

The image features a stylized blue logo for 'Avionics for NextGen' overlaid on a semi-transparent view of an aircraft cockpit. The cockpit background shows various instruments, gauges, and control panels. The logo consists of the word 'Avionics' in a large, bold, blue, italicized sans-serif font. Below it, the word 'FOR' is written in a smaller, blue, all-caps sans-serif font, flanked by horizontal lines. At the bottom of the logo, the words 'NEXTGEN' are written in a large, blue, all-caps sans-serif font.

# Avionics

FOR

# NEXTGEN

[www.AvionicsForNextGen.com](http://www.AvionicsForNextGen.com)

# Digital Copilot

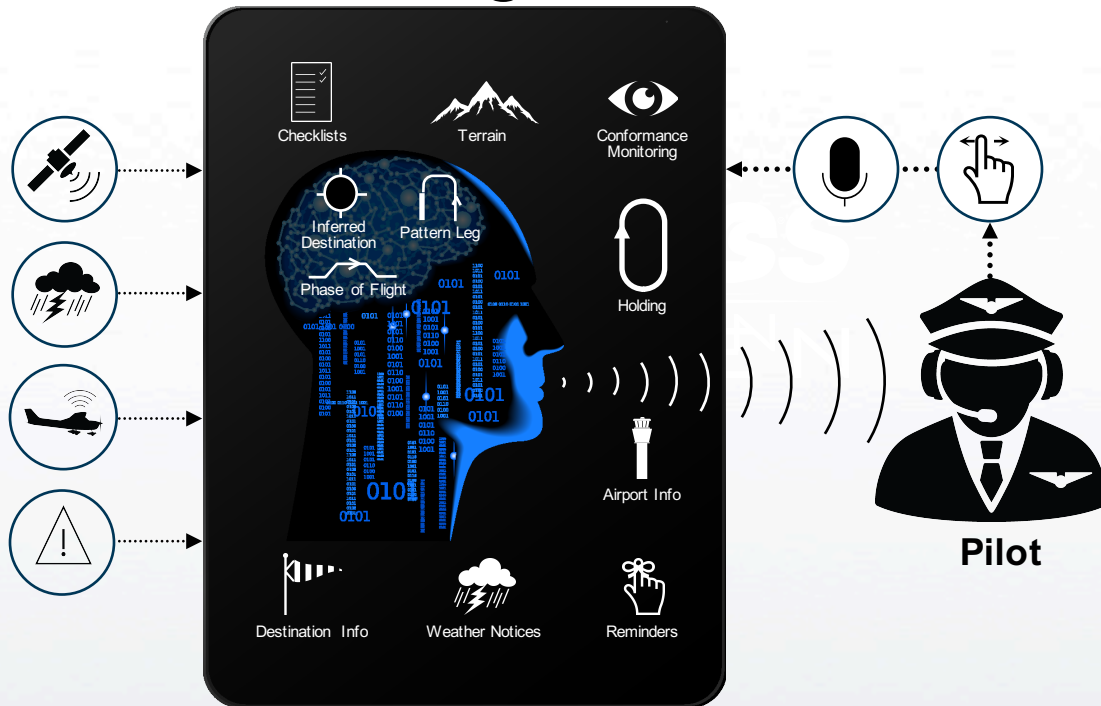
Using an EFB to provide some of the benefits of crew resource management to the single pilot flight deck

# What's The Problem With Single Pilot Operations?



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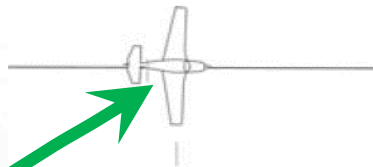
# What is a Cognitive Assistant?



# How Can It Help?

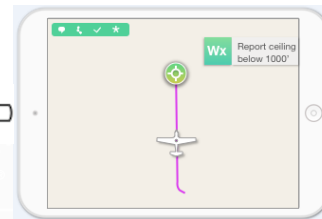


**Right Information**



*ATIS Frequency for  
Manassas is 125.175*

**Right Time**



**Right  
Format**



# Objective Measures

## Task Times

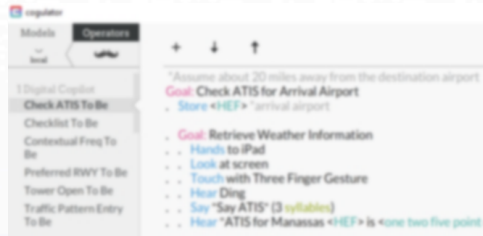


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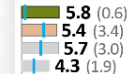
### Pilot Task Times Comparison

Digital Copilot compared to other Electronic Flight Bag (EFB) software

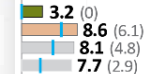
■ Digital Copilot | (0.55) = Pilot Head's Down Task Time  
■ EFB 1  
■ EFB 2  
■ EFB 3

Time in seconds

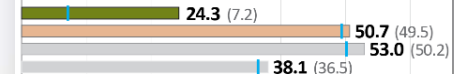
Determine Weather Frequency



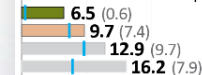
Determine Communication Frequency



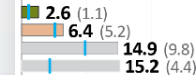
Review and Follow a Checklist



Determine if Tower is Open

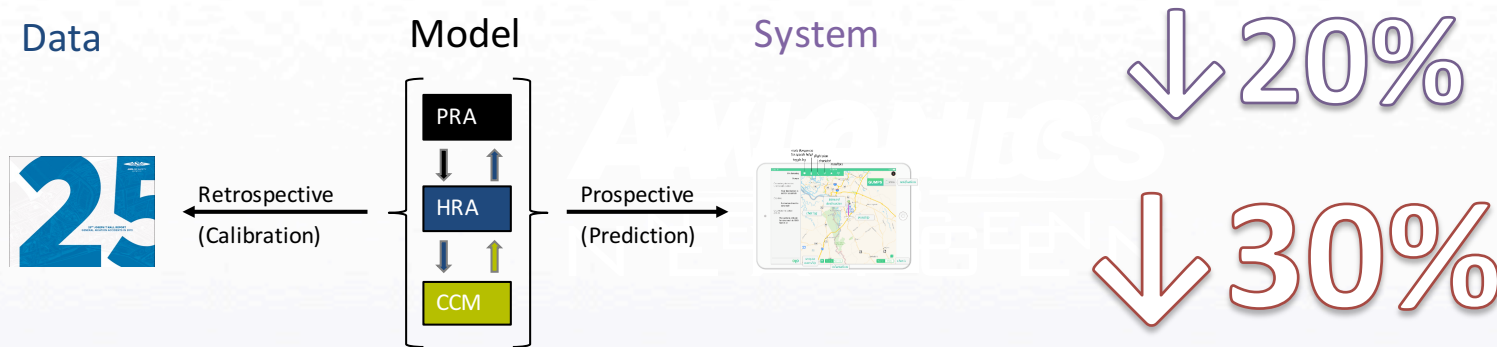


Determine Preferred Landing Runway



0 10 20 30 40 50 60

# Objective Measures Accident Rates



PRA – Probabalistic Risk Assessment  
 HRA – Human Reliability Analysis  
 CCM – Computational Cognitive Modeling

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