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 20220307

Date: 3/17/2022

Operators: Douglas Evans

Folder Name: 20220317 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. -495.70 -494.80

**Data Collection File Numbers**

Transverse Survey Lines

Location 900 MHz Antenna 2.6 GHz Antenna

Station 0+15 013 001

Station 0+30 014 002

Station 0+75 015 003

Station 0+90 016 004

Station 1+35 017 005

Station 1+50 018 006

Station 1+95 019 007

Station 2+10 020 008

Station 2+55 021 009

Station 2+70 022 010

Longitudinal Survey Lines

Location 900 MHz Antenna 2.6 GHz Antenna

Offset -15.00 (North) 023 011

Offset +15.00 (South) 024 012

**Survey Notes**

* Dataset 20220307 includes 7 days of trafficking over 2 weeks (3/7/2022 – 3/16/2022).
* Data “spikes” seen in the 20220214 data set with the 900 MHz antenna were still present here, but only appeared in one instance.
  + No changes were made to the equipment.