



AI Powered – Human in the Loop Always

Making Sense of Logbooks with AI

- Available to All – now
- Use AI on handwritten logbooks



Disclaimer

- AIs will make mistakes
- Never use AI to determine the airworthiness of an Aircraft. Always have a human in the loop.
- Paul Stavrides is not an A&P

Who Benefits?

- Owner / Operators – airworthiness?
- Buyers
- A&P / IAs
- ~~Brokers~~

Logbooks = Aircraft Value

- 30 – 40% of the value
- Loss – big equity hit
- Not an insurable loss

Logbook Details

- Why Bound Paper 8.5 x 11" Wins
 - Full visibility
 - Supports all the other docs – 8130s, W/O, BOMs

Logbooks – Paper vs Cloud

- Increasing move to electronic logs – Part 91
 - Yes, better in some ways – not AC 120-78B
 - No, gone due admin error – easily changed / forged
- Best approach is hybrid
 - Paper but scanned & secure

Scanning is Easy

- Scanners – to 600 DPI
- Home Scanners – min 300 DPI
- Phones – 300 DPI or more
 - PDF Apps for phone



A Word about PDFs

- Two flavors of PDFs
 - Text – CTRL F Searchable
 - Image – CTRL F Returns nothing – This format

Getting Serious with OCR

- Why Google?
 - World-class handwriting OCR – Billions of \$\$
 - About 50 different handwritten languages

Accuracy

- Handwriting or printed — nearly 100%

DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations
2011 8-3	5772.9		5772.9	Removed Engine for MAJOR overhaul Engine Disassembled Cleaned And Inspected All Steel Parts was Reconditioned And Repaired By Aircraft Specialty, Tulsa OK. Camshaft Rejected And Three Lifter Bodys. Same was Replaced By Recondition units CRank Case Reconditioned By Divco of Tulsa Cyls were Chromed By HARRISON Engine Service at LaPort Ind See FAA forms 8130-3 for Authorized Release And Airworthiness Approval See Aircraft Specialties Ser work order 204223 for Details of work Performed Also Invoices # 111485 - 111047 For New Parts List. See HARRISON Engine Service

Date: 2011, 8-3 1 . Recording Tach Time: 5772.9 1 . Total Time in Service: 5772.9 1 . Description of Inspections, Tests, Repairs and Alterations:

Removed Engine for MAJOR overhaul 1 . Engine Dissambled Cleaned And Inspected All Steel Parts was Recertified And Repaired By Aircraft Specialty, Tulsa OK 1 . CAM Shaft Rejected And Three Lifter Bodys 1 . Same was Replaced By Recondition units 1 . CRank Case Reconditioned By Divco of Tulsa 1 . Cyls were Chromed By HARRISON Engine Service at LaPort Ind 1 . See FAA forms 8130-3 for Authorized Release And Airworthiness Approval 1 . See Aircraft Specialities Ser work order 204223 for Details of work Preformed Also Invoices # 111485 - 111047 For New Parts List 1 . See HARRISON Engine Service

OCR

10/3/79 Total Time 518.5
Completed Annual Inspection this date, per Beech Inspection Form P/N 118662D. Jacked aircraft, repacked wheel bearing check brakes and balanced all three tires. Installed exchanged nose wheel shimmy dampner S/N #0834 see release in rear of book. Performed retraction checks in normal and emergency modes. Lubed heater iris valve and cable. Installed O.H. Engine tachometer instrument see maintenance release tag rear of book. Serviced battery and hydraulic reservoir. Replaced both fuel cap large O rings. Installed new seal on cockpit vent window. Painted Tow Limits on nose gear strut. Repaired right hand deice boot line in nacelle. AD 76-07-12 complied with by next page ->

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Enter RAG-AI

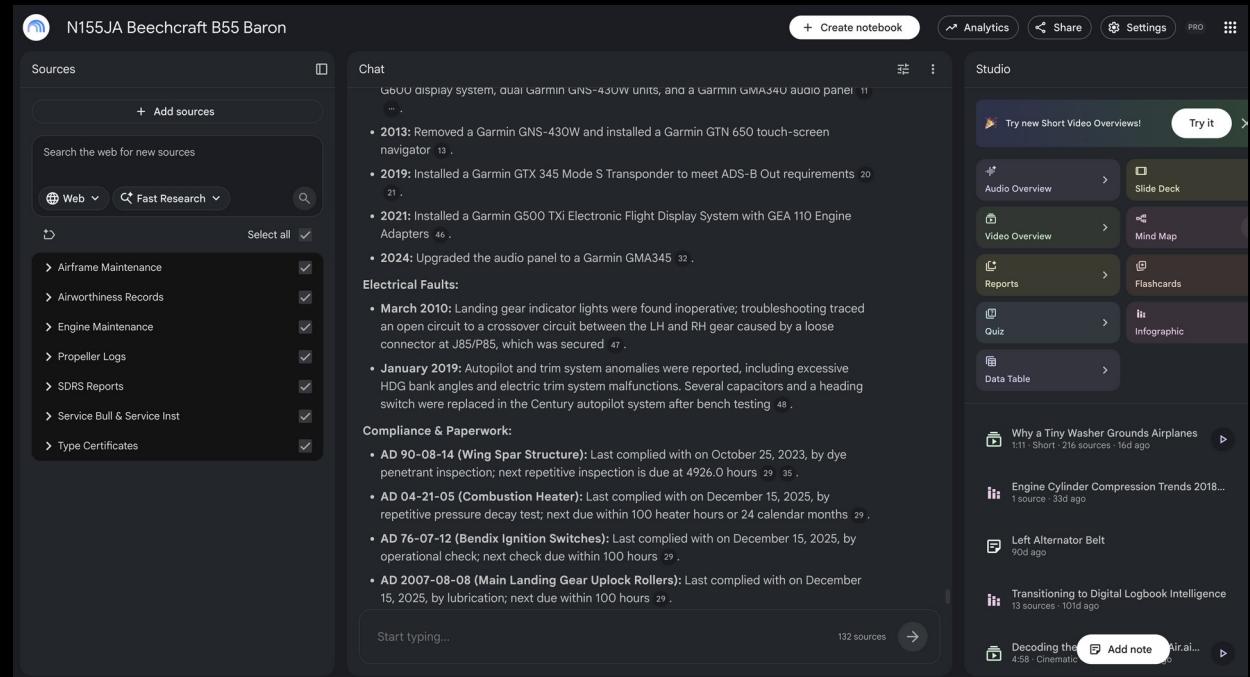
- Retrieval Augmented Generation (RAG)
- Restricted to the information given
- Does not “make stuff up”
- Errors are ones of missing items...

Google's GeminiNotebook

- Best General Purpose RAG-AI system
- Integrated with Google's handwriting OCR
- Pro Version: 300 notebooks and 500 queries/day
- FLAT RATE no per token charge (yet).

Gemini Notebook Setup

- Sources
- Chat Window
- Studio



Why ADs are Difficult

AIRWORTHINESS DIRECTIVES FINAL RULES: 84-26-02

CITATION: This information is not available.

PAGE NUMBER:

DOCKET NUMBER: Unknown

AMENDMENT: 39-4966

AD NUMBER: 84-26-02

SUBJECT HEADING: Airworthiness Directives; INDUCTION AIR FILTERS: Applies to all Paper Induction Air Filters Used in Small Airplanes

ACTION:

SUMMARY:

DATES: Effective January 29, 1985.

ADDRESSES:

FOR FURTHER INFORMATION CONTACT:

SUPPLEMENTARY INFORMATION:

REGULATORY TEXT:

84-26-02 INDUCTION AIR FILTERS: Amendment 39-4966. Applies to all paper induction air filters used in small airplanes.

Compliance: Required as indicated, unless already accomplished.

To prevent possible engine power loss or stoppage caused by engine ingestion of fragments of a deteriorated induction air filter, accomplish the following:

Within the next one hundred hours time-in-service after the effective date of this AD or prior to the accumulation of 500 hours time-in-service on the filter, whichever occurs later, and thereafter at intervals not exceeding 500 hours time-in-service on the filter:

- (a) Replace the air filter with a new filter that is FAA approved for the airplane installation.
- (b) Within 100 hours time-in-service replace any filter on which the time-in-service cannot be determined utilizing the airplane maintenance records for this determination. NOTE: This AD does not alter current maintenance procedures which require inspection of paper induction air filters at 100 hours time-in-service and annual inspections and replacement as necessary based on filter condition.

This amendment becomes effective January 29, 1985.

FOOTER:

Testing the Corpus

- Ask a question it can't know the answer to:

Who is Sky King?

Demos

- Some typical interactions

Demos

- Citations – why you use image PDFs