

## CASE STUDY

YANGZHOU TAIZHOU AIRPORT, JIANGSU CHINA



# YANGZHOU TAIZHOU AIRPORT DEPLOYS LEADING PROFESSIONAL DIGITAL TWO-WAY RADIO MOTOTRBO™

CREATING SUPERIOR COMMUNICATION SYSTEM AS A MODEL FOR ALL FEEDER LINE AIRPORTS



## YANGZHOU TAIZHOU AIRPORT, JIANGSU CHINA

Jointly built by Jiangsu Yangzhou city and Taizhou city as 4C-class feeder line airport, the Yangzhou Taizhou Airport opened to air traffic on May 8, 2012. The airport's development plans cater for short term capacity of annual throughput of 900,000 passengers, cargo handling of 18,000 ton and land utilisation of 1966 mu. By 2040, the airport is expected to become a medium-sized airport, expanding North and West with long term capacity of annual throughput of 3 million passengers, cargo handling of 60,000 ton and land utilization of 4726 mu.

As a newly built feeder line airport, Yangzhou Taizhou Airport serves as an air transport hub for the Central and North of Jiangsu. Compared with trunk line airports, the feeder line airports are usually equipped

with configurable infrastructure that can cater for rapid expansion as passenger traffic and business volume increase. The same standard is also adopted for their wireless communication system. To provide emergency communications, Yangzhou Taizhou Airport chose MOTOTRBO™ digital two-way radio from Motorola Solutions. They also selected the Dispatch and Control platform - TrboX from Shanghai Ji Hua Information System Co., Ltd which operates on their new MOTOTRBO Capacity Plus system. This superior wireless communication system is seen as a model for feeder line airports.

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### THE CHALLENGE

#### ENSURE COMMUNICATION SYSTEM SUPPORT SAFE AIRPORT OPERATIONS AND FUTURE EXPANSION

As a new airport, Yangzhou Taizhou Airport requires reliable digital communications with clear voice quality to support safe airport operations. As a feeder line airport, it is also important that their communication system must meet prudent budget and cost control, while providing for future expansion as the business volume increases. When choosing digital radio system over the low-cost, limited capability of analog system, the airport saw Motorola's highly expandable MOTOTRBO digital radios as the ideal choice.

### THE SOLUTION

#### MOTOTRBO MEETS CUSTOMER REQUIREMENTS OF TOTALLY SAFE AND PRACTICAL, ECONOMIC AND RATIONAL, AND MODERATELY ADVANCED COMMUNICATIONS

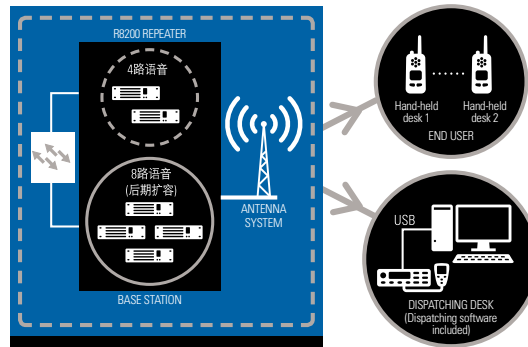
Li Ming, the Leader of Operation Department, Yangzhou Taizhou Airport, said: "During the planning of our new wireless communication system, we were guided by three design principles: totally safe and practical, economic and rational, and moderately advanced. At the same time, we expected the system to provide superior performance and uncompromising reliability".

To ensure superior performance, the airport adopted the highly advanced and mature MOTOTRBO technology, global standards for wireless communications, as well as robust network management platform. To ensure uncompromising reliability, they rely on MOTOTRBO which is designed and manufactured according to American military standards with IP57 specifications to provide highly reliable and real-time dispatching and communications.

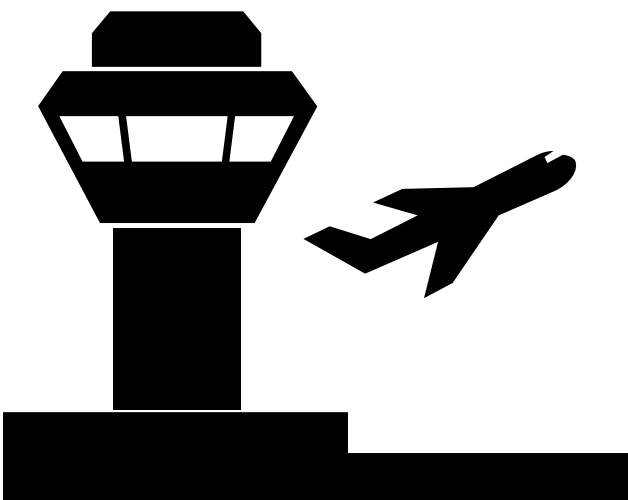
### ROBUST COMMUNICATION SYSTEM

For the hardware configuration, the new communication system comprises two units of MOTOTRBO R8200 repeater which provides 4-channel digital cluster and supports 100 units of digital portable radios, including 50 units of MOTOTRBO XiR P8260 and 50 units of MOTOTRBO XiR P8200. The system also supports 4 units of MOTOTRBO XiR M8268 mobile radio to provide dispatching function and bridging with the recorder.

The new terminal digital intercoms can effectively organise four call groups: public/emergency channel, ground service department, security check and guard department, as well as the operation security department. These four call groups can directly communicate with the relevant departments in the airport.



For the software configuration, the TrboX platform which is developed by Shanghai Ji Hua Information System Co., Ltd and based on MOTOTRBO Capacity Plus system now supports the dispatching and controlling function of the terminal intercoms in the airport command centre, and can record all intercom calls within the airport.



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### HIGH VOICE QUALITY AND WIDER COVERAGE AREA

MOTOTRBO system provides exceptional voice quality and wide range of communications. Wayne Zhu, Senior Sales Manager, Radio Channel China, Motorola Solutions explained, "MOTOTRBO is based on the latest Time Division Multiple Access (TDMA) technology, enabling 12.5Khz bandwidth to provide two voice channels instead of one. MOTOTRBO Capacity Plus system is a scalable, single-site digital trunking solution which can cost-effectively expand the capacity of our terminal intercoms. It has helped us to increase voice traffic on the four communication channels and boost system efficiency. Another outstanding feature is MOTOTRBO's excellent ability to suppress environmental noise, making it well suited for airport operations."

### COORDINATING DISPATCH OPERATIONS

Pan Wei, General Manger of Shanghai Ji Hua Information System Co., Ltd further elaborated, "The digital dispatching system TrboX concentrates the dispatchers' operation on a human-computer interface, including personnel assignment, dispatching, location tracking and recording of the dispatching process. It is intuitive, and convenient with easy operation and porting. Another advantage is the connectivity with mobile radio."



TrboX management functions include:

- online and offline automatic registration service for the terminal intercom to perform easy user search
- short message service for group messaging, team messaging and single user messaging with the control centre
- rich voice control system for remote detection, remote shooting and monitoring
- strong GPS location for quick assessment of situation
- flexible personnel and organisation setting to meet differing demands
- reliable, error-free data log for easy query and backup

MOTOTRBO system is based on the widely recognised European Telecommunication Standards institute (ETSI) digital mobile radio class 2 standard which supports professional and business communications. New functions are easily updated via the TRboX software platform, ensuring a better return on the hardware investments.

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### OUTSTANDING BENEFITS

After two months of system evaluation, the project was formally deployed on February 14, 2012. The system deployment and debugging were completed within a week, which was considered as extremely fast and efficient.

Li Ming expressed, "With the new communication system, the operation management and efficiency are significantly improved and comparable with leading national feeder line airports. MOTOTRBO's high performance is meeting the needs of our feeder line airport very well. Its high stability and voice quality provide effective control for the terminal intercom equipment in the airport, truly enabling us to hear, see, check and control the situation. It is absolutely reliable and we trust this system."

For more information on how MOTOTRBO™ Digital Radio can deliver reliable and clear communications, please visit us on the web at [www.motorolasolutions.com/mototrbo](http://www.motorolasolutions.com/mototrbo)

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