In busy airports around the country, keeping the baggage moving and delivered to the right place at the right time is both a challenge and a critical factor in passenger satisfaction. For Triangle Services, time is of the essence with no margin for error. MOTOTRBO digital two-way radios and StreetTrek Explorer GPS location software keeps Triangle’s staff in constant communication, meeting its commitment to leverage technology to deliver flawless customer service.

**Challenge: Airport noise, RF interference and channel traffic**

One of the largest privately held companies in the service industry, Triangle Services offers fifty years of quality service solutions tailored to meet customer needs in many industries throughout the country. The company provides various aviation support services, operations and facilities-related support to commercial, industrial, and airport operators, airport facilities and airlines. At JFK Airport in New York, Triangle Services’ JFK team is responsible for transporting passengers’ baggage between the numerous unit terminal facilities.

“We run three consecutive shifts transporting interline baggage,” says Mike Philbin, Manager, JFK Interline Baggage Operations for Triangle Services. “During peak periods, we have 17 drivers picking up and delivering as many as 5,200 bags per day. The biggest challenge is that we have only 20 minutes to get those bags to their destination once they have been sorted by each terminal operator’s ground staff.”

Triangle Services’ drivers and supervisors at JFK had previously used two-way analog radios to communicate with each other, as well as with the centralized dispatch center, to keep operations moving and deliveries on time. However analog radios are often subject to radio interference from other users and static from certain environmental factors, causing degradation in voice clarity and performance. In addition, analog radios transmit background noise along with the voice and in the noisy environment of a busy airport, this can create the opportunity for misinterpreted or missed messages.

“We’re proud of the high quality service level we provide to our customers,” says Philbin. “Therefore, anything that slows down our operations or potentially causes inefficiencies is unacceptable, so we began looking for a better solution that would help us increase the efficiency of our workforce.”
Solution: MOTOTRBO digital radios for audio clarity and increased coverage

Philbin met with Lenny Knigin of Comtran Associates, a local Motorola channel partner, to discuss a migration to digital two-way radios. Knigin recommended a MOTOTRBO digital radio system. MOTOTRBO would provide Triangle Services with clearer voice communications throughout the required coverage area. Digital technology rejects static, suppresses background noise and minimizes interference from other users, enabling drivers to transmit and receive crisp, clear audio for more reliable communications. In addition, the MOTOTRBO radios are also GPS-capable, allowing Triangle Services’ dispatchers to use a location application to keep track of each truck in real-time and immediately re-route it to another destination as needed.

Comtran demonstrated the improved audio, coverage, and integrated voice and data capability of the MOTOTRBO radios to Triangle Services and the improvement over the existing analog radios was immediately apparent. MOTOTRBO would also allow managers to communicate one-on-one to the supervisors, enabling private communications without tying up the channel.

“We were very impressed with the radios,” says Philbin. “The crystal clear audio was far beyond what our old analog radios were capable of providing and the digital capability, including GPS and all of the call features, was right in line with what we needed to increase efficiency.”

Comtran installed 24 MOTOTRBO digital mobile radios, one in each truck, along with six MOTOTRBO digital portable radios for the field supervisors. All trunk-mounted and portable radios are equipped with GPS. A repeater mounted within one of the unit terminals provided additional range to the far end of the coverage area and a base station unit was installed in the main office for the dispatch function.

Results: Crisp, clear audio and GPS location tracking for smooth operations

“We were very impressed with the radios,” says Philbin. “The crystal clear audio of the MOTOTRBO radios, our dispatchers, supervisors and drivers can now stay in contact with the touch of a button,” says Philbin. “The radios provide better, more reliable communication and have helped us in our quest to continually improve the efficiency of our entire operation at JFK.”

Improving efficiency through digital two-way communications not only offers the opportunity to provide flawless service, which has a direct impact on customer loyalty, it also allows companies to reduce operational expense.

For example, one of the hallmarks of the service provided by Triangle is its ability to react immediately to an airlines’ call to the dispatcher for the quick transfer of passenger baggage from one unit terminal to another in order for the bags to be loaded onto the passengers’ connecting flight. This event occurs when flights operate off-schedule or the passengers’ connecting flight times are too close for the baggage to flow through the interline transfer system normally and runs the risk of bags not making the scheduled flight. The dispatcher uses a wide-screen monitor to identify the location of each of the baggage transfer vehicles via the GPS location tracking system and directs the nearest vehicle to the location of the baggage requiring immediate transfer.

“The airline’s staff is happy because it doesn’t have to pay for special handling of the passengers’ baggage,” says Philbin. “And most importantly the passengers retrieve their baggage at the final destination.”

- Mike Philbin, Manager, JFK Interline Baggage Operations at Triangle Services

“With the crystal clear audio of the MOTOTRBO radios, our dispatchers, supervisors and drivers can now stay in contact with the touch of a button. The radios provide better, more reliable communication and have helped us in our quest to continually improve the efficiency of our entire operation at JFK.”

- Mike Philbin, Manager, JFK Interline Baggage Operations at Triangle Services
“We haven’t had any issues with loss of communications, even in the terminals,” says Philbin. “The MOTOTRBO digital radios were the right solution. The audio is crystal clear, the GPS feature allows us to keep track of our trucks, and the radios just have more capabilities.”

– Mike Philbin, Manager, JFK Interline Baggage Operations at Triangle Services

Other benefits include:

- **Increased efficiency**: The MOTOTRBO radios, equipped with GPS location tracking software StreetTrek Explorer and StreetTrek Location and Messaging Server, enable Dispatch to identify the location of each vehicle. “Sometimes we experience choke points where one terminal is getting hit with more volume,” says Philbin. “When that happens, we can immediately contact our other drivers in the vicinity and redirect them to that site,” says Philbin.

- **Expanded coverage**: With analog radios, transmission begins to degrade as it reaches the edge of the coverage area. Error-correction technology in MOTOTRBO digital radios enables clear audio and data transmissions all the way out to the edge.

- **Greater driver safety and security**: With flexible call options, the centralized dispatch center can immediately send out emergency alerts to all drivers simultaneously. The GPS feature also allows them to track the driver’s location and send help when needed.

- **Durability**: MOTOTRBO portable radios meet industry standards for submersibility and durability and are intrinsically safe for locations where flammable gas, vapors, or combustible dust may be present.

- **Phased migration to digital**: With operation in both analog and digital modes, MOTOTRBO enables organizations to migrate at their own pace – one talk group or one department at a time.

- **Greater capacity**: With digital technology, double the number of users can operate on a single frequency with decreased congestion and no increased risk of interference.

“We haven’t had any issues with loss of communications, even inside the unit terminal structures,” says Philbin. “The MOTOTRBO digital radios were the right solution. The audio is crystal clear, the GPS feature allows us to keep track of our fleet and workforce, and the radios just have more capabilities.”
CASE STUDY: Triangle Aviation Services

About Triangle Services
Triangle Services provides Facility and Aviation Support Services to market leading companies and organizations. With operations in 42 states Triangle’s competency extends to expert level management of the many services that support a business, airport or airline operation. With over 3000 employees delivering services to over 40 million square feet of space Triangle has grown in the past 50 years to become one of the most widely respected companies in the industry.

About Comtran Associates
Comtran Associates, Inc. is a Motorola channel partner and leading provider of two-way radio communication services in the New York City area since 1961. Comtran, whose customers range from Fortune 100 enterprises to small, independent companies, is a family owned and operated business whose founders are still proudly active in the daily operations of the company. Comtran is also a developer of MOTOTRBO applications, including the StreetTrek family of software.

Next Steps
Leveraging labor with technology is a core competency of Triangle Services. Because the switch to the MOTOTRBO digital radio system was so successful, the company is now planning to replace their analog two-way radios at other airports they service to all-digital.

With airports around the country looking for ways to keep passengers happy and maintain customer loyalty in the midst of a challenging economy and stiff competition, Triangle Services is doing its part to keep efficiency at peak levels, drivers safe and baggage moving smoothly throughout the airport.

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