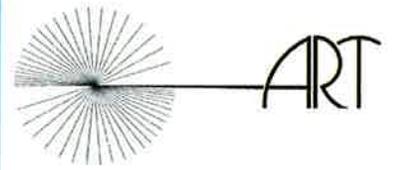# Advanced Rotorcraft Technology, Inc.

ART

COMPANY OVERVIEW

FLIGHTLAB© Development Software,

Real-time Models,

HeliFlight© R&D and Training Simulators,

FlightLine Training Simulators,

Virtual Training Suite,

Computational Fluid Dynamics,

Research and Development.

The

ART

of simulation.

Company

Advanced Rotorcraft Technology, Inc. (ART) designs, develops, and markets helicopter and fixed-wing simulation productivity tools and low-cost, high fidelity flight simulators for engineering and pilot training applications.

The

ART

of simulation.

Advanced Rotorcraft Technology, Inc. (ART) was founded in 1982 as an aerospace consulting firm that emphasizes the application of cutting edge methods of analysis to the highly specialized technical problems of the aerospace industry, particularly the rotorcraft field.

Advanced Rotorcraft Technology, Inc. (ART) was founded in 1982 by Dr. Ronald Du Val. His vision was to provide consulting support, software products, and simulators to facilitate the use of simulation technology in aerospace research and development. ART has built upon this vision with extensive software, simulation, hardware engineering, system engineering, and research and development experience. The majority of ARTs technical staff hold a Ph.D. in Aerospace Engineering. Our core competency is flight dynamics and flight simulator development.

Through effective teamwork, our rotorcraft specialists and computer scientists have created a set of simulation productivity tools that has revolutionized rotorcraft engineering software. ART's FLIGHTLAB Development System is the Industry's leading rotorcraft modeling and analysis tool. Real time rotorcraft flight dynamics models that ART has produced using FLIGHTLAB are heavily used in Military training simulators. ART's SIMphony has provided a cost effective and user friendly run time infrastructure software platform for integrating FLIGHTLAB models with users' hardware and software applications. Building on our rotorcraft expertise, ART has developed a version of FLIGHTLAB to support fixed wing applications, using component level modeling of the aerodynamics to extend the physics-based modeling used in our rotorcraft models to fixed wing applications.

In addition to providing specialized consulting services in rotorcraft technology and providing simulation productivity software tools, ART has also developed high fidelity flight simulators by using our extensive experience in simulator integration and testing to combine our software with state-of-the-art Commercial-Off-The-Shelf (COTS) simulation hardware

As we enter our second quarter century, ART continues to provide the excellence in customer service that has earned us the respect of the aerospace community. In addition to a project team, every customer at ART is assigned a specialist who is best suited to the customer's particular application. This specialist then acts as a liaison between the customer site and other engineers at ART to efficiently orchestrate the rapid solution of customer project related issues.

It is every ART processional's goal to ensure that our products are being utilized to their fullest potential, thereby helping our clients to meet their stringent project budgets and deadlines.

All products and consulting projects delivered by ART are backed with extensive documentation, customer training, and support. Training may be conducted at the customer site or at the Advanced Rotorcraft Technology main office located in Sunnyvale, California. The office is conveniently located off Highway 101, near Stanford University and the NASA Ames Research Center.

Products and Services

Our unique software development and hardware background allows us to manufacture fully integrated, cost effective, COTS simulators without the need to outsource the high-fidelity dynamic modeling.

Consulting / Software Support / Professional Services - ART has an experienced and professional staff that includes world renowned researchers. We have extensive experience in the integration and testing of advanced simulation systems. ART support services are available through the Government Services Administration (GSA) to facilitate Government contractual arrangements.

Commercial Products – ART's flagship product, FLIGHTLAB, combines first physical principle based, object oriented modeling, prototyping, analysis, and real-time simulation of virtually any nonlinear multi-body dynamic system in one easy to master engineering tool. FLIGHTLAB offers the engineering and simulation community the ability to rapidly model, analyze, and generate real-time simulations of highly complex systems such as helicopters, fixed-wing aircraft, and spacecraft. These mathematical models can be built and simulated from the library of tested modeling components with virtually no computer programming and may be easily integrated with almost any simulation facility environment.

FLIGHTLAB Model Editor
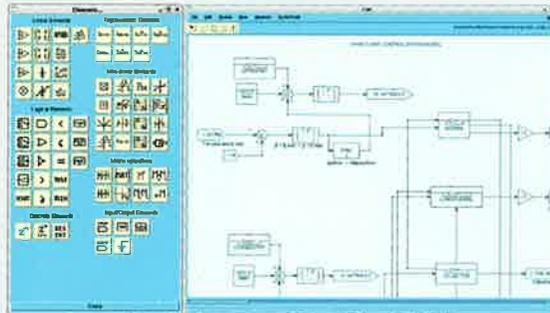
Control System Graphical Editor

Aircraft Flight Dynamic Models – A range of commercial off the shelf flight dynamics models are available to simulator manufacturers for integration. ART can also develop a custom flight model for any fixed wing or rotary aircraft certifiable to FAA Level 'D'. Flight Dynamic models can be developed from aircraft data or from flight test data. ART can also manage an aircraft flight test program.

Custom Simulators – ART produces custom simulators for fixed wing or rotary aircraft to satisfy specific customer requirements. ART can also provide subsystem simulation, part task trainers, virtual trainers, and any combination thereof, integrated with our flight dynamics models and tested to any desired certification requirements. ART simulators can support the latest glass cockpit technology. We can stimulate or simulate modern aircraft avionics for integration into our custom flight simulators.

The ART of simulation.

Advanced Rotorcraft Technology, Inc. (ART) designs, develops, and manufactures high fidelity, low cost flight simulator systems to military and commercial customers.

Our goal is to maximize our engineering skills to produce fully integrated simulators at significantly reduced costs to our customers.

Customers and Projects

Customers

- U.S. Navy/Army/Air Force
- NASA
- SAIC
- Boeing
- Lockheed Martin
- FUJI
- Sikorsky
- Mitsubishi
- Augusta
- Northrop Grumman
- Kawasaki Heavy
- NAVAIR
- L3 Communications
- Georgia Tech.
- Rockwell Collins
- Korean Aerospace Research Institute (KARI)
- University of Liverpool

Aircraft

- UH-60 A/L
- AH-64 A/D
- OH-58D
- CH-47D
- SH-60B
- AH-1W
- Huey II
- Lynx
- OH-6
- Super Puma
- EC-135
- Bell 206
- R-22
- F-16
- Boeing 737
- T-45
- Airbus A320
- Airbus A340
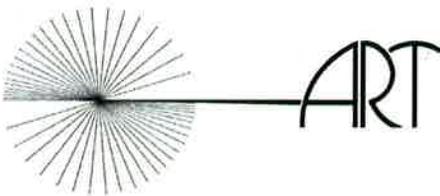
Academic, Military, and Commercial Customers

ART also produces FLIGHTLAB development software to prototype, analyze, validate and simulate in real-time flight dynamics models. Pre-developed aircraft models for simulator and engineering use are also available for purchase.

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