

ICARUS ONE

Portable In-Flight Entertainment System

Transform any aircraft into a connected passenger experience.
No modifications. No internet. No app downloads.

Starting at \$24,900

hardware cost

300+ Passengers

simultaneous

U.S. Patent + Pending

patent-protected IP

EAR99 Classified

U.S. export classification

Why Icarus One

- **No aircraft modification** — portable system, deploys in under 5 minutes, moves between aircraft as needed
- **Only portable IFE with an onboard AI flight attendant** — Anna VFA answers passenger questions in 30+ languages, entirely offline
- **Starting at \$24,900** — a fraction of installed IFE, with lower annual software costs than competing portable systems
- **U.S. Patent + Patent Pending** — U.S. Patent 10,193,945 (foundational architecture) + Patent Application 19/383,677 (Anna AI, USPTO Track-One prioritized examination)
- **EAR99 Classified** — no export license required for most destinations
- **Trusted by charter, VIP, and cargo operators across five continents**

The Icarus One at a Glance

The Icarus One is a fully self-contained, portable in-flight entertainment system that transforms any aircraft into a connected passenger experience — no aircraft modifications, no internet connection required, no app downloads needed.

Passengers connect via their own devices over onboard Wi-Fi and instantly access movies, music, 138 games, AI-powered assistance, real-time flight tracking, digital magazines, and more — all running locally at 35,000 feet.

The system serves up to **300+ passengers simultaneously*** from a single portable unit, deploys in under 5 minutes, and gives airlines complete white-label control over branding, content, and configuration through an intuitive admin panel.

** Systems are priced based on passenger capacity requirements. Contact us for configuration options.*

The Business Case

Cost Comparison

	Installed IFE (Panasonic/Thales)	Competitor Portable (AirFi/BlueBox)	Icarus One
Hardware	\$50,000–\$500,000+	\$15,000–\$40,000	Starting at \$24,900***
Installation	STC required, weeks–months downtime	Minimal	None — plug in and go
Annual Software	Varies	\$3,000–\$8,000/year	\$2,400/year
Year 1 Software	Varies	\$3,000–\$8,000/year	Included free
3-Year Total	\$80,000–\$525,000+	\$24,000–\$64,000	Starting at \$29,700***

**** Hardware pricing based on passenger capacity and connection requirements. Year 1 software (\$2,400 value) included with every hardware purchase.*

Operational Savings

- **Zero STC certification cost** — no aircraft modification, no engineering approvals, no downtime
- **Deploy in under 5 minutes** — move the same unit between aircraft as schedules change
- **Reduced crew workload** — Anna VFA handles passenger questions about menus, safety, flight status, and more
- **No internet dependency** — fully operational on routes with zero connectivity infrastructure
- **No dedicated IT staff required** — one admin panel manages all content, branding, and configuration
- **10+ hour battery life** — covers ultra-long-haul flights without external power

Revenue Opportunity

The Icarus One’s captive portal creates a direct channel to every connected passenger. Operators can surface duty-free catalogs, destination guides, food and beverage menus, and sponsored content through the platform — turning a cost

center into an ancillary revenue stream. With 300+ passengers per flight, the system functions as a commerce platform at altitude.

What It Costs Per Flight

Scenario	Legs/Year	3-Year Cost	Cost Per Flight
Charter operator (150 legs/yr)	450 flights	Starting at \$29,700	~\$66/flight
Regional airline (300 legs/yr)	900 flights	Starting at \$29,700	~\$33/flight
High-utilization (500 legs/yr)	1,500 flights	Starting at \$29,700	~\$20/flight

For comparison, installed IFE systems cost **\$130–\$875+ per flight** over the same period. The Icarus One delivers a premium passenger experience at a fraction of the cost — and the hardware moves between aircraft, multiplying the value across your fleet.

Passenger Entertainment

Movies & TV

A robust movie and TV platform with adaptive DASH streaming and smart playback features. Passengers browse by genre, search by title, and pick up exactly where they left off with automatic watch progress tracking. Metadata including ratings, cast, and descriptions are pulled automatically through a proprietary metadata retrieval system. The platform supports thousands of titles — content is acquired and loaded by the airline to match their licensing agreements and passenger preferences.*

Music

Complete album-based music library with artist information, cover art, genre browsing, and recently played tracking. Content teams can upload digital albums or rip directly from CD. Metadata is fetched automatically through a proprietary retrieval system.

Games

138 browser-based games — no downloads, no installs. The library spans classics like Chess, Solitaire, Poker, and Mahjong to modern favorites like 2048, Trivia, and Battleship. Multiplayer support lets passengers play against each other via a lobby system with session codes, or compete against AI opponents. An anti-cheat system ensures fair play, and game progress persists across sessions.

Digital Reading

A curated magazine library and custom document viewer give passengers access to publications, menus, safety cards, shopping catalogs, and airline briefings — all in a clean, full-screen reading experience.

Favorites & Continue Watching

Passengers can bookmark movies, music, and games to a personal "My List" and resume any content exactly where they left off. No accounts required — session tracking is automatic and seamless.

Anna — Virtual Flight Attendant

Anna is an AI-powered virtual flight attendant that lives directly on the Icarus One hardware. She answers passenger questions instantly — no cloud connection needed, no latency from ground servers.

What Anna Can Do

- **Flight Information:** "How long until we land?" "What's our altitude?" — Anna pulls real-time data from the aircraft's ADS-B receiver and responds in under 100 milliseconds.
- **Content Recommendations:** "What comedy movies do you have?" Anna searches the onboard library and makes personalized suggestions based on passenger preferences.
- **Document Queries:** "How much is coffee?" "Where are the emergency exits?" Anna searches uploaded airline documents and returns precise answers with source references.
- **Reminders & Alerts:** Passengers can set personal reminders ("Wake me 30 minutes before landing"), and Anna proactively shares turbulence updates and flight phase changes.
- **Conversational AI:** Anna maintains conversation context, remembers what you've discussed during the flight, and adjusts her tone — friendly during cruise, concise during turbulence. Beyond flight queries, Anna is a frontier-class conversational AI running entirely offline. Passengers can research topics, ask general knowledge questions, or chat casually — the same caliber of AI travelers use on the ground, available at 40,000 feet without an internet connection.

How It Works

Anna runs a three-tier AI model system directly on the Icarus One hardware. Simple queries (speed, altitude, ETA) are answered by a fast-path engine in under 100ms without touching the AI model at all. Conversational questions route to progressively more capable models based on complexity. The system automatically scales between tiers based on processor load to ensure consistent performance across all passengers.

Anna's architecture, including her zero-latency flight data integration and automated announcement system, is protected by **U.S. Patent 10,193,945** and **Patent Application 19/383,677** (filed under USPTO Track-One prioritized examination).

Anna in Action

Passenger: "How long until we land?"

Anna: "Based on current speed and position, estimated arrival at London Heathrow is 2 hours and 14 minutes. We're currently at 38,000 feet over the North Atlantic."

Passenger: "What comedy movies do you have?"

Anna: "I found 12 comedies in the library. A few popular picks: The Grand Budapest Hotel, Knives Out, and Bridesmaids. Want me to start one?"

Passenger: "How much is coffee?"

Anna: "From today's in-flight menu: coffee is complimentary. We also have espresso (\$4) and cappuccino (\$5). Would you like to see the full beverage menu?"

Flight Tracking & Information

Real-Time 3D Satellite Flight Map

A stunning satellite-imagery flight map shows passengers exactly where they are, where they're going, and what's below. The map runs entirely offline using 15 million locally stored satellite tiles and renders in full 3D with five interactive camera perspectives: follow, left, right, chase, and front.

Live ADS-B Integration (Patent Protected)

The Icarus One connects to an onboard ADS-B receiver to pull real flight parameters directly from the aircraft — altitude, speed, heading, vertical rate, and GPS position. This is real data, not simulated. The system detects emergency squawk codes and flight phase transitions automatically.

Points of Interest

A database of 3.4 million global locations — cities, capitals, landmarks, mountains, volcanoes, islands, national parks — lets passengers see what they're flying over. POI data includes distance in nautical miles, bearing relative to the aircraft, and educational details like population and elevation.

Flight Status Display

At-a-glance status chips show route (e.g., SYD → ORD), current phase (takeoff, cruise, descent), altitude, speed, ETA, and progress percentage.

Automated Announcements (Patent Protected)

The Flight Monitor Service watches altitude, speed, and vertical rate data from the ADS-B receiver and automatically triggers announcements at key moments — takeoff, cruise altitude reached, beginning descent, turbulence detected. Announcements support 13+ languages** and include cooldown timers to prevent repetition.

Passenger Services

Captive Portal Wi-Fi

Passengers connect to the onboard Wi-Fi and are automatically redirected to the Icarus One interface — no URL to type, no instructions needed. The portal handles iOS, Android, Windows, macOS, and Firefox detection seamlessly.

13-Language Support**

The entire interface is available in English, Spanish, French, German, Russian, Bulgarian, Turkmen, Turkish, Chinese, Japanese, Arabic, Hindi, and Urdu. Right-to-left layout support is included for Arabic and Urdu.

*** Additional languages available upon client request, subject to availability.*

Accessibility

Four accessibility modes ensure every passenger can use the system comfortably: large text, high contrast, reduced motion, and a dyslexia-friendly font option. Settings persist across the session and automatically respect OS-level preferences. The system renders correctly across screen sizes from smartphones to tablets.

Passenger Feedback

An in-flight feedback form lets passengers rate their experience by category — entertainment, crew, food, comfort — with anonymous submission and optional free-text comments. Airlines review feedback in real time through the admin panel, with aggregate scores per flight and trend data across routes. Exports as CSV.

Progressive Web App

Passengers can install the Icarus One interface as a native-feeling app on their device — no app store required. The PWA works offline if Wi-Fi drops, pre-caches critical assets, and provides a fullscreen experience. Supports iOS, Android, Windows, macOS, and ChromeOS.

Airline Administration

Content Management System

A browser-based admin panel lets airline staff manage the entire content library without technical knowledge. Upload movies with automatic metadata retrieval. Add music albums or rip directly from CD with automatic metadata tagging. Upload magazines and documents with automatic thumbnail generation. Activate, deactivate, or remove content with a click.

White-Label Branding

The Icarus One becomes your airline's product. Upload your logo, set your brand colors, choose from four built-in theme presets (or create your own), set a custom background image, and configure your airline name — all from the CMS. Every passenger-facing page, the PWA manifest, and even the AI assistant's name and avatar update automatically.

AI Theme Extraction

Point the system at your airline's website and the AI-powered theme extractor automatically captures your brand colors, then generates a matching IFE theme. Refine it conversationally — "make it darker," "more blue" — until it's perfect, then apply with one click.

Analytics Dashboard

Track active users in real time, identify the most popular content, measure page dwell times, analyze device types, and monitor Anna AI query patterns. Export reports as CSV or JSON for integration with your existing analytics workflows.

Flight Route Management

Pre-program flight routes with origin and destination airports, add waypoints for accurate path rendering on the map, and manage an airports database with IATA/ICAO codes. Demo mode supports trade show presentations with simulated flights.

Anna AI Configuration

Fine-tune the virtual flight attendant from the admin panel. Toggle AI on or off, select model tiers, adjust response parameters, view conversation logs, monitor performance metrics, test responses before deploying, and manage Anna's document knowledge base.

License Management

Subscription-based licensing with automatic expiration tracking, grace period warnings at 14 and 3 days, and a graceful lockout that displays a custom message rather than a hard failure.

Crew Tools

Crew Portal

A dedicated interface for flight crew with quick access to announcements, messaging, flight status, and passenger feedback.

Crew Chat

Private crew-to-crew messaging for silent coordination during flight — no passenger-audible intercom needed. Includes broadcast messages, quick templates for common situations, read receipts, and unread indicators.

Announcement System

Create and schedule passenger announcements with priority levels, duration timers, and automatic media pausing. When triggered, all passenger media pauses instantly. Multi-language support ensures all passengers receive announcements in their selected language.** Save common announcements as reusable templates.

System & Diagnostics

Hardware Monitoring

Real-time dashboards display CPU usage, RAM utilization, disk space, GPU status, and temperature sensor readings accessible from the admin panel.

Health Endpoints

Standard health and readiness endpoints support uptime monitoring. SLO monitoring tracks that 90% of AI requests complete within 3 seconds.

Automation

30+ custom command-line tools automate maintenance tasks — generating help content, importing POI databases, benchmarking AI model performance, cleaning analytics data, extracting themes, and checking for updates.

Debug Tools

A diagnostic panel provides live game session monitoring, anti-cheat violation reports, player behavior analysis, and session management for troubleshooting.

Trusted by Operators Worldwide

Trusted by charter, VIP, and cargo operators across five continents

"It is amazing! The AdonisOne in-flight entertainment systems brought our B767 fleet's IFE system into the 21st century!"*

— Gareth Evans, Aeronexus (South Africa)

"We purchased 5 AdonisOne LX in-flight entertainment systems for our charter operations and our uplifts have increased 18 percent!"*

— Dirk Vandersterre, Titan Aviation Group

* AdonisOne is the former product name for the Icarus One IFE System. Same technology. Same team. New name.

Recommended Configurations by Operator Type

Part 135 Charter Operators

Charter operators need a system that impresses high-value clients, deploys fast between aircraft, and requires zero permanent installation.

- Portable hardware with no aircraft modification — move between aircraft in minutes
- White-label branding lets you present under your client's brand or your own
- Anna VFA delivers a white-glove concierge experience that differentiates premium service
- Full entertainment library (movies, music, 138 games) for long-range legs
- Real-time flight tracking with 3D satellite map gives clients a first-class experience
- Automated passenger announcement system with media pausing for crew communications
- Minimal IT overhead — one admin panel manages everything
- AI theme extraction matches client branding automatically from their website

Recommended: Full entertainment suite, Anna VFA enabled, white-label branding active, POI system curated for common routes.

Regional Airlines

Regional carriers compete with mainline passenger experience on tighter budgets and shorter routes.

- Completely offline operation — critical for routes with no connectivity infrastructure
- No app download required — passengers connect via Wi-Fi and start immediately
- Games and shorter content (music, magazines) are perfect for 1–3 hour flights
- Flight tracking map with POI gives passengers a "big airline" feel
- 13-language support serves diverse regional passenger bases (additional languages upon request)**
- Automated announcement system pauses all media during crew communications and critical flight phases
- Analytics help optimize a smaller content library for maximum engagement

- Low-maintenance admin CMS can be managed by existing staff without dedicated IT
- Passenger feedback system captures real-time satisfaction data

Recommended: Curated entertainment library focused on shorter content, games prioritized, Anna VFA for flight info queries, analytics enabled for content optimization.

Mainline Airlines

Mainline carriers need scalability, deep brand integration, compliance features, and robust crew coordination across large fleets.

- White-label depth — full CSS theming system, AI theme extraction, logo/background/name customization ensures brand standards compliance
- 13-language support with RTL for global route networks (additional languages available upon request)**
- Accessibility compliance (large text, high contrast, reduced motion, dyslexia font)
- Automated passenger announcement system that pauses all media during critical flight phases or crew communications, with multi-language delivery
- Role-based access control (admin, crew, super_admin) for fleet-wide management
- Crew chat and announcement system for coordinated cabin operations
- Analytics dashboard with exportable reports for integration with airline BI systems
- License management with automated expiration tracking
- Content licensing tracking for rights management across regions
- Automated flight-phase announcements reduce crew workload

Recommended: Full feature deployment, all languages enabled, crew tools active, analytics integrated with airline reporting, content library managed by dedicated media team.

Cargo Operators

Cargo crews on long-haul flights deserve entertainment and flight awareness too. The Icarus One fills a gap that traditional IFE companies ignore entirely.

- Lightweight portable deployment — no cabin infrastructure needed, works in cockpit or crew rest area
- Entertainment library keeps crews engaged on 10+ hour legs
- Real-time ADS-B flight tracking with 3D satellite map and POI for situational awareness
- Anna VFA provides instant flight data queries without distracting from duties
- Minimal user count means lower hardware requirements and cost
- Crew chat enables silent coordination between cockpit and crew rest
- Feedback system captures crew satisfaction for quality-of-life improvements
- Offline operation is essential for cargo routes with no connectivity

Recommended: Core entertainment (movies, music, games), Anna VFA for flight info, flight tracking enabled, crew chat active, streamlined admin with minimal content management overhead.

Feature Comparison Matrix

Feature	Part 135 Charter	Regional Airlines	Mainline Airlines	Cargo Operators
Passenger Entertainment				
Movies & TV (DASH streaming)*	✓	✓	✓	✓
Music Library (album-based)	✓	✓	✓	✓
Games (138+ titles, multiplayer, AI)	✓	✓	✓	✓
Digital Magazines	✓	✓	✓	■
Custom Documents	✓	✓	✓	■
Anna Virtual Flight Attendant				
Conversational AI (3-tier, offline)	✓	✓	✓	✓
Real-Time Flight Data (<100ms)	✓	✓	✓	✓
Document Knowledge Base	✓	✓	✓	■
Proactive Reminders & Alerts	✓	✓	✓	✓
Content Recommendations	✓	✓	✓	✓
Flight Tracking				
3D Satellite Map (offline, 15M tiles, 5 views)	✓	✓	✓	✓
Live ADS-B Integration (patent)	✓	✓	✓	✓
3.4M+ Points of Interest	✓	✓	✓	✓
Auto Flight Phase Announcements	✓	✓	✓	■
Passenger Services				
Captive Portal Wi-Fi	✓	✓	✓	✓
13-Language Support (incl. RTL)**	✓	✓	✓	■
Accessibility (4 modes)	✓	✓	✓	■
Announcement System w/ Media Pause	✓	✓	✓	■
Passenger Feedback System	✓	✓	✓	✓
PWA (installable, offline)	✓	✓	✓	✓
Administration				
Content Management	✓	✓	✓	✓
White-Label Branding (full)	✓	✓	✓	■
AI Theme Extraction	✓	■	✓	—
Analytics Dashboard	✓	✓	✓	■
Flight Route Management	✓	✓	✓	✓
License Management	✓	✓	✓	✓
Anna AI Admin Configuration	✓	✓	✓	✓
Crew Tools				
Crew Portal	✓	✓	✓	✓
Crew Chat (private messaging)	■	✓	✓	✓
Role-Based Access	✓	✓	✓	✓
System				
Hardware Monitoring	✓	✓	✓	✓
Health & SLO Monitoring	■	✓	✓	■

Feature	Part 135 Charter	Regional Airlines	Mainline Airlines	Cargo Operators
Diagnostic Tools	✓	✓	✓	✓
Fully Offline Operation	✓	✓	✓	✓

Legend: ✓ Recommended · ■ Optional · — Not typically needed

* Movie and TV content is provided by the client.

** Additional languages available upon client request, subject to availability.

Technical Specifications

Specification	Detail
Capacity	300+ simultaneous passengers*
Connectivity	Self-contained Wi-Fi access point system
Internet Required	No — fully offline operation
Aircraft Modification	None — portable deployment
Passenger App Required	No — browser-based PWA
Content Formats	DASH video, MP3/FLAC audio, PDF, Word, and most common document formats
AI Models	3-tier offline AI system
Map Tiles	15 million offline satellite tiles (zoom 0-12), full 3D, 5 camera perspectives
POI Database	3.4 million global locations across 14 categories
Languages	13 included (incl. RTL). Additional upon request.**
Accessibility	4 modes (large text, high contrast, reduced motion, dyslexia)
Theme Presets	4 built-in + unlimited custom
Games	138+ titles, added/removed/updated per client request
RAM	32GB
Storage	4TB SSD
Battery Life	10+ hours
Setup Time	Under 5 minutes
Patent Protected	U.S. Patent 10,193,945; Patent App. 19/383,677 (Anna AI — Track-One)

* Systems are priced based on passenger capacity requirements.

** Additional languages available upon client request.

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See It Live in 15 Minutes

Request a live walkthrough — 3D satellite flight map, Anna VFA, entertainment library, and admin panel in a single session.

Your first year of software (\$2,400 value) is included free.

Patent-protected technology. U.S. Patent 10,193,945 and Patent Application 19/383,677.
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