

Connotation and Thought of Construction of Airport Safety Inspection Specialty Based on the Integration of Industry and Education

Jiayi Zheng, Chengwei Hu^{a,*}

Guangzhou Civil Aviation College, Guangzhou, Guangdong, 510403, China

^ahuchengwei@caac.net

*Corresponding author

Keywords: integration of production and education, airport, security inspection, professional

Abstract: Based on the in-depth analysis of the construction of airport security inspection and the status quo of personnel training, the paper puts forward the airport from three aspects: education and teaching reform, teacher team construction and teaching conditions construction based on the analysis of existing problems. The construction of safety inspection professional connotation, and put forward the construction ideas for the above three aspects, in order to provide ideas and methods for the construction of aviation port security inspection.

1. Introduction

In the past 40 years of reform and opening up, China's civil aviation industry has continued to develop rapidly. The total turnover of air transport (excluding Hong Kong, Macao and Taiwan) has increased from 1978 to 37 in the current ICAO (State Council). In the second place, it became the largest air transport country after the United States. China's civil aviation industry is realizing a strategic shift from a large civil aviation country to a civil aviation power. The acceleration of the global economic integration process has brought unprecedented opportunities for development in China's civil aviation industry. China is both the world's largest passenger exporting country and the fastest growing destination country in the world. During the "Thirteenth Five-Year Plan" period, the number of aircraft will continue to increase rapidly, and for each additional aircraft, the industry will add an average of hundreds of employees. The number of aircraft determines the scale of demand for civil aviation personnel in China.

As an important infrastructure for air transportation and the city, the airport is an important part of the comprehensive transportation system. The implementation of the civil aviation strategy is inseparable from the improvement of the airport operation management level. By 2020, the total number of national transport airports will reach more than 260, covering 91% of the country's population within 100 kilometers, and building more than 20 integrated transportation hubs with large airports as the core. In 2012, the State Council's Several Opinions on Promoting the Development of the Civil Aviation Industry pointed out that by 2020, China's civil aviation service sector will be significantly expanded, service quality will be significantly improved, international competitiveness and influence will be significantly improved, and sustainable development capacity will be significantly enhanced; First, in order to strengthen airport planning and construction, efforts should be made to improve large-scale international aviation hubs and build new feeder airports. One of the main policy measures is to strengthen science and education and talent support, implement major talent projects, and increase the shortage of professional talents. In 2010, the Medium and Long-Term Plan for the Construction of Talent Teams in the Civil Aviation Industry proposed to strengthen the training of airport management professionals and improve the airport construction management, operation management, operation management, security and comprehensive management capabilities. The 13th Five-Year Plan for the Development of Civil Aviation in China issued by the Civil Aviation Administration in 2017 pointed out that by 2020, the total number of aircraft will increase to 4,000, and the normal flight rate will increase from less than

70% to over 80%. From the above airport and aircraft growth and flight punctuality rate requirements, it is not difficult to see that there will be huge demand for airport security inspection talents in the future, and the reality is that the number and quality of various types of airport security surveillance personnel lag far behind the rapid development of civil aviation. To solve the constraints of high-quality airport security inspection talent shortage on the development of civil aviation, to achieve the sound development of civil aviation, the efficient operation of civil airports and the safe operation of civil aviation, it is inevitable that the training of personnel in colleges and universities and the quality of personnel training through professional construction are inseparable.

2. The status of air traffic safety inspection professional construction and personnel training

The complexity of civil aviation safety inspection work and its high requirements for safety and efficiency determine that civil aviation airport security inspectors must have a high degree of professionalism, superb business level and strong communication, coordination and management. They must not only have The professional knowledge and skills required for civil aviation transportation airport security must be familiar with the workflow and principles; not only must we be familiar with the operational procedures, but also have the ability to analyze and solve problems in the event of an abnormal situation, and these capabilities are needed. Cultivated, it is impossible to do it overnight. With the rapid development of the civil aviation industry and the increasing and saturated airport traffic volume, in the construction of aviation port security inspection and personnel training and meeting the needs of new situations, new situations, new tasks and new technologies, there are still many places that don't fit. In view of the professional construction and personnel training of aviation harbor security inspections in civil aviation institutions, the relevant research institutes such as China Civil Aviation Flight Academy, Civil Aviation University of China, Civil Aviation Management Cadre College and other related institutions have been investigated. At present, the following are mainly in the construction of air traffic safety inspection majors and personnel training. One aspect of the problem: First, the content of the training and the needs of the post are out of touch, unable to keep up with the renewal and development of new technologies, new equipment, and new management concepts in actual positions; Second, the professional curriculum system is not reasonable, and it does not meet the characteristics of technical and skilled talents at the higher vocational college level; Third, the participation of industry enterprises is low, and participation and cooperation are insufficient in the construction of curriculum system, the preparation of professional teaching materials, the sharing of training bases, the construction of full-time and part-time teachers, student training and evaluation; Fourth, there is a problem in the cultivation of the emphasis on the theory and practice, the separation of theoretical practice and teaching, and the evaluation method is not reasonable at the same time; The fifth is the lack of experimental/training equipment and venues in the school; the sixth is the lack of professional practice ability of professional teachers in the school/the lack of education and teaching ability of part-time teachers, and the lack of theoretical knowledge and practical skills of students. In view of the above problems, we believe that based on the concept of the integration of production and education, the study of the connotation and ideas of the construction of aviation port security inspection is our continued work.

3. Connotation of the construction of aviation port safety inspection under the guidance of the integration of production and education

The school's comprehensive and full-scale cooperation, the deep integration of production and education, the construction of aviation port security inspection professionally aims to cultivate high-quality talents that meet industry standards and corporate requirements, in line with the airport port security inspection related competency competence as the foothold, we will jointly promote the construction of a new professional talent training model within the framework of school-enterprise cooperation.

3.1 Education and Teaching Reform

(1) Innovative production and education integration, school-enterprise collaborative education, talent training mechanism

We will further promote the integration of production and education, school-enterprise cooperation, continue to focus on the integration of civil aviation industry standards and professional teaching standards, and transform and innovate the training mode of aviation port security inspection professionals in the "integration of documents and schools, school-enterprise integration".

(2) Further deepen teaching reform

Innovate classroom teaching, strengthen the "student-centered" concept, strengthen the education and teaching activities that integrate theory and practice, and promote the teaching model based on work process orientation to cultivate students' ability to analyze problems and solve problems, and train students self-learning ability and innovative spirit.

Improve the teaching management that adapts to the combination of engineering and teaching mode, construct a multi-internship training evaluation system with the goal of educating people, and score the usual results, the unit assessment scores, and the comprehensive ability assessment scores with different weights to make the curriculum, the three links of teaching and assessment are closely linked to improve students' enthusiasm and initiative in participating in learning, and improve students' ability to translate theoretical knowledge into practical applications. Cooperate with similar institutions and industry enterprises to systematically design vocational education professional teaching standards and curriculum standards.

(3) Intensify innovation and entrepreneurship education.

The students' innovative consciousness training and innovative thinking will be integrated into the whole process of education and teaching, and promote the organic integration of professional education and innovation and entrepreneurship education. Through the development of innovative and entrepreneurial ability training programs for students who have the willingness and potential to start their own businesses, the results of students' innovative inventions are remarkable, and the proportion of self-employed students has increased significantly.

(4) Establish a professional evaluation and improvement mechanism to ensure the quality of personnel training

To study the quality evaluation program and evaluation index system for professional talents and to manage talent quality according to the evaluation indicators, and to take students' professional ethics, technical skills and employment quality as important criteria for quality evaluation of talent training. In particular, the employment rate of new graduates, professional counterpart rate, average starting line, satisfaction with the alma mater and other important indicators. Strengthen the quality monitoring of the talent training process, especially the key links such as curriculum system arrangement, teaching staff ability and practical ability training, form a quality evaluation, feedback and improvement mechanism involving the participation of schools, industries, enterprises and society, and continuously improve the quality of personnel training.

3.2 Faculty construction

(1) Incentive, restraint and training mechanism

Improve the incentive and restraint mechanism, promote professional leaders to improve professional level, expand industry influence, and vigorously support teachers to carry out teaching reform, accumulate work experience and improve practical teaching ability. At the same time, increase the part-time teachers of industry enterprises to participate in curriculum reform and professional construction, and undertake practical teaching.

(2) Strengthening the training of key teachers

In this major, we select 2~3 teachers with solid professional foundation and broad professional vision as professional backbone teachers. Under the leadership of professional leaders, we will develop a reasonable professional long-term construction plan to guide the construction of professional teaching teams. To arrange relevant teachers to conduct business practices, participate in

new technology training, understand and master the latest technological trends and development trends of relevant industries (or post groups), guide the construction of personnel training systems, the preparation of talent training programs, and the construction of training bases. The construction of the curriculum system and other work will improve the level of professional construction.

(3) Teaching team building

In the construction of the teaching team, the professional high-level talents training will be integrated into the high-level talent team construction of the education system and the construction of high-quality civil aviation teams. Multi-channel and multi-modal teacher training (professional training, the old bringing the new), improve the overall professional and technical level, education and teaching ability, practical hands-on ability, actively participate in various education and teaching reform, professional construction research projects under the leadership of professional leaders, Improve innovation capabilities. In the end, a professional teaching team with professional leaders as the core, backbone teachers as the main body, young teachers and enterprise part-time teachers to progress together will be formed.

3.3 Teaching conditions construction

(1) Teaching resource development and platform construction

Grasp the core of professional construction - the curriculum. The major will continue to improve the curriculum system construction, so that "industry standards into the system, professional standards into the curriculum" to ensure that the content of professional courses can meet and meet the requirements of professional positions. Make full use of the digital teaching and information management platform, continue to deepen the construction of online courses, promote the construction of micro-courses, create an information-based learning environment, and realize the integration of information technology and teaching.

(2) Construction of professional teaching materials system

The development of the airport security inspection and support textbook system based on the technical and technical standards for airport security inspection and security, and the construction of the airport's safety inspection and support textbook system, fully embodying the "three consistent" characteristics of the curriculum organization model. That is, the learning field is consistent with the work field, the learning process is consistent with the work process, the learning tasks are consistent with the work tasks, and the characteristics of higher vocational education are highlighted. It is proposed to cooperate with industry enterprise experts and engineering technicians to jointly develop teaching materials and realize the sharing of teaching resources.

(3) On-campus practice teaching base

On the basis of the completed civil aviation navigation simulator on-campus training base, the "Tower Simulation Laboratory" will be further constructed. When the laboratory is completed, the preparation of training materials and training instructions will be completed simultaneously.

(4) Off-campus practice teaching base

Actively explore the model of productive training bases for joint management and resource sharing between schools and enterprises, gather and integrate high-quality education and teaching resources of schools, break the boundaries between industry enterprises and schools, and add 1 or 2 off-campus internship training bases.

4. Based on the integration of production and education, the construction of airport security inspection majors

Schools and enterprises cooperate in the whole process, integrate production and education, and promote professional construction. Adhere to the "school as the main body, civil aviation industry guidance, civil aviation airport participation" as an innovative mechanism for the construction of aviation port security inspection, and fully guide and mobilize the enthusiasm of civil aviation industry, enterprises and social forces to participate in professional construction and personnel training through system construction.

Focus on talent training and deepen teaching reform. School-enterprise cooperation, integration of production and education, and collaborative education are an effective way to achieve the goal of talent training. Based on the needs of enterprise talents and based on the operational tasks (groups), the airport security inspection profession cooperates with industry enterprises to build a professional curriculum system, formulate curriculum standards and professional personnel training programs, formulate professional teaching standards, and jointly develop teaching materials. To build a practice/training teaching base inside and outside the school to jointly promote the construction of full-time and part-time teachers; and on this basis, improve the curriculum resources, integrate information technology (especially based on mobile platform +) into daily teaching, and continuously explore professional construction. The reform and innovation of talent training mode and education and teaching mode, the integration of professional ability and professional ability, the integration of professional practice and operational skills and job skills, the integration of teaching materials, teaching content and industry standards, and the integration of teaching process and work process. During the implementation of the project, we will adhere to the full cooperation and comprehensive cooperation between the school and the enterprise, and fully cooperate in form and content.

References

- [1] Research on problems and countermeasures of civil aviation safety inspection in China [D]. Southwest University, 2016.
- [2] Hu Lushi. Research on talent demand and training plan for security inspection direction [J]. User World, 2013 (10): 64 - 65.
- [3] Chen Yonggang, Zhou Changchun, Tan Xin. Exploration on the Training Mode of Compound Talents in Safety Engineering Specialty in Our College [J]. Journal of Civil Aviation Flight University of China, 2006, 17 (1): 11 - 14.
- [4] Chen Zhuo. Research on Practical Teaching Process of Civil Aviation Security Inspection Course [J]. Journal of Jilin Province Economic Management Cadre College, 2015, 29 (3): 108 - 109.