

# Worldwide installations



The MSS 6000 is operated by Transport Canada, Finnish Border Guard, Estonian Border Guard and the Malaysian Maritime Enforcement Agency among others.

ST Airborne Systems first developed (under the name SSC Airborne Systems) an airborne remote sensing system for the Swedish Coast Guard in the 70's. Following a number of successful deliveries in Europe, in the late 90's we developed the MSS 5000 version of the system. This was first taken into operation in Norway in 1998, after which followed a number of installations for Coast Guard, Air Force and Navy customers in Sweden, Poland, Greece, USA and Portugal among others.

Based on feedback from users and driven by new possibilities opening up with new technology we designed the MSS 6000 system, which was first taken into operation by Transport Canada's Marine Safety branch in 2006. Since then we have delivered more than 25 MSS 6000 systems to customers around the world installed in a number of different types of aircraft.

Today we offer the MSS 7000 which is built on new technology as well as on several decades of operational experience. Use it to enhance your maritime surveillance operation!

Contact our Mikael Seyfarth, Senior Sales Executive, at [mikael.seyfarth@airbornesystems.se](mailto:mikael.seyfarth@airbornesystems.se).



## MSS 7000

**Excellence Expertise Efficiency**  
**- your best choice for successful surveillance missions!**

ST Airborne Systems, June 2016

## MSS 7000



**Smaller, lighter, faster!**

## configured for Beech 350

A perfect combination. The MSS 7000 installed in Beechcraft 350 gives you a very powerful tool for the maritime surveillance task. With this aircraft you will benefit from the following advantages:

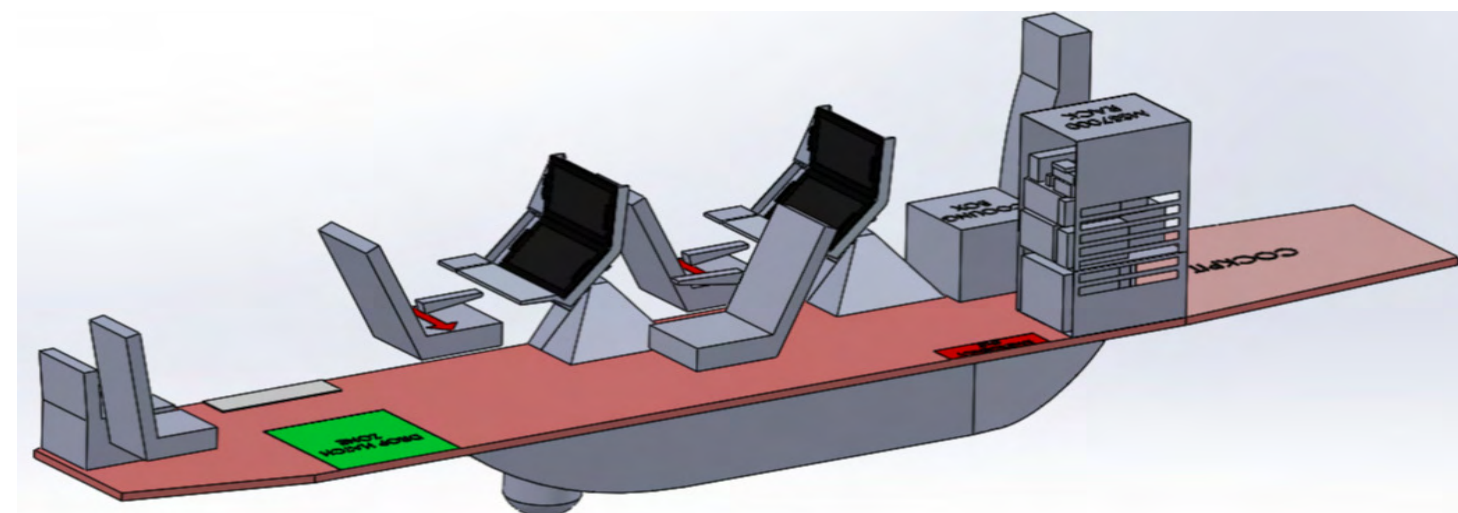
- **Highly engineered reliability and durability suitable for harsh environments and extreme temperatures**
- **Low acquisition and operation cost**
- **Long endurance**
- **Standard "slick" mission interior that minimizes weight and maximizes both volume and flexibility for the mission package**
- **Improved Multi-mission capability – including improved support for search and rescue and over land applications**
- **Improved situation overview**
  - Integrated Ship image data base
  - Target correlation and filtering
  - Two large touch screens for comprehensive overview and ease of operation
- **Improved cooperation with ground command:**
  - Real time transfer of data and video
  - Exchange of geographical data in standard formats
- **More power in less weight and volume**



## The Beech 350

### The Aircraft

Mission flexibility. Affordability. Proven reliability. All make the King Air® the perfect aircraft for special missions, including aerial survey, air ambulance, surveillance and transport. Low acquisition and operating costs make it easy on your budgets and a competitive winner.



The suggested layout of the cabin can include two operator consoles, two observer seats, an equipment rack and a drop hatch for buoys and rescue equipment.

The ability to go anywhere in the world without additional fuel tanks, and flight times over 12 hours with 45 minutes fuel reserve make it an outstanding choice. Highly engineered reliability and durability were demonstrated in the harshest environments – including extreme temperatures and unimproved runways.

The Extended Range (ER) version of the King Air 350 increases the gross weight by 1,500 lbs. through substantially larger and stronger main landing gear struts/ wheels/tires & brakes, and increases the fuel capacity by 236 gallons/893 liters to a total of 775 gallons/2,934 liters through use of low drag metal fuel tanks aft of the powerplants. Higher gross weight and higher fuel capacity result in significantly more mission flexibility.

The King Air 350ER is built with a standard “slick” mission interior that minimizes weight and maximizes both volume and flexibility for the mission package.

### Installation of surveillance equipment

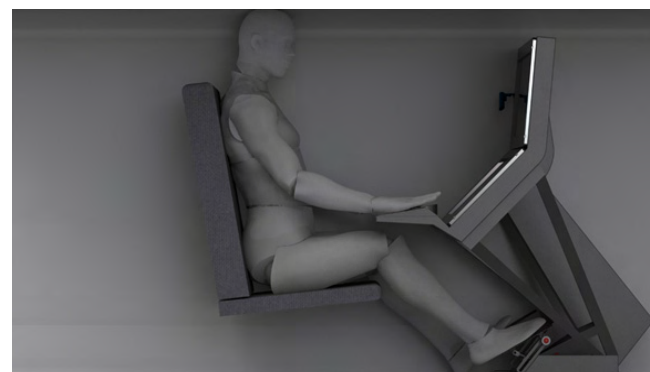
When configuring the MSS 7000 for installation on a Beech 350 aircraft, we propose the following solution:

- A belly pod will house the search radar, IR/UV scanner and EO/IR sensor.
- A SLAR antenna pod housing dual sided SLAR-antennas is installed below the aircraft tail.
- Antennas for the radio systems are installed on the underside of the aircraft fuselage or under the wings. All radios are accessible to all of the crew through an integrated Audio Communication System.



- An Inmarsat Satcom System is installed with the High Gain Antenna on the aircraft upper fuselage and other LRUs in the Equipment Rack.
- The AIS Transponder is mounted inside the Equipment Rack and the dedicated VHF Antenna under the aircraft fuselage.

- The Direction Finder is installed with the Antenna unit located behind the forward landing gear.



The MSS 7000 operator console. Please note the large 23” multi touch screens for superior ease of use and effectiveness operating the mission system.

Two forward facing Operator Consoles can be fitted on the left hand side of the aircraft cabin as shown above. Each console has two 23” multi touch monitors, keyboard, and a trackball. The Consoles are mounted on the aircraft seat rails and can be quickly dismantled.

We put a lot of effort into creating an ergonomic working environment for the system operator and the MSS 7000 is no exception. Two Special Mission Seats are provided, one for each of the system operators. The seats have adjustable height, allow track, swivel and recline, and have fold up adjustable arm rests, and 4 point harnesses.

One or two cockpit displays provide up to date mission information to the pilot and co-pilot.

## The MSS 7000

The MSS 7000 airborne ISR multi-mission surveillance system is designed to effectively address tasks such as Exclusive Economic Zone protection, border control, law enforcement, protection of natural resources (e.g. monitoring of fishery and fish stock), Search-And-Rescue, piracy and smuggling, sea traffic control and environmental protection (e.g. oil spill detection and monitoring).

The MSS 7000 integrates a field-proven suite of sensors to give a comprehensive overview of the situation on the sea surface. It is of a highly modular design and can be tailored to interface with a wide variety of sensors to support each specific type of mission that our customers require.

The system has been designed to support the operator in every situation. The user-friendliness of the system will enable the system operator to manage all sensors and communication equipment while staying focused on the mission.

The system will automatically record all data and document all observations in real time. Observations, reports and video can be shared with cooperating units in real time via the satellite link, and/or be compiled into a mission report during or after the mission. The MSS 7000 uses standard GIS formats and supports import and export of images, map overlays and target data as well as user created graphics, from/to other GIS compatible IT systems within the end user’s organisation.

The flexible design allows for one or more operator workstations, each with configurable functionality on-board the aircraft. Thus the work distribution between the operators may be configured to support the work routines of the crew, to maximise the effectiveness of the mission. Additionally, the MSS 7000 supports one or more Portable Display Units, for observers, pilots and co-pilots to establish a common mission and situational awareness.

The same situational awareness may be shared by ground staff/first responder units using the ST Airborne Systems Mission Command Centre, distributed ground stations and tablet PC’s.

### New features

The MSS 7000 is based on the collected experiences from deliveries to coast guard customers in more than twenty countries around the world. Some of the new features of MSS 7000 are:

- Intuitive user interface for the system operator, based on two large displays.
- User interaction is provided through touch screen interfaces in parallel with standard cursor control devices.
- Simultaneous display and recording of up to four video channels. Capability to simultaneously record all data (including video) from all sensors.
- Multi-mission capability with dedicated user interface profiles for each mission type.
- Target track association.
- Correlation of observations with a built-in ship image database.
- Advanced filtering tool for sorting out objects of interest in the tactical map.
- Built-in image processing tools to assist the operator in detecting and documenting hard targets and oil spill areas.
- “Time slider” for viewing and replaying of mission history. All video sources and all recorded data will replay from the selected point in time.

### Training

In all of our system deliveries training for pilots, executives, operators and maintenance engineers is included.

The MSS 7000 operator console and example of sensor suite ----->

