

Issue 12

SPRING/SUMMER 2011

# MSC Newsletter

MODEL SOLUTIONS OF CANADA LTD.

R/C MODELS LIKE YOU'VE NEVER HEARD THEM BEFORE!!



1/8 Scale Eurocopter A350 in flight by  
Yannick Yvonnet from Tahiti, French Polynesia

Click on the picture to see and hear a video of this helicopter In action!.

## SFX6.4 in Tahiti

Our SFX6.4 sound system is equally at home in model boats, tanks, airplanes and helicopters.

There are some excellent examples of our customer's helicopters in action – see the videos on our web site. In this issue, we feature a particularly fine model of a Eurocopter A350 helicopter. This model, above, shown against the beautiful blue sky of Tahiti, in French Polynesia, was built by Yannick Yvonnet.

The model is 1.35m (53") long, 33cm (13") high with a rotor diameter of 135cm (53"). Powered by an Align 650L motor and a 6S 5000mAh LiPo battery, the model is complete with cockpit interior, and a pilot in captain's uniform with headset, microphone and coiled cable.

The real Eurocopter A350, built by Eurocopter S.A.S., is a light transport helicopter using an Arriel 1D1 Turbine Engine, providing 740HP at take off.

The chopper has 1 pilot and can carry up to 5 passengers.

It is 10.93m (36ft) long, 3.34m (11ft) high with a rotor diameter of 10.69m (35ft). Its range is 660km (413 miles) with a top speed of 287 km/h (180mph).

Yannick's model is fitted out with one of our SFX6.4 sound systems loaded with genuine A350 turbine engine sounds. The effect in the model is quite stunning – [watch the video!](#)



## In This Issue

SFX6.4 in Tahiti	p1.
Major 3.1.0 Release	p1.
3.1.0 Release - continued	p2.
Low Voltage Amplifier	p2.
Separate Amplifiers	p3.
SFX6.4 in museums	p3.

## Major 3.1.0 Release

We are pleased to announce our next major release of software and firmware for the SFX6.4 sound module.

The release, named 3.1.0, contains a wealth of new features, many relating to more precise and flexible Engine Sound Control.

The largest component of this new release is our new "Throttle Ranges" feature. This allows each sound clip in the list of Engine sounds to be assigned a specific "Throttle Range" i.e. Lower and Upper % of the total throttle throw. If the throttle stick position is within, or equal to, these limits, then that particular engine sound is played.

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### 3.1.0 RELEASE - continued

The older method of selecting an Engine Sound “Step” was to use linear interpolation of the throttle position and pick a sound clip step based on that number. The “Throttle Ranges” feature is a complete change, since engine speed steps are now chosen based on whether the throttle position falls within its specified Throttle Range.

This is very helpful if you want to play specific sounds at specific throttle positions such as might be used in model tanks or helicopters. It also allows the Engine Start-Up sound to be started at a specific throttle position. This allows more precise synchronization between the Engine Start-Up and when the motor actually starts turning.

There is, therefore, no longer any need for the old Start-Up and Shut-Down Deadbands which have now disappeared.

### GEAR CHANGES AND SPECIAL SOUNDS

An exciting new feature is the ability to mark any sound clip as, not only “Continuous Looping” or “Play Once”, as before, but now also “Play Through Next” or “Play Through Previous”.

The latter two allow a sound clip to play once only and then play the next or previous sound in the list. This is great for introducing gear changes, for example, in the engine sounds.

## MSC CONTINUES TO LEAD THE WORLD IN R/C SOUND SYSTEM TECHNOLOGY



Severn Class Lifeboat, Brian Roberts  
Wrexham, North Wales, United Kingdom

The new features in our 3.1.0 Release are unmatched in any R/C sound system in the world!

### THROTTLE INCREASING OR DECREASING

The flexibility of the new Engine Control Features is further enhanced by the ability to mark specific sounds as Throttle “Increasing Only”, “Decreasing Only”, or both. Whilst the default is “Both”, this allows specific sounds to be played only when the throttle is increasing away from its neutral or off position, or when it is decreasing towards the natural or off position.

Similarly, you can mark an engine sound to be played only when the throttle is in the “Forwards Only” position, “Reverse Only” position, or “Both” (the default).

### NEW .SFX5 FILE FORMAT

In order to support all these advanced features, it has been necessary to use a new .sfx5 file format for the composite file containing all the sounds and their corresponding configuration data.

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### .sfx5 file format continued

The new SFXPC3.1.0 software can read an older .sfx3 or .sfx4 file and will automatically convert it to the newer .sfx5 file format

### IMPROVED GUI

In the 3.1.0 release, many software and firmware bugs have been fixed and general overall improvements in the GUI (Graphical User Interface) have been made.

### LOW VOLTAGE AMPLIFIER

We now have stock of excellent low voltage amplifiers, rated at 5-15Volts.

This very small amplifier can drive 4 Ohm loudspeakers and does not require a heatsink due to its efficient Class D output circuitry. This allows the use of our sound module in 6V model boats and 7.2V model tanks.



## SEPARATE AMPLIFIERS?

We are considering producing a future sound module separate from the power amplifier.

This would allow the same sound module to be used with a variety of amplifiers covering different voltage ranges.

This has the advantage of greater flexibility for the modeler, but means there would be two boards to purchase and wire up, possibly meaning slightly higher overall cost.

We would appreciate input from all our existing and potential customers: "Would you prefer a sound module with a built-in amplifier operating from 10-26Volts, or a sound module with separate amplifiers?"

Please let us know your thoughts.

This is in our very long range development plans. In the meantime, we have lots of stock of our current SFX6.4 sound modules.

## SFX6.4 IN MUSEUMS

Whilst the SFX6.4 sound module is primarily intended for radio control applications, its versatility allows it to be also used in static displays such as in museums.

One recent customer has installed our SFX6.4 sound system in a tug boat display in the Children's Museum of Virginia, United States.

## PHOTO/VIDEO GALLERIES

Each issue of our newsletter will feature one or two photos of customer's models. Please feel free to send us your photos and videos.

**Tip:** When shooting videos, be very aware of where the wind is coming from. Many user's videos are completely spoiled and unusable by wind noise picked up by the microphone.

Our Photo Page is at :  
[www.modelsolutions.ca/photogallery.htm](http://www.modelsolutions.ca/photogallery.htm)

Our Video Page is at :  
[www.modelsolutions.ca/videogallery.htm](http://www.modelsolutions.ca/videogallery.htm)

## MSC ARTICLES

We have published several technical articles of interest to R/C modellers. They are all available on our Articles web page at :

[www.modelsolutions.ca/articles.htm](http://www.modelsolutions.ca/articles.htm)

These articles are also included in the Articles folder on the CD-ROM accompanying the SFX6.4 sound module.

## CUSTOMER TESTIMONIALS

We welcome testimonials from any customer who has purchased any of our SFX6 modules and are pleased with the product, and/or our service.

Please email them to :  
[contactus@modelsolutions.ca](mailto:contactus@modelsolutions.ca).

Thank you.

## NEWSLETTER FREQUENCY

We are now producing our newsletter bi-annually i.e. Spring/Summer and Autumn/ Winter.

If you do not wish to receive any future e-newsletters from us, please send an email with the subject line "Unsubscribe" to  
[newsletter@modelsolutions.ca](mailto:newsletter@modelsolutions.ca).

Tel : Canada 613 882-4649  
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