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Two vaults being used in a special election for the Florida House were stolen last week. Unbeknownst to the burglars, they were caught on videotape. The vaults contained a voting machine, the electronic storage device containing all early votes cast, and 850 blank ballots. The motive isn't immediately clear, but here is what we know so far.

In this report, I've gathered some of the answers needed to examine how the burglary might have affected the election.

The Santa Rosa County Sheriff's office released a portion of the surveillance video; more information, contained in the police report, indicates there is additional footage not yet released to the public.

<http://www.youtube.com/embed/SdwjiowLWcY>

I spoke with Santa Rosa County SOE (Supervisor of Elections) Tappie Villane yesterday, to get details on what was in the vaults and to ascertain what could have been achieved with this burglary.

A brief backstory: This was a contentious election between Republican Mike Hill and Democrat Jeremy Lau; Governor Rick Scott was pushing the locals hard to do what it takes to get Hill into office, according to e-mails from Scott. Mike Hill won by about 3,000 votes.

The two counties involved in this house race were Escambia County and Santa Rosa County; only the Santa Rosa materials were stolen. A total of about 1,800 votes were reportedly cast by Santa Rosa County voters, out of a total of about 19,000 votes in Santa Rosa and Escambia combined.

Early voting took place between June 1 and June 8, 2013. The burglary took place in the wee hours of Monday morning, June 10; Election Day was Tues. June 11.

According to SOE Villane, both election vaults were stolen. They were taken from an Annex building, being used for early voting. This Annex building also contained records for the county property appraiser and the county clerk's office, but only the election records were stolen.

I asked Villane how the burglars would know they weren't getting property records or items from the clerk's office. She mentioned that the elections part of the Annex had a sign for voters, and that the vaults were near that "cubby". Based on the video, the burglars certainly knew they were coming for the vaults, because they brought what appears to be a refrigerator dolly with them.

## **CONTENTS OF THE VAULTS**

According to Villane, the vaults contained:

- 850 blank ballots, used in case someone showed up requesting an absentee ballot for someone who was sick and shut in.
- 19 voted ballots from Friday, June 7 early voters
- 14 voted ballots from Saturday, June 8 early voters
- vote-by-mail ballots which had been dropped off Friday, June 7.
- a cell phone
- an ES&S iVotronic touchscreen voting machine, used for accessibility only; there were no votes on it.
- the thumb drive (which Villane says is like the memory card used in some machines); the thumb drive contained the data for all early votes cast from June 1 through June 8.
- the printer for the iVotronic used to print the zero tape.

## **HIGH-VALUE ITEMS FOR ELECTION TAMPERING**

The three items of most value, it seems to me, were:

- 850 blank ballots.
- iVotronic voting machine
- Thumb drive containing all the early votes.

(I have more information, on quantities and custody chain for early absentees and early votes, at the main link, ruling out certain kinds of tampering.)

I asked Villane for a breakdown of the vote distribution, which came out as follows:

- 168 people early voted; all of those votes were on the stolen thumb drive
- 505 people cast vote-by-mail ballots; two of those were in the stolen vaults
- A total of 1,872 ballots were cast altogether in Santa Rosa County.

Thus, it would seem, the two burglarized vaults would not have affected the result, which was separated by 3,000 votes in the combined two-county election. Had the election been closer, it would have created incurable uncertainty.

## **WHY WERE THE ITEMS I IDENTIFIED HIGH-RISK?**

1. Blank ballots can be used to for ballot substitution. If one assumes possible inside access, by filling in the 850 blank ballots and gaining access to the chain of custody for at-polls votes, early votes, or vote-by-mail ballots, an insider could swap out ballots with counterfeit votes.

For example, since vote results for all 168 early votes were on that stolen thumb drive, Villane told me they had to re-scan all the ballots (except for the 33 that had been stolen). You could, in theory, use the stolen blank ballots to replace the original early votes, scanning in counterfeits.

2. The iVotronics in Florida are only used for accessible voting, and don't represent a major threat for votes cast in Florida. A stolen iVotronic, however, would allow the new owner to reverse engineer the voting machine, providing opportunities to tamper with results anywhere the iVotronic is used. The entire state of South Carolina has been using iVotronics, and they are still widely used in many locations.

3. According to Villane, the stolen thumb drive was used with the ES&S D200 optical scan machines. Using the stolen thumb drive, a new owner could reverse engineer the programming and data on that, and use that knowledge to tamper with other elections using the same kind of voting system.

It should be noted that the other, larger county involved in this election (Escambia County) also uses the ES&S D200. While they wouldn't be able to use the exact data configured for Santa Rosa County, thieves would be able to reverse engineer sufficiently to adjust the data for use in another county. The D200 is very widely used throughout Florida, and by reverse engineering this piece of the system, future elections in any location using that system could be compromised.

## **IN A CRIME NOVEL, WHAT MIGHT BE "THEORIES OF THE CRIME" FOR THIS BURGLARY?**

1. Sneak peek: Though there was a generous spread between Hill and Lau, that wasn't secure leading up to the election. Polling by Lau's group had found a 25 percent gain leading up to the election. By stealing the thumb drive, burglar cronies could learn just how bad the damage was, if they had no one on the inside to slip them results from the early-scanned absentee votes.

2. Substitution: All 168 early votes on the thumb drive could have been swapped out, and here's how: By using the stolen 850 ballots to fill in 168 counterfeit early votes, and working with someone on the inside to swap out the real early votes for the fake ones, they could have been altered.

I asked Villane about this. It wouldn't have been trivial; since each day's early votes are stored in a separate signed, sealed envelope, and the number of ballots in each envelope would need to match the number of names already submitted to the state each day, someone would have to be careful to get the math right, and would have to have access and willingness to forge. I've seen forgery by insiders (Volusia County, 2004), but in this case, the total yield would be only about 80 votes.

Why 80, not 168 votes, the total number of early votes? Well, you see the only gain is by replacing votes for the other guy. Let's assume 50% of the 168 votes were for Lau, 50% were for Hill. That would mean you only have 84 votes to play with, since the other 84 are already for your candidate.

So ballot substitution, while a valid risk, could not generate enough votes unless the election was closer.

3. Ballot stuffing or ballot purging: Because the names are submitted to the state each day, and had already been committed to, this would be difficult to achieve.

4. Throw in a placeholder for an election lawsuit: If you thought the election might be close, staging a burglary like this would create prearranged grounds for an election contest in the courts. The relevant concept here is "incurable uncertainty." In a close election, the stolen vaults create incurable uncertainty.

5. Can you stuff the 850 stolen ballots into bigger, Escambia County on Election Day? Not likely. ES&S ballots tell the voting machine which precinct they are in using a bar code. The bar code wouldn't be correct for Escambia County, and its voting computers wouldn't know what to do with the ballots.

6. Could you alter the stolen thumb drive, and swap it into the vote uploads? Potentially, yes. If you configured it properly, which might require some reverse engineering, or might not, depending on your other resources or access, and if you had someone on the inside, you could swap out results. In Santa Rosa County, you couldn't possibly swap out enough votes using the thumb drive to change the outcome. You could do a lot more to change an outcome by using that thumb drive in Escambia County.

So let's take a look at vote totals in Escambia. According to the Pensacola News Journal:

Escambia Votes for Mike Hill: 9,902

Escambia Votes for Jeremy Lau: 7,364

Total Escambia votes: 17,266

If a tampered Santa Rosa County thumb drive was swapped into Escambia County, you'd still have a significant challenge. Each precinct, I assume, has its own thumb drive so you wouldn't easily do the trick with just one. You might be able to reverse engineer the one to dump new code into all the Election Day thumb drives, but you'd have precious little time to do that and you would have to penetrate chain of custody in multiple precincts.

Would you be able to use the stolen Santa Rosa County thumb drive to replace Escambia vote-by-mail results? That's not an impossible scenario, given inside access in Escambia. If, as we saw in South Carolina in the Alvin Green race, and in San Diego in the Bilbray-Busby race, the absentees in Escambia came up with a totally different vote distribution than Election Day and Early Votes, you'd have reason for suspicion.

7. The cell phone: If I was a crime writer, I'd throw in a plot twist at the end. Incriminating evidence on the cell phone, hah! Got it!

The truth is, I am having trouble coming up with a theory of the crime that would show how this burglary might have affected THIS election. Might it affect other elections? Absolutely. The

programming on the iVotronic and the thumb drive is darn hard to get your hands on, and could impact elections in many different states, now and in the future.

But there are other reasons to be concerned. Hopefully, with the additional video that the sheriff hasn't yet released to the public, there is enough to nail the burglars. And it looks to me like they'd be going down for grand theft.

### **WAS IT GRAND LARCENY OR PETTY THEFT?**

In Florida, the criminal statute sets forth the elements of theft, as well as the penalty. Theft is increased to grand theft based on the value of the property stolen. Depending on circumstances, this can be as little as \$300 in value.

The iVotronic voting machine was worth about \$4500, at least originally. The ballots were worth, in print costs, at least \$850. I asked Villane how much the vaults were worth. They were metal, she said, and reportedly weighed 600 pounds. They had been around for awhile, she said. Still, such vaults are not cheap, and would raise the price tag substantially.

I am continuing to follow this story. Stay tuned.

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