17 PRE-FLIGHT SETUP

BALANCE

Your Super Flyin' King must balance between 7" to 8" behind the leading edge. Checking the balance takes two people, one at each wingtip. Oh, and they need strong fingers! With each person lifting with one finger at each wingtip, you should be able to determine the balance point within a 1/4" or so. The prototype balanced at the 8" mark without the addition of any weight. After flying it some, I'm glad it's at the rearmost position. There is still plenty of stability, it does effortless aerobatics, and it flares nicely when landing with full flaps. With the CG at the forward end of the range, you had better have some extra elevator deflection available for full-flap landings.

CONTROL THROWS

Adjust the amount of control surface deflection to the amounts shown below. These are mild settings - most pilots will probably want to increase the throws after the first few flights to improve the model's aerobatic capability.

RECOMMENDED CONTROL THROWS

AILERONS: 1-5/8" UP, 1" DOWN
ELEVATOR: 1" UP, 1" DOWN
RUDDER: 1-1/2" LEFT, 1-1/2" RIGHT
RUDDER DEFLECTION WITH FULL AILERON: 3/4"
FLAP DEFLECTION: FULL MOVEMENT (40°)
DOWN ELEVATOR WITH FULL FLAPS: 7/16"

Notice the ailerons should move UP more than DOWN. This aileron differential helps combat adverse yaw, which is strong in aircraft like this. Notice also that rudder coupling with aileron is recommended, for the same reason. Make sure the rudder is slaved to the aileron so they move in the same direction (for example, left aileron input also gives some left rudder).

Automatic DOWN elevator compensation must be used to counteract the nose-up tendency of the model when the flaps are deployed. This is a common feature found on many modern radios.

For the prototype, I selected a Futaba 6DA transmitter. The 6DA is not a computer radio, but it has several features that make it suitable for the SFK. First, the flap knob is positioned on the top (not on the face) of the transmitter, where it is easy to reach with my right index finger without taking my thumb off the stick. It also has switches to turn on CAR (coupled aileron/rudder) and elevator compensation. Finally, there's a sixth channel that may come in handy for a bomb drop or something like that in the future.

PRE-FLIGHT INSPECTION

Be sure to perform radio range checks, both with the engine off AND with it running. If there is a significant decrease in the range with the engine running, you may need to reposition your components, re-route the antenna, or add some shielding to the ignition system. You also need a positive way of shutting off the engine from the transmitter, either using full idle trim or a separate channel to switch off the ignition or pull the choke on.

Keep in mind that even though this is a big airplane, it's the little things that will "getcha". Double check all of your servo arm screws, clevises, pushrods, nuts, bolts, hinges, cables, and fuel tank connections. Triple check that your flight controls are all moving in the proper direction. **-SFK**