FAA Chart Usage by General Aviation Pilots

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Overview

- GA pilot usage of charts has evolved in recent years with the advent of EFBs and other technology
- A previous AOPA charting survey was conducted in 2012
- Due to anticipated FAA changes to aeronautical charting, AOPA conducted a new survey in November-December of 2025

2025 survey details

- The online survey ran from late November into early December
- We asked about:
  - Pilot demographics (i.e., IFR vs VFR flying, years of experience)
  - FAA chart types used
  - Preferences for paper vs. digital format
  - Avionics & EFB usage
  - Budget for charts & applications to support flying
  - Impact of changes to charting on flying habits

2025 survey details

- Distributed via AOPA newsletter & non-AOPA social media forum posts
- Total number of responses ~ 1200
  - ***Naïve 95% confidence interval is +/- 3% to represent the GA community***
  - Compared to overall FAA non-student pilot population:
    - AOPA survey respondents are usually PPL (vs. Commercial or ATP)
    - AOPA survey respondents are usually older
    - For this survey we intentionally oversampled Alaska pilots
    - Results for this survey overrepresent East Coast Pilots
    - Results for this survey overrepresent pilots who are comfortable with email and online surveys; ***pilots who only use paper are also less likely to respond to an online survey invitation***

Key demographics

IFR Rating:

- 66% of respondents were IFR rated
- 44% were IFR current
- 22% were flying IFR regularly

Experience Level:

- 55% started flying before 1990
- the average respondent has been flying for 36 years

Diverse responses

"It was difficult to let go of paper charts, but once I switched, there is no going back. I have saved a lot of trees."

"Encouraging new pilots to look down while flying at something strapped to their leg rather than out the window will eventually be seen as one of the stupidest trends in aviation history."

"Only fools use strictly electronic charts."

"Paper charts are relics of a bygone era. Like an E6B, but with less utility."

"EFB's are wonderful and make flying safer."

"If this survey intends to decide whether to KEEP paper charts in existence... then YES!!! KEEP PAPER CHARTS!!!"

"Keep paper sectionals available! And keep approach plates printable."

Response Themes

- Most respondents agree it is important for pilots to learn without relying on EFBs (i.e., use of pilotage, dead reckoning)

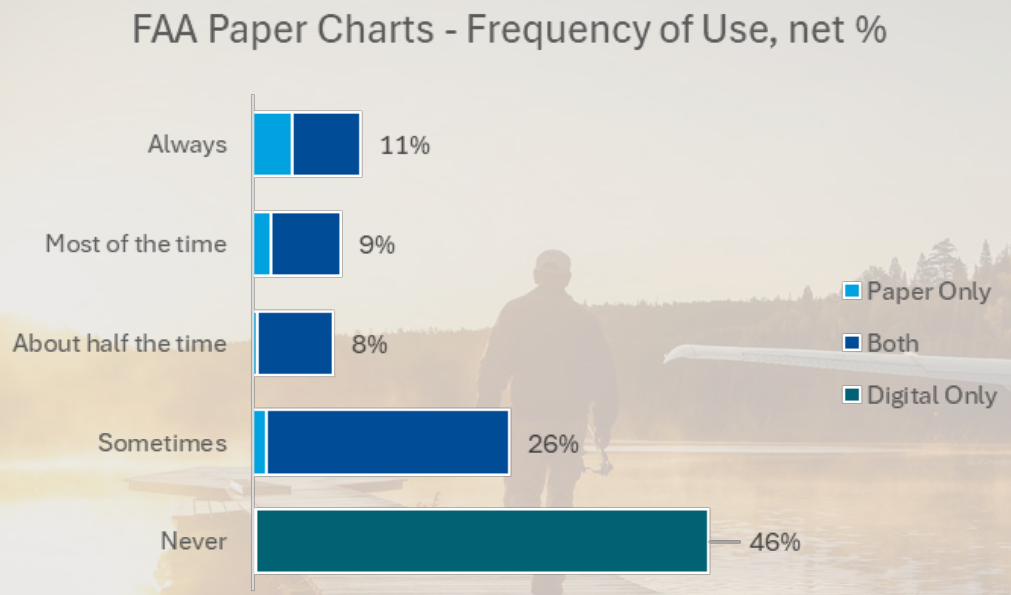
- A consistent theme amongst respondents is concern about device failures and the need to have paper charts for backup

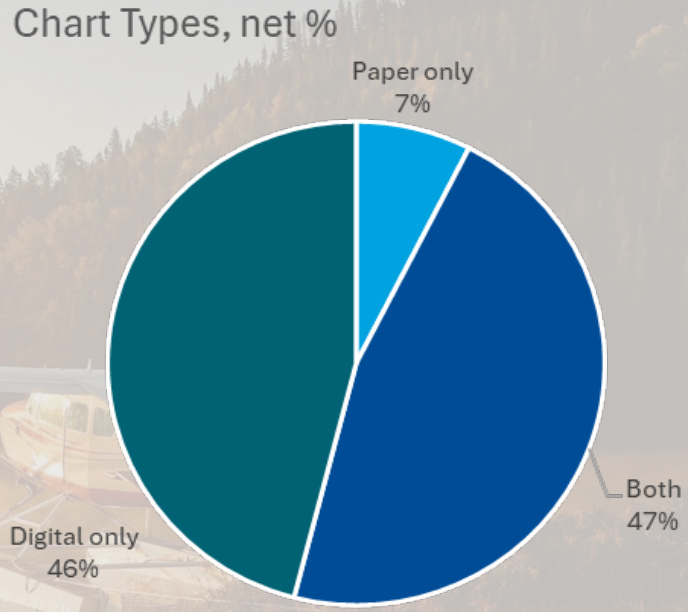
- There is also concern about GPS jamming/failures and the need for pilots to maintain situational awareness apart from GPS

EFB usage

- ***91% of respondents use an EFB*** either solely or in addition to paper charts
  - 75% use ForeFlight to some degree
  - 12% use Garmin Pilot to some degree
  - About 20% do not use ForeFlight or Garmin Pilot, they rely on other apps
- Pilots Flying IFR use EFBs to any degree:
  - 100% of respondents regularly flying IFR
  - 96% of those flying IFR occasionally
- 80% of non-instrument-rated respondents ***and*** non-current instrument rated pilots use an EFB to any degree

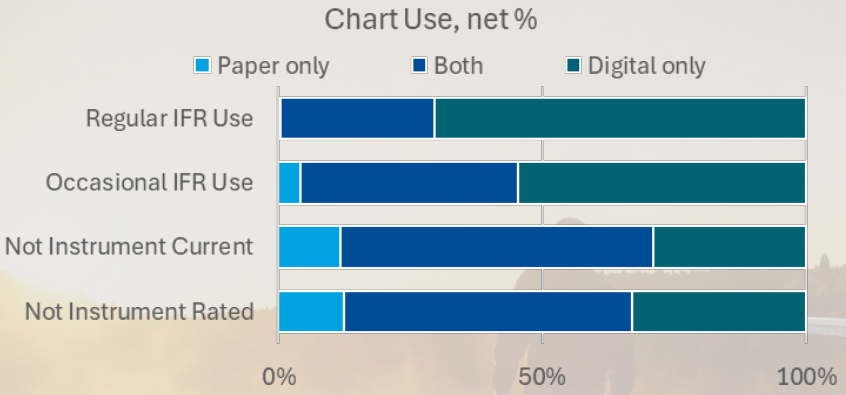
Paper Chart usage

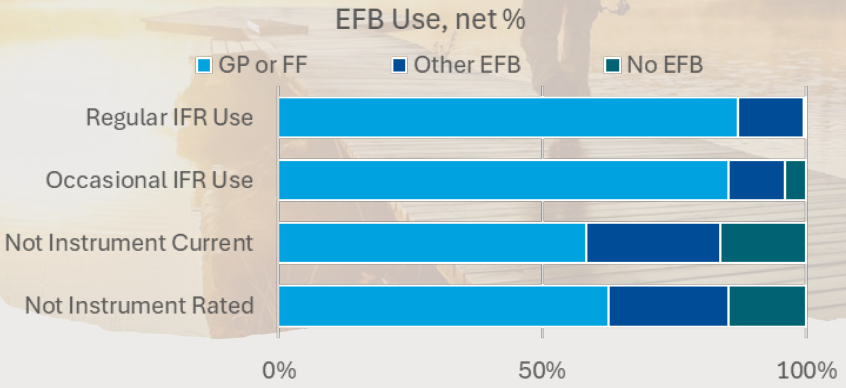




"Paper charts are more fun to explore; IF GPS ever goes down, better have and understand paper charts"

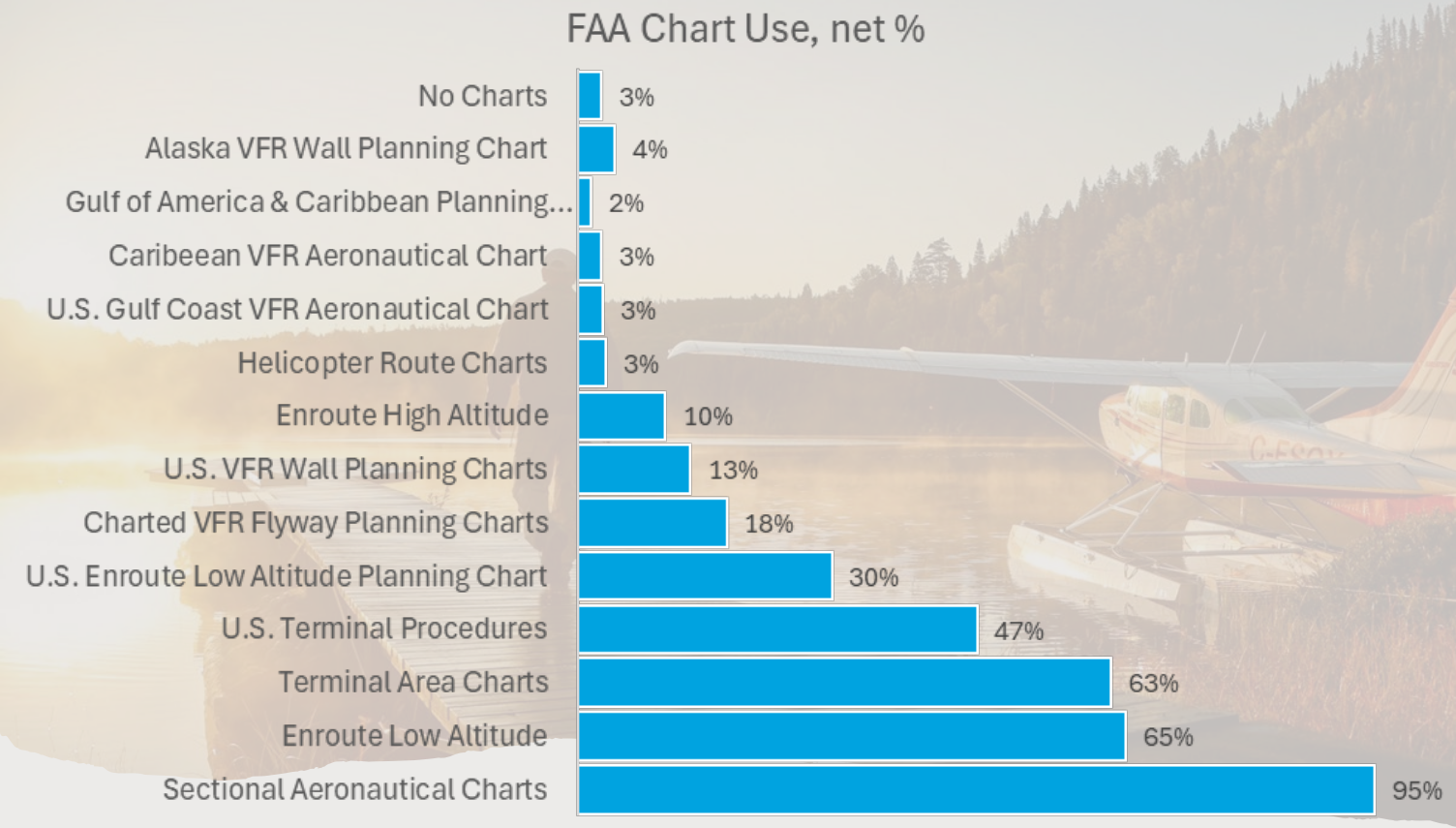
Resource Use by IFR Frequency



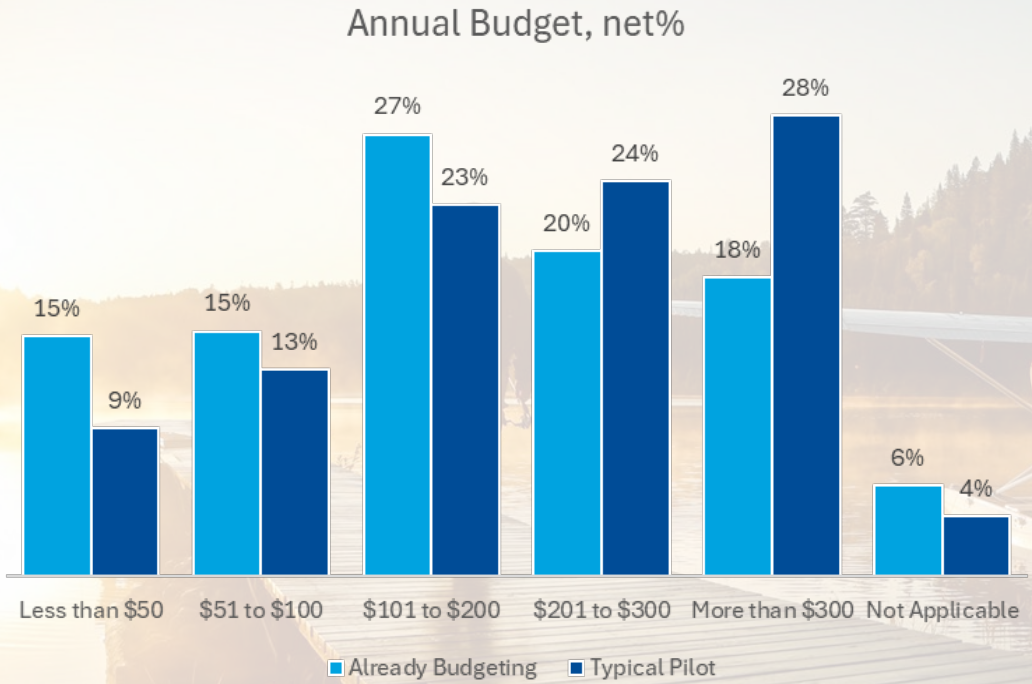


"Paper charts are much easier to get the big picture, but EFB tools are more effective for detailed planning "

FAA charting product usage

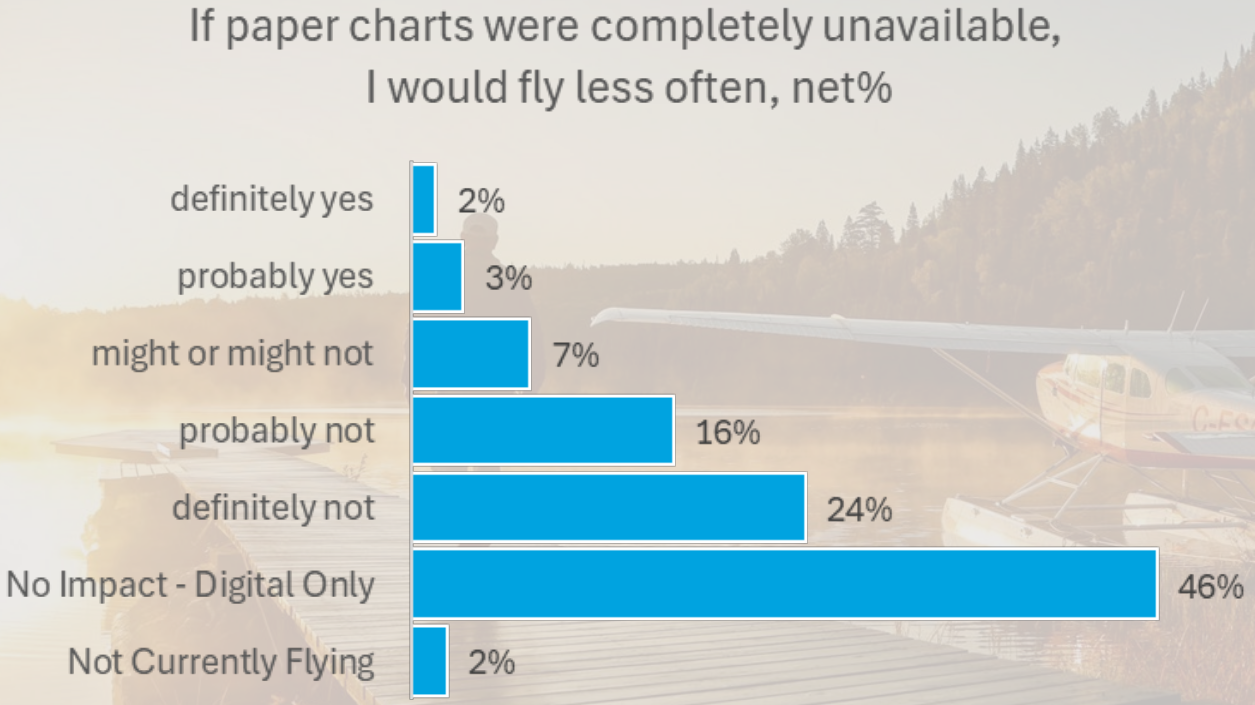


Charting/flight planning budget

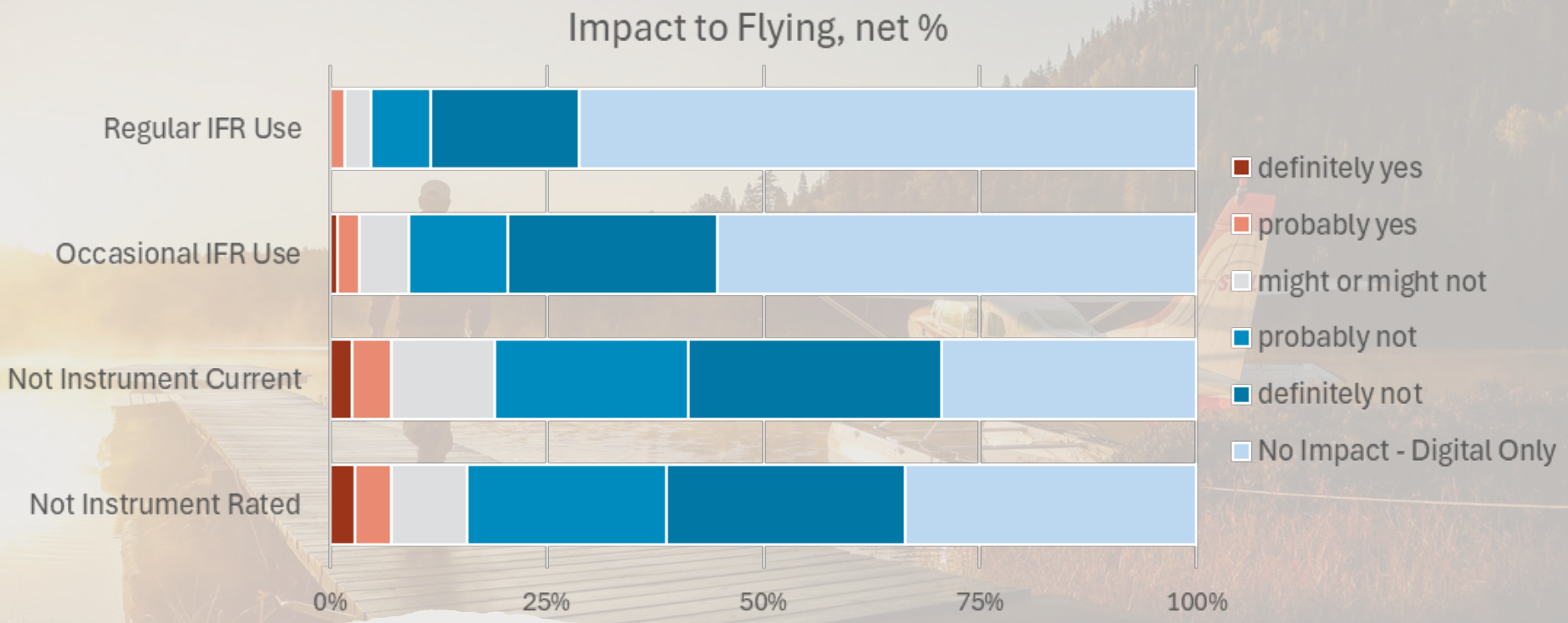


"Paper VFR sectional charts MUST be available, at current-level affordability pricing, with current-level paper quality, for many years to come. Learning to fly, for initial pilot training, should be done with paper charts .."

Impact of charting changes on flying

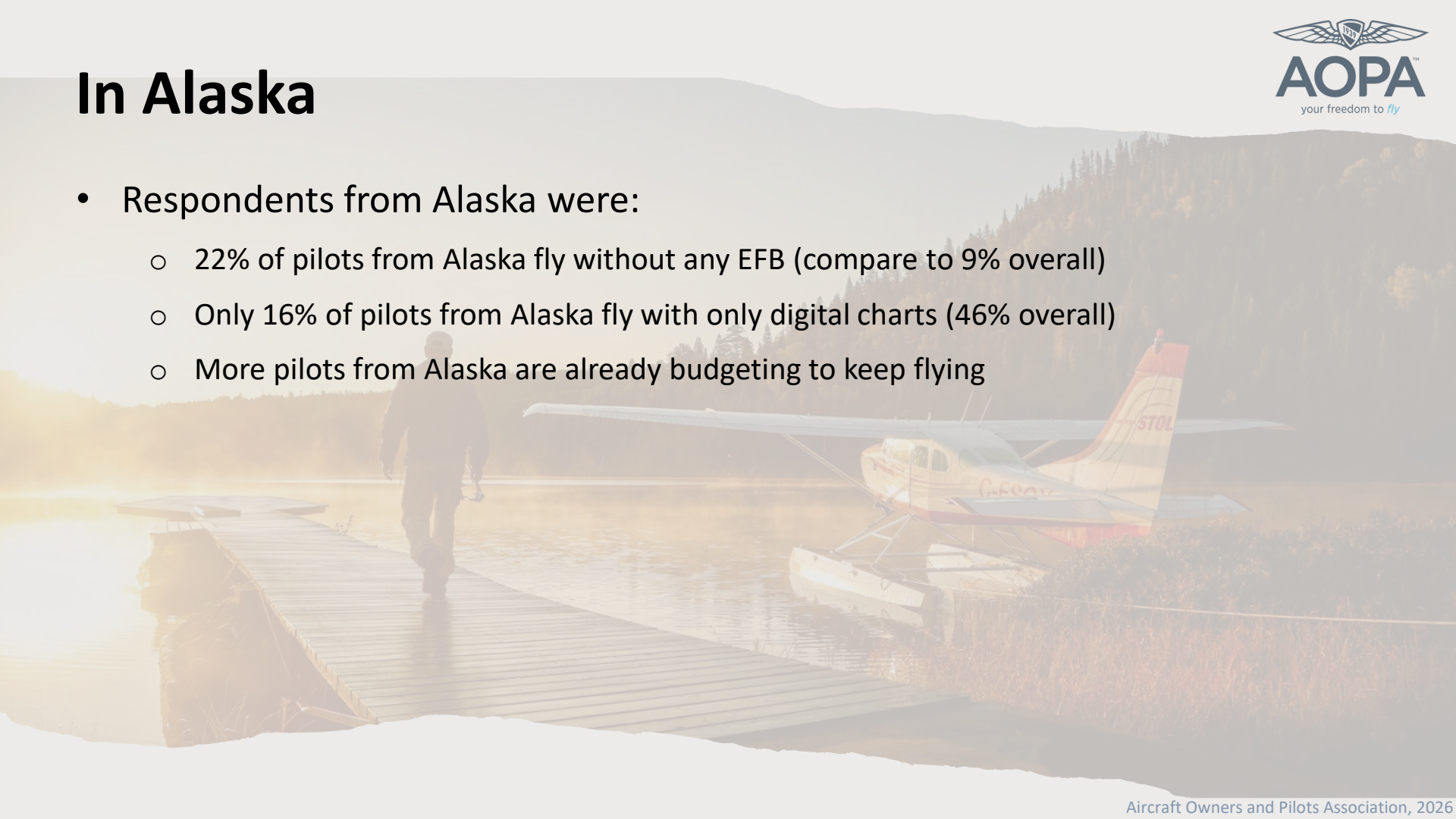


Impact of charting changes on flying



In Alaska

- Respondents from Alaska were:
  - 22% of pilots from Alaska fly without any EFB (compare to 9% overall)
  - Only 16% of pilots from Alaska fly with only digital charts (46% overall)
  - More pilots from Alaska are already budgeting to keep flying



AOPA position

- We acknowledge the need to move beyond paper and "paper-able" charts and that much of the process may shift to third-parties
- However, we advise a cautious approach, as there are strong opinions about paper vs. digital charts
- We would support a bifurcated approach
  - Paper or "paper-able" VFR charts should remain available in the short-term, though work should continue toward an eventual native digital format that allows advanced digital presentation
  - In the short-term, FAA and industry partners should begin the process to completely transition IFR charts to a native digital format

AOPA position - rationale

- VFR pilots
  - Utilize EFBs to a lesser degree
  - Have more operational limitations
  - Do more non-route-specific planning
  - Have a greater need to "look at the big picture"
- IFR pilots
  - Almost exclusively use an EFB with digital charts for both planning and in-flight
  - The complexity of IFR charts necessitates modernization

AOPA position - benefits

- This approach would address the most pressing concerns – depicting increasingly complex instrument procedures
- This would allow FAA to begin a transition with those operators likely most willing to accommodate the change
- This would allow more time for VFR pilots to become comfortable with digital charts before any further transition in the future

AOPA position - stipulations

- FAA must continue to provide standards and oversight to third-parties, ensuring necessary information is adequately displayed
- It is clear there must be some requirement to provide paper backup IFR charts – perhaps basic "bare-bones" printable charts for contingency use
    - A large subset of our respondents specified the importance of a backup in the event of device failure
    - There is an ICAO requirement requiring some level of paper
    - FAA may need to provide pilot guidance on backup devices and/or supplemental power requirements

Questions?



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