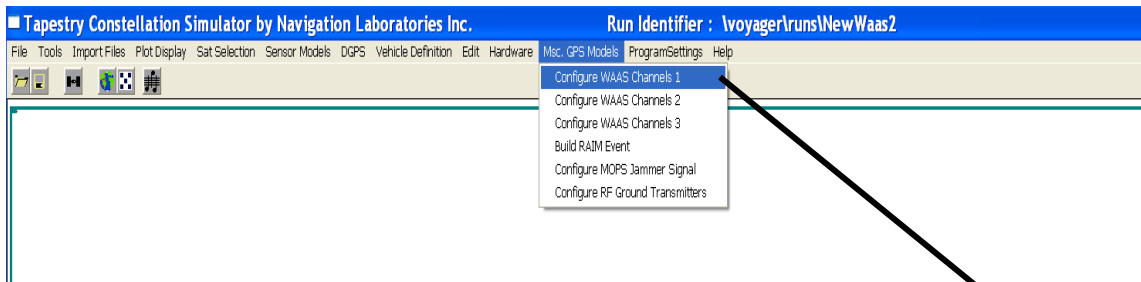**Overview:**

Three WAAS satellites can be configured into the simulation. By default, there are NO configured Waas satellites. You can change this default configuration much the same way you change any default configuration: Select the DEFAULT scenario and change the Waas Control files and the CONTROL RECORD to activate the WAAS channels. The channels are set to be on channel 12, 13, and 14 and generate SVID 134, 122, 120.
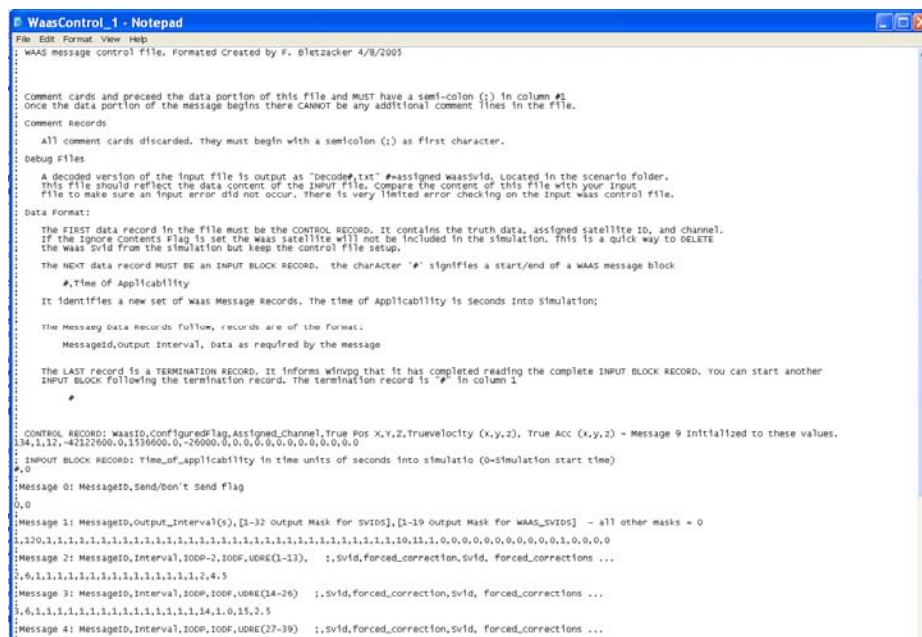
Note that any new scenario's you create will copy the DEFAULT scenario as the basis for you new setup. If you want WAAS channels configured for all scenario's you create, change the DEFAULT control record.

Configuring and Outputting WAAS Satellites

To add WAAS satellites to your scenario, select the **Msc.GPS Models** pulldown and select the WAAS channel of interest,

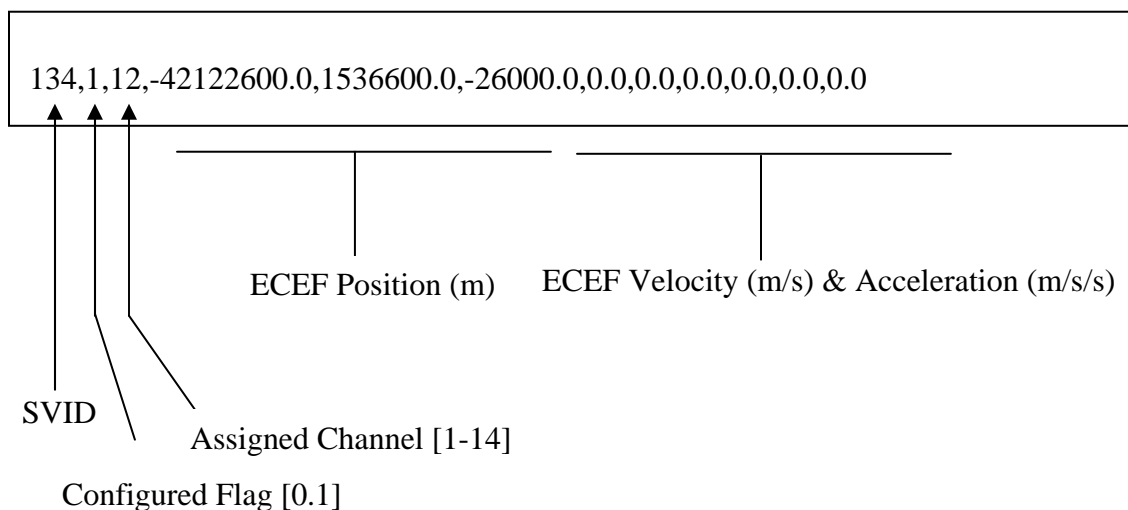This will open the Waas Control File, an example is shown.

There are three Waas Control files in the scenario folder. The names are:

WaasControl_1.txt
WaasControl_2.txt
WaasControl_3.txt

These contain the important **Waas Control Record** and the associated **Waas Data Records**. The **Control Record** determines what WAAS satellite is generated, what channel it is assigned to and the associated true location information. The **Data Record(s)** contain the content of the output telemetry data and or control the values of the output telemetry data.

Waas Control Record

An example of a valid control record is shown:

134,1,12,-42122600.0,1536600.0,-26000.0,0.0,0.0,0.0,0.0,0.0,0.0

ECEF Position (m)   ECEF Velocity (m/s) & Acceleration (m/s/s)

SVID

Assigned Channel [1-14]

Configured Flag [0.1]

The **Configured Flag** controls the output of the Waas messages. If the **Configured Flag = 0**, No Waas data associated with this channel and SVID will be incorporated into the simulation. If the **Configured Flag = 1**, then the Waas data associated with this channel and SVID will be incorporated into the simulation.

You should leave the channel assignment as it is unless you have expert knowledge of the layout of the NavLabs constellation simulator. The ECEF state entered determines the Waas Truth Data for the simulation.

Waas Data Record

Debug Output Files

WinVpg will create three more TEXT files after the scenario has been built the names are:

WaasScd_1.txt
WaasScdl_2.txt
WaasScd_3.txt