Federal Aviation Administration – William J. Hughes Technical Center

National Airport Pavement Test Facility (NAPTF)

Contract No: 692M15-20-D-00004

ARA TO 005 Structural Airport Pavement NDT and Evaluation

5.1.1.2 CC9 NDT Data Collection (Task 4.1.1.2)

CC9 NDT Survey Notes

Device: GPR – Cart

Survey: Trafficking 20220404

Date: 4/14/2022

Operators: Douglas Evans

Folder Name: 20220414 GPR Cart CC9 Traffic Raw Data

File Format: DZT

**General Notes**

* Transverse data collected along the ten (10) Standard Transverse Test Lines.
  + Cart is aligned with white transverse line and direction of travel is from Offset -26.66 ft. to +26.66 ft. (North to South).
  + Survey starts and stops with the antenna centered on the yellow longitudinal edge of test area lines.
* Longitudinal data collected along center of North and South wander patters at Offsets -15.00 ft. and +15.00 ft., respectively.
  + Direction of travel is from West to East.
  + Survey starts and stops with the antenna centered on the transverse lines marking Stations 0+00 and 3+00.
* Data collected with 900 MHz and 2.6 GHz ground-coupled antennas.
* Calibration of DMI performed before data collection with each antenna and value recorded.

**Settings**

Parameter 900 MHz Antenna 2.6 GHz Antenna

Transmit Rate 100 KHz 100 KHz

Samples/Scan 512 512

Bits/Sample 16 16

Range 15 ns 8 ns

Dielectric 4.00 (default) 4.00 (default)

Rate (Scans/Second) 100 (default) 100 (default)

Scans/Unit 30 scans/ft. 90 scans/ft.

Gain Points 3 2

Vertical Low Pass – LPIIR 2500 MHz 0

Vertical High Pass – HPIIR 225 MHz 10 MHz

Vertical Low Pass – LPFIR 0 5000 MHz

Vertical High Pass – HPFIR 0 400 MHz

Stacking Filter 5 5

**DMI Calibration**

Distance 900 MHz Antenna 2.6 GHz Antenna

10.00 ft. -494.50 -495.80

**Data Collection File Numbers**

Transverse Survey Lines

Location 900 MHz Antenna 2.6 GHz Antenna

Station 0+15 064 076

Station 0+30 065 077

Station 0+75 066 078

Station 0+90 067 079

Station 1+35 068 080

Station 1+50 069 ~~081~~, 082

Station 1+95 070 083

Station 2+10 071 084

Station 2+55 072 085

Station 2+70 073 086

Longitudinal Survey Lines

Location 900 MHz Antenna 2.6 GHz Antenna

Offset -15.00 (North) 074 001

Offset +15.00 (South) 075 002

**Survey Notes**

* Dataset 20220404 includes 8 days of trafficking over 2 weeks (4/4/2022 – 4/13/2022).
* File 81 should be discarded, as gray vertical lines were appearing in the data. File 82 did not have this problem.