



# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

Presented by:

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EVP & General Counsel



AVIATION LAW SECTION

STATE BAR *of* TEXAS

Identify this vintage piece of office equipment:

- a. Smith Corona “Speedline”
- b. IBM Selectric III
- c. Brother EM-530
- d. One of the wheel chocks for Mark Pierce’s aircraft
- e. Don’t know, don’t care, I’m already thinking about the cocktail reception, and really want you to get on with the show Bruce!!



# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

## QUESTION:

- Has the FAA made a sudden leap from the Stone Age to the Digital Age with its announcement last year concerning the acceptance of documents with Digital Signatures?

## ANSWER:

- Not exactly

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

- Its been a **16 year** path leading up to the recent changes:
  - 6/30/2000 – E-Sign Act
  - 10/29/2002 - FAA Flight Standards issues AC 120-78 re guidance and acceptance of electronic signatures
  - 10/31/2008 - DOT & FAA publish FAA order 1370.104 Digital Signature policy – “Digital Signatures are federally acceptable types of electronic signatures”
  - 4/1/2016 – FAA Civil Registry will accept printed duplicates of electronic documents containing legible digital signatures

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

## QUESTION:

- Are the new digital signature rules as big of a process change as some may perceive?

## ANSWER:

- Maybe

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

- Title service companies and Oklahoma City law firms are the winners and are still needed as FAA is accepting printed duplicates of documents containing digital signature and for other transaction needs
- FedEx, UPS and DHL are the losers as original signed copies no longer need to be expedited for closing and registration.
- Documents containing ink signatures or a combination of ink and digital signature must still be filed

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

FAA has stopped printing white/pink 8050-1  
Registration Applications

- Downloadable PDF Registration Application now available
- Printed duplicate of FAA Registration is now your pink slip/temporary registration
  - Domestic U.S. flights only
  - “Fly Wire” still required for international flights and over international waters to, e.g., Hawaii

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

## QUESTION:

- Are "electronic signatures" and "digital signatures" the same thing?

## ANSWER:

- No



# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

- While often used interchangeably the terms “electronic signature” and “digital signature” have distinct meanings from both a technical and legal perspective.
- In the eyes of the law not all electronic signatures are weighed equally – a signature that can’t be verified for integrity and security is going to be less defensible in court.
- An “electronic signature” can be an audio file, symbol or process adopted by a person with an intent to sign. For example: pushing an “I agree” button or a signature in script created in your Microsoft Outlook.
- A “digital signature” refers to the encryption/decryption technology on which the electronic signature is built. The signatures contain a unique set of data hidden to the human eye and when this data is placed within the computer code it can be used to indicate consent and to verify the authenticity of a signed document. If anything is changed within a contract after it is digitally signed, the change will be noted and the contract will become invalid.

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

## QUESTION:

- If the FAA is requiring digital signatures and not just electronic signatures, does my organization need to invest in expensive software from an e-signature service provider?

## ANSWER:

- Not necessarily.

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

- Through e-SignLive, a reputable digital signature software provider, AIC enables all of our customers and business partners with the ability to digitally sign documents necessary to complete the registration of aircraft and interests in aircraft with the FAA Aircraft Registry including but not limited to:
  - Aircraft registration application, AC Form 8050-1
  - Aircraft bill of sale, AC Form 8050-2, or equivalent transfer documents
  - Security documents
  - Conditional sales contracts
  - Leases
  - Any supporting authorization documents such as powers of attorney, trusts, trust related documents, LLC statements, etc.

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

## QUESTION:

- Are there any issues or concerns about the new FAA digital signature process that we should know about?

## ANSWER:

- Yes, within approximately one month from the time the FAA announced that they would start accepting printed documents containing digital signatures, a conclusive “Digital Signature Questions and Answers” (the “Q&A”) was issued by the FAA for all issues concerning digital signatures.

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

The first question and answer on the FAA's Q&A was:

- “Will there be further guidance on what is considered a legible digital signature or is this left to the discretion of the examiner?”
- The FAA's answer was: “...Further guidance is not anticipated”

The document literally concluded with:

- “The End”

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

Another question on the Q&A asked:

- “Will we be accepting documents electronically since they will now contain digital signatures?”

The FAA’s answer was:

- “No, we do not have the ability to electronically accept digital documents at this time, nor is this in the works for the near future.”

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

## QUESTION

- Why is this an issue?

## ANSWER:

- Once the original document containing the digital signature is printed, the protections against modifications or alterations are lost

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

Because the FAA will accept for filing a printed copy of a document containing a legible digital signature:

- Be careful to always transmit your emails containing documents with digital signatures **through and to** secure sources.
- Otherwise, you will need to be on the lookout for cyber thieves copying and forging what appears to be your digital signature on documents.
- Not all brokers trying to be helpful in facilitating or expediting aircraft transactions have secure email.
- The same rules that apply to keeping your wire transfer instructions secure also apply to documents containing digital signatures.



# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

## **PRACTICE NOTE:**

- AIC has the capacity and is prepared technology-wise to safely and securely maintain the original electronic documents containing the digital signature through dual servers, dual offsite backup servers, tape backups and offsite backup tapes.
- Be sure that your service provider, title service company or law firm, and anyone else receiving your digital information has adequate cybersecurity measures in place!

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

Another question on the Q&A asked:

- “Digital signed documents are dated. If we receive a bill of sale on 4/20/16 with a digital signature dated 4/19/16 and the transaction is closed on 4/22/16, can the closing date be added to the bill of sale in the required area.”

The FAA’s answer in part was:

- “The FAA would view the Bill of Sale as having been executed on 4/19/16, regardless of annotations posting the closing date...”

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

- The closing date determined by the parties and not the FAA is important because of:
  - IRS and other tax considerations
  - Insurance and transfer of liability for the aircraft
  - Perfection of lender security interests and release of funds

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

- FAA's solution: "The signature pages for closing could be executed and e-mailed to the PDR agent's computer as a PDF for printing and filing just prior to or during the closing process"
- AIC's solution: We have eliminated the date of signing in the digital signature block so that the actual closing date intended by the parties can be completed on the printed copy of the BOS containing the digital signature.

# DIGITAL SIGNATURES: FROM STONE AGE TO DIGITAL AGE

The FAA's initial AFS-750 Change Bulletin 16-03, dated March 28, 2016, provided in part that:

“A legible and acceptable digital signature will have, at minimum, the following components:

- Shows evidence of authentication of the signer's identity such as the text “digitally signed by” along with the software provider's seal /watermark, date and time of execution; **or, have an authentication code or key identifying the software provider;** and... (emphasis added)”

**AIRCRAFT BILL OF SALE**

FOR AND IN CONSIDERATION OF \$ 1.00 + OVC THE  
UNDERSIGNED OWNER(S) OF THE FULL LEGAL  
AND BENEFICIAL TITLE OF THE AIRCRAFT  
DESCRIBED AS FOLLOWS:

UNITED STATES  
REGISTRATION NUMBER **N77TT**

AIRCRAFT MANUFACTURER & MODEL  
PIPER, PA-32R-300

AIRCRAFT SERIAL No.  
32R-7680244

DOES THIS DAY OF  
HEREBY SELL, GRANT, TRANSFER AND  
DELIVER ALL RIGHTS, TITLE, AND INTERESTS  
IN AND TO SUCH AIRCRAFT UNTO:

Do Not Write In This Block  
FOR FAA USE ONLY

**PURCHASER**

NAME AND ADDRESS  
(IF INDIVIDUAL(S), GIVE LAST NAME, FIRST NAME, AND MIDDLE INITIAL.)

DEALER CERTIFICATE NUMBER

AND TO EXECUTORS, ADMINISTRATORS, AND ASSIGNS TO HAVE AND TO HOLD  
SINGULARLY THE SAID AIRCRAFT FOREVER, AND WARRANTS THE TITLE THEREOF:

IN TESTIMONY WHEREOF HAVE SET HAND AND SEAL THIS DAY OF

**SELLER**

NAME(S) OF SELLER  
(TYPED OR PRINTED)

John Doe

SIGNATURE(S)  
(IN INK) (IF EXECUTED FOR  
CO-OWNERSHIP, ALL MUST SIGN.)

E-SIGNED by JOHN DOE  
id.b1b1c2f1-88a3-4ce2-a42a-afa8460c7660

TITLE  
(TYPED OR PRINTED)

Manager

ACKNOWLEDGMENT (NOT REQUIRED FOR PURPOSES OF FAA RECORDING; HOWEVER, MAY BE REQUIRED BY LOCAL LAW FOR  
VALIDITY OF THE INSTRUMENT.)

ORIGINAL: TO FAA:



## e-SignLive™ Electronic Evidence Summary

**Signing Ceremony ID:**

ID: c12a647d-0e36-4519-95f3-afa47bbd02de  
Name: N77TT Bill of Sale (U5YdeE2)  
Created: 2017-Oct-26 15:45:28 GMT  
Completed: 2017-Oct-26 15:47:33 GMT  
Summary document generated: 2017-Oct-26 15:47:34 GMT

**Sender:**

Name: AIC Agent  
aic@aictitle.com

**Documents:**

Electronic Disclosures and Signatures Consent 1 page  
N77TT 8050-2 BoS o21334eAIC Title\_ATr5cYJ 1 page  
e-SignLive Electronic Evidence Summary 1 page

**Signers:**

**Name:** AIC Agent  
**Email:** aic@aictitle.com  
**Role:** Owner  
**Name:** JOHN DOE  
**Email:** johndoe@gmail.com  
**Role:** signer1  
Electronic Disclosures and Signatures Consent 1 accept  
N77TT 8050-2 BoS o21334eAIC Title\_ATr5cYJ 1 signature

**Audit Trail:**

Date and Time	Signer	Action	Document	IP	Other
2017-Oct-26 15:46:42 GMT	JOHN DOE	Login	N/A	74.197.220.59	
2017-Oct-26 15:46:43 GMT	JOHN DOE	Signing Session For Signer	N/A	74.197.220.59	Signing session to signer : johndoe@gmail.com(JOHN DOE)
2017-Oct-26 15:46:53 GMT	JOHN DOE	View	Electronic Disclosures and Signatures Consent	74.197.220.59	
2017-Oct-26 15:47:03 GMT	JOHN DOE	Accept	Electronic Disclosures and Signatures Consent	74.197.220.59	Approval: 78a6045b-1fd5-4b36-b7d4-fd51155681a3
2017-Oct-26 15:47:21 GMT	JOHN DOE	View	N77TT 8050-2 BoS o21334eAIC Title_ATr5cYJ	74.197.220.59	
2017-Oct-26 15:47:28 GMT	JOHN DOE	Click To Sign	N77TT 8050-2 BoS o21334eAIC Title_ATr5cYJ	74.197.220.59	Approval: signatureId1
2017-Oct-26 15:47:33 GMT	JOHN DOE	Confirm	N77TT 8050-2 BoS o21334eAIC Title_ATr5cYJ	74.197.220.59	

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Digital signatures may have limited use in other details of a closing:

- Purchasers and lenders may want manual signatures on title transfer documents such as FAA Bills of Sale or Warranty Bills of Sale
- Some practitioners recommend that Warranty Bills of Sale, Delivery Receipts and/or Sales/Use Tax Certificates be signed and notarized at delivery location



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Digital signatures are not substitutes for notarized signatures:

- Notarization requires presence in front of notary in order to prove identity, and confirm lack of duress and general awareness of signing
- Digital signatures do not help prove where an aircraft is at closing
- Digital signatures are not self-authenticating like notarized acknowledgments — see Fed. R. Evid. 902(8)
- Digital signatures may embed information such as the IP address of the signer, but not actual physical location (such as GPS coordinates)

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Examples of other documents where notarization may be needed:

- Affidavits of Citizenship for Owner Trusts
- Powers of Attorney
- Guaranties

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Certain parties may still require manual signatures despite the new FAA policy:

- Lenders may require manual signatures on documents creating or perfecting their security interests in aircraft and engines
- Lenders may require manual signatures on promissory notes or leases (i.e., negotiable instruments or chattel paper)
- Lenders may not accept digital signatures in deals that will be assigned or securitized.





**DIGITAL SIGNATURES:  
FROM STONE AGE TO DIGITAL AGE**

**THANK YOU!**