

Virtual radar tracking of aircraft - a new dimension to airband listening



Fig. 1 The SBS-1 System fresh out of the box.

The SBS-1 can add a whole new dimension to your airband listening.

The SBS-1 system from Kinetic Avionics (www.kineticavionics.co.uk) has sparked much debate and gathered quite a following of loyal customers and enthusiasts over the past year. When information began appearing about the system, I will admit that, at first, I was somewhat sceptical at this 'too good to be true' piece of hardware aimed at aviation professionals and enthusiasts alike. I am pleased to say that my scepticism was soon a distant memory after the first five minutes of using this unique and high potential piece of kit.

What is the SBS-1?

For those of you who may not have heard about the SBS-1, I

feel that now is a good time to briefly discuss what it is and how it works. Most aircraft currently flying use a transponder that sends out signals containing information on its altitude, heading, aircraft type and so on, which can be interpreted by air traffic controllers around the country. What the SBS-1 system essentially does is intercept these signals and, coupled with the software provided, creates a real-time virtual radar on your home PC where you can track aircraft flying in and around your vicinity.

The signals that the system receives are designated as Mode-S/ADS-B, which at this time not all aircraft are currently equipped with. However, the Civil Aviation Authority has

stated that by the 31st March 2007, all IFR (Instrument Flight Rules) flights must be Mode-S equipped.

The Military Element

For any airband listener, there is almost unlimited potential when a real time virtual radar system is installed and operated in the shack beside the radio. It is border line breathtaking the first time that you hear an aircraft on the radio and also see it on your virtual radar screen.

For the mil-com monitor however, it is not quite as good, yet! As it stands, many military transport and cargo flights will appear in the aircraft listing within the software, but will not be shown on the virtual radar itself. It is unclear at this time if that will change in due course, but only time will tell.

Out Of The Box

As a relative newcomer to the SBS-1, the current plan is for this column to be based around my own experiences, trials and tribulations while using the SBS-1. As this is the first column, the obvious starting point is at the very beginning, which involves initially getting the product out of the box.

The system comes complete and ready to 'plug and play'. The box contains everything you need to get going including: The SBS-1 receiver, power lead, USB cable, Basestation software and a high gain Mode-S antenna.

The instructions included are ideal and setting the system up should be conducted with minimum of fuss. The first thing that you will notice is the weight of the receiver, which I have conveniently termed the Black Box. It is incredibly lightweight, to the point of wondering if there is actually anything inside it! With a few flashing LED lights visible from the front panel, it makes an ideal addition to any shack that will no doubt already have a mass of flashing lights.

As with all radio related equipment, the higher up the

antenna can be mounted the better. I personally opt to stick it up in my loft with the rest of my radio antennas. There is an external antenna currently on the market for the SBS-1, but that will be covered in a later issue.

Once the software is installed, the antenna connected and the receiver plugged into your computer, it is merely a case of running the Basestation software, and watching in awe as aircraft appear in the radar screen.

Coming Next Month

This first column is to act as a very brief introduction to the SBS-1 system, aimed primarily at readers who may not have heard about it at all, or know very little about it. Each month, this column will be delving deeper into the SBS-1 and its operation, so rest assured that all your SBS-1 needs will be covered here.

There will also be space available to answer reader's questions and other material contributed, so if you're an SBS-1 user, get in touch.

Logs comments and contributions always welcome to:

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