Operational Procedures

Procedure for re- pointing the Albanian TOP Channels over to 101.0 Deg West Satellite (AMC-4) on Home2US platform

August 1st, 2008

1. Introduction

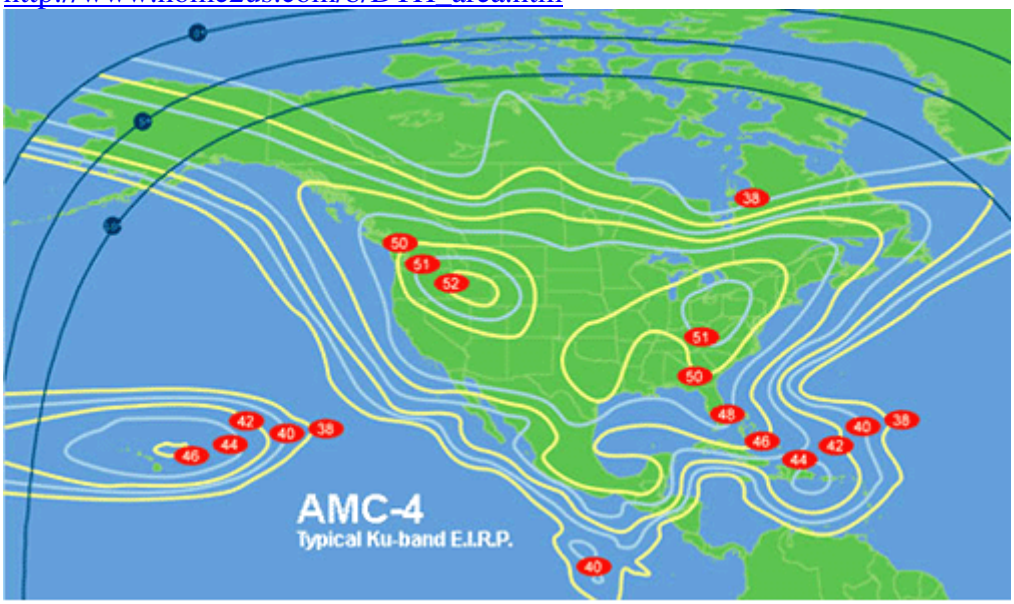
TOP Channels are currently transmitting broadcast services via the AMC-4 @ 101 °W (North America Region). All the receiving stations with existing installed antennas will have to repoint their antennas from Galaxy-25 @ 97.0°W over to the new satellite based on their specific locations.

To help with the calculation of the new pointing data, a simple program issued by Home2US is provided along with the present procedures contained in this operational procedures document.

2. Coverage Areas

The coverage area of the new satellite is depicted in the following picture:

http://www.home2us.com/b/DTH_area.htm



3. Carriers' Characteristics

In the following table the parameters of the new carriers are listed, as well as the receiving antenna details:

Frequency Parameters	
Satellite	AMC-4
Location	101 W.L.
Transponder	21 – Ku band
Modulation	QPSK
FEC Rate	¾
Transmitted Symbol Rate	30,000
Polarity	Vertical
Downlink Frequency	12120 MHz

1. **TOP Channel** IRDETO-2 Scrambling
2. **TOP News** IRDETO-2 Scrambling
3. **FOLK+** IRDETO-2 Scrambling

Tools and Equipment required in accomplishing the correct repointing of the antenna are provided in the list below. It is necessary that the personnel on site is equipped with the following instruments and tools:
• Spectrum Analyzer
• Inclinometer
• Magnetic Compass
• Coax Cable , 5 m long (or longer depending on the distance between the antenna and the satellite receiver) terminated with an F connector on one end and a spectrum analyzer compatible connector on the other end
• Mechanical tools to loose and fasten the bolds of the antenna to move it.
• Program for the calculation of the pointing data
• PC with a serial port RS232 available and a emulation terminal program such as Hyper Terminal
• One RF splitter 1 input, 2 output.

4. Procedure for the antenna repointing

Before starting the repointing of the antenna, calculate the new pointing data using the online program such as DishPointer provided by Home2US at the following location:
http://www.home2us.com/b2c/?mid=customer-care.technical-support.dishpointer

You will need the following information for your specific location:
Elevation: _____°
Azimuth: _____°
LNB skew: _____°

Example for zip-code 20171

Adjustment	Galaxy-25	AMC-4	Difference
Elevation	40.5	38.7	-1.8
Azimuth	209.5	214.7	5.2
LNB skew	22.5	26.3	3.8

If you have negative (-) value in the Difference column that means your new value will be that much less than the present setting; if your Difference value is positive, your new setting should be that much higher.

Procedures:

1. With a marker put a reference line on the satellite pole so that you can come back to the original point.
2. At this point, unscrew slightly the elevation settings with the bolts behind the dish (there may be 2 or 4 depending on installation) and adjust to the new value by using the compass and the inclinometer move the antenna over the new satellite. Then, tighten the screw back to hold the new setting.
3. Do the same with the skew setting if that was used before.
4. Loose the bolt in azimuth, adjust the value and secure the screw not very tight. Leave yourself a chance to move it a little in the final tuning to find the AMC-4 satellite.

Turn the dish VERY slowly. Ask help from a colleague to tell you when the program gets into lock (you may need walkies-talkie or cell phone for this).

Fine tuning and best possible signal:

5. On your Remote Control, find in your MENU the screen for Signal "strength" and "quality". Two (2) horizontal bars will show their respective percentage.
6. Slowly change the Azimuth to the left and/or to the right until at least a small portion of the bars turn bright green color. Carefully continue changing the Azimuth until the highest value achieved and then fasten the screws to secure the position of the antenna.
7. Once the position where the received signal is the highest has been found, tighten the bolts.

Please note that if the antenna is an offset one, the offset angle has to be subtracted from the calculated elevation angle. Take into account the magnetic declination for the azimuth angle too, according to the site.

Since TOP Channels are encrypted, it'll be necessary to order your Home2US receiver and your smart card in order to decrypt the signal.

5. Contact Points

In case of problems, the local operators can provide technical support at the following numbers:

Telephone +1-888-312-2182
Fax +1 866-644-0473
e-mail support@home2us.com or installation@home2us.com