



FOR-DEC Operational Decision-Support System

"Turning uncertainty into structured intelligence in aviation."

Transforming In-Flight Decision-Making

Commercial aviation faces increasing operational complexity. Crews are confronted with time-critical situations—engine failures, smoke, severe turbulence, medical incidents—where every second matters. Today, decisions often rely on experience and intuition under stress.

Kairos Aeroespacial introduces **FOR-DEC**, the world's first AI-assisted, structured decision-support system built for the cockpit environment.

The Concept

Based on the internationally recognised **FOR-DEC model** (Facts, Options, Risks, Decision, Execution, Check), our system provides pilots with:

- A clear, step-by-step framework for abnormal and emergency scenarios.
- Real-time analysis of operational data to support consistent, auditable decisions.
- Seamless integration with airline procedures, ATC communication, and training programs.

Instead of improvisation, crews gain a **digital ally** that brings discipline, speed, and clarity into the decision process.

Imagine a captain facing smoke in the cockpit—within seconds, FOR-DEC brings order, guiding the crew through each step with clarity and calm.

01

Facts

Gather and analyse situation data

02

Options

Identify available courses of action

03

Risks

Evaluate potential consequences

04

Decision

Select optimal response strategy

05

Execution

Implement chosen action plan

06

Check

Monitor and verify outcomes

Market Potential

Every day, thousands of flights face operational challenges that demand immediate decisions. From technical malfunctions to sudden weather changes, structured support can drastically reduce errors, improve safety margins, and optimise outcomes. Airlines are actively seeking **next-generation human-in-the-loop tools** that enhance resilience and safety culture.

87K

Daily Commercial Flights

Worldwide operations requiring
decision support

15%

Operational Disruptions

Flights facing unexpected
challenges daily

\$42B

Annual Safety Investment

Global airline spending on safety
systems



Social and ESG Impact



Safety

Pilots are supported to make better, faster, and safer decisions under stress.



Operational Excellence

Consistency in critical decision-making strengthens airline safety management systems.



Sustainability

Avoided diversions and optimised responses reduce unnecessary fuel burn and emissions.



Training Value

Validated in Full Flight Simulators, FOR-DEC also becomes a standard tool in pilot training.

Risks and Mitigation

Certification

Developed in line with EASA guidelines on AI and decision-support systems.

Integration

Modular and non-invasive, compatible with Electronic Flight Bags (EFBs) and airline ops systems.

Validation

Co-developed with universities and validated in our A350 Full Flight Simulator, ensuring robust testing before operational rollout.

Regulatory Alignment

Fully aligned with the objectives set out in EASA's **Artificial Intelligence Roadmap**, ensuring compliance with the European vision for safe and human-centric AI in aviation.



Strategic Invitation

Kairos Aeroespacial invites **strategic partners and visionary investors** to join in setting a new benchmark for aviation safety.

With FOR-DEC, decision-making in the cockpit evolves from fragmented intuition to structured, intelligent support—reshaping the future of airline operations.

Partnership Opportunities

- Technology integration partners
- Airline early adopters
- Training organisations
- Regulatory consultants

Investment Focus

- Product development acceleration
- Certification pathway funding
- Market expansion strategy
- Strategic partnerships

