TURKISH AEROSPACE INDUSTRIES, INC.
ESTABLISHMENT

May 1984  Established in 1984 as a joint venture company for co-production of F-16 a/c in Turkey

Jan 2005  Lockheed Martin and General Electric shares were bought by TUSAS

Apr 2005  TAI and TUSAS merged in the name of TAI

Total Area  : 5 million sqm

- design and engineering
- manufacturing and final assembly
- chemical process
- composite / metal bonding
- aircraft painting
- flight operations
- satellite integration & test center

Akıncı  : 205,000 sqm under roof
Technopolis  : 4,000 sqm
SHAREHOLDERS

Turkish Armed Forces Foundation 54.49%

Turkish Aeronautical Association 0.06%

Undersecretariat for Defense Industries 45.45%

MAJOR SUBSIDIARIES

TEI

AIRBUS MILITARY
ORGANIZATION

AUDITORS

BOARD OF DIRECTORS

PRESIDENT & CEO

INTERNAL AUDIT

MANAGER, FLIGHT OPERATIONS

GENERAL SECRETARY

PRODUCTION

TECHNICAL SERVICES

HUMAN RESOURCES

FACILITIES & ASSET MANAGEMENT

ENTERPRISE MANAGEMENT SYSTEMS

STRATEGIC PLANNING & INDUSTRIAL COOPERATION

FINANCE

AEROSTRUCTURE & SPACE

INTEGRATED AIRCRAFT

INTEGRATED HELICOPTER
PERSONNEL STATISTICS

MANPOWER HISTOGRAM

TOTAL ENGINEER/DESIGN ENGINEER
CUSTOMERS

Airbus Military S.L./FRANCE
EADS-Eurocopter/FRANCE-GERMANY
EADS-Deutschland GmbH/GERMANY
Thales/FRANCE
Stork Fokker/NETHERLANDS
Sonaca/BELGIUM
AgustaWestland/ITALY
IAMCO/ITALY
Aermacchi/ITALY
Sikorsky/USA
EADS-CASA/SPAIN
Royal Jordanian Air Force/JORDAN
Pakistan Air Force/PAKISTAN
EADS-Deutschland GmbH/GERMANY

BAe Systems Controls Inc./USA
Boeing/USA
LMMFC/USA
Northrop Grumman/USA
Spirit Aerosystems, Inc./USA
MDHI/USA
Marvin Engineering/USA
Sonaca/BELGIUM
AgustaWestland/ITALY
IAMCO/ITALY
Aermacchi/ITALY
Sikorsky/USA
EADS-CASA/SPAIN
Royal Jordanian Air Force/JORDAN
Pakistan Air Force/PAKISTAN
EADS-Deutschland GmbH/GERMANY

A Turkish Armed Forces Foundation establishment
TAI meets the stringest quality standards in the world satisfying:

- AQAP-2110
- ISO-9001:2000
- AS EN 9100
- AECMA-EASE
- NADCAP
- DOA (under Airbus)
- POA

- CMMI-Maturity Level 3 Certificate
- ISO/IEC 27001:2005
- OHSAS 18001:2007
MAIN ACTIVITIES

➢ Integrated Aircraft

➢ Integrated Helicopter

➢ Aerostructure & Space
INTEGRATED AIRCRAFT

➢ Indigenous Development
  ▪ Turkish Basic Trainer Aircraft (HÜRKUŞ)
  ▪ UAV Development

➢ Modernization & Systems Integration
  ▪ C-130 Avionics Modernization
  ▪ T-38 Avionics Modernization
  ▪ F-16 Mod. - Turkish Air Force
  ▪ F-16 Mod. - Royal Jordanian Air Force
  ▪ F-16 Mod. - Pakistan Air Force
  ▪ AEW&C (B737)
  ▪ MPA / MSA (CN-235)
  ▪ MPA (ATR-72)

➢ Co-production
  ▪ KT-1 Basic Trainer Aircraft
  ▪ F-16 Program (Turkish Air Force)
INTEGRATED HELICOPTER

- S-70 Blackhawk Systems Integration (Yarasa)
- Attack Helicopter Program
- Indigenous Light Utility Helicopter Development
- TLFC-Utility Helicopter
AEROSTRUCTURE & SPACE

➢ AgustaWestland
  • AW-139 Fuselage

➢ Airbus Commercial
  • A350 Ailerons Design to Build RSP
  • A319/320/321 Fuselage Panel
  • A380 D-Nose Panel Stretching Shells

➢ Boeing Commercial
  • B787 Elevator, Fuselage Skin Plating & Cargo Compartment Separation Panel
  • B737, B747, B777 Aerostructures

➢ Eurocopter
  • EC-135 Rear Doors & Engine Cowlings
  • AS-532 Components

➢ CASA
  • CN-235 Center Fuselage
  • CN-235 MLG Fairing & Engine Mount

➢ Sikorsky
  • S-70, S-70/MH-60, S-70/UH-60, S-76 Components

➢ Stork Fokker
  • Gulf Stream G650 Fuselage Skins
AEROSTRUCTURE & SPACE

A400M

TAI’s workshare in Design, Manufacture & Logistic Support:

Structural
- forward-center fuselage
- paratroop doors & hatch doors
- tail cone and upper shell on rear fuselage
- ailerons / spoilers
- emergency exit door

Systems
- lighting and water / waste systems

Other
- fuselage harness (manufacturing)
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UNCLASSIFIED - 13

AEROSTRUCTURE & SPACE

A400M

Filton

Hamburg

Bremen

St. Nazaire

Seville

(Final Assembly Line)

Nose Fuselage

Outer Wing Boxes

Together with...

RF Upper Shell & Tailcone

Ailerons & Spoilers

Paratrooper Doors

Forward Center Fuselage

Fuselage

VTP

Ankara
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AEROSTRUCTURE & SPACE

F-35 JOINT STRIKE FIGHTER

NORTHROP GRUMMAN

- F-35 (JSF) Center Fuselage
- F-35 (JSF) Composite Components

MARVIN ENGINEERING

- F-35 (JSF) Air-to-Ground Pylon
GÖKTÜRĶ Satellite Programs
AEROSTRUCTURE & SPACE

- Observation Satellite with a 1 meter resolution (co-production) (GÖKTÜRK 1)
- Observation Satellite with a 2.5 meter resolution (development) (GÖKTÜRK 2)
- Gyroscope Development
NATIONAL SPACE ROADMAP
In accordance with the resolution taken at the Defense Industry Executive Committee meeting in June 2005,

➢ TAI is the main local contractor in GÖKTÜRK Programs and prime contractor in military satellite projects,

- GK (Contract has been signed)- Telespazio
- GK-2 (partnership with TÜBİTAK SPACE)-National Program
- ADCS subsystem and other subsystems R&D project

➢ National Satellite Assembly, Integration and Testing (AI&T) Facility shall be established in 2012 at TAI.
GÖKTÜRK Program: Remote Sensing LEO satellite procurement and development program.

- GK: As a result of an international tender, SSM (Procurement agency) signed the contract with TELESPAZIO for Göktürk satellite system. TAI’s role: Main local partner. System level design, structure, thermal, AODCS, OBDH, etc. In addition, AIT activities will be done in TAI.

- GK-2: National tender, MoD, TAI established a partnership with TUBİTAK Space Technologies Research Institute. In addition to subsystem level roles, TAI- TUBİTAK Space Technologies Research Institute partnership is working together to conduct system level activities.

Subsystem R&D Projects

- Capability, infrastructure development activities, know-how improvement tasks.
SATELLITE DEVELOPMENT ACTIVITIES

Systems Engineering:
- Requirement Management
- Mission and Operation Analysis
- Reliability, Safety
- Accommodation Design
- Harness Routing etc.

Mission & Operation Design Tools
SATELLITE DEVELOPMENT ACTIVITIES

Thermal Design Engineering

Thermal Geometric Modelling

Thermica / SindaG
SATELLITE DEVELOPMENT ACTIVITIES

Structural Engineering

- Structural 3D Modelling and General Layout (CATIA – UG)
- Structural Analysis (Nastran - Patran)

General Lay-out Design

Component Design
Harness Design by LCable/Zuken
Harness Routing by Catia

Harness Workshop

Harness Routing
Satellite Development Activities

Satellite Mechanical Ground Support Equipments

- Multi Purpose Trolley
- Satellite Container
- Satellite Lifting Device
Examples for Development Activities

- Establishment of satellite specific processes and methodologies;
  - Design and testing processes in accordance with ECSS standards,
  - Validation & verification processes for internally developed design – analysis tools,

- Subsystem development;
  - AODCS development; hardware, software, validation & verification through HIL tests,
  - Satellite command & control tasking, software algorithms, validation & verification,
OUR MISSION

Leading the development of Turkey’s aerospace industry.

OUR VISION

Becoming a “World Brand Aerospace Company” with indigenous products and global competitive power.
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