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1. About R. Dixon Speas Associates

R. Dixon Speas Associates (RDSA) and its predecessor companies have provided a wide range of safety, technical and management consulting assistance to airlines, airports, corporate aircraft operators, fixed base operators, maintenance organizations, manufacturers, financial institutions and related industries worldwide for more than fifty years. The background, experience and industry awareness that our professional staff have gained from these assignments are among the key attributes that allow us to provide extraordinary value to our clients.

R. Dixon Speas Associates was formed in 1997 as the successor firm to PRC Aviation when Arthur D. Little, the international management and technology consulting firm, acquired the assets of the former company. In January of 2000, RDSA was spun off from Arthur D. Little and became a separate and independent company.

The company traces its roots to the original R. Dixon Speas Associates that was founded in 1951 by MIT alumnus Dixon Speas (*see Appendix*) after initiating his career at American Airlines. Mr. Speas, who was presented a Lifetime Achievement Award by The Wings Club in 1997, led this company and others prior to establishing PRC Aviation in 1984. When he finally accepted permanent retirement in 1997, Mr. Speas found a new home for his company, with its name restored to reflect its legacy, as noted above.

RDSA today continues the firm's tradition of excellence in aviation consulting and service to its clients with the same capable staff of Senior Associates, many of whom have worked with the firm for a decade or more. New staff who satisfy our criteria of expertise and experience are added as required.

We ensure the quality of our work through the skills and expertise of our project managers, the years of experience of our project staff, our approach to project management and organization, and the maintenance of close relationships with the client during the completion of the assignment.

2. Services

No two clients are alike. Each client has different needs, and we tailor our consulting assignments to the specific requirements of the client. Our projects generally fall into one of the following categories:

- Safety Audits and Compliance Audits (*see section 2.1*)
- Safety Program Review & Development (*see section 2.2*)
- Operational Improvement
- Maintenance Management
- Development of Administrative, Operations and Maintenance Manuals and Procedures
- Strategy Review & Development; Strategic Planning
- Market Studies & Forecasts; Industry Benchmark Surveys
- Feasibility Studies
- Business & Asset Appraisal
- Aircraft Analysis, Selection & Deployment
- Management Recruitment
- Air Service Analysis & Development
- Organizational Reviews
- Expert testimony

Our capabilities and services are not limited to these principal categories. The skills and experience of our management and staff of Senior Associates often enable us to undertake assignments in other areas to meet the special needs of our clients.

2.1 Safety Audits and Compliance Audits

Safety and Compliance Audits examine an aircraft operator's systems, processes, practices and documentation. They are invaluable management tools.

Our comprehensive Safety Audits determine whether the operations and maintenance activities of an airline, charter operator or flight department are in compliance with regulatory requirements as well as with internal standards, policies and procedures and industry best practices.

Our more targeted Compliance Audits, such as our Pre-FAA and Pre-DOD Inspection Audits, focus primarily on ensuring that operations and/or maintenance activities are conducted completely in accordance with the relevant regulations governing the activity.

We use formalized protocols in the accomplishment of Safety and Compliance Audits. We follow a structured process of systematically and objectively reviewing and evaluating all relevant aspects of the flight operation and/or maintenance activity being audited.

Our audit team is IBAC Accredited to conduct certification audits in accordance with the IS-BAO international standard (*see Section 2.3*).

Typical benefits from an R. Dixon Speas Associates Safety Audit or Compliance Audit include:

- Assessment of compliance with applicable regulations (such as the U.S. Federal Aviation Regulations), requirements, and standards.
- Early identification of deviations in compliance, enabling the operator to take corrective action. This is particularly helpful in preparation for a regulatory inspection, such as a National Aviation Safety Inspection Program (NASIP) Inspection conducted by the FAA.
- Assessment of the viability and effectiveness of existing programs and processes.
- Identification of deviations from internal policies and procedures before the deviations become significant safety issues.
- Financial savings from timely correction of existing problems, avoidance of potential problems, and avoidance of civil penalties.

2.2 Safety Program Review and Development

Progressive airlines, charter operators and corporate flight departments, as well as their regulatory agencies, recognize the benefits of a proactive and effective safety program:

- Effective risk management and elimination of hazards, enabling safer operations with reduced risk exposure.
- Prevention of accidents and all their consequences.
- Early identification of deviations from regulatory compliance enabling corrective action and voluntarily disclosure before regulatory intervention.
- Continual focus on quality and identification of opportunities for operational improvement.
- Financial savings from correction of problems, avoidance of civil penalties and improvement of operations.

We help airlines and other aircraft operators realize these benefits through the review and enhancement of existing safety programs or the development of new programs, with special emphasis on the following safety program elements:

- A safety incident/accident reporting system
- Hazard reporting and elimination
- Accident/incident investigation
- Safety audits and inspections
- Internal evaluation program
- Operational risk assessment program
- Open reporting system
- Routine monitoring and trend analysis program
- External evaluation programs
- Organization of the safety program and safety committee and assignment of staff responsibilities
- Employee education and training in safety and accident prevention
- Creation of an overall safety culture in the organization

We are qualified to assist corporate flight departments that wish to adopt and comply with a recognized international standard of operations to obtain the IS-BAO Certificate of Registration (*see Section 2.3*).

2.3 IS-BAO Certification Assistance and Audits



The International Business Aviation Council (IBAC) introduced the IS-BAO program in 2002 to foster standardized, safe and highly professional aircraft operations. IS-BAO -- International Standard for Business Aircraft Operations -- is a code of best practice. It is intended to build upon the excellent safety record already established by business aviation.

Flight Departments implementing IS-BAO may wish to obtain a Certificate of Registration from IBAC, thus demonstrating compliance to a recognized international standard. Certificates of Registration are issued by IBAC to flight departments that have demonstrated compliance through successful completion of a third party industry audit by an IBAC Accredited Auditor.

R. Dixon Speas Associates assists flight departments to obtain an IS-BAO Certificate of Registration in two ways:

- Development and implementation of the internal policies and procedures that will qualify the department for a Certificate of Registration
- Completion of the compliance audit required for the Certificate of Registration

To avoid conflicts of interest, we do not conduct certification audits of flight departments that we have assisted to implement the required IS-BAO standards.

“Whatever new approaches are explored in the years ahead, our task remains unchanged--to maintain the highest possible standards of aviation safety, security, and efficiency, and to continue the long history of progress in building public faith in the safety of air travel.”

-- R. Dixon Speas

3. Clients

R. Dixon Speas Associates has served clients in all facets of aviation and its related industries. Our aviation knowledge and functional expertise is valuable to companies that operate, manufacture, equip, service, finance or use aircraft. We provide services to entities such as the following:

- Major, National & Regional Airlines
- Airports & Airport Authorities
- Business Aircraft Operators
- Air Medical Organizations
- Fractional & Charter Operators
- Fixed Base Operators
- Maintenance Organizations
- Aircraft Manufacturers
- Equipment Manufacturers
- Financial Institutions & Investors in Aviation

In deference to our clients' right to privacy, we do not identify specific clients in broadly distributed documents. However, we are pleased to provide referrals to past clients when a potential client requests references with respect to prior work and capabilities.

4. Experience

Our experience and credentials are important indicators of our ability to complete a variety of different assignments and respond to diverse challenges. Our credentials also verify our reliability and dependability in completing successfully the assignments that we undertake. In this respect, we have proven time and time again that we meet and exceed our clients' expectations.

The assignments carried out by R. Dixon Speas Associates range from market studies and strategy development to maintenance improvement and safety audits. The projects described below are typical of the assignments we have completed on behalf of clients during the last few years:

Safety Audits

- Conducted a comprehensive industrial safety audit of ground handling and maintenance operations for a **major airline**.
- Conducted a comprehensive operations and maintenance safety audit of a **major airline** covering all aspects of the airline's operations on behalf of the Chairman and CEO to ensure that all internal and externally mandated procedures were being followed and that the airline was meeting or exceeding safety requirements.
- Conducted a system-wide maintenance and operations safety audit of a **regional airline** after separate companies had been merged into a single operation to ensure compliance with the newly-established common procedures.
- Conducted an operations and maintenance safety audit of a **business aircraft operator's** corporate aviation department involving both fixed and rotary wing aircraft.
- Conducted an operations and maintenance safety audit of a large petroleum company's **corporate aviation department** involving a variety of rotary- and fixed-wing aircraft employed in various functions, including employee and cargo transport, air ambulance services, aerial inspection and security, at several locations.
- Conducted an operations and maintenance safety audit of an **air medical service** involving both rotary- and fixed-wing aircraft located at a central base as well as several remote bases.

Compliance Audits

- Conducted a pre-NASIP audit of a **maintenance organization's** principal commercial aircraft maintenance facility, using the FAA NASIP checklist as a guide, to detect any situations requiring attention prior to a scheduled FAA NASIP audit and to recommend best practices.

Operations Improvement

- Assisted a **major airline** to redesign the airport operations control center at its major hub. Worked with airline staff to develop detailed procedures for coordinating all airport activities under the control of the airline. Also helped create a training program for each position in the center for both normal and irregular operations.
- Reviewed and analyzed line maintenance staffing and scheduling at the principal hub of a **major airline** and compared it with the practices of other carriers, leading to recommendations to increase staff productivity and improve dispatch reliability.

Maintenance Management

- Assisted the **operator of a large helicopter fleet** to improve the productivity and efficiency of its maintenance operations. Analyzed processes and procedures; identified bottlenecks, inefficiencies and constraints; determined root causes of problems; developed solutions and prepared a plan for implementing solutions.
- Provided interim maintenance management personnel to a **U.S. national airline** while the airline conducted a search for permanent staff.
- Analyzed aircraft maintenance experience, particularly at the hub of a **major airline**, to determine why so many aircraft were being taken out of service for unscheduled maintenance. Recommended changes in maintenance and engineering procedures and policies to resolve problems and reduce frequency of aircraft substitution.
- Assisted a **U.S. national airline** to restructure its maintenance operations control center to interact more effectively on a real-time basis with the systems operations center. Revised and updated the maintenance control center processes and manual to reflect changes in the structure, organization and operating procedures.
- Assisted a **U.S. national airline** to reestablish its maintenance function and recover its operating certificate after it had been surrendered following the loss of an aircraft. Managed each maintenance facility for three months as it came back on line to ensure adherence to required safety and operating procedures.
- Conducted a comprehensive review of the maintenance organization of a **charter operator** with the objective of re-engineering and staffing the organization to improve its support of a fleet of approximately 30 managed aircraft.

Manuals and Procedures

- Assisted a **U.S. national airline** to develop and implement an ETOPS program to permit operating newly-acquired B767 aircraft on trans-oceanic routes, including training of maintenance and flight operations personnel in the new procedures, obtaining FAA approval, and monitoring initial operations.
- Provided assistance in development of manuals and procedures, specification of facilities and training of personnel to enable a European **maintenance organization** to obtain certification as an FAA-approved Part 145 foreign repair station.
- Prepared policies, procedures and documentation for maintenance and operations manuals for a **fixed base operator** as required to obtain a Part 135 certificate.
- Prepared a FAR 145 Repair Station manual for a **state government agency** in accordance with new FAA guidance.

Market Studies and Forecasts

- Prepared a worldwide market study and five-year sales forecast for an **aircraft manufacturer's** entire line of business jets. Estimated sales and market share for all aircraft and recommended marketing strategies and procedures to increase market share.
- Completed a market study and ten-year sales forecast for new jet aircraft produced by a **business aircraft manufacturer**. Employed focus group methods to obtain primary market information. Covered world markets, with major emphasis on the U.S. market.
- Conducted a comparative analysis and market survey of advertising and its effects on the business jet market for a **business aircraft manufacturer**. Study encompassed methods and media of advertising, emphasis on features and attributes, marketing channels, etc.
- On behalf of **an aircraft manufacturer**, surveyed existing and potential seaplane operators in North America, Central America and the Caribbean to determine their requirements for new aircraft and their potential interest in acquiring a new amphibious aircraft about to enter production.
- For a **fixed base operator**, prepared a ten-year forecast of world-wide maintenance, repair and overhaul expenditures by business aircraft operators, broken down by airframe, engine and avionics expenditures for each of several categories of aircraft.
- Evaluated an **equipment manufacturer's** market posture as viewed by major airlines preparing to select new avionics equipment for their aircraft fleets. Assessed relationships between client and airline organizations and recommended actions to qualify client as a potential supplier, leading to successful launch of product.
- Assessed the market for general aviation airborne telecommunications systems and the **equipment manufacturer's** position in that market, recommended strategic and tactical measures to increase sales and revenues, and forecast likely sales of the various products for several potential market development scenarios.

Feasibility Studies

- Conducted market research and developed financial projections to identify potentially viable locations in support of the expansion strategy of a **fixed base operator**. Two new airport locations were opened as a result of the research findings.
- Assisted a **fixed base operator** to evaluate the feasibility of an aircraft painting facility. Forecast likely demand, analyzed technology and process options, interviewed existing operators to identify best practices and potential problems, estimated costs and benefits, and prepared an implementation program.

Strategy Development

- Reviewed the air transportation requirements of a Fortune 100 **business aircraft operator** and developed a strategy for increasing travel effectiveness while reducing costs. Formulated and evaluated options ranging from restructuring the flight department and renewing its fleet to contracting out the operation of the aircraft.
- Assisted a **fixed base operator** to formulate a business development strategy for expanding its operations and customer base to include a larger mix of jet aircraft. Helped the client evaluate options for achieving the desired growth. Identified business processes that required modification to support the projected growth and expansion.

Business & Asset Appraisal

- Reviewed maintenance records and current condition of several B767 aircraft from three different operators as input to a **U.S. national airline's** process of evaluating available aircraft for acquisition and integration into a newly-established B767 fleet.
- Conducted a diminution of value appraisal of a damaged business jet aircraft on behalf of its **corporate operator** and owner.

Air Service Development

- For an **international airport**, performed market research and air service development initiatives involving passenger forecasts, aircraft selection, and cost, revenue and profitability forecasts. Developed and presented market proposals complete with schedules and forecasts to senior executives at six airlines.
- Worked with a local consultant to assist an **Asian airport authority** to plan the development of a new air logistics center and foreign trade zone on the airport.

Aircraft Selection & Use

- Analyzed mission requirements, aircraft capabilities and aircraft operating and capital costs and developed a fleet plan for the **corporate aviation department** of a major pharmaceutical company.
- Analyzed the requirements imposed by a **business aircraft operator's** proposed missions, compared the requirements with the capabilities of the aircraft available in the marketplace, and recommended the most appropriate aircraft to satisfy the client's needs.
- Assessed the potential viability of employing the business aircraft of a **state aviation department** in a shuttle service. Used motor pool and air service travel data to forecast demand, estimated operating costs and charge-backs for various load factors, designed an employee survey and prepared operational recommendations.

Management Recruitment

- Located, interviewed and recommended candidates for the positions of Director of Operations and Director of Quality Assurance for a **U.S. national airline**.

5. Staff

RDSA is organized to facilitate a flexible and effective response to client needs while holding corporate overhead to a minimum. Our staff consists of a roster of more than 30 Senior Associates (*see Section 5.1*) who have accumulated years of experience working in or consulting to the aviation industry or serving as functional experts.

These professionals provide a broad range of expertise and experience in almost all aspects of the aviation industry and have demonstrated an ability to apply their experience in the satisfaction of diverse client requirements. Senior Associates are selected for project teams by matching their qualifications and experience with the expertise and role required by the client.

The company is managed by its President, Richard J. Morris. Business development responsibility is shared with Executive Vice President John L. Conte. Both officers play an active role in the management of consulting assignments and are directly involved in providing value to our clients. (*See professional biographies in Sections 5.2 and 5.3.*)

5.1 Senior Associates

Our professional staff brings decades of aviation experience to our consulting assignments. Most of our Senior Associates have developed their aviation expertise through successful careers in airlines, corporate flight departments, maintenance organizations, OEMs and other aviation-related institutions.

Several of our Senior Associates are or have been licensed commercial pilots and flight instructors with tens of thousands of flight hours in a variety of rotary and fixed wing aircraft ranging from small helicopters and King Airs to large corporate jets and from DC-9s to B-767s.

The collective consulting experience of our Senior Associates is summarized in the descriptions of the representative assignments we have completed (*see Section 4*). Their qualifications are also illustrated by the positions they have held in other organizations prior to their association with R. Dixon Speas Associates, such as the following:

- Vice President, Flight Operations of a major airline
- Director, Systems Operations Control-Technical Operations for a major airline
- Director, Flight Operations Human Factors for a major airline & Chairman of ATA Human Factors Committee
- Vice President, Human Resources and Training of a major airline
- Managing Director, Aircraft Maintenance at the principal hub of a major airline
- Managing Director, Technical Operations Planning and Materiel Management at a major airline
- Manager, Production Control, major airline maintenance facility
- Manager, Maintenance Operations Center, major airline maintenance facility
- System Manager responsible for process and organizational redesign at a major airline
- System Chief Pilot of a major airline
- Vice President, Operations at a cargo airline
- Vice President, Finance Operations in the operations division of a major airline
- Vice President, Line Maintenance and Engineering of a major airline
- Managing Director, Aircraft Maintenance Operations for the fleet of a major airline
- Manager, Line Maintenance, International Operations for a major airline
- Manager, Quality Assurance for a major airline maintenance operation
- Captain, U.S. Navy, including service as a squadron aircraft maintenance officer
- Software developer of maintenance planning and operational data analysis packages

- Managing Director, Flight Standards and International Flight Safety for a major airline
- Chief Operating Officer of a charter airline engaged in both cargo and passenger transport
- Manager, Cargo Market Planning at a major airline
- Corporate Vice President, Operations for an air freight forwarder
- Manager, Cargo Business Development for a major US airport authority
- Vice President & Aviation Division Director for an air ambulance operator
- Aviation Director and Chief Pilot for a State Department of Transportation
- Vice President, Marketing for a major jet engine manufacturer
- Assistant Chief Engineer for Strategic Planning for a major engine manufacturer
- Managing Director, Safety and Environmental Department of a major airline
- Manager, Route Planning in the Strategic Planning Department of a major airline
- Manager, Cargo Service at JFK Airport for a major airline
- Vice President, Transportation Services of a U.S. national airline
- Sr. Financial Analyst/Airport Concession Advisor for a large U.S. airport authority
- Director of Aviation and Captain of a Fortune 500 corporate flight department
- Supervisory Aerospace Engineer and Head of Engineering at an FAA Regional Headquarters
- Manager, Business Development for a major jet engine manufacturer
- Vice President, Marketing, Sales & Customer Service for an airframe component manufacturer

5.2 President Richard J. Morris

Mr. Morris has worked for 33 years with carriers, manufacturers, shippers and service providers in aviation, transportation and related industries in both the public and private sectors. He has completed assignments involving strategic planning, operational improvement, capacity expansion, market research, and organizational and operational restructuring. Prior to his current position, he was a vice-president in the transportation practice of the international consulting company Arthur D. Little. The following are typical of assignments completed successfully by Mr. Morris:

- Developed and documented procedures for a restructured maintenance control center of a rapidly growing U.S. airline. The procedures were designed to enable the maintenance control center to function as an integral part of the airline's system operations center. The documentation included flow diagrams to facilitate comprehension and training.
- Analyzed the market demand, technical requirements and financial feasibility of a proposed aircraft painting facility for an expanding maintenance organization serving the corporate aviation market. The positive evaluation resulted in a decision to proceed with the project.
- Surveyed seaplane operators in North America and the Caribbean to determine the potential demand for a new amphibious aircraft.
- Prepared a ten-year forecast of world-wide maintenance, repair and overhaul expenditures by business aircraft operators, broken down by airframe, engine and avionics expenditures for each of several categories of aircraft.
- Assessed the market for airborne telecommunication systems, recommended strategic and short-term actions to increase sales and revenues, and forecast sales and revenues for current products of a supplier of airborne telecommunications systems and services.
- Assisted a fixed base operator to reformulate its corporate strategy for expansion into new maintenance and modification services and to define and launch the initiatives required to achieve the strategic objectives. Developed project management tools that have been successfully employed to monitor progress and maintain momentum.
- Assisted the United States Postal Service to develop enhanced information systems for mail transportation management, including a network operations center, vehicle and container tracking systems, and a mail reservation system employing electronic data interchange to improve the assignment and dispatch of mail to airline flights.

Richard J. Morris (continued)

- Evaluated the Interdistrict Transportation System of the Federal Reserve System, an overnight air network with four regional hubs used to transport checks and other materials among Federal Reserve offices. Analyzed the efficiency and effectiveness of the existing network and recommended structural and operational improvements that were successfully implemented.
- Assisted the United States Postal Service in the operational design and preparation of solicitations for aviation and terminal handling services for a restructured overnight air network and sort hub. Specified in detail the aviation and air terminal operations and the management structure to ensure the effective interaction of the contractors providing the two services.
- Conducted a due diligence review and analysis of the operations and market aspects of two international air cargo and courier companies as input to acquisition decisions. Advised against one and in favor of the acquisition of DHL by JAL and Lufthansa.
- Formulated a strategy for attracting air cargo express carriers and assisted in the preparation of cargo facility development plans for the new Chek Lap Kok airport in Hong Kong, considering the operational requirements of both passenger and cargo carriers. At least one express carrier has established a hub at the airport.
- Reviewed automatic equipment identification (AEI) technologies and suppliers for application in the maritime, rail, and trucking industries, with emphasis on container and rail car tracking. The implementation of the system revolutionized the tracking and control of transport containers.
- Investigated the potential viability of providing logistics and distribution services, including freight forwarding, value-added warehousing, trucking and other activities in support of line haul operations for an international airline.
- Assisted the corporate logistics department of a large decentralized manufacturing company to coordinate divisional transportation requirements, prepare solicitation documents, establish evaluation criteria and negotiate multi-division contracts with selected carriers, improving service and saving millions of dollars annually.
- Determined the most effective approach to the management of inbound air, truck and rail transportation for a large automobile manufacturer, enabling the company to avoid proposed changes that would have reduced operational efficiency.
- Analyzed operations, costs, and benefits and evaluated the economic and organizational feasibility of acquiring and operating a portion of the Argentine railway system, via a government privatization program, for a private investor.

Richard J. Morris (continued)

- Analyzed operating and capital costs and determined user charges adequate to cover the costs of airports, ports, and highways in Saudi Arabia.
- Managed the preparation of a 15-year plan for the development of the transport sector in Costa Rica for airports and air services, railways, ports, highways, waterways, and an inland cargo terminal. Prepared traffic forecasts, analyzed capital and operating costs, evaluated project costs and benefits and prepared investment programs, and addressed regulatory and financing issues.

Mr. Morris holds Ph.D. and M.S. degrees in Industrial Engineering from Stanford University and a B.S. degree in Engineering Physics from the University of Tennessee. He speaks and writes Spanish fluently. He is a member of The Wings Club of New York, the Council of Logistics Management, the Transportation Research Forum, the Institute of Industrial Engineers, and the American Institute of Aeronautics and Astronautics.

5.3 Executive Vice President John L. Conte

During his 35 years in aviation consulting, most of it with R. Dixon Speas Associates and its predecessor firms, Mr. Conte has managed and participated in over 500 projects for airlines, business aircraft operators, equipment manufacturers and airports. These assignments have involved operations improvement, maintenance management, technical and operational safety audits, aircraft fleet planning, development of manuals and procedures (operations, maintenance and administrative), management and staffing reviews, and facility planning and analysis. Mr. Conte has also performed market research, aircraft appraisals and future value projections, airport and heliport planning reviews, landing aid and aircraft operational analyses, and air traffic control reviews. He is an Accredited IS-BAO Auditor.

As the Senior Vice President for a major aviation consulting organization, responsible for all the firm's business aviation activities, Mr. Conte reviewed and audited the flight operations and maintenance aspects of the company's aircraft management business, which included approximately fifty jet aircraft.

As Vice President for a major aviation planning and consulting firm, he oversaw commercial and general aviation analysis and airport planning in the northeastern U.S., Europe and Africa. His experience encompassed airport operations and capacity, air traffic control, facility planning, and management reviews.

As a transportation engineer with a major aerospace firm, he participated in the development of an airport capacity handbook that was the authoritative source in the industry for ten years.

Examples of significant projects he has completed during his 35-year career include the following:

- Managed the overhaul and redesign of the airport operations control center at the principal hub of a major U.S. airline. Developed detailed procedures for all aspects of the airline's operations at the airport.
- Managed and participated in safety audits and operational reviews of six major U.S. airlines, a regional carrier and two foreign airlines covering all aspects of management, flight operations and maintenance.
- Managed and participated in over 400 audits of business aircraft and air ambulance operations in the U.S. and abroad. These audits included all aspects of management, flight operations, and maintenance.

John L. Conte (continued)

- Assisted a U.S. airline to develop, obtain FAA approval for, and implement an ETOPS program for B767 aircraft.
- Managed the audit and analysis of a major U.S. airline's internal audit program, including Flight Operations, Maintenance and Engineering, Flight Dispatch, In-Flight Cabin, and Ground/Ramp Operations.
- Managed a project to assist the operator of a large helicopter fleet to improve the productivity and efficiency of its maintenance operations.
- Conducted a diagnostic review of line and heavy maintenance programs of a major U.S. carrier with the objective of detecting and correcting situations that contributed to flight delays and cancellations.
- Participated in the development, implementation, and FAA approval process of a complete Inspection and Maintenance Program covering a fleet of B-727-200 aircraft for a FAR Part 121 airline.
- Managed and participated in eight market research and forecasting projects for existing and proposed jet and turboprop aircraft targeted at the business aviation market.
- Assisted a foreign airline in obtaining a FAR Part 129 Operating Certificate. Participated in the development of the General Maintenance Manual (GMM), Minimum Equipment List (MEL), and complete Inspection and Maintenance Program for its DC-10 aircraft.
- Served as a consultant to the U.S. Bankruptcy Court in the physical evaluation, review of maintenance status, and appraisal of a fleet of approximately two-hundred aircraft operated by a FAR Part 121 U.S. airline.
- Analyzed airline service contract conditions, including aircraft maintenance, passenger service, aircraft fueling, and other accommodations as undertaken by major airlines for smaller domestic and international carriers.
- Provided expert testimony to a U.S. Federal Court regarding the physical condition of a fleet of aircraft operated by a major U.S. FAR 121 airline.
- Directed and participated in the development of over 100 airport master plans in the U.S., Europe and Mexico.
- Participated in the design and development of detailed aviation plans for ten states and two countries and urban area aviation systems plans for six large U.S. cities.

John L. Conte (continued)

- Analyzed air traffic flow patterns at the 23 busiest airports in the U.S. for a DOT/FAA research project. The project goal was to identify optimum procedures for noise abatement.
- Reviewed air traffic control procedures for several major international airlines as they related to fuel consumption
- Conducted air traffic and air space flow design studies for more than a dozen major U.S., European, Asian and South American airports.

Mr. Conte earned a B.S. in Civil Engineering from Manhattan College and studied in the Masters Program in Urban and Transportation Planning at the Polytechnic Institute of Brooklyn.

6. Contact Us

Thank you for your interest in R. Dixon Speas Associates. We would be pleased to provide any additional information you might require. Contact us at:

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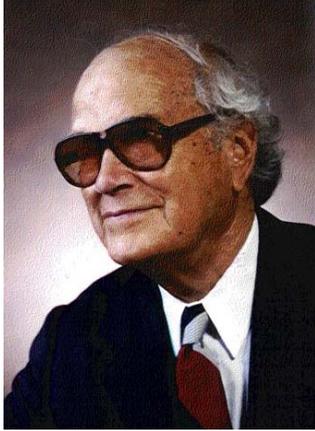
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Appendix: R. Dixon Speas -- Aviation Pioneer (1916-1998)



Less than 13 years after the Wright Brothers' famous flight at Kitty Hawk, North Carolina in December of 1903, R. Dixon Speas was born in Cooleemee at the opposite end of the state. Showing leadership ability at an early age, he became an Eagle Scout and earned all three palms. Upon graduation from high school, his father sent him to Dr. Igor Sikorsky, the noted airplane and helicopter designer, to discuss a career in aviation. Dr. Sikorsky suggested that a good first step would be a degree from the Massachusetts Institute of Technology. While at MIT, Dixon won first prize in the William E. Boeing Thesis Contest for his paper titled "The Need and Opportunities for Low-Cost Air Transportation." The award enabled him to spend a year at

United Airlines' Boeing School of Aeronautics, where he became the first person to achieve transport pilot proficiency solely by simulator and "under-the-hood" pilot training.

Upon graduation from MIT in 1940, Dixon began a ten-year career with American Airlines, where he qualified as a DC-3 co-pilot and oversaw the development of the first procedures and manuals for trans-Atlantic operation of C-47s, C-54s and C-87s. He served as Director of Maintenance and Engineering, Cargo Division and as Special Assistant to President C. R. Smith.

He left American Airlines to found the first of several consulting firms that provided opportunities to solve problems in almost every facet of the airline, business aviation and airport segments of the aviation industry in 45 countries around the world. He managed these firms until a few months before his death in 1998. He wrote and presented a number of books, articles and papers including *Airplane Performance and Operation*, *Technical Aspects of Air Transport Management*, and *Pilot's Technical Manual*.

During his long and distinguished career, Dixon served on the Board of Directors of the American Institute of Aeronautics and Astronautics, the Flight Safety Foundation, the Institute of Aeronautical Sciences, the Society of Automotive Engineers and The Wings Club, which he also served as President. He was elected a Fellow of the AIAA and the Royal Aeronautical Society and served on the Aeronautics and Space Engineering Board of the National Research Council.

His many awards and honors include the following:

- Lifetime Achievement Award, The Wings Club (1997)
- Elder Statesman of Aviation Award, National Aeronautic Association (1997)

- Golden Eagle Award, Society of Senior Aerospace Executives (1997)
- Meritorious Service to Aviation Award, National Business Aviation Association (1997)
- Honorary Doctorate Degree, Embry-Riddle Aeronautical University (1995)
- Arizona Aviation Hall of Fame (1995)
- William Littlewood Lecturer, AIAA and SAE (1994)
- William E. Downes Jr. Award, Airports Council International – North America (1992)
- The Wings Club Sight Lecturer (1992)
- Order of the Silk Scarf, National Business Aviation Association (1992)



Memories of American Airlines came back to Dixon at an Oshkosh Air Show where he saw a Stinson Reliant with AA colors for sale. In the early 1940s, in preparing AA to fly DC-3s across the Atlantic for the military, Dix had to test a DC-3 drift meter. He cut a hole in the floor of an AA Stinson Reliant, installed a DC-3 drift meter and test flew it out of LGA.

The following testimonials from award citations summarize Dixon’s contributions to the aviation community and consulting profession:

**Adapted from the Citation for the Award of the Golden Eagle
Presented by Arthur D. Lewis, President, SSAE**

The worldwide development of air transport operations, beginning in 1950, constitutes one of the great miracles in world history. The people involved in the development of world aviation were working at the cutting edge of the world's developing technology as it increased massively in scope, size, and complexity. The speed with which these developments took place is one of the major stories of this radically evolving world.

R. Dixon Speas was at the epicenter of this development. In 1951, armed with a degree in Aeronautical Engineering from MIT, a pilot's license from the Boeing School of Aeronautics and 10 years of training in airline management at American Airlines, Dixon Speas launched what became the most successful aviation consulting firm in the world.

He created an organization that could respond to the exploding needs of this diverse international industry. He picked his associates from a wide variety of highly qualified retirees from key positions in aviation management. At any given time, his associates numbered as many as 50 to 60 people and covered the entire range of specialties as needed. Over a 44 year period, some 200 to 250 senior executives worked for his firms.

The scope of their services extended to all elements of operation--aircraft, engine and component manufacturers, large and small airlines--both domestic and overseas, business and general aviation, as well as airports, airways and government agencies.

His firm provided services to most of the major airlines and regional carriers in the United States and to 46 overseas carriers in 44 different countries. The range of his activities in technical areas was exceedingly diverse. In the mid-sixties, for example, his organization developed the first computerized intercontinental flight planning capability. The computer not only reduced the time required to plan the flight, but resulted consistently in shorter flight times with a significant reduction in flying costs. This endeavor was followed by the conception and implementation of an aircraft parts pooling system. The concept remains in use today and continues to provide increased aircraft reliability and lower operating costs.

Mr. Speas' genius was his ability to meld these talented associates into a coherent group capable of handling almost any problem that needed attention. Mr. Speas, himself, retained a close involvement in every engagement and clearly was in charge.

He was a major contributor to the development of air transportation and directly facilitated its expansion throughout the world. He was one of the men in the industry who clearly helped make it happen.

For his unparalleled individual contributions to the development of aviation, the Society of Senior Aerospace Executives awarded Dixon Speas the Golden Eagle, the symbol of its highest esteem.

**Taken from the Nomination for the NAA Elder Statesman of Aviation Award
Submitted by the Air Transport Association of America**

At the forefront of everything Dixon did was safety. This is quite evident if one looks at the number of audits Dixon's firms accomplished over the years—which is hundreds. Whether an audit for a major airline, or a medium- or small-size airline, or for a business aircraft operator—both fixed wing and helicopter, safety was the bottom line. Dixon worked closely with the Flight Safety Foundation on this issue and took every opportunity to make safety the topic of his public speaking.

At the meeting of the Society of Senior Aerospace Executives (at which the Golden Eagle Award was presented), Dixon recommended that airlines be subjected to the same annual scrutiny as public companies and that an independent outside company audit the airlines. His position was that if company finances are audited to protect the financial interests of investors, why shouldn't a similar level of scrutiny apply to assure the safety of the flying public?

Dixon Speas became a premier of aviation consultants because he cared. He cared enough to give every project, from the smallest to the largest, his best effort, his best professional personnel, his best understanding, his best of everything. Those who knew Dixon considered him a dynamo, a man who would search and find the answer to a question if he didn't know it. He was a man who earned the respect of the world-wide aviation industry.