Transient HC measurement

0 - 105 seconds of FTP 75 drive-cycle 20000 60 Maximum HC occurs during Cold-Start. Fast FID accurately resolves magnitude 18000 of initial transients in real time 50 Fast FID Engine Out 16000 Fast FID Tailpipe Slow FID Engine Out Individual cylinder 40 14000 exhaust events visible in Desired Speed (mph) engine out HC [HC] as ppm propane Vehicle speed (mph) 12000 10000 8000 6000 10 4000 0 2000 20 60 80 0 40 100 **Time since start (seconds)**