i80 Antenna Calibration Release Note

Introduction

The IGS has authorized CHC i80 receiver which supports GPS, GLO, GAL, BDS, SBAS after the absolute antenna calibration by Geo++..

Calibration Result:

The GNPCV Type Mean is the adjusted mean of the five individual CHCI8O NONE GNSS antennas. The Antenna Reference Point (ARP) is the reference point used in the calibration. The reference direction to north is defined by the Man-Machine Interface (MMI). The antenna height has to be measured to the ARP, which is vertically defined to the bottom of antenna mount (BAM) and horizontally to the rotation axis defined by the center of 5/8" thread.

- Calibration Result GPS

The absolute GPS PCV excluding the mean phase center offsets for the Ll and L2 frequency are depicted below:

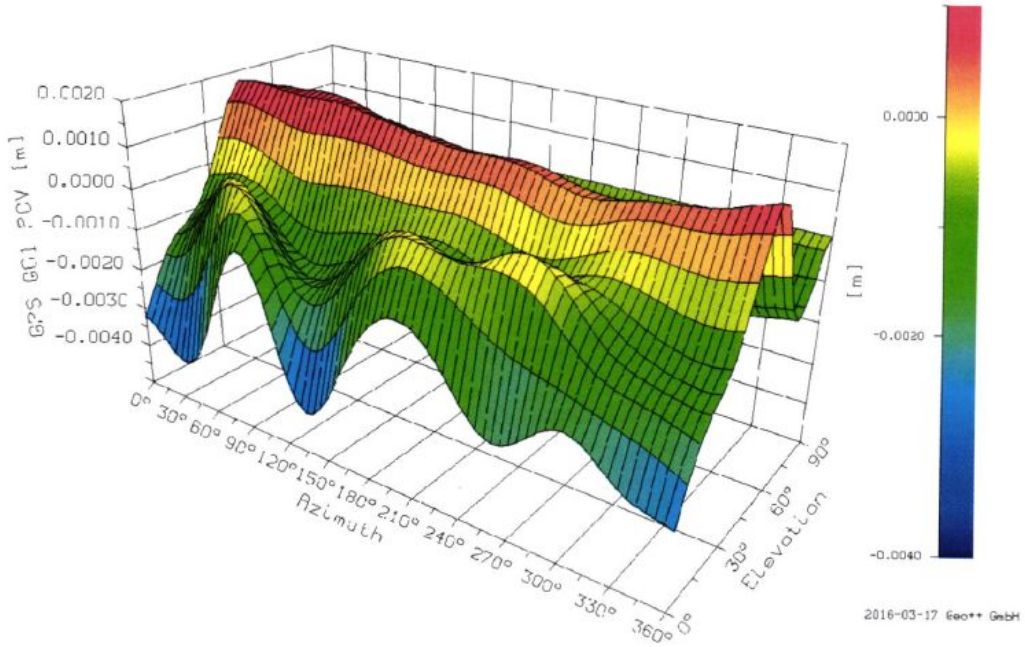

Figure 1: GPS L1 PCV

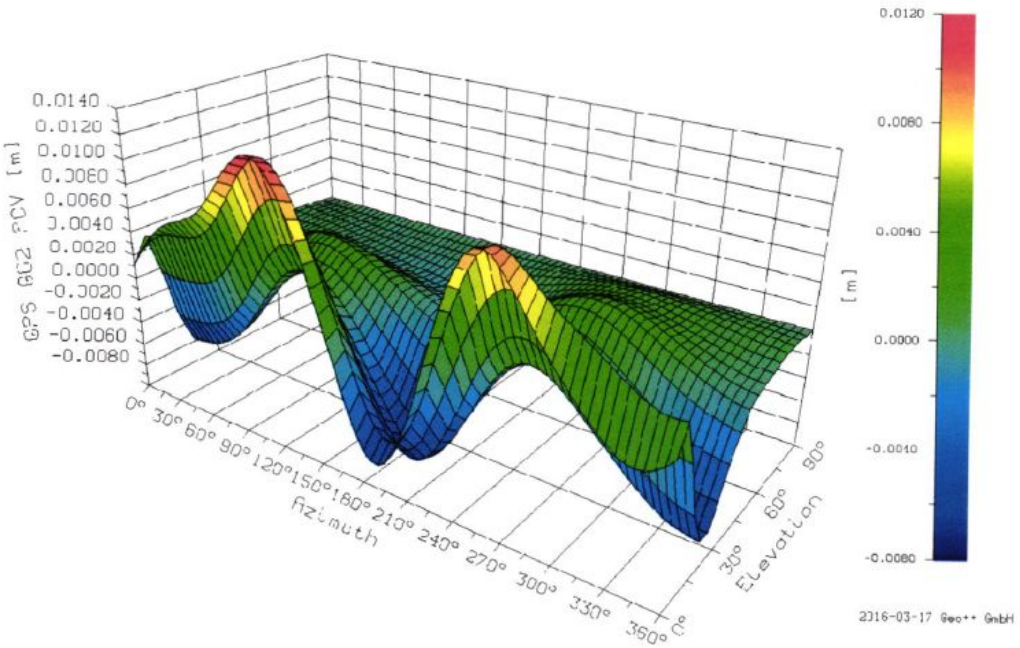

Figure 2: GPS L2 PCV

- Calibration Result GLONASS

The absolute GPS PCV excluding the mean phase center offsets for the Ll and L2 frequency are depicted below:

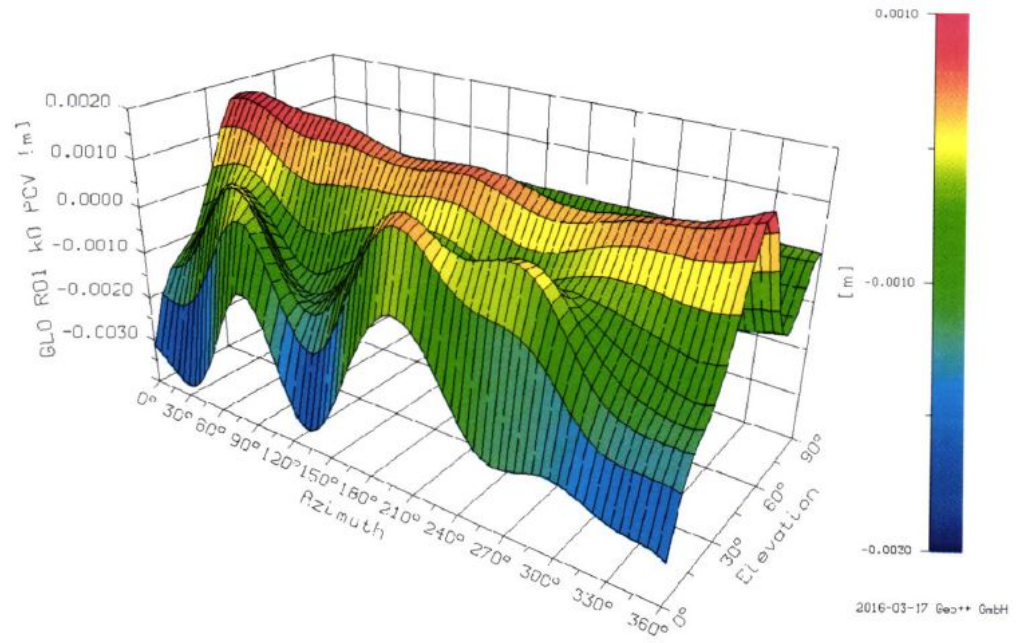

Figure 3: GLONASS L1 PCV

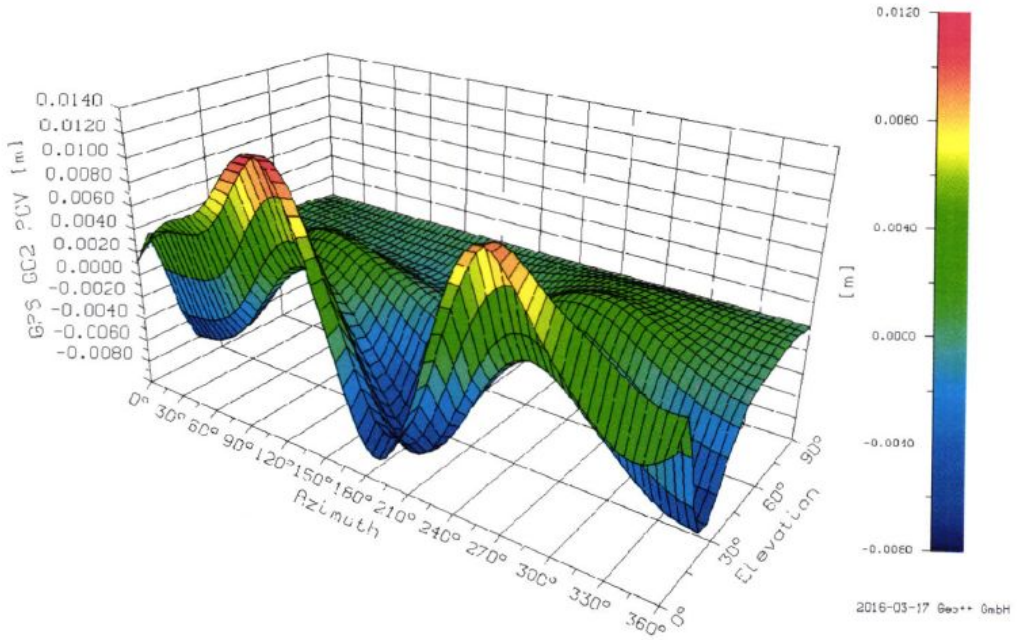

Figure 4: GLONASS L2 PCV

The determined corrections eliminate elevation and azimuth dependent Phase Center Variations (PCV) from antennas and therefore allow to use them optimally.

As a numerical reference, the pure elevation dependent PCV are listed in the international ANTEX format (see ANTEX format description for details, download link: https://www.hightail.com/download/cUJWckhkRkVvQUkxZXNUQw). However, the complete model of the antenna consists of elevation and azimuth dependent PCV values.

For the details, download file: CHC1098_Documents.

For the information on NGS website, please refer to http://geodesy.noaa.gov/ANTCAL/#, CHCi80.