V-Tail Differential Mix with Live/In-flight Adjustments

- Rudder differential mix for dialing out yaw-pitch coupling in the vtail
    - Requires addition of a single mixer, the Rudder-Elevator mixer with a 3-point custom curve
- Shown below with a FrSky X20S transmitter running on ETHOS v.1.4.9, and adding the mix in an existing E-Soar MAXX F5J template from Mike Shellim where Channel 5 is the right-vtail and Channel 6 is the left-vtail (https://rc-soar.com/ethos/templates/esoarmaxx)
- Live mix adjustment via the X20S's red slider (Pot 3); after adjustment, long press Pot 3 and select Convert to Value'
- Last 2 screenshots are of the DevMon Lua script from Mike Shellim to display the differential adjusted by the red slider; slider middle is no differential, slider moving up increases differential (slider moving down is reverse differential)
- Credit: this is a revision from mawz's post on RCG, with screenshots from current ETHOS version

1. Go to your model's Mixer section
2. Add Rudder → Elevator mix
    a. Free Mix
    b. Analogs – Rudder as the input

3. In Edit screen for this Rudder-Elevator mix, add a custom curve
   a. In Curve section, Add a new Custom curve and label it VTAIL DIFF
   b. Custom curve with 3 points of 100, 0, 100 so that you get the same input on each side of the rudder

4. Then go back to the edit page for the Rud-Elev mix
    a. Either adjust the weights for the 2 output settings with a specific value, or
    b. For live/in-flight adjustments, long press the Weight Up and Weight Down boxes, select use a source, then select the adjuster, in this case, Pot 3 (X20S's red slider).
    c. Make sure you have the same input setup for each channel, in this case, Channel 5 is the right vtail and Channel 6 is the left vtail

5. DevMon Lua script showing the mixer's effects
    a. Top: red slider in the middle, no differential with full right rudder stick
    b. Bottom: red slider moved slightly upwards with some differential with full right rudder stick