

Case Study

Surface Management



Challenges

- Growth of operations
- Increased incursion risk
- Surface movement capacity and safety
- Incomplete surface coverage

Solutions

- A-SMGCS
- Multi-sensor data fusion
- Highly accurate multilateration & ADS-B positional data
- Complete surveillance coverage
- Airport vehicle tracking

Copenhagen Airport

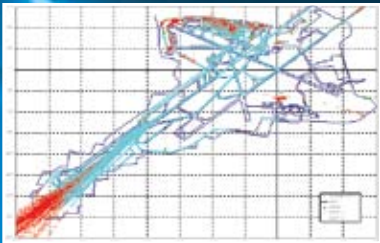
Copenhagen Airport is one of Europe's largest airports and a major center of airport traffic in Scandinavia and northern Europe. Copenhagen serves as the Scandinavian hub for DHL, Scandinavian Airlines and is a key hub for the Star Alliance, a network of 16 international airlines that fly to a total of 795 airports in 139 countries. In 2006, Copenhagen saw 260,000 operations, 21 million passengers carried and over 350 tons of cargo transported. With a European and global network of direct flight connections, Copenhagen's operations and expansion are critical to supporting the growth of not only Denmark but the whole Scandinavian region as well.

The Challenge

The growth and success of Copenhagen Airport places a premium on surface management and the safety of increasing operations. Secondary Surveillance Radar (SSR) solutions for surface management lacked the comprehensive coverage and ability to track all aircraft and vehicles in Copenhagen's airport surface zones. Copenhagen needed to achieve a single-view of aircraft and vehicle movements that simply could not be supplied effectively or economically by traditional radar solutions. Copenhagen began researching the proven benefits of a multi-sensor approach to surveillance with an Advanced Surface Movement Guidance and Control System (A-SMGCS) that integrated multilateration and ADS-B surveillance with existing radar data sources.



Screenshots



MSS By era SQUID By era

The Solution

After an international competition, Copenhagen awarded the program to HITT as the prime contractor for the A-SMGCS, which relied on a network of MSS by Era sensors as well as Squid by Era vehicle tracking units.

In January 2005, the system supplied by Era successfully completed full system acceptance testing. The A-SMGCS solution fused the highly accurate positional data from Era's ground-based stations and vehicle tracking units with radar data into one consistent traffic presentation.

Today, the HITT and Era solution is now a fully operational A-SMGCS solution that has received CAA certification.

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Era Corporation is a pioneer and leading supplier of next-generation surveillance and flight tracking solutions for the air traffic management, military, security and airport operations markets. With proven multilateration and ADS-B technologies delivering high-performance, high-reliability surveillance solutions, the company has over 100 airport, air traffic management and military customers throughout North America, Europe, the Middle East, Africa, South America and Asia. Era systems are providing high performance, high reliability surveillance with hundreds of operational sensors covering the airspace of over 35 different countries around the world. Era's investment in research and development and its track record of product innovation has resulted in a substantial patent portfolio. Era is headquartered in Reston, Virginia with leading product research and development centers of excellence in the U.S. and Czech Republic.

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