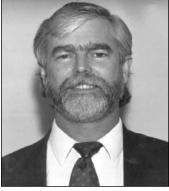
1983 - 1984 Robert A. Bannerman



1984 - 1985 Buell H. Harper



1985 - 1986 H. Bruce Durden



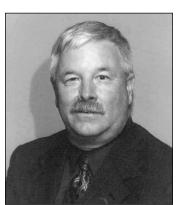
1986 - 1987 Jan L. Skipper



1987 - 1988 Stephen M. Woods



1988 - 1989 Stephen G. Vrabel



1989 - 1990 W. Lamar Evers



1990 - 1991 Joseph S. Boggs



1991 - 1992 Robert L. Graham



1992 - 1993 Nicholas D. Miller



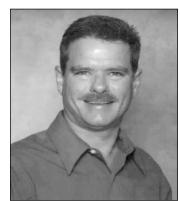
1993 - 1994 Loren E. Mercer



1994 - 1995 Kent Green



1994 - 1995 Robert D. Cross



1995 - 1996 Thomas L. Connor



1999 - 2000 Jack Breed



1996 - 1997 Gordon R. Niles, Jr.



2000 - 2001 Arthur A. Mastronicola



1997 - 1998 Dennis E. Blankenship



2001 - 2002 Michael H. Maxwell



1998 - 1999 W. Lanier Mathews, II



2002 - 2003 John M. Clyatt



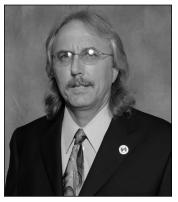
2003 - 2004 David W. Schryver



2004 - 2005 Stephen M. Gordon



2005 - 2006 Richard G. Powell



2006 - 2007 Michael J. Whitling



2007 - 2008 Robert W. Jackson, Jr.



2008 - 2009 Pablo Ferrari



2009 - 2010 Steve Stinson



2010 - 2011 Dan Ferrans



2011 - 2012 Jeremiah Slaymaker



2012 - 2013 Ken Glass



2013 - 2014 Russell Hyatt



2014 - 2015 William Rowe



2015 - 2016 Dale Bradshaw



2016 - 2017 Lou Campanile, Jr.



2017 - 2018 Robert Strayer, Jr.



2018 - 2019 Dianne Collins



2019 - 2020 Don Elder



2020 - 2021 Hal Peters

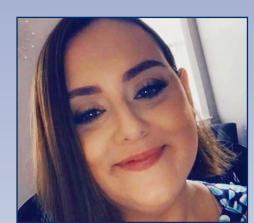


2021 - 2022 Lou Campanile, Jr.

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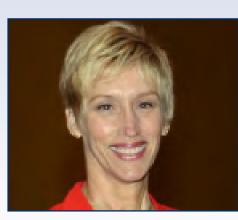
Executive Director Rebecca Porter <u>director@fsms.org</u>



Education Director Samantha Hobbs education@fsms.org



Communications Coordinator Justin Ortiz <u>communications@fsms.org</u>



Regional Coordinator Cathy Campanile <u>seminolecc84@gmail.com</u>



Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself. -Chief Seattle

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