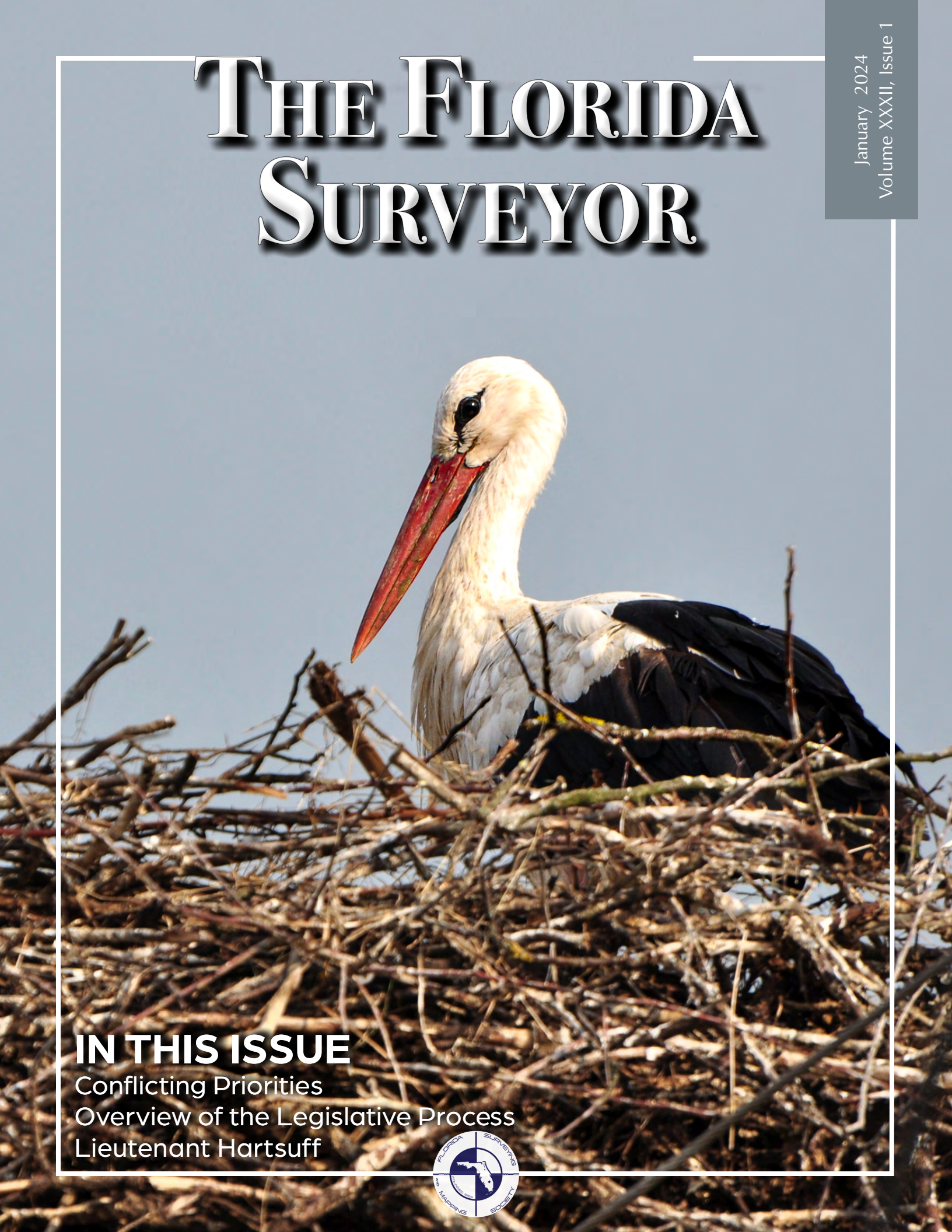
The Florida Surveyor

January 2024
Volume XXXII, Issue 1



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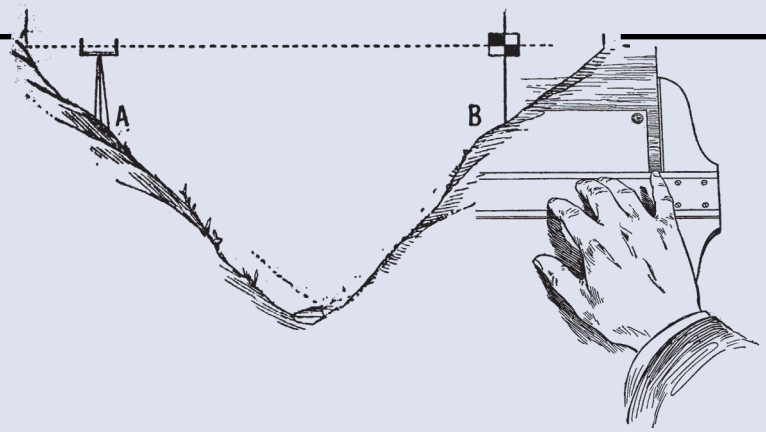

The Florida Surveyor is the official publication of the Florida Surveying and Mapping Society, also known as FSMS. It is published monthly for the purpose of communicating with the professional surveying community and related professions who are members of FSMS. Our award winning publication informs members eleven months out of the year about national, state, and district events and accomplishments, as well as articles relevant to the surveying profession. In addition, continuing educational courses are also available.

PRESIDENT'S Message

January 12th, 2024

"For last year's words belong to last year's language. And next year's words await another voice."

—T.S. Eliot

I would like to begin by wishing everyone health and happiness in this new year. This is an exciting time to be part of the society, as our membership and annual conference keeps growing. I would also like to thank and encourage all of you to continue participating in your local chapters. In this ever-changing world of technology, business, and innovation, these meetings help to bring understanding, comradery, as well as a sense of responsibility because you all play an integral role in the future of our profession.

President
Howard Ehmke
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Jim Sullivan will be proctoring the next paper CST Exam at 1:00 pm on Monday, February 5th, 2024, at FAU (Florida Atlantic University) Room 103 in Building IS-4 (Instructional Services). If you are planning to take this exam, you must apply online with NSPS at least 3 weeks prior to the exam. Click Here if you need to apply with NSPS.

Membership renewal for 2024 is still available for those still needing to renew. One of the new features this year is our new eLearning platform. You can now log in with your current FSMS username and password to access all of our eLearning catalogue. In addition, we have been working closely with Dr. Stacey Lyle on developing a Fundamentals of Surveying eLearning Course for those who would like to prepare themselves before taking the state exam.

On April 11-12, 2024, we will have our Strategic Planning Meeting at Austin Cary Forest Campus in Gainesville, FL. Hotel and accommodation information will be available soon. Day 1 will be from 8:00 am to 4:00 pm. Day 2 will be from 8:00

PRESIDENT'S Message

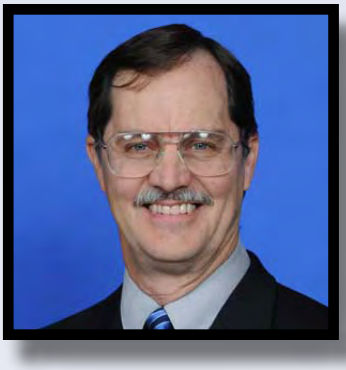
am to 11:00 am followed by our Spring board meeting. If there is anything you would like us to consider during this session, please send your responses to our Executive Director Rebecca Porter, at director@fsms.org.

Lastly, our next board meeting will be held this month on Friday, January 26th, in our Tallahassee office. Scholarship meeting to begin at 7:00 am. I am looking forward to being there and getting this year's agenda off to a great start. As many of you have heard, Florida House Bill 1559 and Senate Bill 1786 have been filed in our state legislature. Legislative Committee Chair Jack Breed is gathering all the pertinent information on this and will be presenting an action plan for us to share with you very soon. For those interested in the proposed legislature, you can download HB 1559 here, and download SB 1786 here. This is why we have legislative programs and I want to encourage you all to continue to be active and engaged in the coming year.

Thank you.

Respectfully submitted.
Howard J. Ehmke II

2023-24 FSMS Officers



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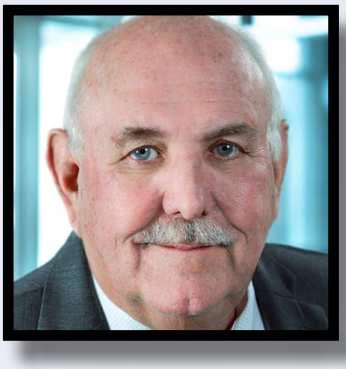

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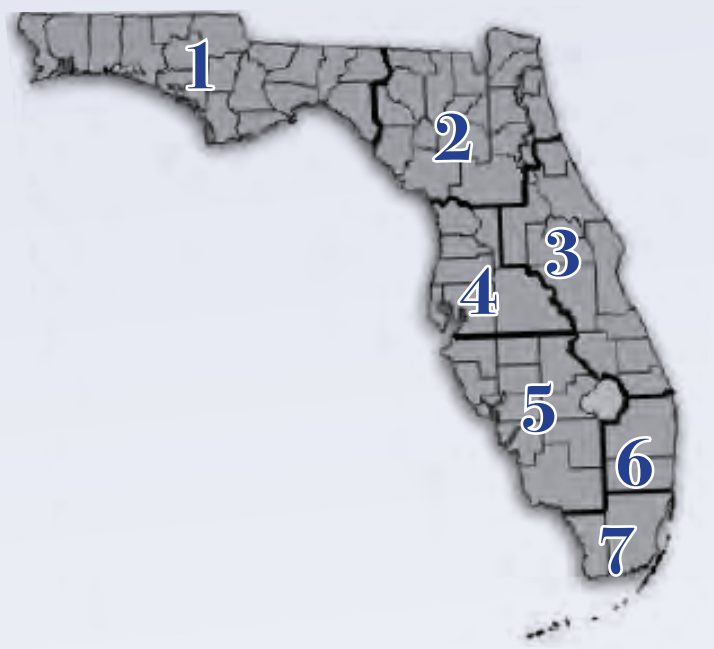

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Academic Advisory UF	Justin Thomas
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Geospatial Users Group	Earl Soeder
Young Surveyors Network	Melissa A. Padilla Cintron, SIT

Around the State

The George F. Young team made it out for the 5th annual Florida Surveying and Mapping Society Manasota Orange Crush Classic. Their team of experienced marksmen and novices all took their shot at flying clay targets for local charities. The event benefited FSMS community initiatives like The University of Florida Geomatics Program, Disaster Relief Fund and more. It's an event where the spirit of giving hits the bullseye; thanks for the camaraderie and a chance to give back.

FSMS Clay Shoot - Orange Crush Classic
Sporting Clays Fundraiser at Sarasota Trap Skeet & Clays.

FSMS Clay Shoot - O
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OUR PAC WANTS YOU

January 2024

Happy New Year to all my fellow surveyors. Some years we hit the ground running with vigor and ready to tackle what we failed to address the year prior or the new tasks that come across our desks. This year I already feel like I am trying to make it through a thicket of briars. It just seems as there are so many things happening locally and across the state that as you as try to tackle one issue, three more are popping up. Challenging to say the least, although I am thankful to be a part of this profession. I wouldn't put up with half the crap if I wasn't.

I know last week I went into legislative happenings, and they have yet to stop coming. It seems like every Monday there is a new item that is sponsored or co-sponsored, I think someone is messing with Jack Breed to keep him from sleeping at night. I am not going to hit on the legislative issues this month, I would just advise you to attend a local chapter meeting, or to reach out to your local surveyors who always seem to know what is going on. Believe me we are all speaking on a regular where issues pop up and trying to collectively understand what is going on. Remember you should not have to tackle these issues alone. For example for the HB 267 issues, feel free to reach out to other agencies to see how they are going to approach the changes being proposed. You can work with agencies to collectively approach the proposed requirements so you are not scambling to adopt the new statutory requirements upon adoption.

So what am I going to touch on this month you say, well it will be a few topics. One, I have been working with the Conference planning group on putting together a panel to discuss items pertaining to surveying and GIS (Geographic Information Systems) and how we are adapting to the overlapping duties of both, and whether or not each of us may be using GIS in our surveying duties. I know my position as City Surveyor would imply I manage the surveying activities, but we are heavily involved with the collection of GIS Data, or even the dissemination of the data. From our control maps that are displayed in ArcGIS Online or via ArcGIS on our respective websites. We really should be focusing on being geospatial professionals in government as we are responsible for our respective control networks, and providing them for the private sector and for use in public infrastructure projects. Additionally, we are mapping

infrastructure and assets for our respective agencies and sure a cad file and a paper deliverable are beneficial, they are better served being provided in a digital map that can be easily shared. This will be even more vital as we transition to a three and four dimensional environment, when we can visually see utilities and encumbrances more easily and what items they cover or for that respect, fail to cover. Our first duties as government surveyors, and surveyors in general, is to protect the public. This protection is not only to make sure they have rights to travel freely but also to make sure we shore them and our respective organizations from additional tax burdens from lawsuits against the agency. Every agency has experienced litigation for public improvements provided, having a good knowledge of where they are and that they meet ADA and other federal and state requirements are beneficial.

GIS currently aids in the displaying of encumbrances (easements, leases, and other controlling agreements or documents) and showing them in relation to infrastructure. As this transitions to a multi-dimensional map or display, it will become increasingly important. We as surveyors and mappers, have an important role in this transition and continued working relationship with other geospatial professionals. So I say all of this to reach out to you to see what kinds of items that you are having working with GIS or would like more insight show in respect to the topic? I would like to hear from you. I know I say this, and I usually only have certain government surveyors who reach out. I must say the most active are typically county surveyors, and I do want to say that I am appreciative of our conversations and collectively discussing issues. We are stronger together and the sharing of knowledge and opinions is beneficial to the public. I never want to emphasize my view of what I think a requirement is, I try to understand the intent and then base my opinion on it. But it is my opinion and I have heard many opposing opinions that have made me reconsider mine. Discussions are healthy, and beneficial to get an opinion that is different than yours and trying to understand why those opinions differ and giving consideration on the alternatives based on supporting information.

I have to give a shout-out (I feel dated with this statement) to Matt Kalus with Orange County Government, as we have had numerous conversations on issues and legislative efforts. I truly think Matt should go into law as he studies issues at hands and finds previous case law and information as to why something previously

worked or didn't work. I have given thought to moving in this direction as Walt Robillard gave me some really great insight as an attorney and his reasoning for becoming an attorney. Would be nice to not have to say one day, I must preface I am not an attorney. Although I digress, Matt is one of those type of professionals in our profession that I suggest you have in your regular contact list. Now everyone cannot reach out to Matt as he is on my quick dial list, especially in that we are working on issues that may impact one another in running adjacent jurisidictions.

Finally I would like to take a moment to recognize my friend William (Bill) R Muscatello, the County Surveyor for Orange County, Florida who will be retiring at the end of February. I will sorely miss Bill, but wish him the best in retirement. He has been a wonderful resource and friend to talk with over the years. From his time as the County's Right-of-Way Surveyor to his time as County Surveyor he has been a confidant and all around great person that I am thankful to have known and been able to correspond with during my time with the City of Orlando. He is well known in Central Florida and is just a great person and I will miss him immensely!

Thank you for taking the time to read this article!

Sincerely,

Richard Allen,
City Surveyor for Orlando
FSMS Surveyors in Government Liaison
President of the Geospatial Users Group
Region V Director of the Florida Floodplain Managers Association
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Chapter Four
Conflicting Priorities: Everglades National Park and Water Supply in the 1960s

When the Corps of Engineers first proposed the C&SF Project, the NPS and the U.S. Department of the Interior were both concerned about a lack of specifics in the plan about water supply to Everglades National Park. The Corps made general references to the necessity of providing adequate water to the park, but did not discuss explicit measures. These anxieties were heightened in the 1950s as project construction commenced, especially as the Corps and the FCD insisted that fish and wildlife preservation were secondary to flood control and urban and agricultural water supply. As population increased along Florida's southeast coast, and as sugar production exploded in the EAA, demands for water became more pressing. After the construction of C&SF Project works and consecutive drought years constricted the amount of water flowing into Everglades National Park, cries for a guaranteed supply of water became more pronounced, leading to discussions on water supply and ownership in South Florida. These pleas, as well as the efforts of a growing environmental movement in South Florida, led to the passage of a congressional mandate in 1970 that the C&SF Project deliver a certain amount of water to the park each year.

At the advent of the 1960s, NPS officials had been wrangling with the Corps over the issue of water supply to Everglades National Park for years. No one seemed to know exactly how much water the park required, but park authorities believed that the area needed the traditional overflows from Lake Okeechobee to course through its veins, especially between the months of October and May when rainfall was scarce. Unfortunately, the construction of drainage and flood control works constricted that southward flow, reducing the hydroperiod of the park, or the time when water enveloped the landscape. This left Everglades National Park parched and dusty when rainfall ceased. The situation did not seem too severe in the 1950s, mainly because the construction of the East Coast Protective Levee allowed water flowing to the ocean to be diverted south through the Everglades.[1] As the Corps completed construction of L-29 – the southern boundary of Water Conservation Area 3 – these diversions were eliminated, causing clashes between the NPS and the Corps.

One of the primary agricultural industries that expanded considerably in the 1960s was sugar. Cane had been an important crop in the EAA since the 1920s, but because of the United States' sugar quota system, established in the 1934 Sugar Act, the sugar industry in Florida remained relatively small, confined mainly to the operations of Charles Mott's United States Sugar Corporation. In the early 1960s, however, the industry expanded greatly in Florida due to several factors. For one, Fidel Castro overthrew the Cuban government in 1959, leading the United States government to sever all ties with Cuba, one of the main suppliers of sugar to the United States. For another, some vegetable growers in the EAA, facing unstable markets, wanted to diversify their crops and saw sugar as a safe and profitable venture. In addition, Puerto Rican growers could not meet their production quotas, creating a void in the market.[2]

Because of these conditions, sugar production increased dramatically in Florida in the 1960s. Numerous new companies began operations, including the Osceola Farms Company, formed by a Cuban family, the Fanjuls, who would eventually become the second largest sugar producer in Florida, and the Sugar Growers Cooperative of Florida, established in 1962 by George Wedgworth, the son of South Florida farming pioneers. The Glades County Sugar Growers Cooperative Association, the Talisman Sugar Corporation, and the Atlantic Sugar Association were other fledgling organizations. This influx of companies expanded the amount of acreage under sugar production in Florida from 38,600 in 1954 to nearly 220,000 acres in 1964, mostly in the EAA.[3] As sugar became the dominant EAA crop, its growers and representatives became increasingly interested in how water was distributed throughout South Florida.

Sugar cane plants in South Florida. (Source: South Florida Water Management District.)

Castro's revolution also contributed to South Florida's growing population, as numerous Cubans moved to Miami and Dade County to escape communism. Because many Cubans located elsewhere after landing in Miami, and because others did not register upon their entry into Florida, it is difficult to estimate the number of Cubans that relocated to Dade County during this period. However, by 1970, over 300,000 Cubans lived in the county, accounting for approximately 22 percent of its total population of 1,267,792. Although immigrants from other countries in the Caribbean, Latin America, and Asia would enter Florida in large numbers in later decades, Cubans, according to historian Charlton W. Tebeau, "were by far the most significant addition to Florida's population in the sixties."[4] By 1970, the combined population of Dade, Broward, and Palm Beach counties almost reached two million. As the urban region became more populated, settlement extended southwest toward Homestead and closer to the boundaries of Everglades National Park, and the larger populations made increasing demands on water.[5]

Miami was the center for much of this urban growth. Construction of hotels along Miami Beach facilitated the tourist industry, as did the broadcasting of television shows on the beach, which showed millions of Americans the leisure opportunities that Miami offered. More permanent residents were attracted by burgeoning economic opportunities, such as the growth of the Miami International Airport, more jobs generated by the increasing popularity of the fast-food chain Burger King (headquartered in the area), and the booming real estate market. By the late 1960s, South Florida had a developed area approaching 600 square miles, almost quadruple what it had been around 1955.[6]

This growth increased the demand for water, a situation that alarmed Everglades National Park officials, especially after the Corps began developing a South Dade County Project in the late 1950s. This plan had several components, including a proposal to use water from

Miami Beach, 1963. (Source: The Florida Memory Project, State Library and Archives of Florida.)

Conservation Area No. 3, which was supposed to store water for national park usage, to enlarge the county's water supply. The Corps also proposed to build a series of canals to drain land east and south of the park. Concerned that such waterways would divert water that normally drained into the park, NPS authorities protested.[7]

To address these concerns, the Corps held a conference with NPS, FWS, FCD, and Florida Game and Fresh Water Fish Commission representatives in April 1960. At this meeting, NPS representatives emphasized the park's need for a steady supply of water, especially in its southern and western sections and below the Tamiami Trail. The Corps understood these needs, but also reiterated its responsibilities to provide water for salinity control, sewage dilution, agriculture, and municipal purposes. "Methods to conserve water will have to be developed,"

Jacksonville District officials stated.[8] They also explained that although water from Conservation Area No. 3 would be used for Dade County, such utilization would not "greatly affect" flood discharges into the park from the north, "the principal source of outside water supply to the Everglades National Park."[9] The Corps worked for the next few years to build conveyance canals to route water from Southwest Dade County into the park, but this too generated criticism because it had the potential of bringing insecticides, pesticides, and fertilizers into the park.[10]

Yet it was clear that as Dade County continued to grow – and projections estimated that the county would reach two million by 1970 and four million by 1980 – its population would need more and more water. This led Secretary of the Interior Stewart L. Udall to wonder about how the C&SF Project would affect Everglades National Park in regard to the amount, place, and time of water releases. Fearing that Dade County would encroach on park water, Udall asked that the Corps grant the park a guaranteed annual supply that municipal or agricultural demands could not reduce.[11]

Secretary of the Army Elvis J. Stahr, who would later become president of the National Audubon Society, explained that the Corps could not make such an assurance because it had no authority to grant water rights to any entity. "The Department of the Army does not acquire water rights for the construction and operation of Civil Works projects," Stahr claimed, "except as they may be connected with lands being acquired for a dam or a reservoir."[12] If the NPS officials wanted a guarantee, they would have to coordinate with the FCD or the state of Florida, but the FCD believed that no such assurance was possible because of the difficulty of predicting how much water each interest would need in a given year.

The situation became more pronounced as drought ravaged the park. In 1961, much of Everglades National Park received only half of its normal rainfall, and, by March 1962, the park was littered with "remnants and carrion—but no life," according to *National Parks Magazine* contributor Gale Koschmann Zimmer.[13] The lack of water destroyed fish and shellfish populations, and, faced with the decimation of these food sources, birds either died or fled. At the same time, fire danger became high, and saltwater concentrations along coastal areas of the park became pronounced. "The whole effect of the drought upon the ecology of the Everglades cannot now be foretold," the park's chief naturalist Ernst Christensen explained, but "the impact upon park life is already serious."[14]

Park officials believed that C&SF Project features only exacerbated the drought because they eliminated traditional sheet flows into the area. They therefore demanded that the Corps give Everglades National Park as much water as it received before C&SF Project construction began. In addition, they asked the Corps to enlarge the water conservation areas to provide sufficient storage for the park's needs. Acting South Atlantic Division Engineer Colonel H. J. Kelly responded that the C&SF Project actually delivered more water than the park had received during Florida's drainage era, and that the conservation area solution was unrealistic because increased seepage and evaporation would offset any raises in water levels. But, Kelly continued, although the Corps could not fully satisfy the NPS's demands, it would search for "a middle ground of reasonable compromise" that would help the park receive more water.[15]

S-12C. (Source: The Florida Memory Project, State Library and Archives of Florida.)

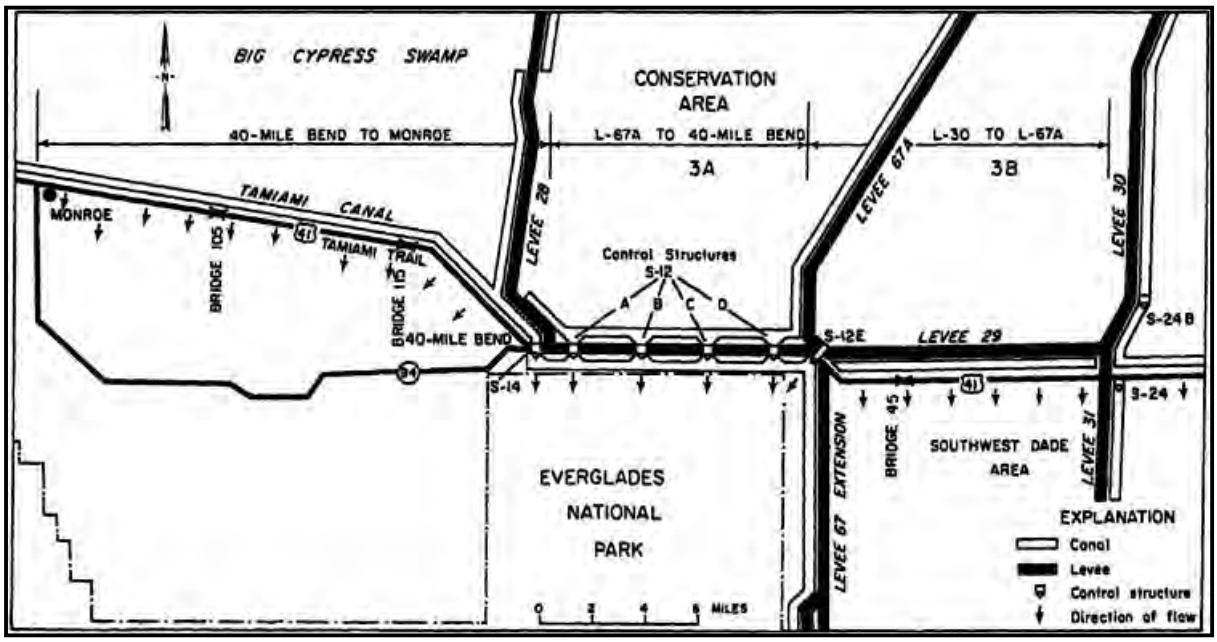
The NPS was especially concerned with the construction of Levee 29 and Control Structure 12, which would form the south boundary of Conservation Area No. 3. According to park officials, these devices would completely eliminate water entering the park from the north. The Corps proposed placing four major outlet spillways in the levee to discharge water into the park, as well as building transitions within the park so that the water could be effectively distributed. But NPS officials refused to allow the Corps to build any structures within the park, forcing the Jacksonville District to work outside park boundaries. Corps officials did not believe that this demand was too unreasonable, but at the same time, according to Colonel Kelly, it evinced an uncooperative, insular attitude that hindered discussion and negotiation.[16]

The positions of both sides hardened at an October 1961 conference between the NPS, the Corps, and the FCD in the Interior Department offices in Washington, D.C. As reported by FCD engineer William V. Storch, the NPS reiterated the necessity of a guaranteed water supply to Everglades National Park, and declared that if the Corps would not grant one, the NPS would petition Congress to restrict C&SF Project funds until an agreement was reached. Yet Corps representatives insisted that a guarantee had to be arranged between the FCD and the NPS. FCD officials agreed with the Corps' position, but, they stated, no agreement could be made "until more accurate knowledge was available both as to Park minimum requirements and the east coastal demands."[17] Not all was lost for the park, however. According to Storch, the Corps did admit that House Document 643 contained "an apparent obligation . . . to provide positive water supply benefits to the Park," and it pledged that it would make "a thorough review of the overall water needs of the area" to determine how this could be accomplished.[18]

In 1962, tensions continued to simmer. When the Corps proposed to enlarge the lower 17 miles of the West Palm Beach Canal to facilitate floodwater discharge to the Atlantic Ocean, the NPS objected, stating that the Corps should expand storage facilities and divert the floodwater into the park. The Corps responded that such a proposal was not feasible because of the expense.[19] Moreover, the NPS made good on its threat to turn to Congress, and in the summer of 1962, the Senate Committee on Public Works passed a resolution asking the Board of Engineers for Rivers and Harbors to make a comprehensive survey of existing water supplies to the park and to recommend how it could receive more water.[20]

Before anything could be accomplished, trouble developed over Levee 29. Even though the Corps had placed four spillways within the structure to ensure that water reached the park, no

water flowed through the levee between January and May 1962, causing, in the words of the USGS, "near-record low water levels" and saltwater encroachment in the southern portion of the park.[21] The Corps claimed that the situation resulted because it had to shut off water to complete additional construction in the area, but many questioned that position. Verne O. Williams, a reporter for the *Miami Daily News*, wrote that the only reason why Everglades National Park did not have enough water was because of a "man-made drouth," and he placed all of the blame on the Corps and its "costly drainage works," calling Levee 29 "a plug in the throat of a funnel."[22]



L-29 and its four spillway structures (S-12A, B, C, D). (Source: U.S. Army Corps of Engineers, Jacksonville District.)

The FCD did not help matters by refusing to open Levee 29's gates once the Corps had finished construction. From 1963 to 1965, the gates remained shut, even though drought continued to ravage the Everglades. Although the FCD had legitimate reasons for closing the gates, such as the necessity of filling the finally completed Conservation Area No. 3 and of maintaining it at the desired level, many believed that the FCD was trying only to preserve more water for agricultural and urban interests.[23] Paul Tilden, a contributor to *National Parks Magazine*, claimed that even though the park received more than 500,000 visitors annually, the FCD and the Corps regarded it as an "afterthought" and an "appendage" that could get water only "after the Florida east coast cities, industries, and agricultural areas have been served."[24] This disregard, Tilden believed, mobilized individuals concerned with Florida's environment, and they increasingly called for a halt to C&SF Project construction until Everglades National Park received a minimum guarantee of water.

Meanwhile, the Corps moved forward on its study of park water requirements. Yet its proposed plan of study focused on how engineering structures could bring more water to the area, rather than investigating how much water the park needed to survive.[25] Therefore, the NPS called on different government and private agencies to examine the park's water needs. Responding to these demands, the USGS, after correlating average monthly water stage data in

the park with flows from the Tamiami Trail from 1953 to 1962, determined that water flows for that period averaged around 260,000 acre-feet at Shark River Slough and 55,000 acre-feet at Taylor Slough. This was a landmark finding even though park officials had no ecological data to show that this amount was necessary or sufficient to keep plant and wildlife alive. After receiving this information from the USGS, NPS officials agitated for an annual delivery of 315,000 acre-feet to the park, a figure they would continue to cite throughout the 1960s and 1970s.[26] This figure, of course, was drastically different from the more than two million acre-feet that Superintendent Warren Hamilton said was the park's optimum requirement in 1958. However, an Interior Department position paper published in 1964 clarified that the 315,000 acre-feet was merely what the park desired for an interim supply; it was not based on what was needed to maintain the park ecologically and should not be construed as such. Further long-term studies were necessary to determine the ecological needs of the park and its estuaries.[27]

Shark River Slough. (Source: South Florida Water Management District.)

Indeed, inquiries into the requirements of the Shark River and Taylor sloughs were ongoing. These sloughs were deep, wide water channels that conveyed water across the Everglades. Shark River Slough, the larger channel, was located south of Conservation Area No. 3 and the Tamiami Trail, and flowed southwest into the Gulf of Mexico. Taylor Slough ran southwest from the park's eastern boundary, moving through the Royal Palm area into Florida Bay. If these sloughs did not receive enough water, the whole park suffered. In addition, a lack of water in Taylor Slough affected life in Florida Bay, an estuary that was a prime nursery for shrimp and coastal fishes. Shrimpers annually harvested $15 million worth of shrimp from Dry Tortugas, a cluster of seven islands located southwest from the bay, meaning that changes in water flow not only harmed the ecology of the bay, but a thriving South Florida industry as well.[28]

Aware of this situation, the Institute of Marine Science at the University of Miami conducted a study from 1963 to 1966 about the ecology of Everglades National Park's estuarine regions and the effects of water – or the lack of it – on these areas. Institute scientists especially wanted to see how salinity and temperature changes affected plant and animal communities between the upper Florida Keys and the Chatham River of the Ten Thousand Islands. They could then use these data to construct the freshwater requirements of the estuaries, allowing park officials to make a more informed recommendation as to how much water the park needed annually to protect not only the land-based ecology but the estuarine regions as well. The study concluded that variations in salinity had the greatest impacts on plant and animal life, and that ground water elevation in the Homestead well – designated as S-196A – had a direct relation to Florida Bay's salinity. Therefore, Everglades National Park had to have at least enough water to prevent high saline conditions in the bay.[29]

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Meanwhile, the NPS received information that even though the Corps had not yet completed its restudy of water demands, Corps officials were planning works to supply water to Martin County. The NPS objected to such a program "until the project can and does supply the water needs of Everglades National Park."[30] In fact, between 1962 and 1965, the NPS consistently denounced Corps plans for any new construction on the C&SF Project because the Corps would not guarantee water for Everglades National Park. But the Corps insisted that it was giving every consideration to park needs and that it was trying to solve the problem within project parameters. It would support releases to the park as long as they did not, in the words of the Secretary of the Army, "override the basic purposes of the project or the higher priority needs of water supply based on the rapidly expanding population of Florida."[31] Indeed, primary project purposes, as defined by House Document 643, were flood control and water supply for agricultural and municipal uses; fish and wildlife preservation was only a secondary purpose. But the Interior Department had insisted from the beginning (and even in House Document 643 itself) that the Corps operate the project to benefit Everglades National Park, and the Corps had seemingly agreed to that arrangement.[32] Now, NPS officials charged, the Corps had reneged on those promises to the detriment of the park's ecology.

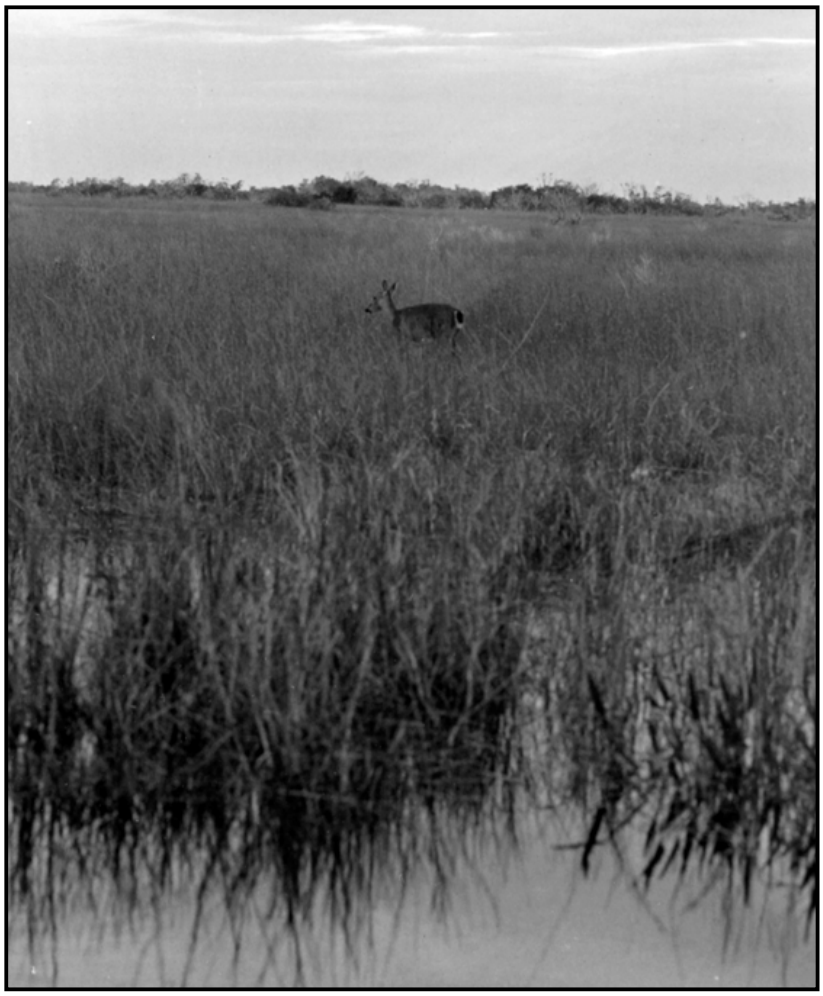
By 1965, the water situation in Everglades National Park had become critical. The Interior Department related that pools and marshes had evaporated, while saltwater intrusion along coastal areas had shrunk fish and wildlife habitat. At the same time, alligator holes dried up, forcing park officials to dynamite holes out of the limestone bedrock to provide adequate habitat for the animals. To alleviate the situation, the FCD worked on an emergency water release schedule for the park, whereby it would receive water from Conservation Area No. 3. This plan went into effect in 1965, but the NPS complained that it only provided at best one-tenth of the park's monthly requirements. Meanwhile, because Lake Okeechobee was experiencing high water levels in the spring of 1965, the Corps allowed 70,000 acre-feet of water to flow to the Atlantic Ocean and the Gulf of Mexico between April 7 and April 22.[33] The NPS loudly decried these releases because of the parched state of the Everglades, wondering why the Jacksonville District could not have sent the water directly to the park. The media picked up on these complaints, prominently displaying the park's dry condition and excoriating the Corps for the discharges. Based on these reports, outraged citizens began writing letters to the Corps demanding that water from the water conservation areas be released into the park.[34]

Facing these attacks, the Corps and the FCD explained that the discharge was necessary to relieve the high water situation quickly and that canals were not designed to divert large volumes of water southward to the park.[35] In addition, William Storch, the director of the FCD's engineering division, emphasized that the FCD had made "a reasonable effort" to provide more water for Everglades National Park in accordance with "the water needs of the area contributing taxes to the support of the District," namely the EAA and east coast urban areas. Storch cautioned people to remember that water supply questions had difficult "social, economic and political considerations," and he admonished participants to leave emotion out of the decision-making process.[36]

The situation became less severe in September 1965 when Hurricane Betsy flooded the Everglades with six to ten inches of rain, but the overall problem of water supply to the park remained.[37] Therefore, after receiving recommendations from the NPS based on past water

flows to the Everglades, the Corps and the FCD established an interim regulation schedule to supply water to the park until the Corps had completed its water study and constructed whatever works were necessary. According to the agreement, the FCD would pump water from Lake Okeechobee "in addition to or in conjunction with pumping for lake regulation as scheduled" and the Corps would reimburse the district's expenses for such pumping based on the amounts that actually flowed to the park at S-12. The pumping would occur "whenever it is necessary to lower the lake level for flood control and at such other times when water is available in the lake," and the water thus pumped would be supplied "to the lower East Coast Area and to the Park."[38] In order to allow for such conveyance, the Corps would enlarge and extend the North New River Canal, the Miami Canal, and the L-67 Borrow Canal. In times of imminent emergency, the Corps would still have to send floodwater to the Atlantic Ocean and the Gulf of Mexico through the St. Lucie Canal and the Caloosahatchee River, but on other occasions the FCD could pump water from Lake Okeechobee to the water conservation areas for park use.[39] After much discussion with the Corps, the NPS approved the interim plan, and it went into effect in March 1966.[40]

But a comprehensive water plan was still necessary; as Michael Straight wrote in *National Parks Magazine*, "little can be gained by viewing the needs of the park only in emergency and in isolation."[41] Besides, the drought's effects on wildlife in the park had been startling; NPS officials estimated that only 5 percent of the alligator population had survived, and bird numbers were drastically lower as well. In the words of Park Superintendent Roger W. Allin, the drought years had "caused extensive changes in habitat which may have far-reaching influence on biotic balances."[42]



Deer in Everglades National Park. (Source: The Florida Memory Project, State Library and Archives of Florida.)

Regardless of the damage that the drought had caused, Everglades National Park received more than 1.2 million acre-feet of water in 1966.[43] Yet the impoundment of water in Conservation Area No. 3, coupled with heavy rainfall in the spring and summer of 1966, caused severe problems for deer herds in the region and placed both the Corps and the FCD under fire for allowing too *much* water. But Florida Game and Fresh Water Fish Commission Director O. E. Frye, Jr., claimed that several factors

caused the high levels in Conservation Area No. 3. Because Everglades National Park demanded "a guaranteed amount of water introduced into the park on a daily basis," and because Lake Okeechobee's water levels exceeded its regulation stage, the Corps and the FCD had released "an unusual amount of water" from the lake and "conveyed [it] southward through various canals" to the water conservation areas. Frye continued that stands of sawgrass in the northern part of Conservation Area No. 3, coupled with the flat topography of the region, prevented water from flowing quickly to the park, making it "stack up in those parts of the conservation areas adjacent to the pumping stations."[44] Unfortunately, the region was the home of a large deer population which was fawning, and the high water had a devastating impact on those animals. As water levels increased, newspapers began publishing accounts of helpless and starving deer stranded in the area; environmentalists such as John "Johnny" Jones of the Florida Wildlife Federation characterized the situation as "a wildlife version of Auschwitz."[45]

To alleviate the problems, the state's cabinet issued an order to the FCD and the Board of Conservation on 12 April 1966 to halt pumping temporarily at pump station S-8, located in the northwestern corner of Conservation Area No. 3, so that water levels could decrease. When levels remained high, Florida Governor W. Haydon Burns ordered the pumping moratorium extended "until favorable conditions returned."[46]

Even though large-scale pumping ceased, the situation became grave in June when Hurricane Alma dumped large amounts of rain on South Florida, causing levels in Conservation Area No. 3 to rise another six inches and placing already-stressed deer in an emergency situation. In response, sportsmen organizations and other concerned citizens called on Governor Burns to take decisive action. Robert F. McDonald, a delegate of the Palm Beach County Airboat and Half Track Club, asked Burns to end "this senseless and shameful disregard of our precious remaining wildlife" by forcing the FCD to stop pumping, but both the FCD and the Corps insisted that it had to pump during heavy rainfall in order to prevent flooding in the EAA.[47]

With the deer herd facing catastrophe, Florida's cabinet created an interagency committee in July consisting of representatives from the Board of Conservation, the FCD, and the Game and Fresh Water Fish Commission "to develop a program to safeguard the Everglades deer herd and other wildlife from intermittent high waters."[48] The committee, known as the Everglades Natural Resources Coordinating Committee, consulted with state and federal management agencies to develop plans as to how the deer could be saved. These consisted of several temporary arrangements, including:

- Obtaining NPS approval to cut channels 200 feet wide and ½ mile long "immediately south of S-12," thereby increasing outflow to Everglades National Park (the NPS had previously refused to allow the construction of such structures);
- Increasing the flow of canals by sending water to coastal areas;
- Ceasing pumping at stations S-6, S-7, and S-8 and moving water from the EAA into Lake Okeechobee; and
- Moving some deer to higher ground.

Under the circumstances, Committee Chairman Randolph Hodges related, these were "the best solution[s] which could be evolved."[49]

Meanwhile, the Corps developed both immediate and long-term solutions to the problems. In the summer of 1966, the agency supplied mowers to cut sawgrass in the northwestern portion of Conservation Area No. 3; it also prohibited vehicles from traversing levee roadways so that deer would not experience "needless fright-induced activity," and it removed a plug at the intersection of the Tamiami Canal and Levee 67 Extension Canal so that more water could flow southward.[50] At the same time, the Corps proposed more long-standing answers, such as completing the construction of a canal running south from the Tamiami Canal on Everglades National Park's eastern boundary to increase water flow from the water conservation areas, and conducting studies into the feasibility of building another conveyance canal on the park's western border. The Corps also provided the Game and Fresh Water Fish Commission with a cost estimate for developing small islands in the conservation areas "above reasonable flood levels" so that deer could have "high-water grazing and refuge."[51] In addition, it proposed to build a conveyance canal through Conservation Area No. 3 so that water could more easily flow southward from the northern parts of that area. "All agencies concerned are cooperating fully and doing all possible to relieve the problem," the Corps concluded, insisting that it could not possibly be blamed for not foreseeing the "extremely wet season" that affected "an area which is primarily intended for water impoundment."[52]

But in the summer of 1966, the media continued to report that the C&SF Project was in large measure responsible for the deer situation, forcing the Corps to take a defensive stance. "The area in which these deer are located is a natural swamp," Acting Chief of Engineers Major General R. G. MacDonnell told one concerned citizen. If the Corps had not constructed the C&SF Project, MacDonnell stated, the water in Conservation Area No. 3 would have flooded cities on the east coast and "the major agricultural lands south of Lake Okeechobee."[53] Likewise, Joe J. Koperski, chief of the Jacksonville District's Engineering Division, informed a journalist that the C&SF Project had actually prevented $15 million in damages from the June rains. "If the large volumes of excess floodwater had not been pumped to the lake and conservation areas," he continued, "the deer situation would have been far overshadowed by headlines citing a disastrous flood in both urban and agricultural areas of south Florida." Koperski claimed that "conservation of natural resources" was a "primary function" of the C&SF Project, and he emphasized that using the water conservation areas for flood control did not necessarily make them incompatible with fish and wildlife propagation.[54] Ronald Wise, a commissioner with the Florida Game and Fresh Water Fish Commission, agreed, although he characterized the conservation areas' "primary purpose" as flood control and the storage of water to "guarantee" that Everglades National Park had a sufficient supply. Yet if the commission could construct "small islands at intervals throughout the conservation area," he concluded, wildlife did not have to suffer during times of high water.[55]

Accordingly, in 1967, the Game and Fresh Water Fish Commission began developing islands in Conservation Area No. 3, ensuring that they contained open sloughs on their sides so that water could continue to flow southward. In addition, the Corps started construction on the different canals and extensions that would facilitate water flow from and within the water conservation areas, including an extension of L-67 along the eastern boundary of Everglades National Park and a conveyance canal from L-67 to the park. It provided the spoil from these projects for the island development. According to Randolph Hodges, these measures were "the

maximum compr[o]mise of flood control facilities possible at this time for wildlife preservation without endangering the primary purpose of the flood control project."[56]

In the meantime, another controversy arose in 1966 over the opening of the Aerojet Canal, or Canal 111, in Southwest Dade County. As part of the Dade County Project explained above, the Corps constructed the canal in the 1960s, running from just below Homestead to Barnes Sound. The initial purpose of the canal was to drain lands east and south of Everglades National Park, but after Aerojet General, a space technology company, built a rocket engine testing center in the region, critics saw the canal as creating a barge-accessible waterway for Aerojet's testing facility. In addition, the drainage aspect threatened to allow saltwater to creep up the canal and contaminate fresh water in the park in times of drought. To prevent water from interfering with bridge construction, the Corps had placed an earthen plug in the canal where it intersected U.S Highway 1 (about two miles inland from Biscayne Bay), and this prevented the flow of seawater. Yet upon completion of the bridge, the Corps would remove the plug, allowing saltwater to mingle with freshwater during unusually high tides and strong winds. The NPS and environmental organizations petitioned the Corps to keep the plug in place, but Corps leaders proposed that it remove the plug and observe whether saltwater intrusion really occurred. Objecting to this plan, the National Audubon Society and other groups applied for a court injunction to maintain the plug. The Corps then informed the NPS that the plug would remain "indefinitely" while a plan was formulated to protect Everglades National Park, and by 1969, the Corps had constructed an earthen barrier with gated culverts downstream from the original plug.[57]

C-111. (Source: U.S. Army Corps of Engineers, Jacksonville District.)

While the controversy raged over C-111, drought returned to South Florida in 1967, renewing cries for more water to the park. The battle was becoming more polarized as the 1960s progressed; essentially, it was a question of whether enough water existed for both Everglades National Park and agricultural and municipal purposes, or whether the FCD and the Corps had to choose among the three. As this polarization occurred, environmental organizations began to wade into the fray with increasing frequency. The National Parks Association asked Americans to contemplate whether sugar and cattle industries should be developed in Florida at the expense of the Everglades, and whether urban centers in South Florida should continue to grow if it endangered park tourism and the shrimp industry in Florida Bay.[58]

But not all proponents of fish and wildlife viewed the supply of water to Everglades National Park in positive ways. O. E. Frye, Jr., director of the Florida Game and Fresh Water Fish Commission, for example, noted in 1968 that continual supplies of water to the park were creating critical situations for fish in the water conservation areas, and he requested, with the support of the governor's cabinet, that "if it became apparent that a fish kill was in the offing, releases to the Park . . . be discontinued."[59] Clearly, many factors were involved in water supply issues for the park, and as views became more hardened, the emotionalism decried by Storch became a larger component of water management.

Into this charged setting came the Corps' report on its restudy of water needs in South Florida. Although the Corps originally planned on releasing the report in the summer of 1967, delays, including efforts to address concerns expressed by the NPS, extended the completion date. In the fall of 1967, the Jacksonville District held public hearings in Belle Glade and Coral Gables on its preliminary findings. According to a notice of the hearing, the Corps recommended that in order to provide enough water for the needs of South Florida through 2000, it needed to modify the C&SF Project in the following ways:

- Raise Lake Okeechobee by four feet to a seasonal regulation range between 19.5 and 21.5 feet above mean sea level to provide for more water;
- Pump excess floodwater first to the water conservation areas before discharging it to the Atlantic Ocean and Gulf of Mexico;
- Backpump excess water from Martin and St. Lucie counties to Lake Okeechobee to increase available water;
- Allow several canals draining to the coast to backpump excess runoff to the conservation areas;
- Deliver 315,000 acre-feet to Everglades National Park annually; and
- Build conveyance canals to South Dade County and the Taylor Slough.[60]

The NPS offered its cautious approval to this plan, now believing that, according to available information, a minimum of 315,000 acre-feet a year would allow the park to "survive."[61] Others were not so sure; the Florida Game and Fresh Water Fish Commission, for example, supported the basic principles of the plan, but objected to several specific provisions, including the raising of Lake Okeechobee (which it claimed would have harmful effects on both vegetation and fish and wildlife) and the fact that the commission could find no evidence that the Corps had considered the ecological maintenance of the water conservation areas in its plan. Instead, it

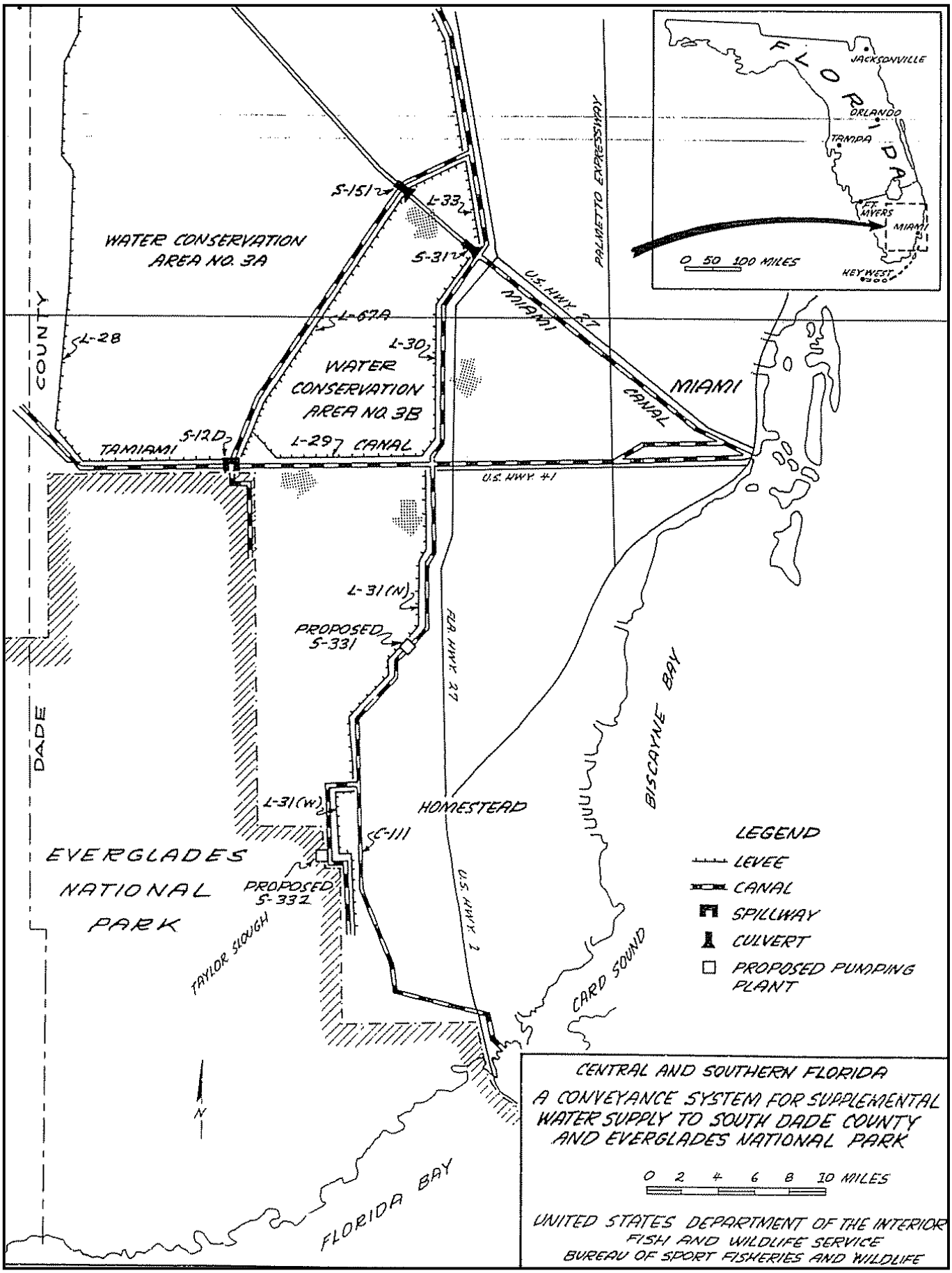
appeared to the commission, "the Conservation Areas will be drawn down and sacrificed for the benefit of the water demand areas."[62]

Still others were more concerned with the amount of water going to Everglades National Park. For instance, the National Parks Association objected strongly to the proposal, holding that Everglades National Park needed at least 400,000 acre feet of water and that this amount needed to be explicitly guaranteed. Representatives of the National Wildlife Federation agreed, claiming that the annual delivery needed to be "adjusted to account for the [park's] biological needs."[63] Therefore, the National Parks Association called on Congress to eliminate funding for more C&SF Project work in Florida "until the Nation as a whole has firm legal assurances, binding on the State of Florida and binding even on the Central Florida Flood Control District, guaranteeing the necessary water deliveries into Everglades National Park permanently."[64]

At the same time, agricultural and municipal interests were not pleased with the Corps' recommendations, believing that the Corps was providing too much water to Everglades National Park. Dade County Manager Porter Homer, for example, criticized the restudy, saying that "the 315,000 acre-feet per year used by the corps is not based on adequate research."[65] In the weeks following the public hearings, Corps officials seemed to pay more attention to agricultural and municipal complaints than to environmental criticisms. For one thing, the Corps rethought its proposal to deliver 315,000 acre-feet to the park. Even though NPS leaders insisted that this was a minimum amount that the park needed, South Atlantic Division Engineer Major General T. J. Hayes echoed Homer's complaints that no study existed showing that this was "the required amount to sustain the Everglades effectively" since the USGS had merely averaged the flow into the park from 1952 to 1961.[66] The Corps also refused to guarantee water to the park for several reasons, including its lack of jurisdiction and the fact that "parks do not have an established priority over other authorized project purposes."[67] In addition, members of the Jacksonville District did not want to upset Florida state officials who believed that an annual guarantee would completely halt any urban or agricultural development in South Florida. Finally, Corps representatives believed that they could provide "the basic water demands of the park" without making a guarantee.[68]

When the Corps issued its final report in May 1968, its suggestions – although no different in most ways from those outlined above – had no clear recommendation that Everglades National Park receive 315,000 acre-feet of water annually. Instead, the report merely suggested that the Corps improve the conveyance and distribution of water to the park through a system of canals, levees, pumping stations, and control structures to meet a "basic annual goal of 315,000 acre-feet, with intermittent years of higher flow."[69] Although no specific guarantee was provided, it was still significant that the Corps had admitted that the park needed at least 315,000 acre feet a year.

Given the outcry that agricultural and municipal interests had raised, the Corps' avoidance of an explicit assurance seemed a logical and middle ground position to take, although not one popular with environmental interests. But in the minds of Corps leaders, there was little else the agency could do. Because flood control and water supply were higher priorities under the C&SF Project, the Corps could not specifically guarantee water to the park without congressional direction, especially if the state of Florida, for whom the project was built, was unwilling to compromise on the issue.



South Dade County Project map. (Source: U.S. Fish and Wildlife Service, Vero Beach, Florida, administrative files.)

At the same time, however, the Corps' response was one that infuriated observers who noted that the Corps was not a passive agency, unable to do anything without congressional approval. Instead, critics charged, the Corps was a highly adaptable, fairly aggressive promoter of its own interests. It was especially difficult in the case of Everglades National Park to understand why the Corps could not merely direct the FCD to supply necessary water to the park, especially since benefiting fish and wildlife *was* a purpose of the C&SF Project, secondary or not. In the minds of many critics, the claim that the Corps just followed congressional instruction was disingenuous at best and historically inaccurate at worse. Arthur R. Morgan, a leading critic of the Corps who had formerly worked as Chief Engineer of the Miami Conservancy District and chairman of the Tennessee Valley Authority, for example, claimed that the real reason why the Corps did not guarantee sufficient water for the park was because it had not conducted "adequate engineering analysis" that focused on South Florida as "an environmental unit." "There is no reticence in the Corps about interfering with and changing legislation of public policy," Morgan argued. "It is only where the Corps wishes to prevent carrying through a program that it pleads its lack of power."[70]

Upset by the lack of an unambiguous guarantee, NPS Director George Hartzog, Jr., informed the Board of Engineers for Rivers and Harbors that unless the report stated "clearly and unequivocally" that Everglades National Park would receive a certain amount of water, the NPS would not concur with the report.[71] Unwilling to act on "national policy questions outside of the purview of the Board," the board emphasized to the Chief of Engineers the need for water in the park, suggesting that the chief should "clearly define the ecological objectives and the amounts of supplemental water needed to meet those objectives." But the board required no definite promise of water in the Corps' report.[72]

Receiving no help from the Board of Engineers, Assistant Secretary of the Interior Stanley A. Cain reiterated that the Interior Department could not approve the proposed project modifications unless it received "written assurance by the Secretary of the Army that he will provide the water supplies as set forth in the report, undiminished by new incursions."[73] Perhaps fearing that Congress would not approve the modifications unless the NPS gave its concurrence, or perhaps in agreement with the NPS's position, Major General F. J. Clarke, Acting Chief of Engineers, informed Secretary of the Interior Stewart L. Udall that "the Chief of Engineers will insure the project is regulated to deliver the water requirements of the Everglades National Park as so set forth in the report."[74] At a subsequent meeting between the Interior Department, the Department of the Army, and the Bureau of the Budget, the Corps assured Interior and the bureau verbally that it would provide 315,000 acre-feet of water to the park and that future demands would not reduce that figure, but it still would not place a specific guarantee in writing. Congress then published the Corps' report as House Document 369, and authorized the modifications, estimated to cost about $70 million, in the Flood Control Act of 1968.[75]

The state of Florida continued to resist any kind of water guarantee to the park. Accordingly, in the summer of 1968, the Corps tried to mediate between the state and the NPS to develop a memorandum of agreement that would assure 315,000 acre-feet of water to the park except in times of drought when it would share shortages with other users on a pro rata basis. The Florida Board of Conservation refused to approve the memorandum, believing that the agreement would

forfeit its water rights and insisting that no water user in Florida should have priority over another.[76]

Faced with these problems, the secretary of the interior requested that the department's solicitor issue an opinion as to whether or not the Corps could require the FCD to deliver a certain amount of water to Everglades National Park each year. The solicitor argued that because Congress approved modifications to the C&SF Project upon the recommendation of the Bureau of the Budget, and because the Corps assured the bureau and the Interior Department in its July meeting that the park could receive 315,000 acre-feet, the law required the Secretary of the Army to manage the project "for the purpose of meeting the water requirements of the Everglades National Park." The solicitor continued that the Secretary of the Army "not only has the statutory authority but also a Congressional mandate to issue, unilaterally, regulations for the delivery of project water to the park."[77]

Nevertheless, the Corps began to renege on its verbal assurances, as Robert Jordan, Special Assistant to the Secretary for Civil Functions, insisted that the modification authorized the Corps to provide the 315,000 acre-feet as an *objective*, not as a guarantee.[78] In an attempt to resolve the problem, the U.S. Senate Committee on Interior and Insular Affairs held hearings in June 1969 on water supply to Everglades National Park. At these hearings, Nathaniel Reed, special assistant to Florida Governor Claude R. Kirk, Jr., expressed the state's concern for the park, but stated that it was impossible to guarantee a certain amount of water each year because of Florida's erratic rainfall. Drought might decimate water supplies to the point where the FCD could not supply a required amount. Reed also told the committee that certain priorities existed

Everglades National Park in the 1960s. (Source: The Florida Memory Project, State Library and Archives of Florida.)

in Florida regarding water: man – meaning municipal supplies – was first, agriculture was second, and "somewhere along the line" was Everglades National Park. However, under a new interim schedule that the FCD was developing, the park would receive the necessary water and would only be short in times of drought when "everybody will be short." Robert Padrick, chairman of the FCD and a member of the Sierra Club, agreed with Reed, explaining that the interim schedule would deliver 260,000 acre-feet to Shark River Slough annually "in accordance with the park's monthly requirements."[79]

But Senator Gaylord Nelson, a Democrat from Wisconsin who had a strong interest in environmental matters, as evidenced by his support in this same time period for the National Environmental Policy Act, signed into law by President Richard Nixon on 1 January 1970, could not understand why the state would not agree to a guarantee. The federal government had expended $170 million on the project, he argued, so the state could not claim that the resulting water belonged to it. The intransigence of state officials on the matter infuriated Nelson, who called the situation "ridiculous," "preposterous," and a "disgrace."[80] Acceding to the wishes of the National Parks Association and other environmental groups (who also testified at the hearings), he threatened to halt a proposed $9 million appropriation for the C&SF Project if the state would not give the park a guarantee of 315,000 acre-feet regardless of future demands on water.

Only days after the conclusion of the hearings, Nelson executed his threat, asking the Senate Public Works Subcommittee of the Committee on Appropriations to halt the C&SF Project's $9 million appropriation for fiscal year 1970 until the state and park officials had reached a water supply agreement. Accordingly, the committee's appropriations report directed the state of Florida, the Interior Department, and the Department of the Army to develop an operating agreement to ensure water deliveries to Everglades National Park. But by 1970, the three parties had held no meetings to formulate a plan. Therefore, Senator Spessard Holland requested that the Subcommittee on Public Works Appropriations convene a conference with the interested state and federal agencies to discuss the problem.[81]

In February 1970, this meeting occurred, with representatives from the state of Florida, the NPS, and the Corps attending. To begin the discussion, NPS Director George Hartzog stated that he could not agree to any plan whereby the park had to share water in drought years with future users. Despite these declarations, the parties, aided by Holland and Senator Allen J. Ellender, chairman of the committee, made some progress and eventually agreed to several things. First, they concurred that an interim water supply delivery plan developed by the FCD in the summer of 1969 to simulate more accurately historical flow patterns would go into effect immediately, supplying 260,000 acre-feet of water to Shark River Slough (canal enlargement had to occur before the Taylor Slough and the eastern panhandle could receive 55,000 acre-feet). Second, when the Corps had enlarged the capacity of Lake Okeechobee to 17.5 acre-feet (which was supposed to occur in two years), the state, the NPS, and the Corps would review the plan to see if the park could receive more than 260,000 acre-feet. Third, once the Corps had completed the necessary construction to increase Lake Okeechobee's levels to 21.5 feet, the interim agreement would cease and the FCD would deliver 315,000 acre-feet annually. Fourth, in 1980, the Corps would conduct a restudy of the C&SF Project and of water demands to see what other action was necessary. The only issue that remained was whether or not the Corps could establish a priority

of use that would protect the park from future demands, and Holland and Ellender strongly suggested that a meeting to solve that difference occur quickly so that appropriations for the C&SF Project could resume.[82]

On 16 March 1970, the three parties held another conference to discuss the water supply problem, but although some conciliation was offered, no suitable agreement resulted.[83] Therefore, in April, the Senate Subcommittee on Flood Control of the Committee on Public Works held a hearing on the matter. During this meeting, Senator Nelson reiterated that unless the state, the NPS, and the Corps reached an accord, he would again try to stop any appropriation for the C&SF Project, and representatives from environmental organizations such as the National Wildlife Federation, the Florida Wildlife Federation, the National Parks Association, and the National Audubon Association concurred with this stance. Harkening back to the July 1968 meeting between the Interior Department, the Corps, and the Bureau of the Budget, Nelson accused the Corps of reneging on its verbal pledge to provide 315,000 acre-feet to the park unencumbered by future uses, and expressed his hope that "escalating public concern in America over all environmental matters" would force the Corps and the state to guarantee a water supply.[84] Upon Nelson's conclusion, Senator Edmund S. Muskie, a Democrat from Maine who was known for his support of environmental causes, proposed that the hearing investigate what protections Congress could provide to the park. Although no firm conclusions were reached, it was clear that some members of Congress would fight until Everglades National Park had its guaranteed water.

Everglades National Park. (Source: The Florida Memory Project, State Library and Archives of Florida.)

And, indeed, Nelson and Muskie did. Tired of the constant bickering between the state, the Corps, and the NPS, and resigned to the fact that no agreement was forthcoming, the two pushed a bill through Congress providing money for the conveyance canals and pumping stations proposed in the Corps' 1968 report. But the bill also contained a stipulation added by the Committee on Public Works, of which Muskie was a member, that as soon as practicable, and no later than when the Corps had completed the necessary works, Everglades National Park would receive either 315,000 acre-feet annually, prorated monthly according to an NPS schedule, or 16.5 percent of the total water deliveries from the project, whichever was less.[85] The committee's report explained that the proviso was added "to secure as promptly and regularly as possible delivery of water to the Everglades National Park" and to extinguish all questions of how much water the C&SF Project had to deliver to the park. Because the federal government had supplied so much money for the C&SF Project, and because the park was "a national asset to be preserved for our own and future generations," the committee believed it had the authority to make this stipulation.[86]

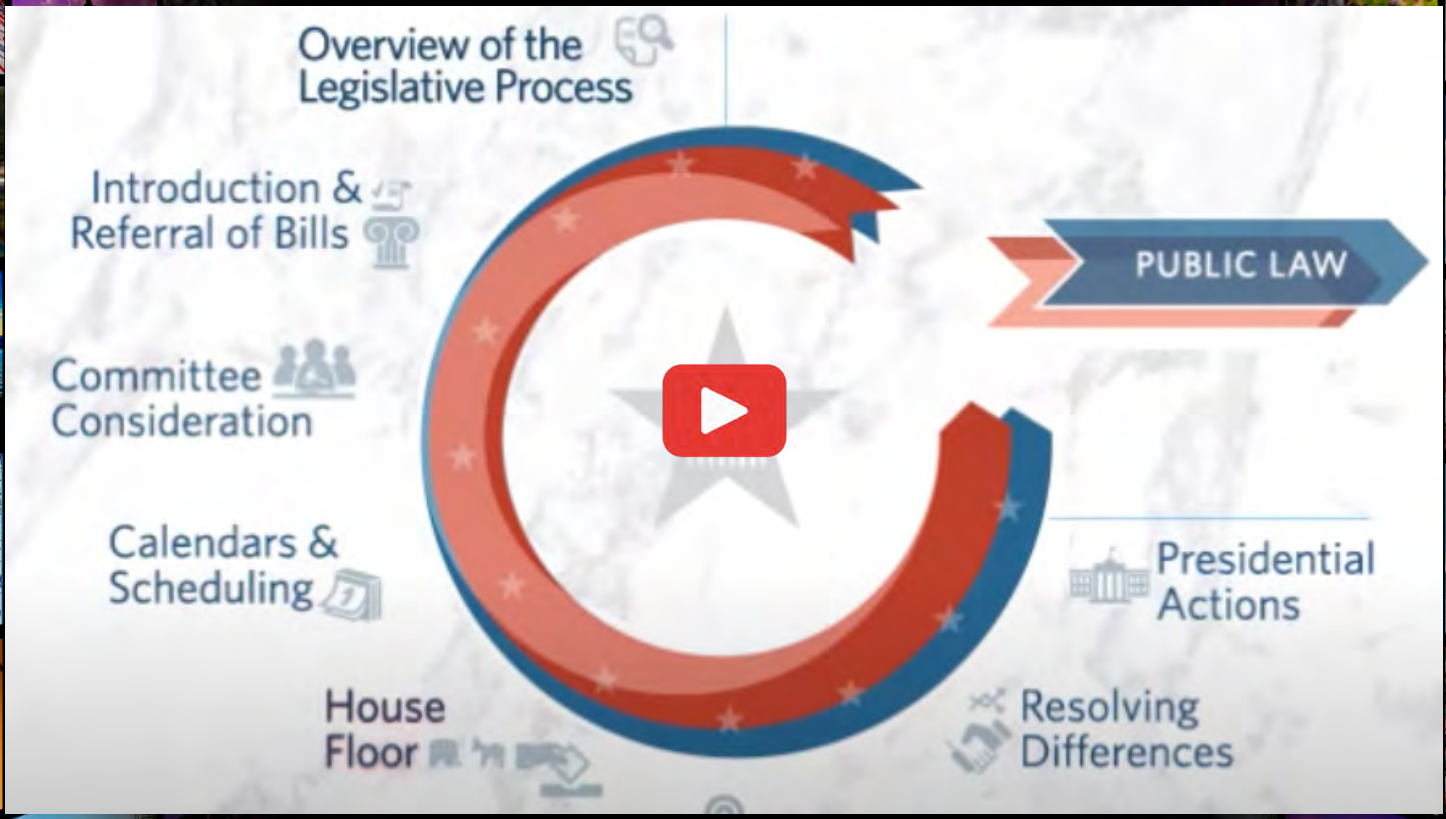
Although the NPS now seemed to have the guarantee of water that it desired, problems resulted almost immediately. Since language in the act required the stipulation to become effective as soon as practicable, the Corps and the FCD began implementing it in 1971, a year when little rain fell. Therefore, even though the park would have received more water under the FCD's interim plan, the FCD provided water throughout 1971 following Congress's requirement. This meant that the park received 20 to 25 percent less water than what it would have procured, while agricultural and urban interests continued to receive normal amounts, a situation that struck FCD Executive Director G. E. Dail, Jr., as unreasonable. "Since there is agreement that this formula is an extremely poor one," Dail told Jacksonville District Engineer Colonel A. S. Fullerton, "we do not believe that it should continue to be applied under current conditions," especially since projections showed that normal rainfall would allow "all essential demands" to be met "without the need to impose a curtailment of water use." Fullerton promised to investigate whether Congress intended the formula to apply immediately, but in the meantime, Everglades National Park faced a depleted water supply.[87]

Nevertheless, at least some strides had been made in providing necessary water to the park from the C&SF Project. Throughout the 1960s, the Corps, the FCD, and the NPS all had different viewpoints as to the water priority of Everglades National Park, and these disparities became glaringly apparent as drought ravaged the Everglades. When little water from the C&SF Project was forthcoming, NPS officials demanded that the Corps guarantee to the park a certain amount of water untouchable by future demands. In the words of NPS Director George Hartzog, it was time for the Corps to stop paying mere "lip service to the preservation of the Everglades."[88] Corps leaders, however, claimed that they could not provide such a promise, insisting that only the state of Florida could make that assurance. Because of the phenomenal growth of South Florida, and because supplying water to the park could have adverse effects on fish and wildlife in the water conservation areas (as evidenced by the problems with deer herds in 1966), state officials refused to provide a guarantee. Despite the opposition of the state and the reluctance of the Corps to provide a specific written guarantee, the Corps, in the 1968 restudy report, did, for one of the first times since the authorization of the C&SF Project, admit that the project needed to supply sufficient water to Everglades National Park. This reiteration of the

promise in the C&SF Project plan, although somewhat vague, showed that the drought of the 1960s and the work of park proponents was having some effect on the Corps' perception of how the project should be operated. It was a small step, but it set the stage for congressional leaders, such as Senators Gaylord Nelson and Edmund Muskie, to resolve the situation.

Despite the accomplishments, problems of water quality loomed on South Florida's horizon. The 1968 report's proposal to supplement Everglades National Park and Lake Okeechobee water by backpumping from east coast lands and agricultural areas, for example, produced new concerns about water quality, both in the lake and in the park, because the recycled water often contained pesticides, fertilizers, and other harmful chemicals. Even as the NPS fought for a guarantee of water, another danger threatened park ecology: a proposal to build a jetport in the Everglades region. In the 1970s, environmental forces first mobilized in the fight for a guaranteed water supply would need all of their resources to contend with these concerns.

Overview of the Legislative Process



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Chapter Four Endnotes

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[2] Wedgworth and Miedema interview. Wedgworth, one of the founders of the Sugar Cane Growers Cooperative of Florida in the 1960s, vehemently denies that Castro's revolution allowed Florida sugar production to increase. "Every pound of the quota that Cuba had," he claims, "was reallocated to 40-some odd foreign countries, and the domestic sugar producers . . . didn't get one pound of the Cuban quota."

[3] "Florida Acres in Sugarcane (1,000 acres)," document provided by George Wedgworth and Barbara Miedema, Sugar Cane Growers Cooperative of Florida, Belle Glade, Florida.

[4] Tebeau, *A History of Florida*, 434.

[5] "How the Florida Boom is Changing," *U.S. News & World Report* 46 (5 May 1969): 89; John G. Mitchell, "The Bitter Struggle for a National Park," *American Heritage* 21, No. 3 (1970): 99; Tabeau, *A History of Florida*, 431-434.

[6] Grunwald, *The Swamp*, 231-232.

[7] See Major General William F. Cassidy, Assistant Chief of Engineers for Civil Works, to Honorable Spessard L. Holland, United States Senate, 27 May 1960, File 1110-2-1150a (C&SF) Conservation Areas Jan 60-June 60, Box 15, Accession No. 077-96-0038, RG 77, FRC; Paul M. Tilden, "The Water Problem in Everglades National Park, Part II," *National Parks Magazine* 38 (March 1964): 9; Frank Nix, Hydraulic Engineer, Everglades, to Director, 21 June 1967, File L54 Levee L-31W, EVER 22965, CR-ENPA.

[8] "Conference on Conservation Area No. 3, Jacksonville, Florida, 14 April 1960," File 1110-2-1150a (C&SF) Conservation Areas Jan 60-June 60, Box 15, Accession No. 077-96-0038, RG 77, FRC.

[9] Cassidy to Holland, 27 May 1960.

[10] See Nix to Director, 21 June 1967; Stanley C. Joseph, Superintendent, to Mr. G. E. Dail, Executive Director, Central and Southern Florida Flood Control District, 13 December 1965, File L54 Levee L-31W, EVER 22965, CR-ENPA.

[11] Stewart L. Udall, Secretary of the Interior, to Mr. Secretary, 18 July 1961, File 1110-2-1150a (C&SF) Project Gen—Flood Control May 1961-Apr 62, Box 7, Accession No. 077-01-0023, RG 77, FRC; Tilden, "The Water Problem in Everglades National Park, Part II," 9.

[12] Elvis J. Stahr, Secretary of the Army, to The Honorable Steward L. Udall, The Secretary of the Interior, 7 September 1961, File 1110-2-1150a (C&SF) Project Gen—Flood Control May 1961-Apr 62, Box 7, Accession No. 077-01-0023, RG 77, FRC; see also Colonel J. V. Sollohub, District Engineer, to Chief of Engineers, 2 August 1961, ibid.

[13] Gale Koschmann Zimmer, "Unless the Rains Come Soon . . . " *National Parks Magazine* 36 (June 1962): 4-7.

[14] As quoted in Zimmer, "Unless the Rains Come Soon . . . " 4-7.

[15] Colonel H. J. Kelly, Acting Division Engineer, to Chief of Engineers, 4 August 1961, File 1110-2-1150a (C&SF) Project Gen—Flood Control May 1961-Apr 62, Box 7, Accession No. 077-01-0023, RG 77, FRC.

[16] Kelly to Chief of Engineers, 4 August 1961; Colonel J. V. Sollohub, District Engineer, to Chief of Engineers, 2 August 1961, File 1110-2-1150a (C&SF) Project Gen—Flood Control May 1961-Apr 62, Box 7, Accession No. 077-01-0023, RG 77, FRC.

[17] W. V. Storch to Files, 13 October 1961, File Conservation Area 1, 2, 3 1950-69 Deeds/General/Regulation/Petition for Change of Zoning, Box 02193, SFWMDAR.

Chapter Four Endnotes (continued)

[18] Storch to Files, 13 October 1961. The phrase "positive water supply benefits" was left undefined.

[19] See Assistant Secretary of the Interior to General Wilson, 11 May 1962, in U.S. Army Engineer District, Jacksonville, Corps of Engineers, *Central and Southern Florida Project, Plan of Survey: Everglades National Park Water Requirements* (Jacksonville, Fla.: U.S. Army Engineer District, Jacksonville, Corps of Engineers, 1964), A-1 – A-3 [hereafter referred to as *Plan of Survey*]; Lieutenant General W. K. Wilson, Jr., Chief of Engineers, to The Honorable Stewart L. Udall, The Secretary of the Interior, 19 June 1962, File CE SE Central and South Florida FCP Everglades NP Basic Data, FWSVBAR. The NPS had first proposed this idea in 1958 when Park Superintendent Warren F. Hamilton told District Engineer Colonel Paul D. Troxler that the NPS would prefer to have floodwater provided to the park through a floodway flowing south rather than going to the Atlantic Ocean through the Caloosahatchee River and St. Lucie Canal. See "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, FWSVBAR.

[20] Lieutenant General W. K. Wilson, Jr., Chief of Engineers, to The Honorable Stewart L. Udall, The Secretary of the Interior, File 1517-08 (C&SF) So. Dade Co. Mult. Pur. Svy Reso. 11/15/54, Box 5, Accession No. 077-96-0017, RG 77, FRC.

[21] J. H. Hartwell, H. Klein, and B. F. Joyner, *Preliminary Evaluation of Hydrologic Situation in Everglades National Park, Florida* (Miami, Fla.: United States Department of the Interior, Geological Survey, Water Resources Division, 1963), 5, 8.

[22] Verne O. Williams, "Man-Made Drouth Threatens Everglades National Park," *Audubon Magazine* 65 (September-October 1963): 290-291.

[23] U.S. Geological Survey, "The Road to Flamingo: An Evaluation of Flow Pattern Alterations and Salinity Intrusion in the Lower Glades, Everglades National Park," available at <http://sofia.usgs.gov/publications/ofr/02-59/culverts.html > (10 January 2005); "Summary of Everglades National Park and Its Water Problems," 1 June 1965, 4, File Everglades Park Area—Review of Central and Southern Florida Vol. III, FWSVBAR.

[24] Tilden, "The Water Problem in Everglades National Park, Part II," 10.

[25] *Plan of Survey*, 2-3, 8-9, B-1.

[26] Hartwell, Klein, and Joyner, *Preliminary Evaluation of Hydrologic Situation in Everglades National Park, Florida*; "Supplemental Statement of Harthon L. Bill," in Senate Committee on Public Works, Subcommittee on Flood Control – Rivers and Harbors, *Central and Southern Florida Flood Control Project: Hearing Before the Subcommittee on Flood Control – Rivers and Harbors of the Committee on Public Works, United States Senate*, 91st Cong., 2d sess., 1970, 178; E. W. Reed, Chief, Branch of Water Resources, to Mr. Wallis, 7 July 1964, File L54 Water Resources USGS FY 65, EVER 22965, CR-ENPA.

[27] United States Department of the Interior, "Position Paper: Water Problem, Everglades National Park," 2-3, EVER 22965, CR-ENPA.

[28] See "Research Plan," 12 December 1963, File CE SE Central and South Florida FCP Everglades NP Conveyance Canals (Taylor Slough), FWSVBAR.

[29] D. C. Tabb and T. M. Thomas, "Prediction of Freshwater Requirements of Everglades National Park," 3, 4, 12, copy in South Florida Water Management District Reference Center, West Palm Beach, Florida.

[30] George B. Hartzog, Jr., Director, to Major General Jackson Graham, Director of Civil Works, Office of the Chief of Engineers, ca. 22 September 1965, File 1517-08 (C&SF—Martin County) Multiple Purpose Survey—SR 7/22/50 August 1965-April 1966, Box 4, Accession No. 077-96-0017, RG 77, FRC. South Atlantic Division Engineer Major General George H. Walker recommended against parts of the Martin County plan, stating that "our relations at this time with various groups interested in the Everglades National Park do not shine bright with mutual

trust and respect." To propose to divert water from Lake Okeechobee to Martin County before the water budget study was complete, Walker argued, was "prejudging our own findings." Walker to Chief of Engineers, 3 December 1965, ibid.

[31] See "Summary of Corps of Engineers' Reports on Central and Southern Florida Flood-Control Project," 7-8, File CE-SE Central and Southern Florida FCP Everglades National Park Basic Data, FWSVBAR; "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," 13-14.

[32] See House, *Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes*.

[33] Senate Committee on Interior and Insular Affairs, *Everglades National Park: Hearings Before the Committee on Interior and Insular Affairs, United States Senate, Ninety-First Congress, First Session, on the Water Supply, the Environmental, and Jet Airport Problems of Everglades National Park*, 91st Cong., 1st sess., 1969, 24; "Summary of Everglades National Park and Its Water Problems," 5; U.S. Army Corps of Engineers, "Fact Sheet: The Water Situation in Southern Florida and the Everglades," 30 June 1965, 4, File Everglades Park Area—Review of Central & Southern Florida Vol. III, FWSVBAR; Luther J. Carter, *The Florida Experience: Land and Water Policy in A Growth State* (Baltimore, Md.: Johns Hopkins University Press, 1974), 120.

[34] See Marian Sorenson, "The Everglades 'Drought,'" undated *Christian Science Monitor* clipping, File CE SE Central and South Florida FCP Everglades NP Basic Data, FWSVBAR; Lloyd R. Wilson to Lt. Gen. W. S. Cassidy, Chief of Engineers, 18 October 1965, File Everglades Park Area—Review of Central & Southern Florida Vol. III, FWSVBAR.

[35] See U.S. Army Corps of Engineers, "Fact Sheet: The Water Situation in Southern Florida and the Everglades" (including marginalia), 8-9; Ed Buckow, "Unraveling the Everglades Furor," *Field & Stream* 71 (October 1966): 15. Critics asserted that pumping water southward through the canals would have lowered the ground water on cropland.

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[40] Senate, Committee on Interior and Insular Affairs, *Everglades National Park*, 24.

[41] Michael Straight, "The Water Picture in Everglades National Park," *National Parks Magazine* 39 (August 1965): 7.

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[45] John C. Jones interview by Brian Gridley, 23 May 2001, 42, Everglades Interview No. 9, Samuel Proctor Oral History Program, University of Florida, Gainesville, Florida [hereafter referred to as Jones interview].

[46] Frye to Rogers, 31 May 1966.

[47] Quotation in Robert F. McDonald, Delegate of Palm Beach County Airboat and Half Track Club, to Hon. Haydon Burns, Governor of Florida, 11 July 1966, File Everglades Conservation Area: General Information Corr. 1964-1967, Box 1, S1719, Game & Fresh Water Fish Commission Everglades Conservation Files, 1958-1982, FSA; see also "Fact Sheet on the Deer Situation in Conservation Area 3," 8 August 1966, ibid.

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[52] "Fact Sheet on the Deer Situation in Conservation Area 3," 8 August 1966.

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[56] Quotation in Randolph Hodges, Director, Board of Conservation, to Dr. O. E. Frye, Jr., Director, Game and Fresh Water Fish Commission, 9 February 1967, File Everglades Conservation Area: General Information Corr. 1964-1967, Box 1, S1719, Game & Fresh Water Fish Commission Everglades Conservation Files, 1958-1982, FSA; see also "Deer Island Project," File E.C.A. High Water & Deer Herds, 1959-1974, ibid.

[57] See "NPA Urges Protection from Everglades 'Salting,'" *National Parks Magazine* 40 (July 1966): 19; "Opening of Canal 111 Is Delayed for Study," *National Parks Magazine* 40 (August 1966): 24; Charles H. Callison, "National Outlook," *Audubon Magazine* 69 (May/June 1967): 56; Wallace Stegner, "Last Chance for the Everglades," *Saturday Review* (6 May 1967): 72; Blake, *Land Into Water*, 216; Light and Dineen, "Water Control in the Everglades," 70; "Aerojet Canal: No Barge Ever Came; Bridge Never Opened," *The South Dade News Leader*, 13 July 1971. Other canals proposed as part of the Dade County Project aroused similar controversy; in 1971, state

officials halted digging of C-109 and C-110, located south of C-111, because agricultural interests north of the canals feared that the waterways would drain water that they needed. Park officials also worried that the canals would convey polluted water into the Everglades. See "Plug to Remain in 2 SD Canals," *The South Dade News Leader*, 1 September 1971; Joe Brown, Superintendent, to Mr. Don Albright, State Planning and Development Clearinghouse, 6 July 1971, File L54 Canals 109-110 (106, 107, 108), EVER 22965, CR-ENPA.

[58] See "'Glades Vs. Florida' Issue Seen Brewing," *St. Petersburg Times*, 1 June 1967; "The Defense of the Everglades," *National Parks Magazine* 41 (August 1967): 2; "A Legal Ruling Needed on Everglades Water Rights," *Audubon* 69 (July/August 1967): 5.

[59] O. E. Frye, Jr., Director, to Mr. Randolph Hodges, Director, State Board of Conservation, 2 May 1968, File E.C.A. High Water & Deer Herds, 1959-1974, Box 1, S1719, Game & Fresh Water Fish Commission Everglades Conservation Files, 1958-1962, FSA.

[60] Department of the Army, Jacksonville District, Corps of Engineers, "Notice of Public Hearings on Improvements for Water Resources for Central and Southern Florida," 27 October 1967, 3, File Draft Reports: Water Resources 1967, 1968, Box II-13, Office of History, Headquarters, U.S. Army Corps of Engineers, Alexandria, Virginia [hereafter referred to as HQUSACE].

[61] Deputy Director to Brig. Gen. H. G. Woodbury, Jr., Director of Civil Works, Office of the Chief of Engineers, 20 October 1967, EVER 22965, CR-ENPA. Another factor in the NPS's willingness to accept the 315,000 acre-feet figure could have been the realization that, given the state of Florida's concerted opposition to even a 315,000 acre-feet guarantee, obtaining more than 315,000 acre-feet was unlikely.

[62] "Comments on the Survey Review Report on Water Resources for Central and Southern Florida Project by the Florida Game and Fresh Water Fish Commission," 5, File E.C.A. Control Water Study Plans & Reports, 1967-1970, Box 1, S1719, Game & Fresh Water Fish Commission Everglades Conservation Files, 1958-1982, FSA.

[63] Herbert L. Alley, Director Region 4, National Wildlife Federation, to Colonel R. B. Tabb, District Engineer, 20 October 1967, EVER 22965, CR-ENPA.

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[65] As quoted in "Corps Water Proposal 'Failure,' Says Homer," *South Dade (Fla.) News Leader*, 16 November 1967.

[66] Bill to Brig. Gen. H. G. Woodbury, Jr., 20 October 1967, File Central Florida Water Supply, Central and Southern Florida 1967, Box II-13, Office of History, HQUSACE; Hayes to Brigadier General H. G. Woodbury, Jr., 10 January 1968, File Draft Reports: Water Resources 1967, 1968, Box II-13, Office of History, HQUSACE.

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[70] Arthur E. Morgan, *Dams and Other Disasters: A Century of the Army Corps of Engineers in Civil Works* (Boston: Porter Sargent Publisher, 1971), 386.

[71] George B. Hartzog, Jr., Director, to Chairman, Board of Engineers for Rivers and Harbors, 11 April 1968, File BERH Public Notices 1968, Box II-13, Office of History, HQUSACE. For more information about Hartzog's role in the fight for Everglades water supply, see George B. Hartzog, Jr., *Battling for the National Parks* (Mt. Kisco, N.Y.: Moyer Bell Limited, 1988), 225-231.

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[73] Stanley A. Cain, Assistant Secretary of the Interior, to General Cassidy, 12 June 1968, File 1517-08 (C&SF Martain [*sic*] County) Svy Multiple Purposed—SR 7/22/50 July 1967, Box 4, Accession No. 077-96-0017, RG 77, FRC.

[74] Major General F. J. Clarke, Acting Chief of Engineers, to The Honorable Stewart L. Udall, The Secretary of the Interior, 14 June 1968, File 1517-08 (C&SF Martain [*sic*] County) Svy Multiple Purposed—SR 7/22/50 July 1967, Box 4, Accession No. 077-96-0017, RG 77, FRC.

[75] Senate Committee on Appropriations Subcommittee on Public Works, *Water Supply for Central and Southern Florida and Everglades National Park: Meeting Arranged by Subcommittee of the Committee on Appropriations, United States Senate*, 91st Cong., 2d sess., 1970, 21-22, 25-26; Act of 13 August 1968 (82 Stat. 731).

[76] "Transcription of Information Given by Brigadier General Charles C. Noble, OCE, in Telephone Conversation with FBC for a Proposed Memorandum of Agreement Between OCE, BOB, and Dept. of Interior, to be Contained in a Letter from the National Park Service to the Chief of Engineers, 19 July 1968, File Everglades, Box 6, S949, Governor's Office, Jay Landers, Subject Files, FSA; Randolph Hodges, Director, to Brigadier General Charles C. Noble, 23 July 1968, ibid.

[77] Quotation in Solicitor to Secretary of the Interior, 8 October 1968; see also Senate Committee on Appropriations Subcommittee on Public Works, *Water Supply for Central and Southern Florida and Everglades National Park*, 21-22, 25-26.

[78] Senate Committee on Appropriations Subcommittee on Public Works, *Water Supply for Central and Southern Florida and Everglades National Park*, 26.

[79] Reed and Padrick quotations are both in Senate Committee on Interior and Insular Affairs, *Everglades National Park*, 50-59, 65.

[80] Senate Committee on Interior and Insular Affairs, *Everglades National Park*, 32-33, 44-46; see also "Nelson Asks Water for Everglades," *The Miami Herald*, 5 August 1969.

[81] Spessard L. Holland to Hon. Allen J. Ellender, Chairman, Public Works Subcommittee, 22 January 1970, in Senate Committee on Appropriations Subcommittee on Public Works, *Water Supply for Central and Southern Florida and Everglades National Park*, 1-2; Senate, *Public Works for Water, Pollution Control, and Power Development and Atomic Energy Commission Appropriation Bill, 1970*, 91st Cong., 1st sess., 1969, S. Rept. 91-528, Serial 12834-4, 24-25; "Battle Rages Over Everglades Park," *The Christian Science Monitor*, 14 June 1969.

[82] Senate Committee on Appropriations Subcommittee on Public Works, *Water Supply for Central and Southern Florida and Everglades National Park*, 20, 39-40.

[83] "Report of Meeting with Representatives of the Departments of Army and Interior and State of Florida on Water Supply to Everglades National Park, Miami, Fla., March 12, 1970," in Senate Committee on Public Works Subcommittee on Flood Control – Rivers and Harbors, *Central and Southern Florida Flood Control Project*, 98-100.

[84] Senate Committee on Public Works Subcommittee on Flood Control – Rivers and Harbors, *Central and Southern Florida Flood Control Project*, 106, 111, 151, 228-232, 236-240.

[85] Act of 19 June 1970 (84 Stat. 310); see also Blake, *Land Into Water*, 194; Carter, *The Florida Experience*, 124.

[86] Senate, *River Basin Monetary Authorizations and Miscellaneous Civil Works Amendments*, 91st Cong., 2d sess., 1970, S. Rept. 91-895, Serial 12881-3, 16-17. The report further explained how the committee reached the

16.5 percent formula. The Corps had estimated in its 1968 report that the C&SF Project could deliver 1,905,000 acre-feet of water. Three hundred fifteen thousand acre-feet was approximately 16.5 percent of that figure. Therefore, whenever the project supplied water at its normal capacity, the park would receive at least 315,000 acre-feet. In times of drought, "the park guarantee of 315,000 acre-feet will be proportionately reduced." This formula eliminated "priorities of use between present and future water users" and did not "rest on the reliability of Corps projections of future demand and water supply—concepts which have been the subject of continuing dispute and misunderstanding" (pp. 18-19).

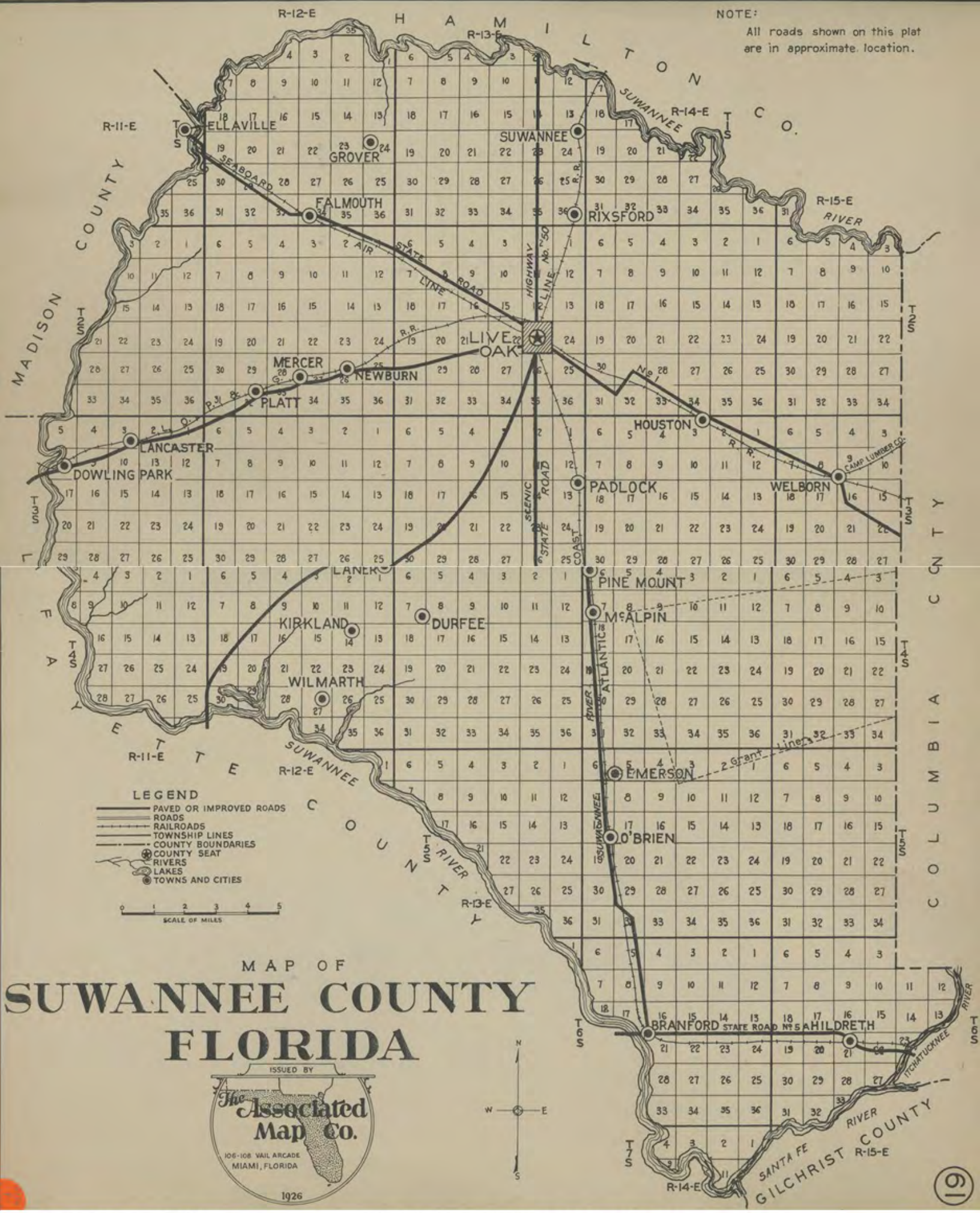
[87] See Colonel A. S. Fullerton, District Engineer, to Division Engineer, South Atlantic, 25 June 1971, File 1110-2-1150a (C&SF) Water Resources—Proj. Gen 1968 Authn Jan 1971-Dec 1971, Box 16, Accession No. 077-02-0048, RG 77, FRC; G. E. Dail, Jr., Executive Director, to District Engineer, Jacksonville District, 18 October 1971, ibid.; James L. Garland, Chief, Engineering Division, to Superintendent, Everglades National Park, 28 October 1971, ibid.

[88] Hartzog, *Battling for the National Parks*, 228.

1858 – Suwannee County, Florida's thirty-fifth, was established. The county was named for the river which surrounds it on three sides, Suwannee County's boundaries have remained essentially the same since its inception.

As early as the 1820s, families began moving into what would later become Suwannee County, and after the end of the Seminole Wars, the population steadily grew. The establishment of a railroad line and steamboat service helped the county grow, shipping passengers and freight, including cotton, up and down the Suwannee River quickly and efficiently. The county seat is Live Oak, and today Suwannee boasts nearly 42,000 residents. Suwannee remained a dry county, which meant that the sale of alcoholic beverages was illegal, until 2011.

— Florida Historical Society



1926 Section map of Suwannee County (Florida Historical Society Archives)

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UF Geomatics @ Fort Lauderdale Newsletter

The Geomatics program participated in numerous events including South Florida GIS Expo, Math Awareness Week, 68th Annual FSMS conference, FIG Working Week 2023, Kentucky GIS Conference, AGILE 2023-(Delft, Netherlands), and GI-Forum (Salzburg, Austria).

FSMS honored Dr. Bon Dewitt, who retired as the UF Geomatics program director, at the 68th Annual FSMS Conference in Wesley Chapel in July 2023.

In September 2023, students from the Broward College - College Academy visited the FLREC Geomatics facilities to learn more about UF Geomatics education, scholarship opportunities, and careers.

College Academy students from Broward College visiting UF Geomatics facilities

The UF Geomatics program has upgraded its equipment with state-of-the-art technology, including an Inspired Flight IF1200A sUAS with YellowScan Ultra Survey Lidar Sensor and MicaSense Multispectral sensor capabilities, along with a Trimble TX8 terrestrial LiDAR scanner. These instruments enhance our capacity to conduct research in fields such as forestry, horticulture, and turf grass science.
Congratulations are in store for all of our newest graduates, Jared Pickering (BSc), Kersley Maurancy (BSc), and Dr. Innocensia Owuor (PhD)!

We look forward to connecting with you again in 2024!

Registration for Spring 2024 courses is now open.
Contact us today for an advising appointment!

January 2024

Important 2024 Dates

- *Jan. 8:* Spring classes begin
- *Feb. 15:* Undergrad. admission app. deadline (Sum. C)
- *May. 1:* Undergrad. admission app. deadline (Fall)
- *May 3-5:* Spring commencement
- *May 15:* Summer A/C classes begin
- *Aug 23:* Fall classes begin

Selected Journal Publications

- Juhász, L., Mooney, P., Hochmair, H. H., & Guan, B. (2023). *ChatGPT as a mapping assistant: A novel method to enrich maps with generative AI and content derived from street-level photographs*.
- Owuor, I., & Hochmair, H. H. (2023). *Temporal relationship between daily reports of COVID-19 infections and related GDELT and tweet mentions.*
- Schirck-Matthews, A., Hochmair, H. H., Strelnikova, D., & Juhász, L. (2023). *Bicycle Trips in Endomondo, Google Maps, and MapQuest: A Comparison between South Florida and North Holland*.

Special Issues Edited

- Advances in AI-Driven Geospatial Analysis and Data Generation
- Advanced Technologies in Spatial Data Collection and Analysis (Volume II)

Recent Awards

- Dr. Youssef Kaddoura received the "Associate Member of the Year Award" and the "President's Award" at the 68th FSMS Annual Conference.
- PhD candidate Jiping Cao received the FSMS Broward Scholarship.
- GEM student Douglas Stoner received the 2023 Mark Eckl Memorial Scholarship, FSMS Scholarship, and FSMS Broward Scholarship.

UF Geomatics @ Fort Lauderdale Newsletter

January 2024

GIS DAY – Map Contest

UF Geomatics organized a Map Contest for the 2023 GIS Day with the FSMS Broward Chapter

UF Geomatics 50th Anniversary

The University of Florida Geomatics program celebrated its 50th Anniversary at the FIG Working Week and at the 68th Annual FSMS Conference.

A Message to Prospective Undergrad Students

The FLREC offers a 4-year, ABET accredited degree, the Bachelor of Science in Geomatics, which fully prepares graduates for professional licensure in the state of Florida and beyond. We are located 1 mile off Interstate 595 in the NW corner of the South Florida Education Center (Directions).

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We recommend that students:

1. Obtain an Associate of Arts degree (AA) from a Florida college to complete all UF general education requirements
2. Satisfy their AA with the prerequisite courses required for admission to the Geomatics Program (listed on the right.) By taking these courses while earning their AA, students can be admitted faster into the Geomatics Program.

Geomatics courses can be taken as either a certificate or non-degree seeking student prior to degree admittance but some limitations apply. Please contact us to find out if the certificate or non-degree seeking route will work for you.

Each semester students can apply for various college scholarships and internships. We encourage all students to apply for our local scholarships as well as those at the regional and national levels (e.g., FSMS, ASPRS, & NSPS scholarships). So, what are you waiting for? Contact us today to see how we can change your future!

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2. PHY2053/PHY2053L – Gen. Physics 1 + Lab (or PHY2048/PHY2048L)
3. PHY2054/PHY2054L – Gen. Physics 2 + Lab (or PHY2049/PHY2049L)
4. STA2023 – Statistics
5. MAC 2311 – Calculus I (or MAC1114 + MAC2233 – Trigonometry + Business Calculus)
6. ECO2013 – Macroeconomics (or ECO2023 – Microeconomics)
7. COP#### – Advisor Approved Programming Course (Python, C++, Visual Basic, Java, etc.)

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- Professional Surveying
- Geospatial Analysis
- Photogrammetry & LIDAR
- Unmanned Aerial Systems
- GIS & Remote Sensing
- Cartography
- Cadastral Science
- Spatial Analysis
- Land Development
- Geospatial Intelligence

Tequesta:

THE JOURNAL OF THE HISTORICAL ASSOCIATION OF SOUTHERN FLORIDA — 1963 NUMBER XXIII

Lieutenant Hartsuff and the Banana Plants

By Ray B. Seley, Jr.

Most readers of Florida history have come across the story of how the third phase of the Seminole Wars was started in December of 1855, when the soldiers "chopped down the banana plants, just to see Old Billy cut up," and how Billy Bowlegs retaliated by attacking the party next morning. The incident changed the pattern of the efforts of the United States Government to send the Seminoles to the Indian Territory and should not be dismissed so lightly. For several years before the attack a system of pressure tactics had been used in the attempt to persuade the Seminoles to emigrate to the Indian Territory.[1] Increasing numbers of troops were placed on the frontier, military roads and outposts were built and more citizens were allowed to occupy the areas vacated by the Indians. At the same time, the Indians were urged to migrate by some of their brethren who were brought from Indian Territory for that purpose, and rewards were offered for the capture of Indians. Following the attack, open hostilities broke out, ending in 1858 when all but a few of the remaining Seminoles had been captured and sent to Oklahoma.

[1] James W. Covington, "The Indian Scare of 1849," *Tequesta*, Number XXI, 1961 contains a discussion of government policies and status of the Indians during this period.

The Military records indicate that the story of the destruction of the banana plants has no foundation in fact. While there is mention of some soldiers taking bananas from a deserted village, it appears likely that the Indians making the attack did not know it. When advised that the first small military patrol of the new dry season was proceeding along the road to the outposts established during the previous winter, Bowlegs probably ordered a party of warriors to watch their movements. The route of the Indians from their home near Royal Palm Hammock to the site of the attack

would not likely have taken them through the deserted village.

The story of the destruction of the banana plants stems from the pen of Andrew P. Canova, private in the Volunteers, who wrote a series of interesting letters to his home town newspaper at Palatka, describing his adventures and explaining to the folks back home why he had come to south Florida to fight the Indians. Later, with the help and urging of friends, he added an introduction and some other stories which were published as a pamphlet in 1855. His introductory remarks tell the story of the banana plant episode. He was not present at the attack but joined the Volunteers in 1856.[2]

[2] Andrew P. Canova, *Life and Adventures in South Florida*, Tribune Printing Company, Tampa, Florida, reprinted 1906.

By 1854, posts had been established for some time at Fort Meade, Fort Dallas, Fort Brooke at Tampa Bay, and an outpost at Fort Myers, among others, and preparations were made to advance the frontier of white settlement to the south, on the west side of Lake Okeechobee. In December, 1853, George Lucas Hartsuff, 2nd Lieutenant, 2nd Artillery, was transferred from the Eighth Department of the Army, at Fort Brown, Texas, to arrive in Florida some months later.

Hartsuff was born at Tyre, New York, on the 28th of May, 1830, and moved to Michigan with his family in 1842. In 1848, he secured an appointment to the Military Academy, and graduated in 1852, in nineteenth place in a class of forty-three members.[3] After a month at Governor's Island, he went with a detachment of recruits to join his Company at Fort Brown, Texas. Here he was engaged most of the time in scouting and escort duty. Under confidential orders from Department Headquarters, he made an examination of the Rio Grande Valley from Rio Grande City to the Gulf to find suitable locations for posts at a time when there was threatened difficulty with Mexico concerning the Messila Valley.[4]

[3] George W. Cullum, *Biographical Register of the Officers and Graduates of the U.S. Military Academy*, Vol. II, page 484-490.
[4] National Archives, *Records of the War Department*, "Office of the Adjutant General, Appointment, Commission and Personal Branch," 2557 ACP 1871

In the fall of 1853, Yellow Fever ravaged the whole Gulf coast. Hartsuff was extremely ill during the month of December, and was granted two months leave which was extended three months longer for him to

recuperate. Returning to duty in June, he was ordered to join his company and arrived at Fort Meade on July 1, 1854.[5]

[5] National Archives, *Memo Book, Headquarters Troops in Florida*, Series II, Vol. 16, page 11, RG98.

In April and May of 1854, Lt. Henry Benson had examined the country between Fort Meade and Fort Thompson, and between Fort Meade and a point opposite Fort Myers on the Caloosahatchee with a view to making roads.[6] In October, Lieutenant Hartsuff examined the country between Lieutenant Benson's blazed route and Peas Creek.[7] Lieutenant Benson, meanwhile, explored the route for a road from Fort Thompson to the ford on Thlathlopopka-hatchee, or Fisheating Creek, and the rest of the route from Fort Meade around the headwaters of Fisheating Creek to Fort Thompson.[8]

[6] National Archives, *Records of the Department of Florida*, "Letters Received, Florida," RG98, B 6 1854.
[7] Ibid. H 19 1854.
[8] Ibid. B 11 1854.

On the second of November, Major Lewis Golding Arnold was ordered to move his command from Fort Meade to Fort Thompson, making a road as he went. The re-activation of Fort Thompson was the beginning of five months of extensive study and exploration of the area south of the Caloosahatchee, and attempts to find routes across the Everglades to connect Fort Dallas and Fort Capron with the west coast.

Lieutenant Hartsuff left Fort Thompson December fifth to explore the country between the Thathlopopka south down the shore of Lake Okeechobee and back along the Caloosahatchee. He found that he could get no nearer the lake than five miles with his wagon, but learned the extent of the marsh bordering the lake. Returning on December eighth, he was ordered to examine the south bank of the Caloosahatchee and continue along the shore of the lake. Two days sufficed to convince him that it was of the same character and that it was "totally unfitted for human habitation."[9]

[9] Ibid. Enclosure with 64 M 1855.

In the early part of January, 1855, parties were sent to make further explorations. Lt. Thomas McCurdy Vincent left Fort Thompson to explore Fisheating Creek. Taking a boat, he launched it at the first place where he could approach the banks, descended to the site of old Fort Center, continued to its mouth, and explored the lake shore for a few miles on each

side. He found only marsh and the only solid ground at the site of Fort Center and at the place where he launched his boat.[10]

[10] Ibid. 1/64 M 1855.

Lieut. Stephen H. Weed explored the Caloosahatchee River from Fort Myers and found it navigable for large size boats as far as Fort Deynaud.[11] Lieutenant Hartsuff explored some thirty or more miles to the southeast from Fort Thompson and found he could not approach closer than a mile to Lake Okeechobee because of the marsh, and found only one site where a blockhouse might be built. He followed an Indian trail northward to where it crossed the Caloosahatchee and recognized the crossing as the place he had been the month before when exploring the north side of that river.[12]

[11] Ibid. 2/64 M 1855.
[12] Ibid. 3/64 M 1855.

Colonel Harvey Brown arrived at Fort Myers on January 12th with six companies of recruits for the 2nd Artillery, and assumed command of the troops south of the Caloosahatchee. On January 20th, instructions were issued to him to build a blockhouse at Fort Deynaud, one on the opposite bank of the river, one at the site of old Fort Center, and one on the east side of Lake Okeechobee. A blockhouse was to be erected at the site of old Depot No. 1, at the head of the Big Cypress, one at Punta Rassa, and additional storehouses at Fort Myers. Roads were to be built to connect these posts, and to be extended southeast to the Everglades. These works were to occupy the rest of the dry winter season.[13]

[13] Ibid. 3/54 M 1855.

To Major William Hays was given the work at Fort Deynaud and Fort Center.[14] Captain Henry Clay Pratt was ordered to build the road from Fort Myers to the head of the Big Cypress about forty miles southeast, find a suitable site and erect a blockhouse.[15]

[14] Ibid. 4/54 M 1855.
[15] Ibid. 5/54 M 1855.

Lieutenant Hartsuff was appointed Topographical Engineer on January 22nd, and ordered to accompany Captain Pratt. His instructions

from Colonel Brown were, in part:

> "I have selected you to perform the duties of Topographical Engineer, to survey the country in the vicinity of the Big Cypress Swamp & Everglades, in connection with the parties to be sent to cut roads from this post & to build forts at such places as may be selected ... The chief objects to which you will direct your attention besides the general geography of the country and the marking out of roads, will be the finding and conspicuously marking pine islands, hammocks, & other high grounds where troops can be encamped in the summer, or in the wet season, water courses, streams, ponds and wells where water can be provided in winter ... You will also note the quantity of arable land and its quality that you may discover, where and how located and as you will have seen & reconnoitered nearly all the practicable country south of Fish Eating Creek, you will please give the results of your observations, as to its value & capability of supporting a civilized population ... "[16]

[16] Ibid. Enclosure with 116 M 1856, Report of reconnaisance, Hartsuff, June 18, 1855, and 7 B 1855.

Lieutenant Hartsuff went with Captain Pratt, helped with the selection of a site for the blockhouse, which was named Fort Simon Drum. He explored to the southeast for a few days and then blazed a trail northward to Fort Deynaud. On February 16th, the blockhouse was finished and Captain Pratt's command was relieved by Captain Arnold Elzey and his company. Accompanied by Hartsuff, Elzey proceeded eastward towards the Everglades, and selected Waxy Hadjo's landing as the site for his blockhouse. It was named Fort Shackelford.[17] From there, Hartsuff explored south along the Everglades three miles, which was as far as conditions would permit. To the northward, he reached the area he had explored in early January.

[17] Ibid. Enclosure with 7 B 1855, Elzey to Brown, February 26, 1855.

Finding the country south of Fort Shackelford too difficult, it was decided to continue explorations from Fort Drum. A supply depot was established 18 miles southeast of that base. From there, Hartsuff explored the country to the east and south. He found several Indian villages, including those of Assunwa and Billy Bowlegs, who were both friendly and visited the encampment of the troops. The explorations from there reached the area explored from Fort Shackelford.

In April, Hartsuff explored to the southwest from Fort Drum, finding old Fort Keais, but was unable to find the site of Fort Foster. A base camp was established eighteen miles southwest from Fort Drum, and explorations extended towards the Gulf of Mexico. Parties on foot were able to penetrate to Malco River (now Marco River or possibly Henderson Creek), but it was not possible to find a route suitable for a wagon road.

The arrival of the spring rains terminated the operations in early June. The supply depots and Forts Shackelford and Drum were abandoned for the season, and the troops went back to Fort Myers and Fort Deynaud. On June 18th, Hartsuff submitted his report and maps. Following are excerpts from his nineteen page report.

> "On my arrival at Fort Deynaud after an absence in the swamp of more than three months, my field duties as Topographical Engineer ended. The map accompanying this I have made full and complete as possible with the limited means in my power, and to it I must refer you, for any information of the country, not contained in this report. There is not a trail or road represented that I have not passed over … "
>
> "For agricultural purposes, I can conceive of no country not entirely a barren waste, more utterly & wholly worthless than this. The only portion, that can be made at all productive are the hammocks which are small few & scattered, for all other purposes it is in my opinion equally valueless to a civilized population. It can never be occupied except in the same manner as the Indians who occupy it. For them in consequence of their peculiar habit & wants it is habitable & considering its resources *to them* both for subsistence & concealment, and the smallness of their number, as a stronghold in case of hostilities, it is impregnable.
>
> "There are dense tangled hammocks, thickets, lily ponds, etc., innumerable in which every part of their nation might baffle the search of our whole army. They have a large number of hogs, some cattle, their storehouses contain more or less corn & they seem to have plenty of powder and ball. There are cabbage trees alone in the swamp provided they had no other means of subsistence, sufficient to last them a century & to prevent them from obtaining food from the coast in fish oysters etc., would

> require a force in boats throughout its whole extent from Punta Rassa to Cape Sable. Their perfect system of espionage and signal fires, will effectually prevent their ever being taken by chance or accident. Considering all this & keeping in view the result of a former expedition in the same country by a large force, led by experienced guides in which after a long and severe campaign, two soldiers were killed & not an Indian seen, I think I may be justified in asserting that if the Indians are properly led, I would engage to take Sebastopol in the same time and with the same number of men that I would require to forcibly expel them."[18]

[18] Ibid. Copy of report of reconnaisance, George L. Hartsuff, enclosure with 116 M 1855. The map, opposite page 26, Memoirs of Major Frances N. Page, Series II, Vol. 8, Records of the Department of Florida, RG98, appears to be the original by Hartsuff. L89-7, RG77, bears the signature of "H. C. Pratt, Capt. 2nd Arty., 1856," and appears to be a working copy. L89-3, March 1857 and L89-6, were drawn by Captain J. W. Abert, probably in the course of preparation for L89-l, April 1857, which is a large map of Florida on tracing paper, encompassing the information from Hartsuff's map and report.

Further explorations would have to wait for the end of the rainy season. From June to November, in an average year, water covers much of the area. The land is essentially flat. Except for occasional pine islands a few inches higher than the surrounding area, the ground will not support the hooves of horses or wagon wheels. The heavy rainfall usually ceases in October, and a few more weeks must elapse before the ground dried sufficiently to permit exploring parties to take the field. Early in December, Colonel Brown issued orders to Hartsuff; " ... you will proceed to Fort Simon Drum, and from thence to Fort Shackelford, and those parts of the Big Cypress Swamp explored last year, and will examine their present condition; whether the forts are in good order and have not been disturbed; and the country as to water, cultivation and provisions of the Indians and more particularly, whether inhabited now or at any time during the winter by them; in what numbers, and whether and to what extent they have planted."[19]

[19] Ibid. 49 B 1855.

Hartsuff left Fort Myers on December 7th, 1855, with six mounted men, two foot soldiers, and two teamsters driving two wagons drawn by mules. They encamped the second night about thirty miles southeast of Fort Myers, and on the third day, while exploring, saw an Indian man and a boy herding hogs. The Indians tried to avoid the soldiers and showed no

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disposition to give any information. The next day the scouting party found Fort Simon Drum had been burned. They proceeded to Fort Shackelford and found it burned also. Two days examination of the country and deserted Indian villages, and the trails overgrown with weeds convinced them there had been no Indians in the vicinity in recent months. Returning to Fort Drum, they went southeast and encamped on the night of December 17th on a pine island, in the vicinity of the supply depot used the previous spring. On the 18th, they went to Billy Bowlegs' camp of the previous year and found it deserted, with untended vegetables growing where previous gardens had been. Private William Baker, in his statement says, "they saw no one there; some of the party took a bunch of bananas." On the 19th, they visited some other Indian villages but these also were deserted and they found no signs of the presence of Indians.[20]

[20] Ibid. 59 B 1855. The sequence of the scout and skirmish are reconstructed from the reports of the survivors. The cover endorsement states that 59 B 1855 contained thirteen enclosures. Some of the enclosures were forwarded to the Adjutant General's Office, with 15 M 1856, Letters Received, AGO, RG94. No statement of Private Ernest Bordsedh, of Company "K," was found. He was not listed as among those killed, nor among those who escaped uninjured. The extent of his injuries is not known.

Having been told the evening before that they were to return to Fort Myers, the teamsters rose early on the morning of Thursday, the 20th, to harness the twelve mules, and the rest of the men were called shortly thereafter. Private Otto Hersch cooked breakfast and fed the men, and while he was packing the equipment the others started to saddle their horses. Baker was preparing breakfast for Lieut. Hartsuff who was dressed and had washed and was combing his hair. Sergeant Holland and Corporal Williams were on the far side of the pines with their horses. Hanna and Murtagh were saddling their horses near the wagons. The teamsters and two other men were lounging near the fire. Suddenly, shots rang out, accompanied by war whoops. A party of Indians had approached to within a few yards undetected. The men near the fire fell instantly.

Upon seeing the Indians, Hanna and Murtagh fired their own guns and finding three others nearby, fired these also. Hanna was wounded and Murtagh sought protection under the wagon. After firing once more, Hanna followed to the wagon.

When Baker saw the Indians, he dropped the officer's breakfast, seized his musket, fired once and then ran to the wagon to join Hanna

and Murtagh. Hersch, by himself, packing the mess equipment, fired at an Indian and fell to the ground. After reloading, and seeing no more of the soldiers, he endeavored to escape in the high grass. Holland and Williams had left their muskets behind. They retreated to cover around the edge of a nearby hammock.

Meanwhile, Hartsuff from the door of his tent, fired his revolver with effect at close range at Indians whose attention was directed towards the wagons, and after receiving a wound in the arm, ran to the wagon. After five minutes of fighting Hartsuff found his command reduced to three privates, one wounded, and himself with a broken arm.

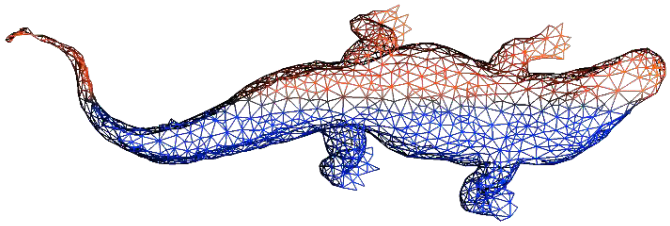
After firing a few rounds, Murtagh fell with a wound in the abdomen, and Baker was disabled by a ball striking his knife, bending it, and severely injuring his thigh. Hanna, whose wound had been less serious, continued to fight. Hartsuff fired with his right arm, while Baker loaded the guns for him. A ball struck the lieutenant's revolver in its holster and the pain and shock disabled him for a few minutes. After receiving a third wound, a ball in his chest, Hartsuff decided to give up the fight. He ordered Baker and Hanna to retreat and tried to reach a hammock twenty yards away.

Baker loaded two rifles for Hanna, and then retreated. Hanna fired the loaded guns, passed Hartsuff and overtook Baker, and they made good their escape. Approximately sixty-five miles from the nearest help, both wounded, and low on ammunition, the two men started making their way to Fort Myers.

Expecting pursuit on horseback, they avoided the road to escape detection, until within three miles of Fort Drum. When they reached the Fort Drum to Fort Myers road, they still had forty-five miles to go. Late in the afternoon of Friday, they came to a camping area fifteen miles from Fort Myers used previously by troops. Baker, completely exhausted, stayed there. Hanna reached Fort Myers about seven o'clock that evening. In addition to the shallow wound from the left side to the right side of his abdomen, he found he had a bullet hole through his hat, two through his coat, and three through his pantaloons.

After dispatching an ambulance for Baker, Colonel Brown instructed Captain Elzey to start at daybreak for Fort Drum, with his command and a six pounder. An express rider was sent to Fort Deynaud with orders for Major Arnold to withdraw the small garrison from Fort Center, to warn Lieut.

POSITION ANNOUNCEMENT



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Geomatics Instruction and Outreach Staff Position

Application Deadline: January 31st, 2024

A full-time, Teams position, is available in the **School of Forest, Fisheries, and Geomatics Sciences**, **Institute of Food and Agricultural Sciences**, at the **University of Florida**.

This Staff position in Geomatics supports both local and statewide Geomatics faculty in teaching and administering Geomatics courses and labs in Gainesville. The position acts as lead instructor for field labs and provides classroom and technology-based training to meet organization and individual needs. This position develops and maintains an office and field equipment inventory related to spatial data collection and analysis and provides related guidance for Geomatics learning and training programs. This position in Geomatics participates in spatial data collection, analysis, and processing, resulting in the generation of maps, 3D models, and other geospatial products. This position in Geomatics trains staff and student employees in data collection and management. The position acts as a liaison between the educational community and the professional geospatial community, measures outcomes of outreach and recruitment events, and is responsible for promotion efforts through social media and other online venues. The position attends statewide meetings as required, which may include weekend and evening extension and training activities.

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Preferred Qualifications: A Professional Surveyor's license.

Individuals wishing to apply should go to http://tinyurl.com/GeomaticStaff or scan the QR code below to view the full position description and application instructions. Questions about the position should be directed to Justin Thomas, jthomas88@ufl.edu.

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Larned who was repairing the road from Fort Meade, and for Arnold to lead two companies to Fort Drum, join with Elzey, and search for survivors. Three men were sent to Fort McKenzie to warn the small command there.

About three o'clock Saturday morning, Sergeant Holland and Corporal Williams arrived at Fort Myers reporting an uneventful escape. Private Otto Hersch, who had lost his way, returned Saturday afternoon by way of the Fort Deynaud road.

On Saturday morning, Captain Elzey departed for Fort Drum. Colonel Brown sent another dispatch to Major Arnold, advising him to hasten his departure from Fort Deynaud, and to send back some horses, as there were no more available for express riders.

Major Arnold left Fort Deynaud at one-thirty P.M. that day and arrived at Fort Drum on Sunday, December 23rd, and Captain Elzey arrived shortly after. At eight o'clock that evening, Lieutenant Hartsuff made his way to their camp.

While trying to reach the protection of a hammock, Hartsuff had fallen into a lily pond. Too exhausted to rise, he remained there with only his head out of the water. While there he heard an Indian repeatedly cry, “Come out, come out.” After about two hours, he managed to walk about two hundred yards towards the road, where he fell among the dwarf palmettos. He stayed there until night, and then moved about half a mile. There he stayed concealed two days, until the evening of Saturday, the 22nd. Suffering from exhaustion, wounds, thirst, and hunger, he alternately walked and rested until sunrise. Finding water, he rested until Sunday afternoon when he resumed his march. The glow of campfires and beating of “tattoo” led him to Arnold's camp.

The Surgeon with Major Arnold's company probed two and one-half inches for the ball in Hartsuff's chest, but was unable to find it. The Surgeon at Fort Myers did not deem it advisable to make further search.

Major Arnold marched on the 25th to the scene of the skirmish and buried the dead. The mules and two horses had been killed and five other horses apparently taken by the Indians. The wagons had been burned. Four men had been killed, four others wounded, and three escaped uninjured.

Hartsuff had realized that the burning of the forts meant that he

should exercise caution, but in view of the abandoned villages and the absence of any sign of recent occupation by Indians, he thought it safe to continue his scout as ordered. The expeditions of Rogers and Parkhill during the two succeeding years found that the Indians had moved to the vicinity of the present Collier Seminole State Park, in southwestern Collier County, some fifty miles away from the scene of the skirmish.

The Indian man and boy herding hogs, seen on the third day of the scout, had probably communicated the progress of the scouting party to the other Indians. Bowlegs was an old man and would not likely have led the war party himself. Sergeant Holland reported that he saw a tall Indian that seemed to be a chief. Canova describes a tall Indian named Safajahojee, as being second in command to Bowlegs. When advised that the scouting party was heading southeast into the Big Cypress, Bowlegs no doubt sent Safajahojee with a group of warriors to observe the soldiers. Traveling northeastward from their home to the nearest point on the military trail, Safajahofee and his men found Lieut. Hartsuff's camp. Bowlegs' old banana plants were several miles away to the east and not on the route the Indians would have followed. The attack was most likely prompted by the exuberance of Safajahojee and the desire of the Indians to do something that would impress their own people.

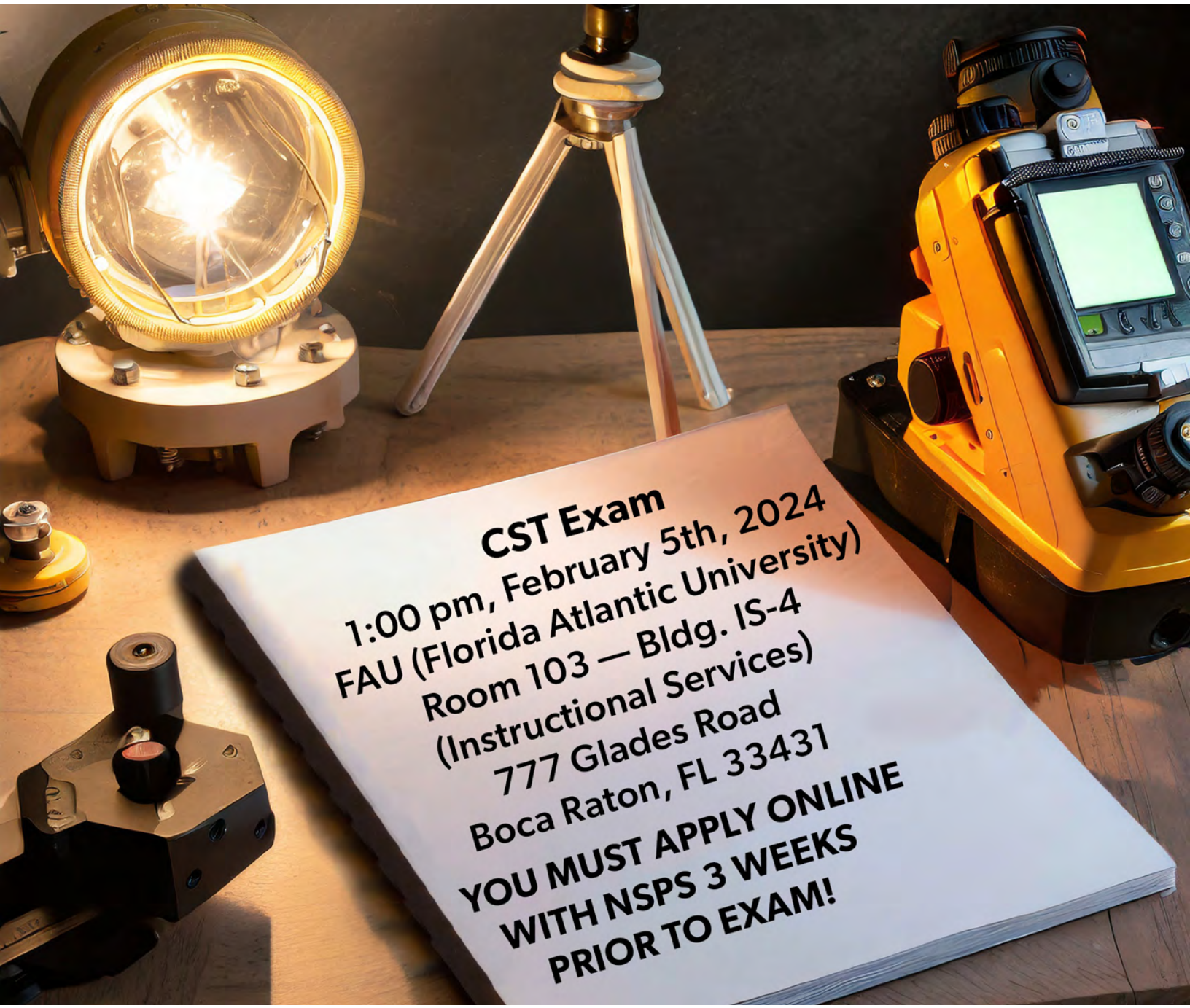
By February 27th, Hartsuff had recovered, and was given the command of a special detachment of thirty mounted men, organized for patrol and escort duty. They were given special equipment, including Colt revolvers and lariats, and were known as the "Mounted Volunteers." They saw action in several skirmishes in the succeeding year's efforts to remove the Seminoles.[21]

[21] Ibid. 28 B 1856, and Order No. 6 and No. 8, Headquarters Troops on the Caloosahatchee, Fort Myers, February 27, 1856.

Hartsuff's last scout in south Florida was from Fort Myers north to Charlotte Harbor, and back along Peas Creek, in June, 1856. Expecting some leave, he started northward, on July 11th, in command of a detachment of invalids, who were being transferred to Fort Columbus, New York. He was diverted without leave, to be assigned as Assistant Instructor of Artillery at the Military Academy at West Point. After two years at the Academy and various other assignments, he accompanied the secret mission to defend Fort Pickens, just prior to the outbreak of the Civil War.

After serving in several major battles during the Civil War, and being wounded again at Antietam, he was assigned to less active duties, serving on advisory boards and in the office of the Adjutant General. He was retired as a Major General in 1871. In May 1874, he was stricken with pneumonia, and died on the 17th at Sturtevant House, New York City, at the age of forty-four. He was buried at West Point. An autopsy revealed the pneumonia infection which caused his death was centered around the wound in his chest received 19 years earlier at the skirmish in the Big Cypress.[22]

[22] 2557 ACP 1871, see note 4.



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FACES ON THE FRONTIER

FLORIDA SURVEYORS AND DEVELOPERS IN THE 19TH CENTURY

by Dr. Joe Knetsch

CHAPTER 4

UNTIRING, FAITHFUL AND EFFICIENT: THE LIFE OF FRANCIS LITTLEBERRY DANCY

One of the ironies of reading history is the fact that men and women who were very important to their contemporaries are often forgotten or overlooked by historians. In Florida, individuals like Odette Philippe, Benjamin Putnam, Issac Bronson, William Cooley, John Darling and Francis Littlebury Dancy are excellent examples of this type. All of these men fought in the Indian Wars, started communities, held important offices and helped to shape the frontier of the State of Florida, yet, without exception, none appear in the general history books of Florida. The major reason or excuse given is that their papers are too hard to locate and are not readily available. But this does not preclude the existence of such papers or information related to them. Diligent research will locate enough data on the lives of these individuals to enable a capable historian to recreate their lives in some detail and demonstrate that the world did not revolve around the great and near-great men of Florida's past. Indeed, without an understanding of these people, the lives and events surrounding the "great men" are almost meaningless and devoid of depth.

The life of Francis Littlebury Dancy was important to the history of Florida's development. As an engineer, he opened up the frontier by clearing the Ocklawaha River, opening a major road inland to Fort King and constructing the famous seawall in St. Augustine. As a military leader,

he led troops during the Second Seminole War and helped to organize the forces at the onset of the War Between the States. As a surveyor and Surveyor General of Florida, he helped to organize the property lines of the state and opened up large areas of land for settlement. As a political leader, he served as a mayor and alderman in St. Augustine, one term in the legislature as a representative and was the acknowledged leader of the Democratic Party in St. Johns County and, later, Putnam County. As a horticulturalist, his development of the Dancy Tangerine and the magnificent groves at Buena Vista gave the Dancy name worldwide recognition and encouraged others to develop Florida's citrus potential. Such a life deserves recognition.

Much of the early genealogy of the Dancy family has been done and is now located in the Putnam County Archives, however, a brief review of the information will give some of the necessary background. F. L. Dancy was born in Edgecombe County, North Carolina, in 1806, the son of Edwin Dancy and Lucy Knight. His grandparents were William Dancy of Edgecombe County and Agnes (or Agatha) Littlebury. The great-grandfather was also named William Dancy but he was from Sussex County, Virginia and was married to Mary Mason of Albemarle Parrish in Sussex County.[1] This is the family line from which F. L. Dancy descended.

[1]"The Family of Francis Littlebury Dancy." From the files of the Putnam County, Florida, Archives, Palatka, Florida. Author and date of writing unknown.

Francis Littlebury Dancy received his early education at home, probably from tutors, and entered the United States Military Academy at West Point on July 1, 1821. Following the usual curriculum of the day, Dancy studied mathematics, surveying, the physical sciences and history. He graduated and was entered into the United States Army on July 1, 1826, and was sent to the Artillery School at Fort Monroe, Virginia, until 1828.[2] He then served improving the inlet at Ocracock, North Carolina, until the next year, when he was assigned duty in the Topographical Engineers under Major J. D. Graham surveying the route for a canal through South Carolina. He served as a surveyor under Colonel Stephen Long for a turnpike through Eastern Kentucky, Virginia, Eastern Tennessee and along the Blue Ridge into North Carolina. Dancy also saw duty at Muscle Shoals, Alabama, improving the road between there and Knoxville, Tennessee, in 1830-31. The following

year, he was transferred with his regiment of the 2nd Artillery to Fort Moultrie, South Carolina.[3] In late 1832, Dancy received his commission to as First Lieutenant of the 2nd Artillery. By 1833, his regiment had been transferred to St. Augustine, Florida, and he was assigned the supervision of the repair of the sea wall and the walls surrounding Fort Marion (as the Castillo was then called). In 1835, he was given the additional responsibility of repairing the road between St. Augustine and Pensacola, known popularly as the Bellamy Road.[4]

[2]George W. Cullum, *Biographical Register of the Officers and Graduates of the U. S. Military Academy*, Volume 1 (Boston: Houghton, Mifflin and Company, 1891), 369.

[3]"Department of the Interior Appointment Papers: Florida 1849- l907. Roll 1: Surveyor General [A-D], 1849-1907." Washington; National Archives, 1980. Microfilm M1119. Letter of June 4, 1877. Dancy to Carl Schurz.

[4]Dancy Letter, June 4, 1877. Dancy to Carl Schurz.

While on duty at St. Augustine, Dancy met and fell in love with the daughter of Judge [later Governor] Robert Raymond Reid. Francis and Florida Reid were married before the end of 1833. This happy marriage lasted well past their golden anniversary.[5] Reid was a very astute politician and was well connected to the existing Democratic power structure of East Florida. Dancy, whose views on politics often mirrored his father-in-law's, was an eager student of Territorial politics and had had an insiders view of the very political nature of the United States military. He was soon a favorite officer in the command of General Duncan L. Clinch, also a strong Democrat and a rival of General Winfield Scott, later a candidate of the Whig party for president of the United States. It was Clinch who recommended Dancy for the post of Assistant Quartermaster of the United States Army in Florida after the outbreak of the Seminole War in December 1835.[6] The union of love and politics was to have a permanent affect on the life of F. L. Dancy.

[5]"The Family of Francis Littlebury Dancy." Putnam County Archives. Also see Sarah Margaret Kaiser, *My Family* (Hastings, Florida, n.d.), in the Putnam County Archives.

[6]"Letters Received by the Office of the Adjutant General (Main Series) 1822-1860." Roll 122. D 90-E, 1836. Washington: National Archives, 1964. Microcopy No. 567. Letter of June 27, 1836. Clinch to Brigadier General R. Jones.

Dancy began his career in Florida with the work of repairing the Bellamy Road between St. Augustine and Tallahassee. But, on April 7, 1834, a large group of inhabitants of St. Augustine petitioned the government to repair the sea wall and the ancient fortress. As these men noted, "That the encroachment of the waters into the harbor and upon the city have destroyed many buildings and nearly the whole of one street." The old Spanish fort, then called Fort Marion, was greatly endangered and these citizens recognized the value of its preservation, not only for its historical significance, which they fully understood and appreciated, but as an arsenal and store house for the United States Army. This was one of the first calls for historic preservation in Florida history. They also requested the government to extend the appropriations further and to finish construction of the sea wall extension as provided for in an earlier plan.[7] As a young engineer willing to take on difficult tasks, Dancy was charged with supervision of the work. Unfortunately, the appropriation was too small to adequately complete the work.

[7]Clarence Edwin Carter, Editor, *The Territorial Papers of the United States*, Volume XIV, *The Territory of Florida, 1828-1834* (Washington: National Archives and Records Service, 1959), 997-99. [Hereafter, Territorial Papers, volume and page number.]

In March 1835, Dancy was assigned the task of clearing the Ocklawaha River to make it more convenient to ship troops and materials to Fort King and the nearby Indian Agency, just three miles from the headwaters of the famed Silver Springs, a tributary to the Ocklawaha. In accordance with his orders, Dancy consulted with General Clinch and began the operations in November 1835. During this same time period, he supervised the repair of the road between St. Augustine and Picolata, which provided the most efficient means of resupplying St. Augustine via the St. Johns River, should the sea routes be endangered or the bar closed. Lieutenant Dancy was very concerned about the coming operations in his theatre and recommended that this road be quickly repaired as part of the appropriation for the fixing of the Bellamy Road. Additionally, he strongly urged the use of the settlement at Palatka as the jumping off point for any reinforcement or supply of interior posts. Specifically, he noted the road to Picolata as important as the first step in transporting troops and supplies to Palatka and then going inland over the road to Fort King. He was asked to repair this latter route, too.[8] The Army was fortunate because Dancy, at the commencement of hostilities with the

Seminoles, immediately halted the shipment of materials to Palatka and order them stored at Picolata. The reason for this action was the burning of the little settlement in December 1835.[9]

[8]*Territorial Papers*, Volume XXV, 112, 117-18, 136, 163-64, 232-33.

[9]*Territorial Papers*, Volume XXV, 232-33. Dancy noted that he had three lighters at Palatka at the time of its capture and burning. He assumed that they were lost.

With the commencement of the war, Dancy joined his regiment and rushed to the interior to aid General Clinch. He took part in a series of scouting operations leading up to the Battle of the Withlacoochee. He was stationed at Clinch's Auld Lang Syne Plantation, the site of Fort Drane, and was the officer in charge of the post when the famed battle took place. He was in charge of the sick, the medical corps and a few officers and enlisted men, not totaling fifty men. Using his engineering skills, Dancy immediately set about constructing breastworks and two small blockhouses, dubbed "Camp Dancy" by those in attendance. When a group of Florida militia came to the camp and demanded rations, Dancy, who suspected the men were deserters, refused and ordered his little garrison to stand at attention and prevent any attempt at seizure by this group. Shortly after this group left, a single soldier came riding up to the compound and notified Dancy of the battle and the immediate need of ammunition. Dr. John Bemrose and others immediately jumped to the ammunition wagons and began loading the rider down with all that he could carry. Dancy then ordered fires started about one hundred yards from the pickets to give light in the darkness and keep the enemy at bay. Every man capable of bearing arms was put in the rotation guarding the newly created facility. After news of the battle, Dancy was sent forward to retrieve the baggage train and to secure it at Fort Drane. The scene of the returning wounded was pathetic and many of the wounded died at that place. The fortification was considered unhealthy by the medical staff, who urged its abandonment from May 1836, onward.[10]

[10]John Mahon, editor, *Reminiscences of the Second Seminole War by John Bemrose* (Gainesville: University of Florida Press, 1966), 43-55.

Dancy, was assigned garrison duty at Fort Drane, which he noted was, "considered a perfect grave yard."[11] Because he felt his health slipping and he

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had been offered more gainful employment, Dancy resigned from the United States Army in a letter of July 22, 1836. His health and the future of his young family weighed heavily on his mind. And, since his regiment had not been relieved of interior duty during the hot, unhealthy summer months, he believed he had little choice but to leave the service. In this letter, he correctly noted that nothing would or could be done in those hot months during the rainy season. This observation was to remain true throughout this and the Third Seminole War (1855-58).[12]

[11]Letters Received by the Office of the Adjutant General (Main Series) 1822-1860. Roll 122. Letter of July 22, 1836. Dancy to General R. Jones. Dancy underlined this phrase in his letter.

[12]*Ibid*

Almost immediately upon his resignation, F. L. Dancy was given the contract to finish the work on the sea wall and the repairs at Fort Marion. The contract was for fifty thousand dollars and Dancy was to receive three dollars per day and two and one half percent of the amount disbursed.[13] The former Army engineer faced some formidable problems, not the least was the shortage of skilled labor. He also faced the enmity of his political enemies, many inherited from his alliance with Robert Raymond Reid. Of this group, the most powerful was Florida's Congressional Delegate, Charles Downing and his allies at the St. Augustine News. Almost from the first, the appointment of Dancy as the contractor was questioned in the most partisan way. After nearly two years of work on the project, Dancy's opponents succeeded in wresting the project away from him and getting it placed into the hands of a Lieutenant Benham, an ally of Downing. Dancy's response was to ask his former fellow officers for an official hearing.[14]

[13]*Territorial Papers*, Volume XXV, 327-28.

[14]United States Congress, House of Representatives Report No. 201. 26th Congress, 1st Session. May 12, 1840. "Lieutenant F. L. Dancy." This document contains almost all of the correspondence that passed between the combatants in this skirmish of political wills.

The main charges leveled against Dancy by Benham and Downing were that of malfeasance in office and profiteering. They also accused the him of using laborers on his personal projects, particularly the St. Augustine

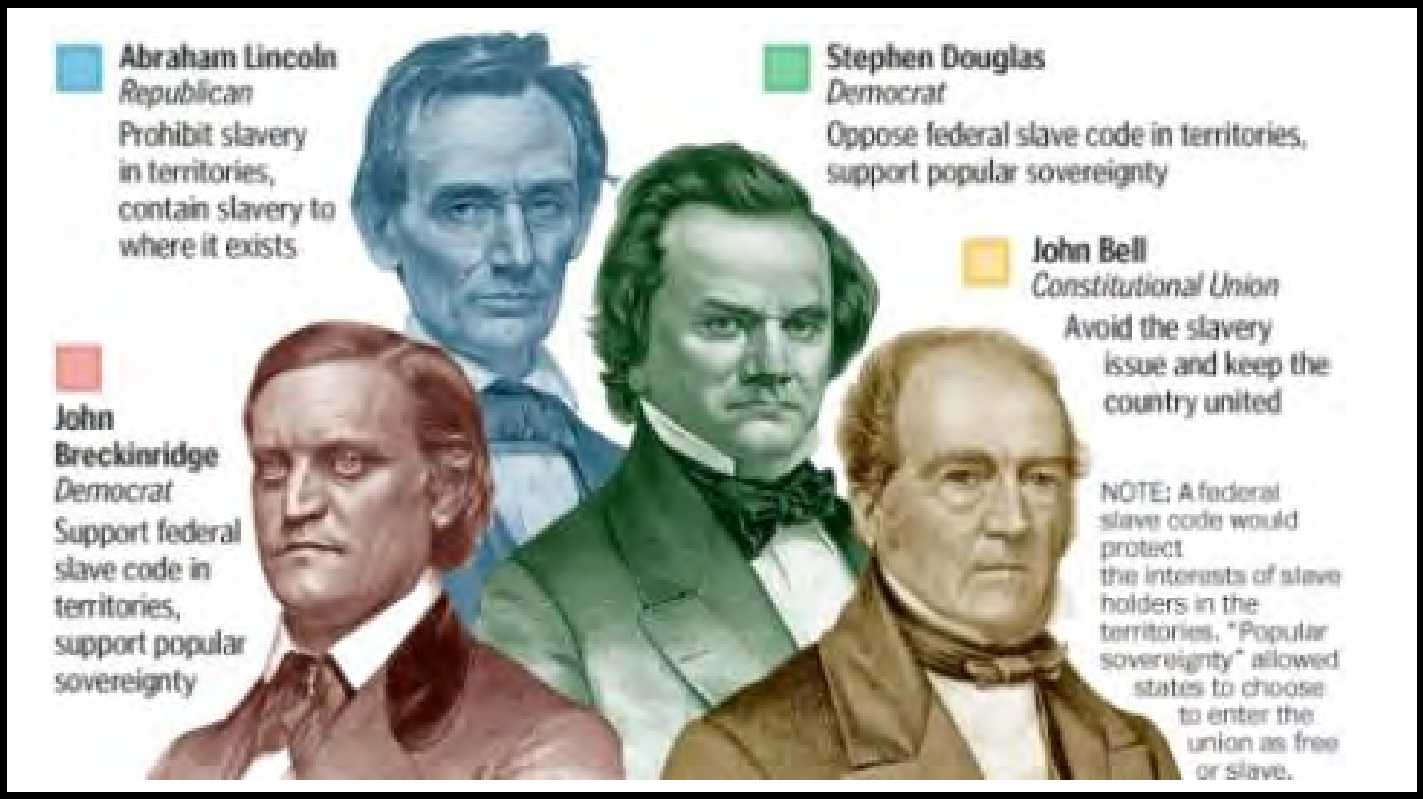
Heights and at Shell Bluff. Benham claimed that Dancy refused to turn over all of the Government's papers regarding the construction of the sea wall and the repair of the fort, offering only to copy said documents at his leisure. Benham charged that this was too time consuming and delayed the project, since he needed many of these documents to make out his own reports and get acceptable models for the filing of vouchers and other paperwork. Dancy, of course, refused to acknowledge the validity of the charges, noting that he no longer had an assistant to copy the voluminous reports and had to do all of this without aid. He did acknowledge the use of masons, carpenters and their assistants on his personal projects, but argued that they were paid from his own pocket and were never charged to the United States. Indeed, he maintained that these men were used at slow periods to help secure them a more steady income and employment. Also, he noted, these men were the only skilled laborers available for just about any project, therefore he had little choice but to hire them when his personal needs required.

The testimony in the hearings with Captain J. K. F. Mansfield of the Army Corps of Engineers, took a few weeks to complete. Many witnesses were called and examined by both sides. The results were not what Downing and his allies at the St. Augustine News were hoping. Mansfield reported that some irregularities occurred but that none were of a serious nature. Both sides had called their allies to witness and much of the testimony was, plainly, hearsay evidence. The final verdict was published by Secretary of War Joel Poinsett, "The department concurs in the opinion expressed by the Chief Engineer and trusts in the future that it will be distinctly understood that no agent will be permitted, on any pretext whatever, to employ public materials or labor on his private works. It is not deemed expedient, upon a review of this whole case, to direct any legal proceedings against Mr. Dancy."[15]

[15]*Ibid*, 118. It should be noted that I have summarized 124 pages of material into approximately three single paragraphs. The documents presented make for interesting reading and show the partisan nature of the entire affair.

It was while this investigation was taking place that Dancy was elected to a term as the Mayor of St. Augustine, from January 1838 through November 1840.[16] Dancy's term saw numerous ordinances passed, mostly with the rules governing the old City Market, police and maintaining the

DID YOU KNOW?



The election of 1860 might have been the most pivotal in American history. Abraham Lincoln, the candidate of the 6-year-old Republican Party, ran on a platform of keeping slavery completely out of the new territories that had been annexed from Mexico 11 years earlier.

The campaign was heated. Lincoln and the Republicans were not even on the ballot in the states of the Deep South.

Although Lincoln only won 40% of the popular vote, the split in the Democratic Party enabled him to secure a comfortable majority in the Electoral College.

Source

peace. During this time, the city passed an ordinance allowing the mayor to appoint a city marshal who reported directly to that officer, while enforcing the laws passed by the mayor and city council. This tightening of the power of the city indicates that some lawlessness was a problem in the Ancient City.[17] This impression was reinforced by the passage of an act prohibiting anyone from appearing in public in a state of intoxication or acting in a disorderly manner.[18] The "Whereas" clause of the enactment stated clearly that the disorderly conduct was because of "the men let loose upon the community by the cessation of operation by the Army." This would also explain why Dancy and the city council passed an ordinance forbidding the opening of liquor stores after 9:00 o'clock in the morning on the Sundays. Something had to be done to protect the families and children from the actions of the drunken soldiers and their hangers-on.[19]

[16]Thomas Graham, *The Awakening of St. Augustine: The Anderson Family and the Oldest City: 1821-1924* (St. Augustine: The St. Augustine Historical Society, 1978), 267.

[17]*Florida Herald and Southern Democrat*, December 24, 1840. The Ordinance was entitled, "An Ordinance regarding the appointment of City Marshall, Clerk of the Market and for other purposes."

[18]From the Dancy files at the Putnam County Archives, Palatka, Florida and compiled by Ms. Nancy Alvers, who took the information from the St. Augustine newspapers for 1838. The ordinance cited here is entitled, "An Ordinance In addition to 'An Ordinance respecting the peace and police of the City of St. Augustine."'

[19]*Ibid*. The author would like to thank Ms. Alvers and Janice Mahaffey of the Putnam County Archives for the collecting and copying of this material and making it available to researchers.

Dancy had a particularly busy year in 1840. In addition to fighting the battles of the City Council, he was in the midst of developing his St. Augustine Heights and Village of St. Sebastian properties. The affair of the sea wall and fort repairs was also winding down to its inglorious end and the Seminoles were still raiding as far north as Mandarin on the St. Johns River, necessitating the calling out of the militia. Once again, Francis L. Dancy answered the call to duty and, as the elected Lieutenant Colonel, and later full Colonel, of the Florida Mounted Volunteers, he led his forces into battle. On September 8, 1840, Dancy and his troops assisted the regular Army in an action near Fort Wacahoota, northwest of Micanopy in Alachua County. The combined force of regulars and militia forced the Indians out

of the hammock where they had ambushed a force just south of Fort Walker. Although no Indians were taken or killed by Dancy's small force, he did not hesitate to lead his men into the dense hammock and help drive the enemy from the field.[20] With a growing family, military obligations and campaigns, business opportunities and political controversy, little wonder that 1840 was particularly hectic for Dancy.

[20]Letters Received by the Office of Adjutant General (Main Series) 1822-1860. Washington: National Archives and Records Administration, 1964. Roll 202. Microcopy No. 567. Letter of September 8, 1840. Capt. S. Hawkins to Lt. R. C. Gatlin.

Real estate sales in the middle of an Indian war are often not brisk, which sometimes necessitates the search for other means of obtaining wages to help raise a family. In 1842, he called upon his friend and the Territory's Delegate to Congress, David Levy, to assist him in obtaining a contract for surveying the public lands. Levy wrote to the Surveyor General, Valentine Conway of Virginia, on Dancy's behalf. In his letter he declared:

> My principal and first anxiety however is in favor of Col. F. L. Dancy of this place. Col. D. was educated at West Point and continued in the army a long time, most of the while engaged upon Engineers duty. He married a daughter of the late Gov. Reid and afterwards resigned. He is desirous to engage himself in your service and I would be under lasting obligation to you to facilitate his views as far as he can make his offer consistent with the public interests. He is an active, faithful and reliable man, and an experienced and educated mathematician & surveyor .... [Levy continued] I think with you that a location here would be most convenient, and I doubt not would be very agreeable to you upon other accounts. I shall leave here about the 1st Novr. for the West, and will see you at Tallahassee, when we can have a full discussion and understanding of the steps you would desire taken at Washington.[21]

[21]"Applications for Employment. Volume 1: 1824-1844." 261-62. Land Records and Title Section, Division of State Lands, Florida Department of Environmental Protection, Tallahassee, Florida. Conway was very eager to get back to Virginia where family and business interests appears to have interested him more than the Surveyor Generalship of Florida. He is the only such officer to spend more time out of the Territory/State than in it in Florida history. He was later asked for his resignation because of his misuse of public moneys.

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Presenter: Patricia "Gail" Oliver
Bio: Gail Oliver is a Professional Surveyor & Mapper licensed to practice in the State of Florida. She has over 40 years of experience. In March 1979, after graduating from the First Coast Technical Institute Mapping and Cartography Program, she began her career in Jacksonville, FL where she had the opportunity to participate in many high profile projects with groundbreaking technology and approaches. Gail served as the County Surveyor for St. Johns County, FL for 30 years, including the last 5 years as the Director of Land Management, which included Real Estate, GIS, and Survey. Gail has extensive experience in most aspects of surveying and GIS, including Boundary, Platting, Topographic, Mean High Water, Rights-of-Way, Hydrographic, and Geodetic Surveys.

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Dancy got the position and embarked on his public lands surveying career as the Surveyor of Private Grants in East Florida. He would later repay his friend for his assistance and work with him in the construction of Yulee's dream, the Florida Railroad.

But prior to his service in the surveying field, Dancy was elected to the Florida Legislature as the representative from St. Johns County. His assignments in this volatile session included the chairmanship of the Committee on the Militia, and membership on the committees for Corporations and Enrolled Bills.[22] On Friday, January 7th, he introduced a petition on behalf of "sundry Citizens of Duval County" asking for a charter for a ferry across Black Creek at Garey's Ferry, near the site of the old military outpost. Like all other bills of this type, it was referred to the Committee on Internal Improvements.[23] The major piece of legislation for which he should deserve much of the credit during this session was a bill to regulate the militia in the Territory. The Second Seminole War, which was still in progress while the session met, had shown some glaring weaknesses in the structure of Florida's military force. The structure was revamped with specifications on the elections of officers, the appointment of non-commissioned officers by the captains of the unit and the amount of staff the Governor and brigade commanders could be allowed, all subject to approval by the Legislature. More importantly, new requirements were put forth demanding that the drills used by the regular army would be used by the Florida militia. No military man could be arrested by a civil authority while on duty or going to and from duty, "except for treason, felony or breach of the peace." The fines for refusing to do assigned duties were also spelled out and exactly how the courts martial were to function was clearly dcfined.[24] This reorganization lasted, in its basic form, until the War Between the States and was clearly meant to instill discipline and define the lines of command, which were not well understood during the Seminole War.

[22]*Journal of the Proceedings of the Legislative Council of the Territory of Florida, 1842* (Tallahassee: Office of *The Floridian*, 1842), 25-26.

[23]*Ibid*, 28.

[24]*Acts and Resolutions of the Legislative Council of the Territory of Florida, 1842* (Tallahassee: C. E. Bartlett, 1842), 25-33. The law has thirty-two sections in it and is one of the longest passed at this session.

On the issues of the banks and the adoption of the St. Joseph's Convention proposed constitution, Francis L. Dancy maintained the line accepted by the Yulee faction. This meant paying at par value the so-called "faith bonds" to maintain the credit of the Territory and also implied the complete acceptance of the idea of statehood with no division of the Territory into two potential states. In almost every instance during the session when roll call votes were recorded, Dancy voted with this group, headed by the "other Senator," James D. Westcott. Dancy was squarely opposed to the faction headed by Judge Issac Bronson and Benjamin A. Putnam.[25]

[25]See the *Journal of the Legislative Council.*

With the Seminole War at an end and his brief legislative career behind him, Francis Dancy returned to his more civilian routine. As Surveyor of Private Claims, he had the responsibility to separate private lands from those of the public. As many of the public land surveys had been done in the areas in which he was to work, this meant going into the field, finding existing marks or lines, advertising in the local papers for claimants or their representatives to meet him in the field, show him their alleged lines and present him with evidence of the claims. Once Dancy had ascertained that the claimant's grant was valid and the lines conformed to those called for in the grant, he would tie the new lines into the lines of public surveys and obliterate the lines of these surveys where they now interfered with the private grant. This task was difficult and politically very dangerous because of the individuals who had either inherited or, more likely, purchased the grants from the original grantee. Dancy also had the dubious chore of working with Surveyor General Valentine Y. Conway, whose instructions to surveyors were among the most bizarre in the history of Florida surveying. Dancy's questions from the field indicate the unclear nature of Conway's instructions. What rules, he asked in one of his first letters to the Surveyor General, governed the surveying of grants which overlapped, as many do in Duval County? If there are no traces of the public surveys in an area, how does one tie the grants into the regular surveys?[26] These were questions which should have been discussed prior to someone leaving for the field. Dancy was in the field for three full surveying seasons, outlasting Conway and working, at the end of his tenure, under the second administration of Robert Butler, under whom the office of Surveyor of Private Land Claims was abolished and its duties absorbed by the office of the Surveyor General.[27]

[26]*Letters and Reports to Surveyor General*, Volume I: 1825-1847, 501-02. Land Records and Title Section, Division of State Lands Florida Department of Environmental Protection, Tallahassee, Florida. [Hereafter, Letters and Reports, Volume and page No.]

[27]*Ibid*, 561. This is the last letter sent by Dancy as Surveyor of Private Land Claims. There was nothing personal or political in the abolition of Dancy's position. It was a very inefficient way to survey the claims and had the potential of putting the two offices at odds.

By the mid 1840s, Dancy had established himself on the shores of the St. Johns River and was beginning to develop as a citrus grower. But, he was constantly involved in the affairs of the day, especially those of a political nature. He was looked upon as one of the rising leaders of the Democratic Party and was in regular communication with his friend, David Levy Yulee. In 1850, he was also considered as a serious contender for the post of Major General of the Florida Militia, opposing Benjamin Hopkins. However, because of Hopkins' reputation and the respect he had earned, especially during the Indian Scare of 1849-50, Dancy had his name taken out of contention.[28] Yet, he did desire some other political posts and was soon asking Yulee for his assistance in obtaining the post of Surveyor General of Florida, for which he was admirably qualified. Fate soon intervened and rewarded him with the political plum of the first appointed State Geologist and Engineer. Yulee advised his friend that this was the position to accept in that it paid a handsome $2,000 per year plus expenses, offered contacts for later employment, a chance to repay certain individuals with the patronage offered by the job, a place to train his eldest son in the engineering profession and, most importantly, an opportunity to keep the family together by having his office in Palatka (read Buena Vista).[29] Dancy took his sage friend's advice.

[28]St. Augustine *Ancient City*, April 13, 1850, 2.

[29]Department of Interior Appointment Papers: Florida 1849-1907. Roll No. 1: Surveyor General [A-D], 1849-1907. Washington: National Archives and Records Service, 1980. M1119. Letter of July 5, 1853. Yulee to Dancy.

The position was one needed by Yulee because one of the duties of the State Engineer was to inspect the railroad lines and canals authorized by the Internal Improvement Act of 1855. One of the major requirements of the act was the actual construction of the railroad, in this case Yulee's Florida Railroad for a specified number of miles, after which the Board of Trustees

of the Internal Improvement Fund would allow the sale of the bonds authorized by the act. It was the sale of the bonds that funded the actual construction of the railroad. Dancy was called upon by the Trustees to assure them that the Florida Railroad had met its obligations. The State Engineer did just that and brought down the wrath of Governor Madison Starke Perry, then in the midst of a feud with Yulee of the line of the railroad. Perry believed that Dancy had been less than truthful in his report to the Trustees and that the railroad had not completed as much of the work as Dancy reported. The reason for this alleged falsehood was to allow the railroad to obtain funding to pay for the iron being shipped from New York by the firm of Vose and Livingston.[30] Dancy may have misrepresented the actual construction, but did not falsely report its grading and alignment. The only fault was the technicality that the iron was not yet upon the crossties, even though it was to be there within days of Dancy's visit to the site.

[30]*Journal of the Proceedings of House of Representatives of the General Assembly of the State of Florida, 1858* (Tallahassee: Jones & Dyke, 1858), 11-21.

As this controversy wound down, Dancy sought out Yulee and his other political friends to obtain the office of Surveyor General. The many letters, petitions and other political machinations used by his friends procured the appointment in 1858, replacing John Westcott, the brother of his legislative ally of 1842. With his background as a graduate of West Point (where surveying was taught), a civil engineer, a U. S. Deputy Surveyor and his military experience in the early years, there can be no doubt that Francis L. Dancy was the most qualified man for the position in the State. He took over the position just at the end of the Third Seminole War (1855-58) and had to instruct his surveyors to replace many of the lines obliterated by the Indians. As Surveyor General, he was in the field inspecting his deputies work and in John Dick, he hired one of the more qualified draughtmen in Florida.

His duties required him to manage a substantial office staff, which included the first woman I have found evidence of in State Land records, Martha M. Reid, as his field note clerk.[31] Ms. Reid was his sister-in-law. He also hired his brother R. F. Dancy and his nephew, E. D. Foxhall. Nepotism was rampant in this era and not unusual in any patronage job, like that of the Surveyor Generalship. However, Dancy had to have people he could

trust to do accurate, reliable work and people with whom he could work in the cramped quarters allowed in the St. Francis Barracks in St. Augustine, where the offices were located. He also had to appoint the Deputy Surveyors. This led to some difficulties because of the limited labor pool in the state and the fact that politics did play a role in the selection. In one case, Dancy's sometimes blunt nature showed clearly. In writing to Louis Lanier the Surveyor General wrote:

> As to making any addition to your work; I would not feel myself justified in doing so, for the following reasons - From the report of the examination Clerk in this office, on your work, it appears of So loose and bungling character as to afford evidence of gross inattention to your instructions or incompetency. And I would respectfully suggest the propriety of your asking to be released from the compliance with the remainder of the contract instead of renewing the bond.[32]

[31]"Salary Accounts - 1858-1860 - Surveyor General's Office," 4, 5, 115. Land Records and Title Section, Division of State Lands, Florida Department of Environmental Protection, Tallahassee, Florida.

[32]*Letters of Surveyor General*, Volume 9, 1853-60, 352. Land Records and Title Section, Division of State Lands, Florida Department of Environmental Protection, Tallahassee, Florida.

Other surveyors, many of whom he was not personally acquainted with, did remain on the job under his tenure of office because Dancy's examination of their work proved their worth. It was not all patronage and nepotism.

Francis L. Dancy remained on the job until Florida passed the Ordinance of Secession. At that time he closed down the office, sent in his receipts to the General Land Office and even mailed his certified accounts to the United States Treasurer's office asking it to pay the clerks and draughtsmen for their time.[33]

[33]*Miscellaneous Letters of Surveyor General*, Volume 1, 1860-61, 34-35. Land Records and Title Section, Division of State Lands, Florida Department of Environmental Protection, Tallahassee, Florida.

Dancy had no qualms about siding with his adopted State in the

impending war. As a recognized leader of the Democratic Patty, he backed the Breckinridge-Lane ticket for president and vice president. He participated in the county conventions and served as chairman of the St. Johns County Democratic Convention, which met on September 1, 1860.[34] In November, he also served as part of the committee appointed to draft the business for the public meeting in support of secession.[35] For Dancy, this was not some political lark, but very serious business.

[34]St. Augustine *Examiner*, September 1, 1860.

[35]St. Augustine *Examiner*, November 17, 1860.

At the outbreak of the War Between the States, Governor Perry appointed Dancy to the dual office of Adjutant and Inspector General of Florida Forces. He remained in that position under Governor John Milton until 1863. He did not make himself popular with certain denizens of St. Augustine, when he noted "there are not twenty men in the city who would volunteer for distant service. They would all volunteer to occupy the Fort and Eat Rations."[36] With supplies becoming a crucial necessity for both the Confederate Army and the general population, Dancy was commissioned as a captain in the Confederate forces and made Commissary Officer in charge of collecting the "tax in kind," which meant chickens, hogs, sugar and agricultural products. While performing these duties, the Union Army led a raid up river from Jacksonville, which, according to his son, James M. Dancy, was designed specifically to capture and ruin Francis Littlebury Dancy. Being an ex-West Pointer, a federal official and recognized leader of the Democratic Party, he was a prime target for those wishing to crush the resistance in East Florida.[37] Dancy escaped just in time and was able to watch his family home being occupied by federal troops, who indulged themselves on the already prepared meal.[38] F. L. Dancy, like many other parents in those turbulent times, also had the misfortune of losing one of his sons in battle. Lieutenant Francis R. Dancy was killed at the Battle of Olustee in 1864. No amount of honor or recognition could replace the son lost in the service of the cause.

[36]David J. Coles, "Ancient City Defenders: The St. Augustine Blues," *El Escribano*, 1986, 70.

[37]James M. Dancy, Untitled Memoir Written in June 1933. Typed manuscript available at the Putnam County Archives, Palatka, Florida. See page 5 (Page 3 of the actual memoir).

[38]*Ibid*.

After the war, Francis L. Dancy returned to his ruined homestead and began anew. His groves produced some of the most unique and flavorful fruit in North America. He was one of the leaders of the Florida Fruit Growers Association and a frequent contributor to magazines and newspapers discussing the process of citrus growing. The poet Sidney Lanier took notice of the Dancy groves in his tour book, *Florida: Its Scenery, Climate and History*, and other writers followed his lead.[39] Dancy became something of a household word when, at his Buena Vista Groves, he developed a new variety of tangerine, appropriately named the "Dancy Tangerine." Noted at the time as a new addition to Florida's impressive citrus industry, one expert proclaimed that "in flavor and external appearance this variety is superior to the original."[40] Dancy's goal was simply put in October 1876, when he wrote, "It is my earnest desire to see the orange industry brought to the highest state of perfection in this state, believing that with proper care and attention, in growing the best varieties and handling the fruit, but a few years will elapse before our oranges will be as common in the European markets as they are at this day in the markets of our own largest cities, and at highly remunerative prices, owing to their great superiority over the oranges raised in most European countries."[41] As a grower and prophet, he was right on the mark.

[39]Sidney Lanier, *Florida: Its Scenery, Climate and History* (Gainesville: University of Florida Press, 1973, Facsimile of the 1875 edition), 127.

[40]Anonymous, "Nomenclature of the Orange," *Semi-Tropical Magazine*, June 1876, 339.

[41]Francis L. Dancy, "Culture of the Orange," *Semi-Tropical Magazine*, October 1876, 602.

When Francis Littlebury Dancy died on October 27, 1890, he had left behind a legacy of devotion to duty, his fellow man and, most importantly, his family. His early career building roads and improvements helped to open the migration into the old Southwest. His skill as an engineer made possible the base for the current seawall in St. Augustine and the beginning of the preservation of the Castillo San Marcos. Dancy's abilities as a surveyor led to better, more accurate land titles and markings and ended with his appointment as Surveyor General of Florida. His service to his adopted State during the

War Between the States cost him a son, major disruption of his family life and the ruination of his groves and plantation. Yet, he persevered through all of the setbacks and reconstructed his life in a way that began a new era for this state. In all phases of his life, he truly was untiring, faithful and efficient.

Next Month …

CHAPTER 5

COLONEL SAM REID: THE FOUNDING OF THE MANATEE COLONY AND SURVEYING THE MANATEE COUNTRY, 1841-1847

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.


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Yukon Territory
Slavey
Dogrib
Kaska
Keewatin
Kuujjuamiuq
Naskapi
Colony of Newfoundland
South Greenland
Iceland
Cree
Oji-Cree
Cree
Montagnais
Dominion of Canada
Northwest Territories
Dominion of Canada
United States of America
Arizona
New Mexico
United Kingdom
Portugal
Spain
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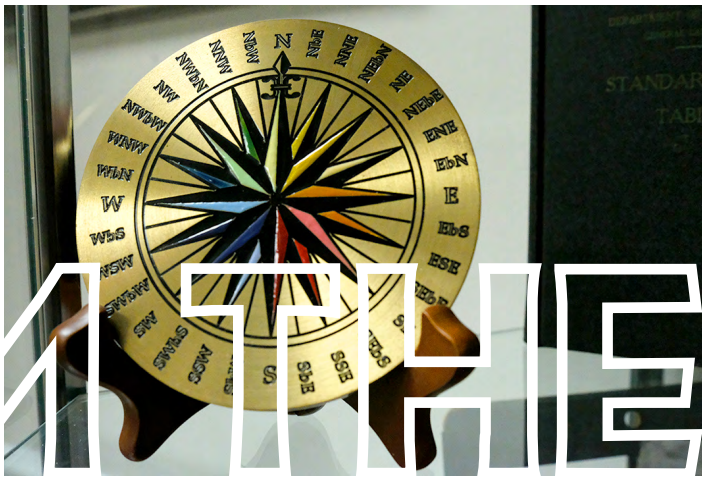
Tonga
Fiji
Niue
Pitcairn Islands
Easter Island
Falkland Islands
South Georgia and the South Sandwich Islands**
** - South Sandwich Islands outside of map
Board of Admiralty
St Helena
Cape Colony

Map of the World in 1911.



FROM THE ARCHIVES

SCENES

IN A

SURVEYOR'S LIFE;

OR A

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

IN THE

Operations of a Party of Surveyors

IN

SOUTH FLORIDA.

By W. L. PERRY.

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

CHAPTER IV

HAVING lost much time, and being anxious to get to work as soon as possible, the gray streaks, indicating the approach of daylight, had scarcely began to shoot up from the east, on the morning following the fire hunt, before we were busy hitching up our team for a start. In order to make better headway with our heavily loaded wagon, we tackled the two ponies to the end of the wagon tongue to help the oxen along.

Now it happened that the yoke of oxen we had were the most vicious and spiteful animals I ever saw. They could be approached with safety neither at one end or the other; for behind they lost no opportunity to *kick*, and in front none to *hook*. In fact, to show more clearly their viperous dispositions, when they got tired and began to lag, some of us frequently walked a pace or two in front of them, turning now and then, and making a motion at them as if to strike, which would excite their anger and cause them to travel with unabated energy for hours, with the hope of catching us. It was necessary too, in this operation, to have a special care for number one; for a stumble and fall, immediately in front of those brutes, would certainly have been attended with disagreeable, if not fatal consequences. Owing to their illness, they sometimes gave us a deal of trouble, and on the morning in question, were especially fractious. They seemed determined not to be worked. The whole company united in using every means to get them to their proper places, for a long time with but little effect. At last, however, we got them straight—one on either side of the tongue, and Smith went slyly around to lift the tongue, that the end of it might be put in the yoke ring, which would put and end to our present troubles, and make all things safe.

"Take care there, Smith," said I, "that ox will kick you."

"No danger," he answered, "if he kicks me I'll take my kni—," but before the sentence or threat was completed, the ox's foot came in contact with Smith's knee, with no very measured force, if one might judge from the sound produced.

"Oh-oh-oh-oh-o-h-a," groaned Smith, "tumbling down and holding his knee with both hands."

"Oh Lordy, my leg is b-r-o-k-e."

As the Captain and Sile ran around to see how badly the old fellow was hurt, which was soon ascertained to be not half so bad as one might be led to believe by his groans and writhings in the grass, the oxen commenced a series of jumps and plunges about in various directions, and continued to do so until they got themselves in a position that one of their tails pointed to the north pole, and the other to the south, and got the ponies so much entangled in their geering that one of them rolled over on his side, and had to be cut loose before he could rise.

After a time, however, we got them quieted and hitched to the wagon, and made them travel to make up lost time. The whole scene was full of ludicrousness, and so forcibly reminded me of the Irish sailor's first experience on a farm, (which I believe has never been in print,) I hope the reader will pardon me for relating it here. It was as follows:

> Returning from a sea-faring life, the Irishman hired himself to a farmer, choosing in preference to all other employments that of tilling the soil. The farmer immediately put him to plowing a spike-team, consisting of a yoke of oxen, and a little brown mare named Bess. For a time he got along admirably, and was highly delighted with the farmer's life. Unfortunately, however, one afternoon, while moving quietly along in the discharge of his duty, and reflecting upon the great difference between Ameriky and Swate Ireland, he stirred up a yellow jacket nest, the inmates of which began at once a wholesale attack upon his team. The oxen plunged and twisted here and there, until they twisted the yoke around and got it under their necks, and the lead ox was where the off one should be, and the off one in place of the leader. Little Bess also became entangled, in the mean time, and fell down. At this point, Pat, who had stood apart and watched

the whole proceedings with astonishment, could stand it no longer, but dropped his long whip and ran for the house with all his might, and as soon as he had approached sufficiently near to make himself heard, shouted "Masther, Masther, come here quickly, for the very blazes is to pay down here in the field."

"What's the matter?" asked the master, frightened almost as much as his plowman.

"Why, be Jabers," answered Pat, almost out of breath, "the larboard ox has got over to the starboard side, and the starboard ox to the larboard side, little Bess lays on her beam ends, and they are all drifting to the divil together."

The reader will not fail to observe the points of similarity in the Irishman's case and our own.

Our route this day lay through a country of exceeding fertility, interspersed, here and there, with immense prairies, reaching, some of them, as far as the eye could see. The grass on those prairies was then as high as a man's shoulders, of the most luxuriant green, and when wafted hither and thither by the south breezes, presented much the appearance of the undulating motion of the great ocean.

Occasionally too, we passed large lakes, like seas in miniature, whose waters were as clear as crystal, and literally, almost, alive with every species of fresh fish, turtles, and alligators.

The deer gamboled about us on every side, and having never been hunted, except occasionally by straggling parties of Indians, they were so tame that we had no trouble in shooting them down whenever we saw proper.

To one who is desirous of quitting the world without necessity of "taking up a tree," this part of Florida offers numerous inducements. I consider it the easiest country in the world not only to live in, but to *get rich in*. One hundred head of cattle, twenty-five brood mares, and fifty or a hundred head of hogs, would be all the start a man would want, and might easily be made the basis of a handsome fortune in a short time. In a few years they would increase four fold, and that without the necessary outlay of a single dollar. In addition to these, nearly every variety of the tropical fruits might be successfully cultivated, and on

account of the near proximity to the coast, there could be little difficulty in shipping whatever might be produced to a market in some of the Atlantic cities.

With a small capital, say five hundred dollars, a fishery could be established on Indian river that would pay better than any now in the south. The depth and shores of the river are peculiarly fitted for this business, and there can be no reasonable doubt that an immense business in this line will one day be carried on at various points along this river.

The day will certainly come, and I can see no cause why it should be very distant, when, this will be one of the most populous, productive, and wealthy portions of the State. Hitherto the great drawback and blighting curse upon the interest of Florida, has been the handful of ungovernable, untamed Seminole Indians, with whom we have to a late period been engaged in an expensive war. For the long period of more than seventeen years they have been permitted to roam with impunity like hyenas over the fairest portions of the country, committing the grossest acts of bloodshed upon our citizens—shooting them down like brutes just whenever the devil happened to dictate to them the propriety of committing such acts, and destroying vast amounts of property belonging to the frontier settlers. By these hostile demonstrations, together with their well known insatiable propensities for thieving, they have deterred thousands of enterprising and useful citizens from emigrating to our State. Arrangements are now on foot, however, which it is confidently believed will speedily rid the State of the remnant of this tribe of Indians, which for so long a time has kept us at bay, and destroyed so many of our citizens.

At noon the Captain took Sile with him, and struck off in a Northeasterly direction for the purpose of finding some old land lines, which, from what information could be gathered from maps furnished at the Surveyor General's office, he thought must be in that direction not very far off. By these lines he designed to trace out the corner post from which his survey commenced. The rest of us, the Captain ordered to continue our route along the same old trail we had followed from Fort Capron, and he and Sile would shape their course so as to meet us at dark some six or eight miles ahead. We accordingly marched forward, but did not travel more than three or four miles before we came to a creek which was impassable except by swimming. Here was a most

serious difficulty which had never entered our calculations.

The creek was some twenty-five yards in width, and the banks on either side being almost perpendicularly steep, it was swimming from one side to the other. Cross it we must; there was no use in waiting for the Captain's advice—but how?

Fortunately, after many sore scratchings of the head, I bethought me of a large good's box in the wagon, in which some corn was stored. I immediately had the corn removed from it and the box brought out. We then proceeded to calk it as well as we could with such materials as were at hand, for the purpose of making use of it as a boat. By bringing into requisition the Surveyor's chains, we mustered line enough to reach twice across the stream. One of these lines we fastened to one end of this novel boat, and the other to the other end. Having loaded it with as much as it would conveniently carry, Tap swam to the opposite shore with the end of the line, and drew the boat and cargo safely across. When he had unloaded it we drew it back again by the line fastened at the other end. Thus we slowly, but safely passed over all our plunder to the opposite side of the creek. We then swam the oxen and ponies across with but little trouble.

The next part of the business was to get the wagon across. This was accomplished in the following manner: Drawing it up close to the water's edge, we fastened our boat lines to the end of the tongue and carried an end to the opposite shore, where we hitched the ponies to it to drag it across. We imagined that if we could ease it down the steep bank into the water, the ponies might be able to pull it over before it had time to sink. For this purpose a man was placed at each wheel, and the others wherever they could find a position best suited to the object in view. All ready, the word was given to move slowly forward. On the brink of the embankment the wagon poised for a moment, like the eagle about to dart upon his prey, then plunged forward with a tremendous force, knocking Shepley head foremost to the bottom. He had foolishly, and unobserved, taken a position in front of the wagon, as he said, the more effectually to hold back. As soon as we had fished him out from between the wheels, which we did with much difficulty, Tap put hickory to the ponies on the other side of the creek, and before it had time to entirely sink we had the wagon so near the bank, that we were able to hitch the oxen to the end of the tongue and drag it out.

Although the wagon, team and loading were all safely across, by far the most serious difficulty yet remained to be overcome. Joe Rogers, with his big abdominal protuberance, was yet on the wrong side of the creek, and he had never learned the art of swimming. He couldn't begin to get into the good's box, and if he could, it would certainly have toppled over and spilled him out. Various plans were proposed, discussed, and then dismissed as impracticable. It was finally accomplished in the following manner: Having one of the ponies brought back to where he could just stand with his back above water, I tied one of the lines to Joe's left arm, and the other to the pony's bridle; both extending to the opposite shore. Joe then took his position on one side of the pony, and I on the other. I directed him to hold to my left wrist, and with the hand of the same I took firm hold of the pony's mane; and in this manner Joe, the pony, and myself, were quickly landed on the other side of the creek, with no other damage than a sharp pain in my wrist, caused by an unwanted pressure of that part by Joe's powerful grip.

It being sundown when we got everything over, we built a large fire to dry our clothes, and pitched the tent for the night. About dark, the Captain and Sile came down to the creek, on the opposite side from where we were encamped, as we expected, and were no less astonished than gratified to find that we had got everything safely over.

The day following our encampment here, after a laborious search for the old land lines, run some thirty years previous, we found them, and late in the afternoon traced out our point of commencement. It was a small lightwood post, stuck up about a half mile in a dense swamp of tie-tie, wild rose, and bamboo briar.

Bright and early in the morning, after a refreshing night's sleep, the boys were all astir, making preparation for a commencement of work. The Captain ordered two days rations, the night previous, for each man to pack, as it was uncertain how far it was to dry land in the direction in which he designed to run from the point of starting, and he did not wish to leave the swamp until the line was put through. Each man was furnished with such of the surveying implements as was adapted to the capacity in which he was desired to operate. Shep and Sile, for instance, were furnished with axes; Ralf and myself, as chainsmen, with chain and pins; Joe and Tap, as packmen, with the ponies and pack saddles;

Smith as cook, with all the camping equipage, oxen and wagon; and the Major, who was a sort of privileged character, nothing being required of him but to kill game, was put in charge of the guns and ammunition.

On arriving at the corner-post, the Captain proceeded to administer the oath required by law. “Take of your hats,” said he, “and all lay your hands on this post, while I repeat the obligation you, as my assistants, have to subscribe to."

All hands did as requested, looking as solemn as if in the presence of the dead. Imagine, reader, if you can, the ludicrous appearance presented by the several persons grouped around that post, standing waist deep in mud and water in a dense swamp, far from civilization, in South Florida. The dress of each was a hickory hunting shirt, fastened about the waist by means of a leathern belt, which supported on one side a large butcher knife and sheath, and on the other a tin cup, to be used in the various capacities of tea cup, tea kettle, coffee pot and water bucket. Each man, also, had a blanket strapped to his back, in which was rolled two day's rations of bread, meat and coffee.

“You, and each of you,” said the Captain, as nearly as I can now recollect, “do solemnly swear, as axeman, chainmen, &c., that you will perform your several duties under my direction, to the best of your knowledge and ability, and remain with me until the survey is finished, unless in some way providentially hindered, so help you God.” “I do!” was the prompt response of every man.•

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Hugh A. Binyon

1961 - 1962
Russell H. DeGrove

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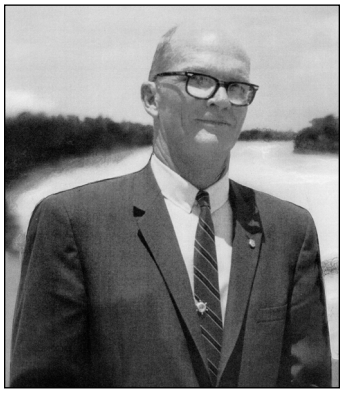
Perry C. McGriff



1963 - 1964
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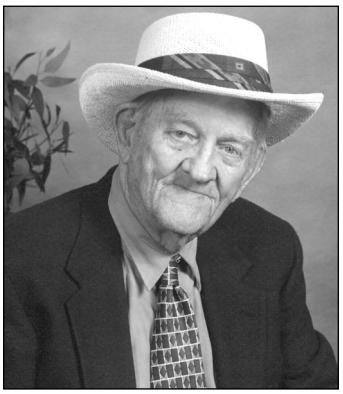
1964 - 1965
James A. Thigpenn, III

1965 - 1966
Harold A. Schuler, Jr.



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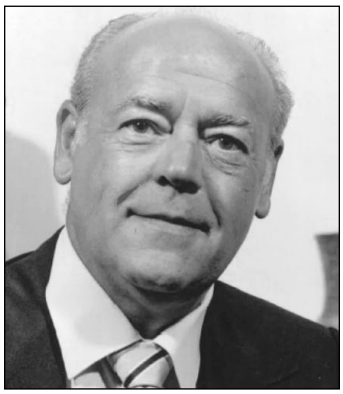
Shields E. Clark



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Frank R. Shilling, Jr.

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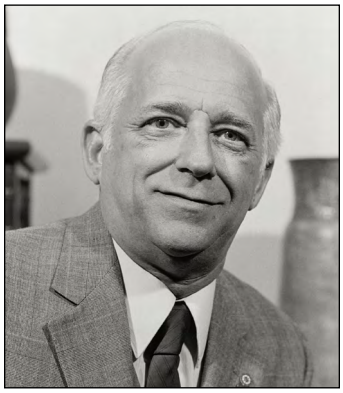
James M. King

1972 - 1973
Broward P. Davis



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E.R. (Ed) Brownell

1974 - 1975
E.W. (Gene) Stoner

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Lewis H. Kent

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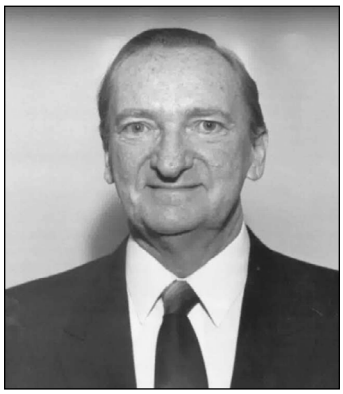
Robert S. Harris



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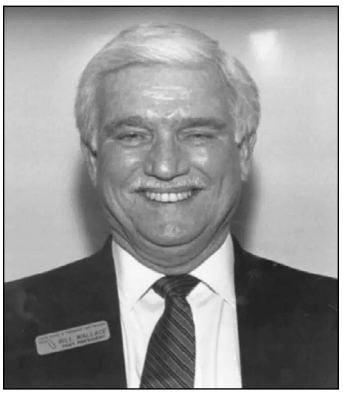

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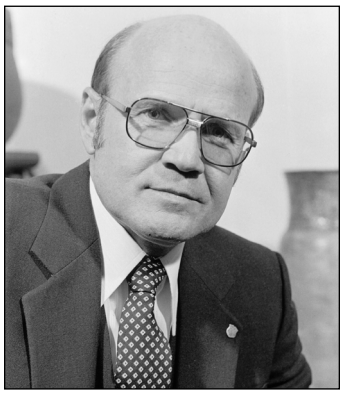

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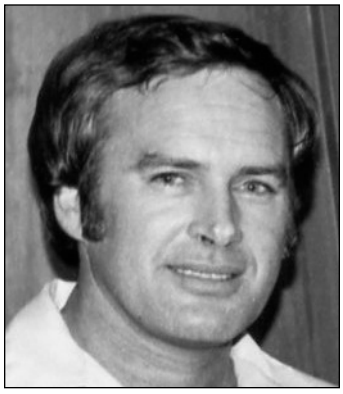

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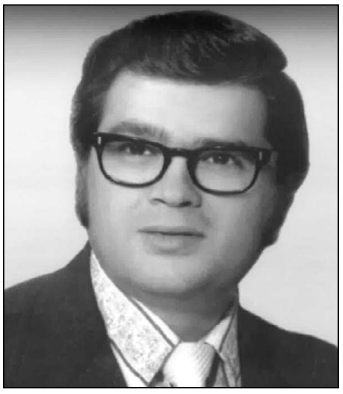

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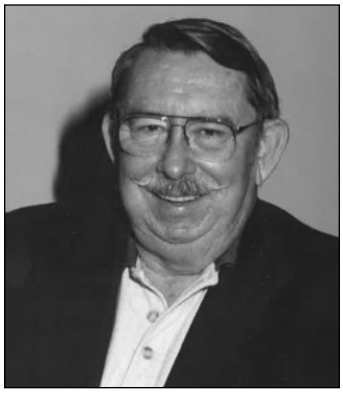

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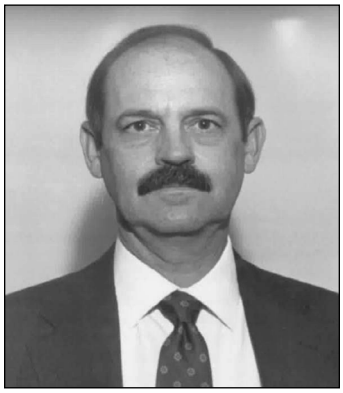

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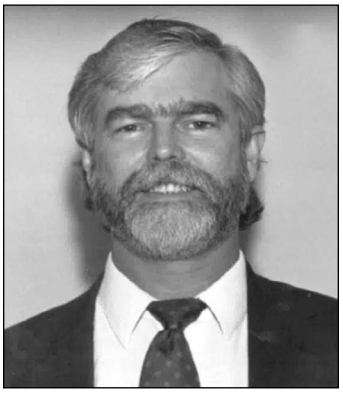
1985 - 1986
H. Bruce Durden



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Stephen M. Woods

1988 - 1989
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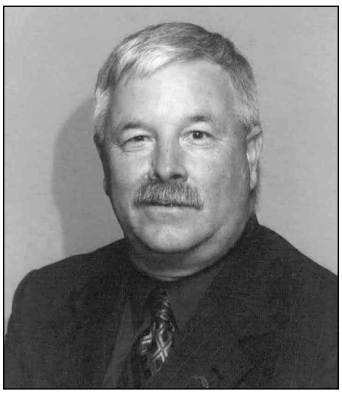

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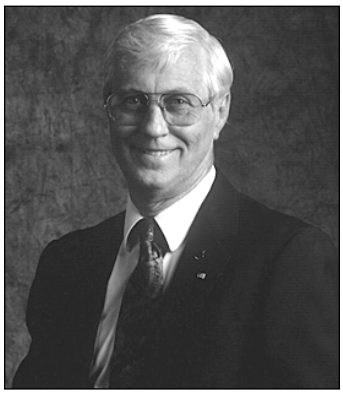
W. Lamar Evers

1990 - 1991
Joseph S. Boggs



1991 - 1992
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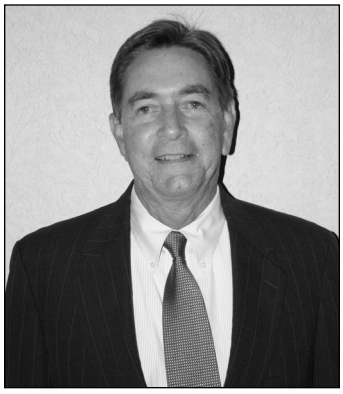

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Nicholas D. Miller

1993 - 1994
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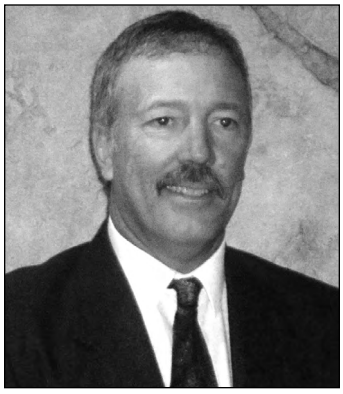
1994 - 1995
Kent Green



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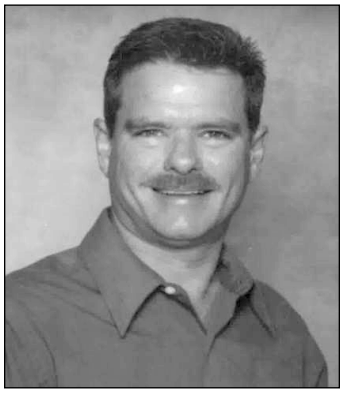

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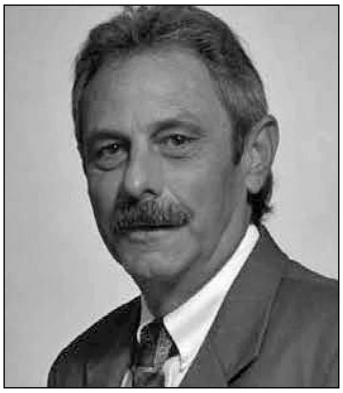

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W. Lanier Mathews, II

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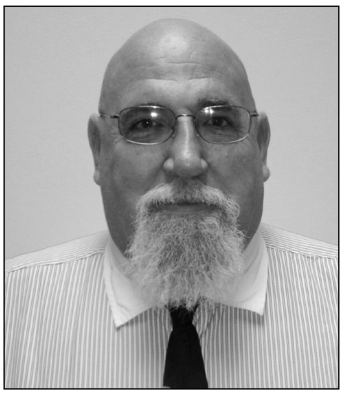
Jack Breed



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Michael H. Maxwell

2002 - 2003
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Past Presidents

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David W. Schryver

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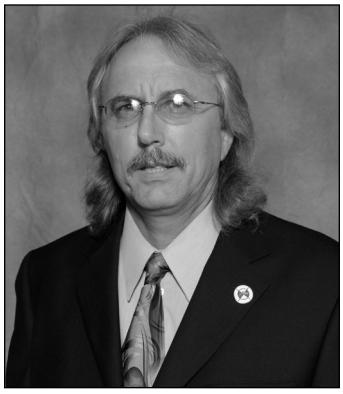
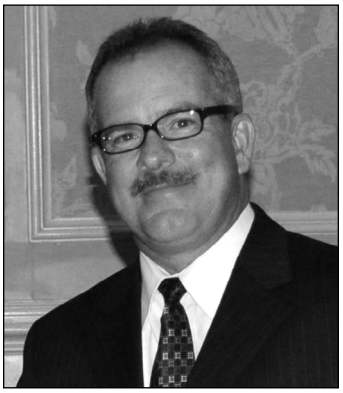
Stephen M. Gordon

2005 - 2006
Richard G. Powell

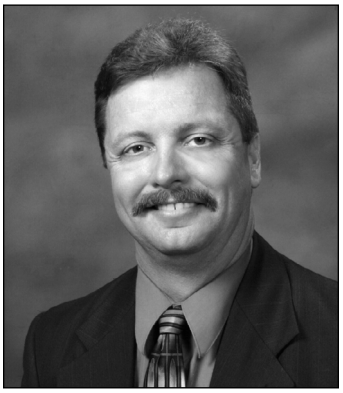


2006 - 2007
Michael J. Whitling

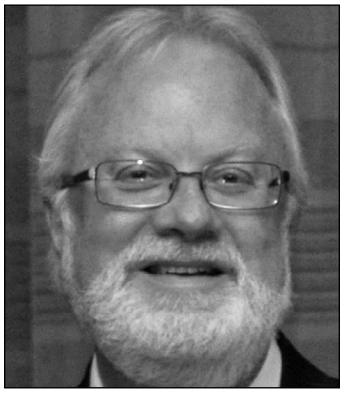
2007 - 2008
Robert W. Jackson, Jr.



2008 - 2009
Pablo Ferrari



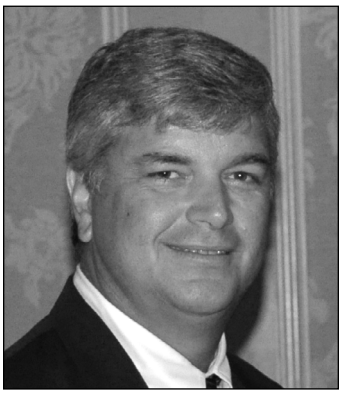
2009 - 2010
Steve Stinson



2010 - 2011
Dan Ferrans

2011 - 2012
Jeremiah Slaymaker

2012 - 2013
Ken Glass

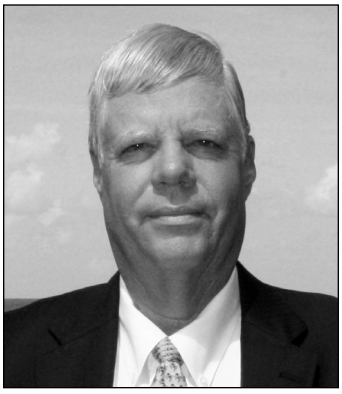


2013 - 2014
Russell Hyatt

2014 - 2015
William Rowe

Past Presidents

2015 - 2016
Dale Bradshaw



2016 - 2017
Lou Campanile, Jr.

2017 - 2018
Robert Strayer, Jr.

2018 - 2019
Dianne Collins

2019 - 2020
Don Elder

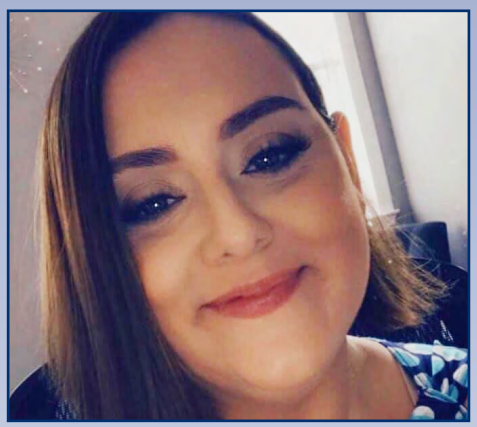
2020 - 2021
Hal Peters

2021 - 2022
Lou Campanile, Jr.

ADMINISTRATIVE Staff

Executive Director

Rebecca Porter
director@fsms.org



Education Director

Samantha Hobbs
education@fsms.org

Communications Director

Justin Ortiz
communications@fsms.org

Regional Coordinator

Cathy Campanile
seminolecc84@gmail.com

Board of Professional Surveyors and Mappers

Board Members

Christopher P. McLaughlin - Chair
Vero Beach

Iarelis (Ia) Hall - Vice Chair
Lady Lake

Michael Zoltek
Cape Coral

Landon Cross
Boca Raton

Eugene Collings-Bonfill
Miami

Danny Williams
Cape Canaveral

David Schryver

*From the Fall 2023 Newsletter:

INTERESTING STATISTICS ABOUT YOUR PROFESSION:

Currently there are approximately **2400** *registered Professional Surveyors and Mappers in Florida*

49% are **60** or younger

51% are **61** or older

70 *new licenses have been issued in the* **2023** *calendar year*

Win a Trip to Annual Conference!

FSMS is offering a Recruitment Bonus for Current Members who bring in New Members. The Recruitment Bonus will be a Conference Packet One Registration *(includes One Wed. BBQ Ticket, One Fri. Exhibitor's Luncheon Ticket, One Fri. Recognition Banquet, & Six Sat. Seminar CECs)* along with a 2 Night Stay at the DoubleTree by Hilton Hotel Orlando at Seaworld.

Recruitment Bonus will be Awarded based on a Point System. 6 Points for each New Full Member, Gov. Surveyor, & Sustaining Firm. 1 Point for each New Associate, Affiliate, & Student Member.

Whenever a New Member fills out their membership form they must provide referred current member's name when asked, “Were you referred by a Current Member of FSMS?”

Points will be awarded during Open Enrollment between November 15, 2023 and March 31, 2024. The Member with the most points will be deemed the Winner & be announced in *The Florida Surveyor!*