



SAAB

COMMERCIAL AERONAUTICS SOLUTIONS



PARTNERSHIP FOR IMPROVED COMPETITIVENESS

With a track record of more than four thousand aircraft built, Saab is one of the few companies in the world with the capability and technology to develop, integrate and maintain complete aircraft systems. For seven decades we have been pushing the boundaries of technology, supporting our customers every step of the way, from concept studies to fully certified products.

Today, our offer includes everything from design, engineering and manufacturing of complete aircraft systems, structures, and subsystems and equipment, to a range of services and support solutions designed to meet the requirements of the commercial aerospace industry.

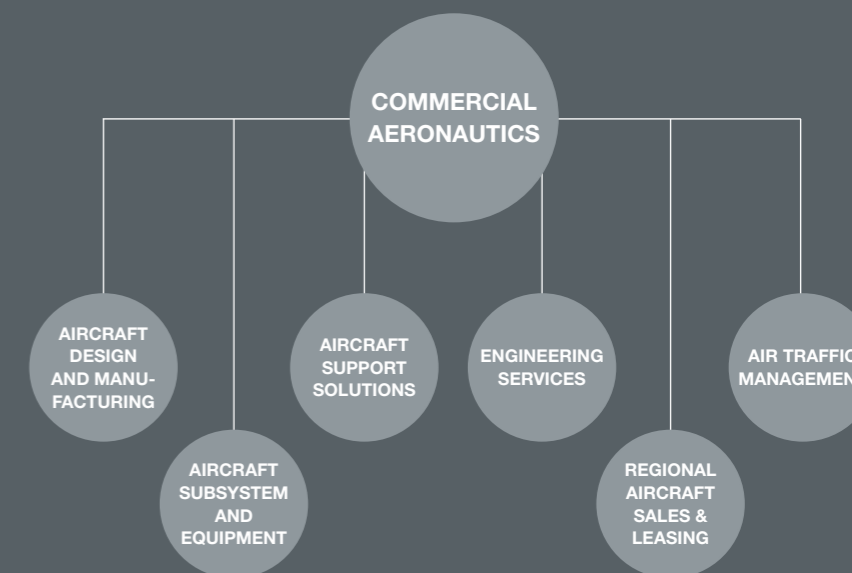
Combining our standing as a leading supplier and highly skilled integrator with our extensive manufacturing know-how, we know exactly what is required for the formation of a successful long-term partnership and a strategic alliance. A partnership with Saab gives you access to a self-reliant partner that knows what it takes to develop high quality solutions that provide low cost of ownership.

This knowledge has made us a preferred partner to the international aerospace industry. And, by constantly challenging the laws of nature we are not only able to make ideas fly, we improve our customers' competitiveness.



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BRINGING YOU THE FUTURE IN AERONAUTICS

Demands on the commercial aerospace industry are constantly increasing. In addition to the ever-present need for better, safer and more cost-effective aircraft, there is also a growing demand for more environmentally friendly solutions.

MEETING THE CHALLENGES

Our mission is simple: based on our extensive experience from design, development, manufacturing and integration of aircraft systems, related subsystems and equipment, we support our customers with capability growth designed to meet the aeronautical challenges of the 21st century.

OVERALL RESPONSIBILITY

With Saab as your partner you can benefit from more than seventy years experience from developing, building and maintaining complete aircraft. This means, as one of only a few companies in the world Saab can take on the overall responsibility for a wide range of work packages comprising everything from design and manufacturing, and subsystems and equipment, to the provision of in-service support and complete supply chain solutions.

THE FUTURE OF AVIATION

Our business is global and many of our skilled engineers have extensive experience from international projects and from working close with customer personnel. At Saab we also make continuous investments in research and development. In fact, about 20 per cent of our yearly sales are reinvested in research and development. That is probably one main reason why we have been selected partner in most of the major aerospace development programmes in Europe during the last twenty years.

By utilizing our extensive knowledge and experience, we are not only supporting our customers in building better, safer and more cost-effective aircraft, we bring them the future in aeronautics and generate the future development of aviation.

YOUR PARTNER IN INTEGRATION

With Saab as your partner you will have access to an integration expertise with the ability to improve your overall capabilities as well as your operational performance. With more than 70 years' experience of systems integration, we are well suited to be your partner in integration.

DESIGNED TO FACILITATE INTEGRATION

Most Saab solutions are built with scalable open technology, which facilitates integration with legacy systems and makes way for cost-effective upgrading in the future.

FROM INTEGRATION SERVICES TO COMPLETE SOLUTIONS

Our integration operations include everything from integration of complete aircraft systems and structures to a wide range of capable integration services. Based on our extensive experience as partner to the international aerospace industry our capabilities and our reliability have been proven through a number of successful large-scale integration projects for demanding customers such as Boeing and Airbus.

OUR EXPERIENCE, YOUR FUTURE

With Saab as your partner, you can benefit from the best technology and a knowledge generated from more than seven decades of aircraft development and manufacturing. This means that our integration experience will provide you with the solutions you need to meet present as well as future challenges.

ENGINEERING THE FUTURE

Saab's history is almost identical with the history of flight in Sweden. Our first own designed aircraft was developed in the late 1930's. Since then Saab has designed and manufactured fifteen different types of aircraft, and a total of more than 4 000 have been delivered. A majority have been military leading-edge combat aircraft such as the Gripen multi-role fighter. But, more than 500 have been commercial aircraft, among them the Saab 340 and Saab 2000 regional aircraft, in service all over the world.

YOUR MANUFACTURING PARTNER

Today, our experience of integration of systems and structures and our long practice in designing, developing and manufacturing aircraft have been transformed into first-class products and services for other OEMs. And our aircraft manufacturing operations for the commercial market is now focusing on development of the Saab 340/2000 fleet and the provision of a wide range of capable and affordable aircraft engineering services – Saab has, for instance, an overall commitment as programme partner

to both Boeing and Airbus, the key-market players through the last decade.

KNOWLEDGE BASED ON OWN EXPERIENCE

Our background as aircraft manufacturer means that we know what is demanded from a partner. We know what it takes to develop and build a complete turbo prop airliner. We also have extensive experience of integrating systems and equipment into different structures and how to make the most of the limited

space in an aircraft. And, we understand what is required of components and materials, and what makes design producible.

CONTINUOUS IMPROVEMENTS

The introduction of lean manufacturing has been a key part of Saab's production focus for many years and it is a vital part of our ability to provide cost reduction, automatization and development. Supported by a global supply chain and low-cost sourcing we are continuously

working with improvements of functions and processes – all the way from the management to the workshop floors.

EXTENDED RESPONSIBILITY

Sometimes our expertise is used to support the customer in deciding if own manufacturing is better than buying from a subcontractor. Furthermore, as your manufacturing partner Saab can assume overall responsibility for all subcontractors, including the transfer of work packages

with industrialisation and ramp-up for on-going programs and also provide reliable extended enterprise solutions.



Integration of aircraft systems and structures

Saab knows from own experience what it takes to integrate aircraft systems and structures and understand industry demands. As your partner in integration we can support you with everything from integration of complete aircraft systems and structures to provision of a wide range of integration services.

Aircraft Systems Engineering

With more than 4 000 aircraft built we know the complexity of aircraft systems and how to make sure that design, functionality and costs meet precise customer requirements. With Saab as your engineering partner you will access the know-how and technological and financial resources necessary for defining, developing and manufacturing complete aircraft systems.

Aircraft Engineering

Saab has the capability and technology to develop almost any airframe structure, from concept to fully certified product and after sales support. Our aircraft engineering operations is focusing on highly integrated assemblies employing the optimum combination of composite and metallic solutions. Our engineering services include, for example, testing of tools, weight optimization, calculations for certifications, faultfinding methods, repair kits and service bulletins.

Aircraft Manufacturing

Our manufacturing services are designed to support more efficient and safe manufacturing and to contribute to bring down the cost-curve. By empowering our process-oriented working methods and well-proven quality systems with the lean manufacturing we can support you all the way from prototype development to industrialisation and final assembly of the product. We can, for instance, provide manufacturing tools that meet the design and make trial series that confirm the design measures the requirements.

Modification and System Integrations

Saab offers a range of upgrade, modification, integration and certification services designed to improve reliability, increase operational capabilities, and to maintain and maximize the platform, system or equipment usability over its lifetime. Our offer includes standard optional services and functions as well as customer or operational specific ones – for Saab developed platforms and systems as well as other OEM platforms and systems.

TOMORROW'S TECHNOLOGY TODAY

Being a company that manufactures complete aircraft rather than just another supplier of sub-systems and components, we understand our customer's requirements and the need for cutting edge technologies that can be tailored for a huge spectrum of avionics projects. The limited space for avionics equipment on small aircraft has always pushed us towards products with

reduced size and weight – criteria that are now important in the competitive commercial market. This experience has driven us to achieve cost-efficient and innovative systems and equipments.

IN THE FOREFRONT

A major part of our offering to the commercial avionics market is control comput-

ers and electro-mechanical actuation. Our impressive suite of modular avionics for safety critical solutions can be customised to meet all customer requirements. Saab has the knowledge and capability to produce software and electronic hardware in alignment with RTCA level A requirements. As part of the More Electric Aircraft (MEA) trend, Saab is a forerunner in developing

the technologies required to convert actuation systems from hydraulic to electro-mechanical.

ENHANCING PERFORMANCE

A partnership with Saab ensures your aircraft and systems meet the relevant performance standards required in today's civil aircraft environment. By using open

modular technology we create flexible and scalable solutions that can be adapted, developed and tailored to precise customer needs – integrated in existing systems or operated as stand-alones.



Avionics Computers

Saab offers a suite of customizable modular avionics based on aerospace standards for distributed IMA. The modules are designed to meet a wide spectrum of performance, reliability, size and cost requirements and are fulfilling the highest demands regarding performance and safety-critical standards. Our computer range include modules such as the Basic Module, a core module and general processing unit, and the Ethernet Switch, a network communications enabler.

RIGS Head-Up Display System

This next generation head up display for helicopters and small aircraft is a cost-effective and multi-function system optimised to give helicopter and small aircraft operators information linked to flight and navigation. RIGS provides all-weather capability ideal for flying and landing aircraft in challenging conditions. Because of its open architecture it can be easily integrated with new and upgraded platforms.

Recorders and Monitoring Systems

By combining video and audio capabilities with our in-depth knowledge of electronics and software development, we can provide a range of compact mission recording and evaluation systems that provide the ideal choice when replacing obsolete video tape recorders. Our Health and Usage Monitoring System (HUMS) provide a proactive approach to aircraft maintenance. The stresses predicted for an aircraft and the stresses which actually occur, can differ. Therefore an aircraft may be unsafe and still in use, or decommissioned while it still has plenty of life left.

Communications Management Systems

Reliable and capable communications solutions are vital for security and efficiency. Saab has long been a driving force in this development and for over four decades has provided qualified communications services, advanced system solutions and on-going system support to the international aerospace industry and a wide range of regional airline operators.

Control and Actuation Systems

As a leading supplier of equipment for flight-control and other system-critical functions, we have an in-depth knowledge and the hardware design necessary for creating advance computer systems for modern airborne platforms. Our products perform control, monitoring and actuation in applications ranging from the control of slats and flaps down to various basic equipment. Saab provides high lift systems and components to the Boeing B787 as well as the Airbus A400M.

Civil Aircraft Missile Protection System (CAMPS)

CAMPS is designed to be an integrated part of the aircraft to effectively counter the MANPADS threat against civil aircraft as well as Special Mission and VIP aircraft. CAMPS has a UV-missile approach warner and electromechanical dispensing of a new type of pyrophoric decoys. CAMPS is totally modular and can be adapted according to aircraft size or operational requirements.

AT YOUR SIDE ALL THE WAY

A great challenge for many commercial airline operators is how to maintain operational capabilities while at the same time improve availability and cost-effectiveness.

One way of addressing such a challenge is through a support solution provider that guarantees the support resources and solutions for your enterprise, allowing you

greater focus on your core operations. Competitive support solutions are a prerequisite for successful regional airline operations. With Saab at your side, you will access a customizable, fully integrated life cycle-based support concept designed to increase aircraft availability, reduce costs, and enable you to counter stronger competition and greater challenges.

IMPROVING AVAILABILITY AND EFFICIENCY

Whether you are starting up a new business, expanding or improving an existing one, Saab can help. As your partner and support provider, we make sure you will benefit from a range of support solutions intended to make operational start-up easier, and also improve availability and efficiency once your fleet is airborne.

LONG-TERM COMMITMENT

Our commitment is always long-term and includes solutions for the entire supply chain – from factory support all the way to the airfield. Our offering also includes a range of customer adaptable business models such as leasing or rental – customised solutions facilitating and supporting future capability growth and operational endurance.

CUSTOMER FOCUS

Our mission is to provide products and services for cost-effective support of Saab systems and platforms as well as other aircraft. With customer focus, flexible solutions, and a value-for-money approach we stand by our customers – all the way.



A Complete Support Concept

Our high quality, fully integrated life cycle-based support concept allow customers a greater focus on their core business and provides cost-effective through-life support and service for all phases of operations – from initial definition of a requirement to fully embedded in-service operation over the useful lifetime of an entire system. Our products and services are adaptable to meet specific customer requirements and can be provided as an integrated part of a total support solution or as a stand-alone product or service.

The support concept include services within areas such as Specification and Development, Preparation and Integration, Platform and System Enhancement, Operational Optimisation and End-life Management.

Saab 340/2000 Support Solutions

As the type certificate holder for the Saab 340 and Saab 2000 aircraft, Saab has a unique experience of delivering optimized support solutions to customers worldwide. By improving availability and reducing costs our 24/7 customer support enables Saab 340 and Saab 2000 operators around the world to counter stronger competition. Our support solutions will influence your company positively, and promote safe, reliable and cost-efficient operation of your aircraft.

Our Saab 340/2000 support offer include services, such as, AOG and Operational Support, Technical Support and Publications, Training, Logistics Support (including customized parts exchange programs), Component and Aircraft MRO and Modifications and Engineering Support.

Solutions and Services for other Aircraft

Through our one-stop workshop we provide cost-effective and comprehensive composite and sheet metal Maintenance, Repair and Overhaul (MRO) support and services for a range of aircraft types including Embraer, Fokker, Bombardier and various helicopter fleets in addition to our own Saab produced aircraft and UAV platforms. A long-term partnership is also established with Mitsubishi Aircraft Corporation, regarding development of various types of support solutions for their MRJ program.

Our offer also include extensive in-house component maintenance capability covering instruments, avionics, hydraulics, pneumatics, fuel, power supply, environmental control, oxygen, fire extinguishing, auxiliary power units, landing gear, propellers, composites and metal structures. Saab also provide component repair programs for Saab 340/2000, Embraer ERJ 135, EJR 145, E-jet 170, E-jet 190, Fokker 50/70/100, Bombardier Dash 8, Boeing 737 Classic, and Mc Donnell Douglas MD-80.

DRIVING DEVELOPMENT THROUGH COMPETENCE

Saab is not only a provider of systems and solutions to the international aerospace industry. We are also one of Sweden's leading technology, development and management consultancy companies, offering our customers unique engineering services.

In fact, Saab is a partner that can take full responsibility – no matter if the

assignment is to develop a completely new airframe or to streamline or optimize part of your production. Our engineering expertise covers everything from structural and mechanical design, systems engineering and integration to stress analysis and industrialization. By combining our knowledge in these areas, we help customers drive development forward.

NEW OPPORTUNITIES

New technology often leads to positive changes, but can also create new risks. The challenge is to balance technology and security knowledge with solutions that have less impact on the environment. At Saab, we have merged technical knowledge with industrial experience to create solutions that takes both environment and security in consideration.

IN THE FOREFRONT

Saab is engaged in a number of commercial projects and we have extensive experience of working at the absolute cutting edge. Our long-standing commitment to the Airbus A380 project is one example. Our assignments include everything from aerodynamics and navigation to solutions for onboard Internet and stress calculations of wing spars.

PARTNERSHIP

Saab is continually establishing co-operations with partner industries around the world. One current example is India where Saab and several Indian industries are collaborating in projects aiming at empowering India's industrial offering to the global aeronautical market.



Structural and Mechanical Design

To reduce production costs and weight, and at the same time increase strength as well as safety, is the prerequisite for being able to build better, safer and more cost-efficient aircraft. Our knowledge in highly integrated assemblies will support you in employing the optimum combination of composite and metallic solution. Although modern aircraft to a large extent is depending on electronics, mechanical devices and equipment is still vital. Saab has extensive experience from how to design

mechanical devices and equipment to fit in a modern airframe requiring a minimum of space, and at the same time delivers maximum performance and reliability. Our mechanical design services include locking mechanisms, piping, and suspension devices for avionics, moving mechanisms and mounting processes, to mention some.

Stress Analysis

Over the years new methods and materials for developing aerostructures have continuously evolved in order to meet the most demanding requirements from the aerospace industry. Working at the cutting-edge with airframes and structures that must perform as required, must be founded on reliable facts regarding strength. With Saab as your partner you will have access to very capable stress analysis services designed to handle structures of almost any size and design.

Production Technology

Once you have designed and developed a product or a system, you naturally want to take it to the market. At Saab we have been through that process many times. Today, our long experience from preparing complete aircraft systems, structures and equipment for production are utilized in a range of production technology services that will facilitate and secure industrialisation of product or system.

Systems Engineering & Integration

Based on our seventy-year experience from aircraft manufacturing we know what it takes to develop and integrate advanced aircraft systems. We have the knowledge, technologies and equipment to support you every step of the way. This means, we can be your partner in all issues related to the development and integration of technical systems. And our commitment can cover a project's complete life cycle, or just a phase, and support you at all levels and parts of a project. From evaluation of specifica-

tion to hardware and mechanics ready for production to the development of complete navigation, flight or fuel systems, you can trust Saab to provide the competencies you need to succeed. Our systems engineering and integration operations include assignments for Airbus and EADS regarding, for instance, project management support, process harmonization, system development and integration, flight mechanics and mechanical design work to stress analysis, acoustic analysis, EMC/lightning protection and configuration management.

EXPERIENCE AT YOUR SERVICE

Saab Aircraft Leasing is a major player in the regional aircraft market and manages a portfolio of more than 120 Saab 340 and Saab 2000. The aircraft are leased to customers around the world, although most are in service with large regional carriers in North America, Europe and Australia.

MEETING THE CUSTOMER'S REQUIREMENTS

We know that the process of remarketing aircraft requires careful planning and timely decision making. Therefore, every aircraft transaction is tailored specifically for each customer, no matter if it is a local airline or a large global one. And, when their business expands many return to us for additional aircraft or for upgrading their fleet.

AVAILABLE ON THREE CONTINENTS

Today Saab operate from strategically placed offices in Washington DC, Stockholm and Tokyo and remarket about 10% of our portfolio every year. Our goal is to be available and at your disposal for any future regional aircraft requirements.



Saab 340

With about half the operating costs of a regional jet, the Saab 340 turboprop aircraft can offer between 30 and 36 business class seats in a quiet, spacious and comfortable cabin. With the right blend of technologies, it consistently generates profits for a wide range of regional air transport services. Due to its low operating costs and fuel-efficient engines it has become the ideal choice for both passenger and cargo operations. The Saab 340 is currently available in six different versions; Airliner, VIP, Corporate, Cargo, Maritime Patrol and Airborne Early Warning & Control.

Saab 2000

The Saab 2000 is a modified and extended version of the Saab 340 airliner providing low operating costs and reliable performance and the comfort and service similar to that offered by major carrier. With a maximum speed of 665 km/h it is also the fastest turboprop available on the market. Due to its jet-like performance and superior capability to operate on short runways in 'hot and high' altitude conditions, the Saab 2000 has become a natural tool for evolving regional airline markets. The Saab 2000 is currently available in three different versions; Airliner, Corporate and Airborne Early Warning & Control.

CONTROLLING THE FLOWS

For an airport to function at its best, the flow of people, goods and aircraft must be efficient. Only when all these flows are synchronised can the operation shift from unpredictable to predictable, from reactive to proactive, from monitored to managed and from tactically to strategically. Saab's knowledge, experience and innovative solutions can provide this level of

control and help airports of any size to reach their full potential and become truly competitive. Saab's modular based ATM and airport system is a family of user-friendly systems that reflects safety and reliability standards. It is built to suit all environments, from regional to international airports.

STAND-ALONE OR INTEGRATED

It works stand-alone or as an integrated ATM and airport system, and offers the ability to add modules when needed for future expansion. The system supports Collaborative Decision Making (CDM). Our ATM offering also includes a wide range of products and services for tower operations, navigation aids, training, landing procedures and flight inspection, to mention just a few.

e-Strip – Electronic Flight Progress Strip System

While aircraft can rely on the most advanced technology available, many control towers are still relying on paper strips in a TWR/APP environment for the landing progress. Saab's Electronic Flight Progress Strip System – e-Strip – replaces paper strips with a modern solution that improves safety and reduces head-down time to a minimum. The system is role-based and scalable to suit both small and large airports. No more passing papers around.

Remotely Operated Tower

The remotely operated tower makes it possible to control one or several airports from a distance using network-based technology. High-Definition video imagery and advanced image enhancement provides maximum visibility, even during bad weather conditions. Fixed cameras at the airport captures up to 360 degrees of video image which is compressed and sent to the Remote Tower Centre for real-time presentation. The controller working position is fitted with the same controls as in a normal tower.

i-TWR – Integrated Air Traffic Tower Solutions

Control towers tend to be cluttered with displays, controls and indicators. i-TWR provides a more effective and flexible working environment where the air traffic controller benefit from a complete working position where all systems can be accessed from only one or two displays. A modern integrated air traffic tower solution that reduces Head-down time and improves situational awareness.



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