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FlightSafety International

Native Mobile App Design

Case Study • Aviation UX & AI

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Impact at a Glance

A legacy mobile training platform was reimagined as a native app with AI-powered scheduling, biometric login, and voice search — transforming how pilots manage training, compliance, and schedules.

42%
Reduction in scheduling friction

35%
Boost in app retention

90%
Task success rate

BEFORE !’ AFTER

Legacy web portal on mobile	!’	Native app with Face ID
Manual schedule searching	!’	AI-powered predictive scheduling
Call coordinator to book	!’	One-tap booking confirmation
No deadline reminders	!’	Smart push notifications

Pilots book, track, and manage training — hands-free, friction-free.

Executive Summary

CONTEXT

FlightSafety International is a Berkshire Hathaway company and the world's leading provider of professional aviation training. Their existing mobile tools relied on outdated interfaces that created friction for pilots managing training schedules, compliance, and course materials.

PROBLEM

Pilots and training coordinators faced fragmented, legacy mobile systems with poor usability — leading to scheduling friction, missed training requirements, and low app engagement. The tools did not meet the standards expected by modern aviation professionals.

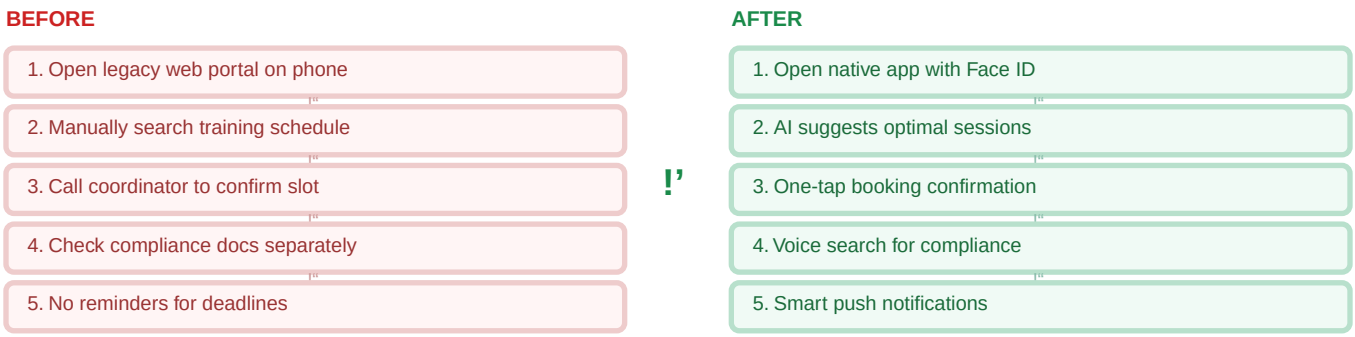
ROLE & SCOPE

As UX/UI Designer, I led the end-to-end design of a native mobile application — from wireframes and interaction design through micro-interactions and AI-powered feature design. The solution targeted the full Gulfstream training platform with biometric login, predictive scheduling, and voice-enabled search.

SOLUTION

A mobile-first native application with AI-powered scheduling, smart notifications, voice-enabled compliance search, and micro-interactions designed for the unique demands of aviation training workflows.

PILOT EXPERIENCE — BEFORE VS. AFTER REDESIGN



Result: 42% less scheduling friction • 35% higher retention • 90% task success rate

KEY METRIC

42% reduction in scheduling friction — the AI-powered predictive scheduler eliminated the most common source of pilot frustration, transforming a manual, error-prone process into an intuitive experience.

IMPACT

%ï 42% reduction in scheduling friction through predictive AI-powered scheduler.

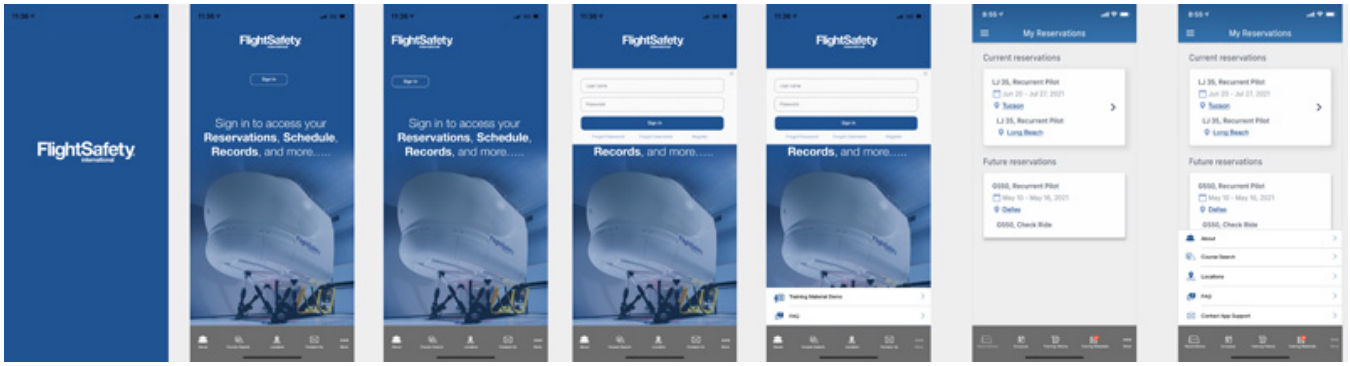
%ï 35% boost in app retention via smart reminders and personalized push notifications.

%ï 90% task success rate with voice-enabled search and biometric login.

FlightSafety International

Native Mobile App — UX/UI, Micro-Interactions and AI-Driven Features for Aviation Training.

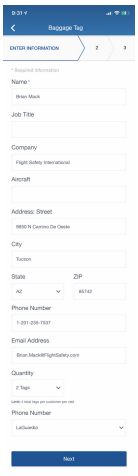
CLIENT	FlightSafety International
YEAR	2024
ROLE	UX/UI Designer
FOCUS	Mobile-First, AI/ML, Micro-Interactions



Login screen workflow — biometric authentication flow

THE CHALLENGE

- %ï Legacy mobile systems with poor pilot usability.
- %ï Complex schedule management creating friction.
- %ï Need for modern mobile-first aviation training tools.
- %ï Low app engagement and retention rates.
- %ï Compliance tracking was manual and error-prone.

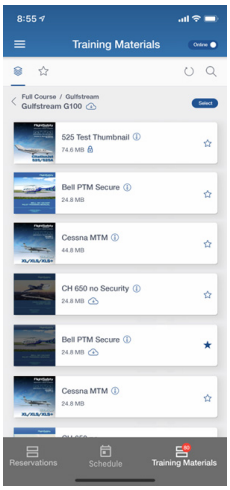


Digital baggage tag system — streamlined tracking interface

DESIGNING THE SOLUTION

The solution encompassed wireframes, interaction design, and biometric login for the full course Gulfstream platform. Key design decisions included:

- Mobile-first architecture prioritizing one-hand usability for pilots.
- Biometric authentication (Face ID / Touch ID) for frictionless, secure login.
- Progressive disclosure to manage complexity in training schedules.
- Contextual micro-interactions providing real-time feedback on user actions.

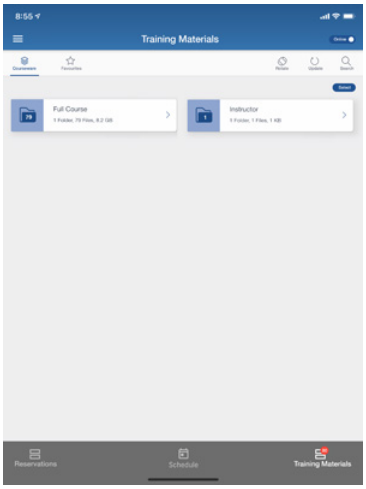


Training materials — course content and scheduling interface

AI-POWERED ENHANCEMENTS

Three AI-driven features were designed to differentiate the experience:

- Predictive Scheduler — optimal training sessions based on availability, compliance deadlines, and historical patterns.
- Smart Reminders — personalized push notifications for upcoming requirements, adapting frequency based on urgency.
- Voice-enabled Search — compliance tasks using speech recognition, allowing pilots to query training status hands-free.



Tablet-optimized view — training dashboard for instructors

IMPACT & RESULTS

42%	35%	90%
Reduced Scheduling Friction	Boost in App Retention	Task Success Rate

DESIGN PROCESS

1. Research & Discovery

- %ï Interviewed pilots and training coordinators to understand pain points.
- %ï Competitive analysis of aviation and enterprise mobile apps.
- %ï Mapped user journeys across scheduling, training, and compliance workflows.

2. Design & Prototyping

- %ï Created low-fidelity wireframes for core flows.
- %ï Designed high-fidelity UI with attention to aviation-specific needs.
- %ï Built interactive prototypes for usability validation.

3. Testing & Iteration

- %ï Conducted usability testing with pilots and training staff.
- %ï Iterated on navigation, scheduling flow, and notification design.
- %ï Refined micro-interactions based on user feedback.

WHAT I LEARNED

- %ï How interaction design can simplify complex aviation workflows.
- %ï Accessibility and AI can co-exist effectively in native apps.
- %ï Cross-functional collaboration with aviation SMEs was key to credibility.
- %ï Designing for high-stakes environments requires extreme attention to error prevention.

LET'S CONNECT

I'm available for senior product design roles and select consulting. I specialize in complex B2B systems, design operations, and UX research leadership.

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Thank you for reviewing this case study. I look forward to discussing how my experience can contribute to your team.