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中国航空工业要览

SURVEY OF CHINESE AVIATION INDUSTRY

1997/1998

武器与机械噪声及其控制

谭兴良 编著

北京理工大学出版社

内 容 提 要

《中国航空工业要览》是一部比较全面、系统地介绍中国航空工业及其飞机、发动机、机载 产品和专业工具制造企业以及研究所、高等院校、专业公司及沿海外向型企业的概况、技术特 点、主要产品、合作意向、通信联络等商务资料的中英文对照系列工具书。本书内容翔实、丰 富,并附有部分单位的产品图片介绍,特别有助于国内外工商界及有关人士了解中国航空工业 及其企事业单位信息,与之建立经济技术合作关系。

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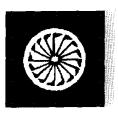
Survey of the Chinese Aviation Industry



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Xi'an Aircraft Industry (Group) Company Limited (XAC)
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Guizhou Honghu Machinery Factory	
贵州新艺机械厂	6
Guizhou Xinyi Machinery Factory (XINYI)	



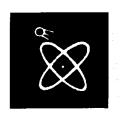
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前言

FOREWORD

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《中国航空工业要览》自 1989/1990 年版至 1995/1996 年版出版发行以来, 受到国内外航空界及有关部门的重视和欢迎, 对反映中国航空工业和企事业实力, 提高航空企事业知名度, 增进外商与企业的业务联系与技术交流, 起了积极的作用。

《中国航空工业要览》每两年修订一次。作为介绍中国航空工业总公司的第一部对国内外发行的书籍,新版《中国航空工业要览》又增加了一部份企事业单位,使之更趋完善。

本书在修订出版过程中得到了有关领导同志和各部门、各单位的大力支持,在此一并表示感谢。

Since the publication from its first edition of 1989/1990 to its previous edition of 1995/1996, the SURVEY OF CHINESE AVIATION INDUSTRY has been well received and highly valued by the aviation circle and by the related industries and departments at home and abroad. The SURVEY has made its positive contribution in reflecting the existing strength of the Chinese aviation enterprises and organizations. in promoting their popularity to the public, and in enhancing their business links and technical exchanges with foreign firms and organizations.

The SURVEY OF CHINESE AVIATION INDUSTRY is revised for every two years. It is the first publication in introducing the Aviation Industries of China (AVIC) to the readers both at home and abroad. In this new 1997/1998 edition of the SURVEY, some new enterprises and organizations are added in comparing to the previous one, and thus the new SURVEY becomes more perfect.

During the process of compiling and publication, strong supports were received from the related leaders, departments and units, hence, we would like to take this opportunity to express our sincere appreciation of their help.



中国航空工业总公司

经过中华人民共和国第八届人民代表大会第一次全体会议批准,国务院于1993年4月22日批准成立中国航空工业总公司。国务院又于1994年批准中国航空工业总公司作为国家控股公司试点之一。中国航空工业总公司由朱育理任总经理,张洪飚、张彦仲、刘高倬、王秦平任副总经理。

中国航空工业总公司的主要职责和任务是:

- (一)根据国务院、中央军委确定的国防建设、经济建设方针和规划,以及国内外的市场需求,制定航空工业的经营战略,编制本公司科研、生产、建设和经营计划,并组织实施,确保完成。
- (二)公司对所属企事业单位的国有资产负责,受国家委托,经营、管理和使用航空工业的全部国有资产,实现国有资产的保值增值,确保对国家的利润上缴。



朱育理 总经理 Zhu Yuli (President)

- (三)对国家重大航空新产品型号实行总承包和系统工程管理,协调型号研制、生产、配套和物资保证工作,不断为军队和民航提供新的航空技术装备。
- (四)跟踪国际航空高科技发展新动向,组织领导航空产品预先研究、新型号研制和新工艺、新技术、新材料的发展,办好航空院校,加强职工培训,促进全行业科技进步。
- (五)推动总公司下属的企业和企业集团面向国际国内市场,开发新产品,发展第三产业,扩大产品出口;推动科研单位和院校实现科技成果商品化和技术出口;为基层企业事业单位做好重大民用产品及其技术改革项目向国务院有关部门的立项申报和服务工作。
 - (六)制定航空工业技术标准,对产品质量实施管理和监督。
 - (七)承担飞机型号(含发动机、机载设备)的国家级鉴定试飞工作。
- (八)负责本公司的进出口贸易和国际经济技术合作,必要时根据国家授权,执行政府间某些航空工业涉外事项。
 - (九)承办国务院、中央军委及有关政府部门授权的其他事项。

中国航空工业总公司下设办公厅、综合计划局、生产调度局、财务局、人事劳动局、资产经营管理局、企业管理办公室、经贸发展局、教育培训局、试飞管理局、技术质量监督局、军机系统工程局、民机系统工程局、AE100项目管理办公室、发动机系统工程局、机载设备系统工程局、科学技术局、国际合作贸易局、政治部以及保密保卫局、老干部局、纪检组与监察局。此外,还设有科学技术委员会。

中国航空工业总公司所属企业按其产品性质可划分为三类;军民结合,以航空产品为主的企业;军民结合,以民为主的企业以及全部转产民品的企业。所属研究院、所和其他事业单位原则上以产品为龙头或按技术专业设置。

通讯联络

地址 北京市交道口南大街 67号

邮编 100712

电话 64013322

电挂 9696

传真 (010) 64013648

Aviation Industries of China (AVIC)



According to the restructuring plan principally approved by the First Plenary Session of the 8th People's Congress, the State Council issued a document on April 22 in 1993, ordering the establishment of the Aviation Industries of China (AVIC). In 1994, AVIC was authorized by the State Council, as one of the experimental state holding companies. Zhu Yuli is appointed the president, and Zhang Hongbiao. Zhang Yanzhong Liu Gaozhuo and Wang Qinping are vice presidents.

AVIC's main responsibilities and tasks include: (1) Formulating the industry's business strategy. working out plans for R&D, production, construction and operation, and ensuring their execution and fulfilment in line with the guidelines and plans for the construction of national defence and economy defined by the State Council and the Central Military Commission, and in line with the demand by the international and domestic markets. (2) Taking charge of the state owned assets distributed among the enterprises and institutions under AVIC, managing and using these assets, ensuring their appreciation and the turning over of profits to the State. (3) Contracting and managing the State's major new aeronautical projects, coordinating R&D, production, support and logistics for these projects, ensuring the continuous supply of new equipment for military and commercial aviation. (4) Tracking the development trend of the world high technology, organizing advanced study and development of new projects, new technique and new materials. Managing aeronautical educational institutes and universities, strengthening staff training and promoting the progress of science and technology in the industry. (5) Pushing its enterprises or enterprise groups into the domestic and international markets with their new products, developing tertiary industry, expanding export of products, promoting technology export and commercialization of R&D results achieved by research institutes, educational institutes and universities. Providing support and service for new major projects definition and registration with relevant authorities of the State Council. (6) Setting up aviation industrial and technical standards, supervising product quality. (7) Conducting the state level flight test of aircraft, including engines and airborne equipment. (8) Taking up the responsibility of the company's import and export trade, international economic and technical cooperation, and on some occasions, conducting some foreign affairs activities under the government's authorization. (9) Undertaking other activities delegated by the State Council, the Central Military Commission and other governmental departments.

In AVIC's headquarters, there are: General Office, Department of Comprehensive Planning, Department of Production Management, Department of Finance, Department of Personnel and Labour, Department of Assets Operation and Management, Department of Enterprises Management, Department of Trade Development, Department of Education and Training, Department of Flight Test Supervision, Department of Quality Assurance, Department of Military Aircraft Engineering Systems, Department of Civil Aircraft Engineering Systems, Bureau of AE100 Aircraft Program, Department of Aeroengine Systems Engineering, Department of Airborne Equipment Systems Engineering, Department of Science and Technology, Department of International Cooperation and Trade, Department of Politics, Department of Public Security, Department of Retired Cadres Affairs, Department of Discipline Inspection Group and Supervision, as well as Science and Technology Committee.

By the nature of their products, there are three kinds of enterprises under AVIC: those taking aeronautical production as main task; those taking non-aero production as main task; and those having converted totally to non-aero production. Research establishments and institutes affiliated to AVIC are set up in accordance with their products requirement or their disciplines.

Communication

Add: 67 Jiaodaokou Nandajie, Beijing, P. R. of China

Post Code: 100712

Tel: (+86 10) 64013322

Cable: 9696

Fax: (+86 10) 64013648



中国航空工业概况

概 况

中国航空工业是中华人民共和国成立以后,在原来极其薄弱的基础上建立和发展起来的。经过 40 多年的建设,中国航空工业从小到大,从修理到制造,从仿制到自行研制,逐步形成了门类比较齐全,拥有科研、生产、教育各个方面的工业体系,已成为中国国民经济中技术密集、基础雄厚的新兴产业之一。

中国航空工业的产品主要有军用飞机、民用飞机、战术导弹、航空发动机、机载设备以及民用产品、

军用飞机包括歼击机、强击机、轰炸机、直升机、侦察机、教练机和无人驾驶飞机等。歼击机是中国航空工业产量最大的飞机品种,过去有歼5、歼6,现在已为新发展的歼7、歼8及其系列改型飞机所代替;强击机有强5及其多种改型飞机;轰炸机有轰5、轰6、水轰5及改进改型飞机;教练机有初级教练机初教5、初教6和喷气教练机歼教5、歼教6、轰教5、歼教7、教8等;无人驾驶飞机主要有靶机和无人驾驶侦察机。中国航空工业还研制生产了多种型号的空空导弹和海防导弹。这些产品主要装备了中国空军和海军。

民用飞机有小型多用途飞机运 5、运 11、运 12, 中短程旅客机运 7, 与美国合作生产的 MD-82 干线客机, 中型运输机运 8, 直升机直 8、直 9 及其改型机, 以及超轻型飞机蜜蜂 2 号、蜜蜂 3 号、蜻蜓 5 号、蜻蜓 5 甲等, 部分满足了国内专业航空和民航运输的需要。

除飞机和导弹外,中国航空工业还研制生产了航空发动机和机载设备。先后试制生产了活塞式、涡轮喷气式、涡轮风扇式、涡轮螺旋桨式和涡轮轴式发动机 25 种,装备了本国生产的各种飞机。机载设备已有 3000 多种定型生产,主要有飞行控制系统、导弹系统、大气数据计算系统、座舱显示设备、仪表、传感器、电源系统、液压操纵系统、燃油供输系统、降落伞装备以及一部分元器件,基本上满足了国内飞机配套的需要。

近年来,中国航空工业调整产品结构,利用航空技术优势,积极开发民用产品,将航空发动机改装为工业燃气轮机,为其他工业部门研制生产各种仪器、设备和关键零部件,还生产了汽车、摩托车、汽车零备件、新型纺织机械、轻工机械等5000多种产品。

随着生产的发展,中国航空工业已拥有一大批专业齐全、设备较好的航空企业和具有较强实力的航空科研机构。航空企业包括企业集团、飞机、发动机、机载设备公司和工厂以及锻铸、工具及机械制造工厂等。航空科研机构有航空科学技术研究院和一批专业设计研究所,可以进行飞机、发动机、仪表、电器、附件、武器的设计研究以及空气动力、结构强度、飞行、救生、光学机械、工艺、材料、计算技术、自动控制等方面的应用研究。近几年,科研试验手段进一步得到充实,改造和新建了先进的飞行试验实时数据管理系统、全机疲劳协调加载系统、发动机部件试验测试系统以及各种类型的仿真试验设备和大型计算机等,基本能够适应新机研制和开展科学研究的需要。

人才培养是中国航空工业迅速发展的基础。中国航空工业现有北京航空航天大学、西北工业大学、南京航空航天大学、沈阳航空工业学院、南昌航空工业学院和郑州航空工业管理学院等6所高等院校、还有3所中等专业学校和一大批技工学校,为航空工业的发展输送了大量人才。

中国航空工业在独立自主、自力更生的基础上,十分重视国际间的合作与交流,大力发展出口贸易和技术引进工作。在1979年成立了中国航空技术进出口公司,专门经营出口中国生产的飞机及其配套的发动机、机载设备、地面设备以及各种民用机电产品,还承包国外飞机、发动机的零部件生产,并在深圳、珠海、广州、厦门、福州、上海、北京、杭州、哈尔滨、大连设立分支机构,在20多个国家和地区设立了代表机构,已同100多个国家和地区建立了贸易和合作关系。已经向10多个国家出口了飞机.还有一

Survey of the Chinese Aviation Industry



The Chinese aviation industry was set up on a very weak foundation left over at the founding of the People's Republic of China. Through the construction of over 40 years, the Chinese aviation industry has grown from small scale to large scale, from repair to manufacture, from license production to independent development. It has become one of the well-based and high-tech and burgeoning industries in the national economy, with a fairly comprehensive range of different disciplines and systems in R&D, production and education.

The main products of the Chinese aviation industry include: military aircraft, civil aircraft, tactical missiles, aeroengines, airborne equipment and non-aero products.

Military aircraft include: fighters, attack aircraft, bombers, helicopters, reconnaissance aircraft, trainers and RPVs. Most of the output of the Chinese aviation industry are fighters, such as J-5 (or F-5) and J-6 (or F-6) in the past, and the newly developed J-7 (or F-7), J-8 (or F-8) and their modified versions. Attack aircraft include Q-5 (or A-5) and its derivatives. Bombers include H-5 (or B-5), H-6 (or B-6), SH-5 (or water-based B-5) and their derivatives. Trainers include primary trainers CJ-5 and CJ-6, and jet trainers JJ-5, JJ-6 (or TF-6), HJ-5 (or BT-5), JJ-7 (or FT-7) and K-8, etc. Pilotless aircraft include drones and RPVs. The Chinese aviation industry has also developed and produced many types of air-to-air missiles and coastal defense missiles. Most of these products have been put into service with the PLA Air Force and the Navy.

Civil aircraft include: light weight multipurpose aircraft Y-5, Y-11, Y-12; short and medium range passenger plane Y-7; medium sized transport Y-8; trunk airliner MD-82 co-produced with U.S.A.: helicopter Z-8, Z-9 and their derivatives; and ultralight aircraft Mifeng-2, Mifeng-3, Mifeng-5, Qingting-5. Qingting-5A, etc. They have partially met the needs of domestic general aviation and civil air transportation.

In addition to aircraft and missiles, the Chinese aviation industry has also developed and manufactured aeroengines and airborne equipment, including 25 types of piston engines, turbojet engines, turbofan engines, turboprop engines and turboshaft engines, as well as over 3,000 kinds of airborne equipment mainly consisting of flight control systems, navigation systems, air data computer systems, flight deck display systems, instruments, transducers, power supply systems, hydraulic systems, fuel systems, parachutes and some parts and elements. They have basically met the needs of the Chinese aircraft.

In recent years, the Chinese aviation industry has adjusted its product structure and actively developed civil products with its technical superiority. It converted acroengines into industrial gas turbines. It developed and produced many instruments, equipment and critical parts and components for other industries. It also produced more than 5,000 kinds of automobiles, motorcycles, automobile parts and components, new type textile machinery and light industry machinery, etc.

With the development in production, the Chinese aviation industry has set up a large number of aviation enterprises and powerful research institutes which are well-equipped and complete in various specialities. The aviation enterprises include aviation industrial groups, aircraft manufacturers, aeroengine manufacturers, airborne equipment manufacturers, as well as forging and casting, tooling and machinery manufacturers. The research institutes include the Chinese Aeronautics and Astronautics Establishment (CAE) and a number of specialized design or research institutes for design and development of aircraft, engine, instrument, electrical equipment, accessories, weaponry, and for applied research in aerodynamics, structural strength, flight, life saving, optical machinery, manufacturing technology, material, computing technology and automatic control, etc. In recent years, more test facilities and equipment have been updated and reformed, such as advanced flight test real time data management system, harmonized loading system for the complete aircraft, engine component test system, various simulation test equipment, and mainframe computers, etc.; they have basically met the needs of the development of new aircraft and scientific research.

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