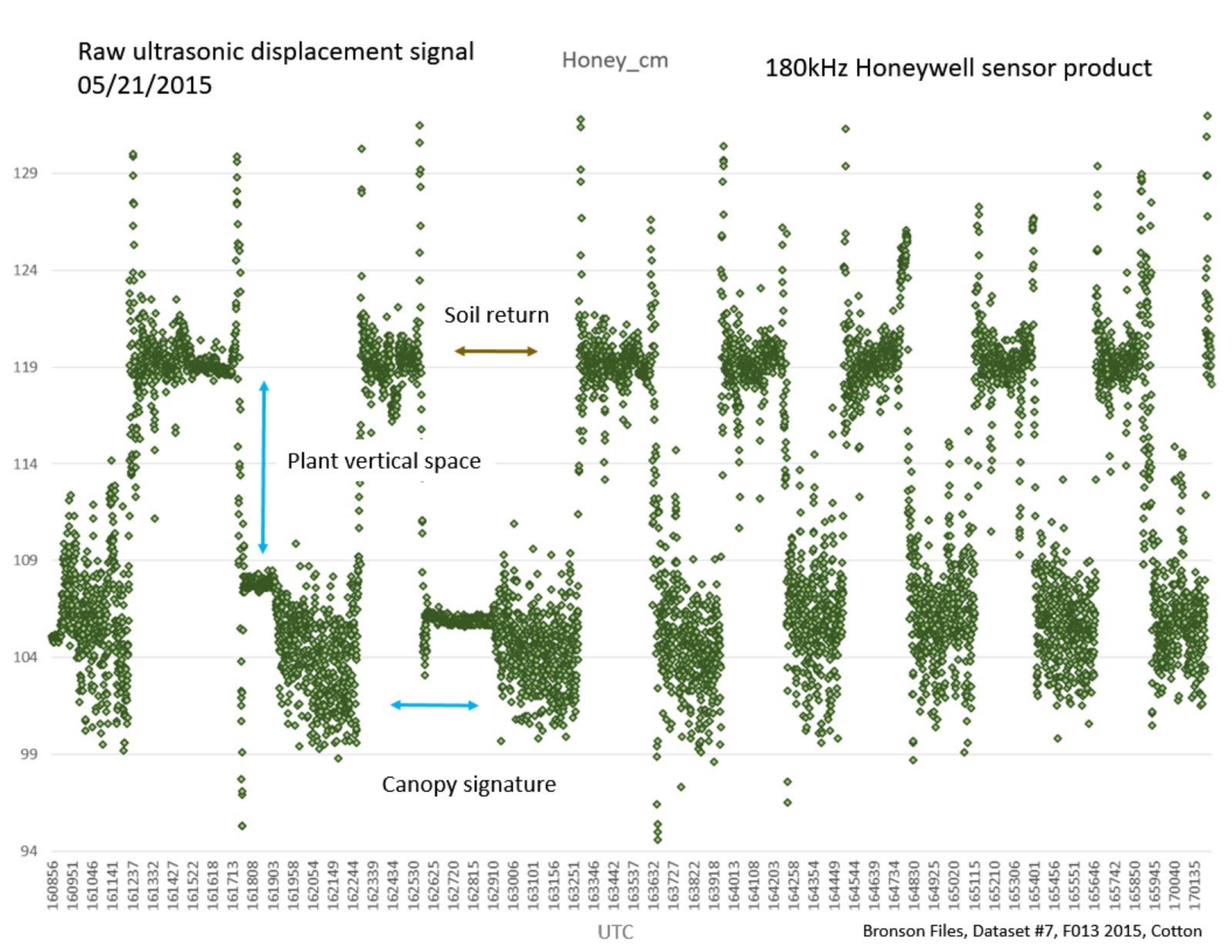
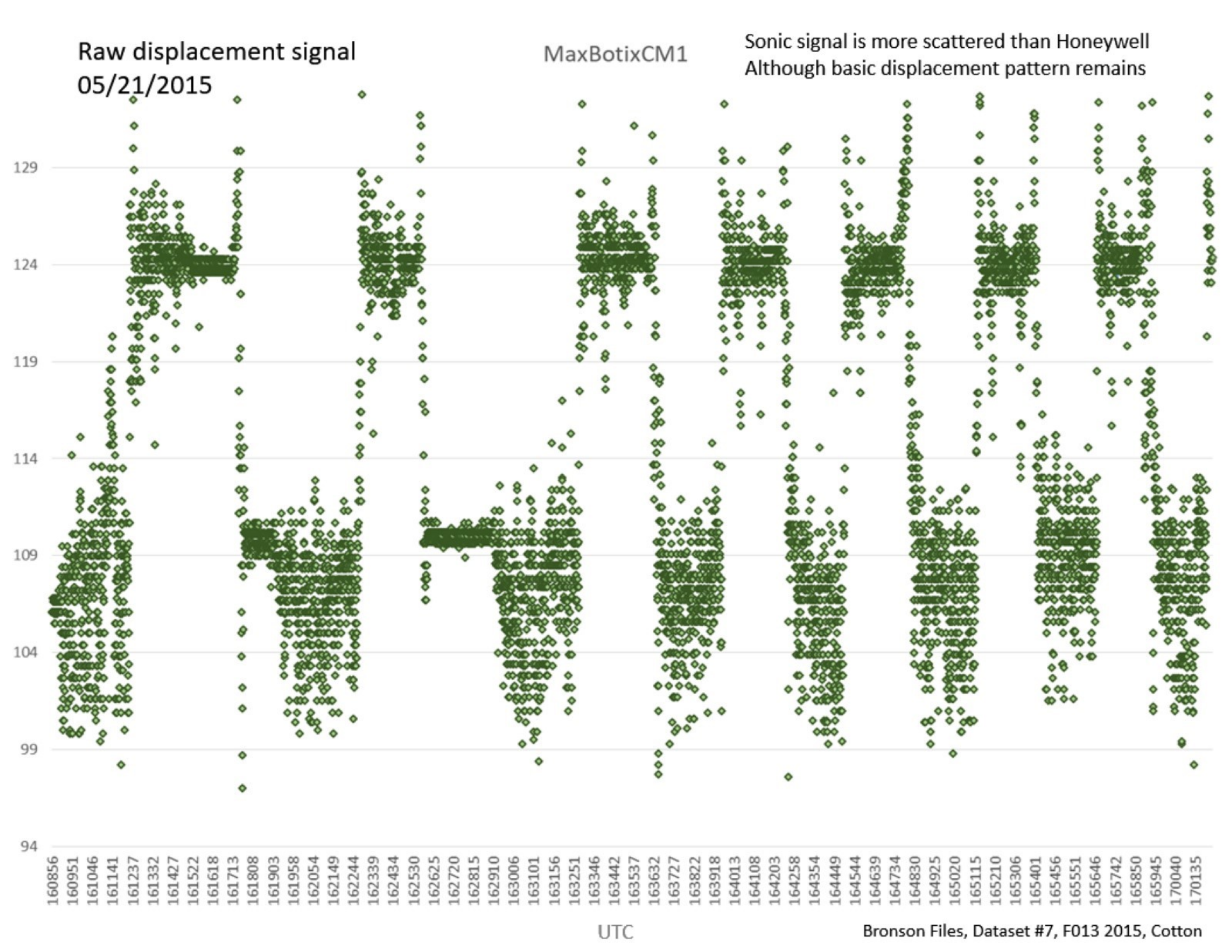
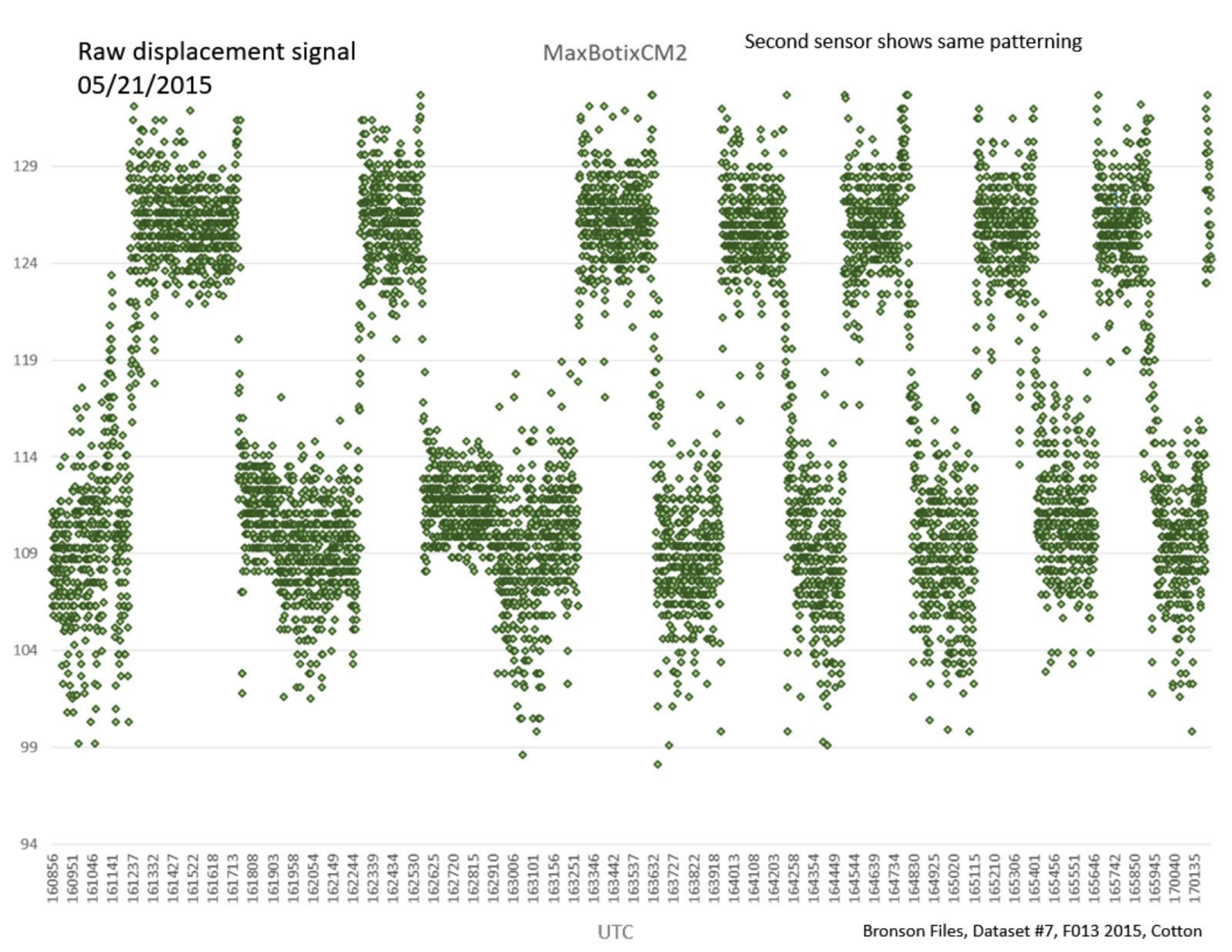
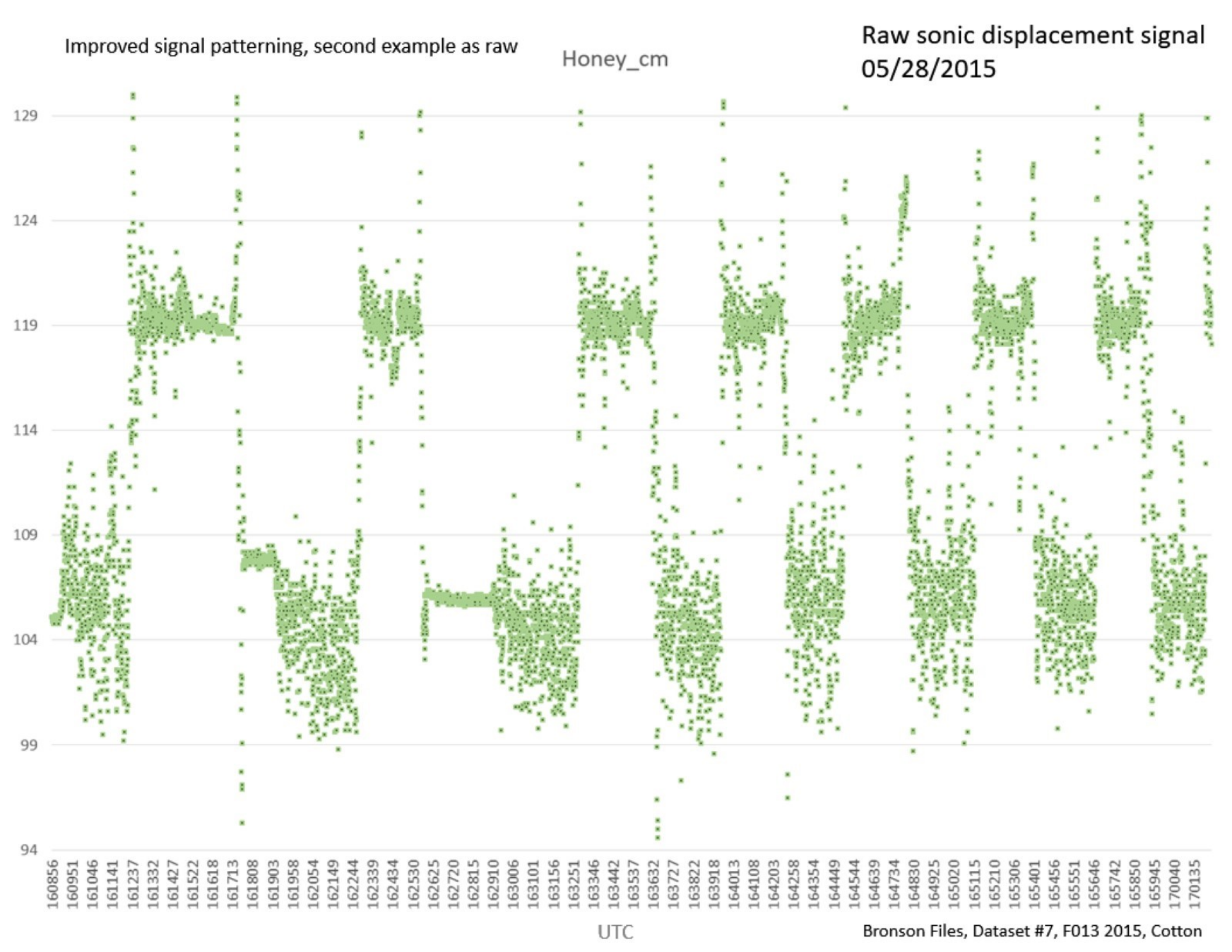
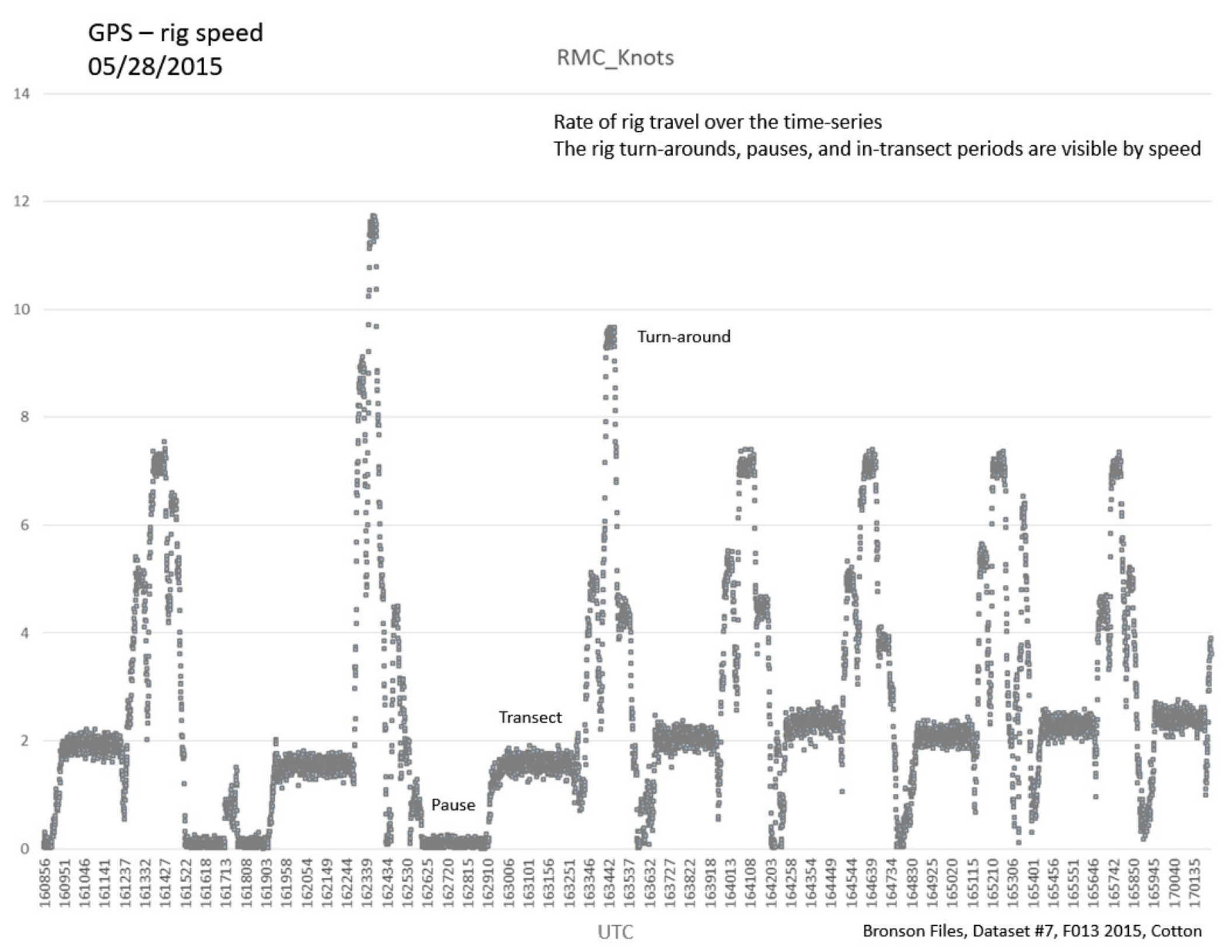
Bronson Files, Dataset #7, F013 2015, Cotton – annotated charts describing data elements

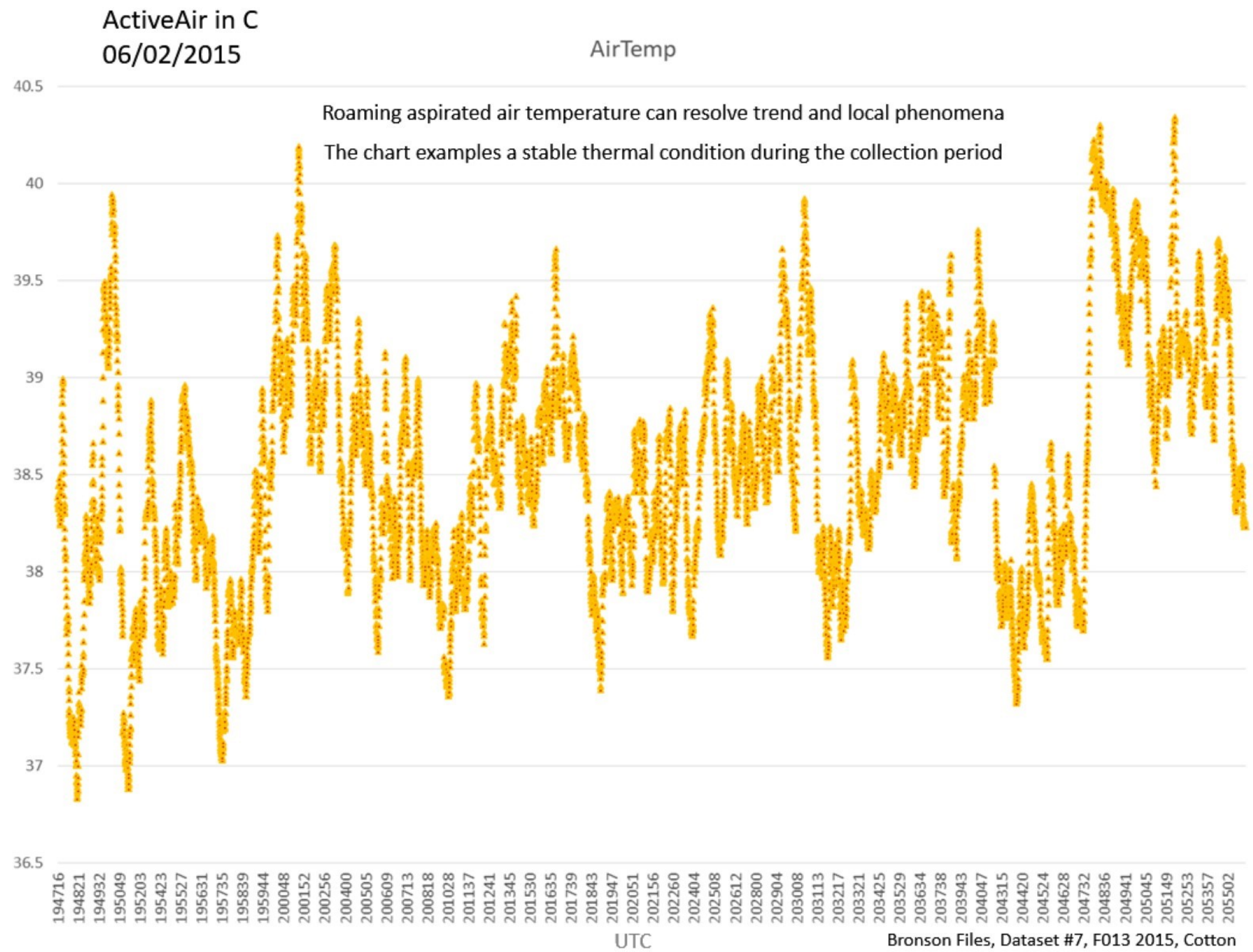

Raw ultrasonic displacement signal
05/21/2015
Honey_cm
180kHz Honeywell sensor product
Soil return
Plant vertical space
Canopy signature
129
124
119
114
109
104
99
94
160856
160951
161046
161141
161237
161332
161427
161522
161618
161713
161808
161903
161958
162054
162149
162244
162339
162434
162530
162625
162720
162815
162910
163006
163101
163156
163251
163346
163442
163537
163632
163727
163822
163918
164013
164108
164203
164258
164354
164449
164544
164639
164734
164830
164925
165020
165115
165210
165306
165401
165456
165551
165646
165742
165850
165945
170040
170135
UTC
Bronson Files, Dataset #7, F013 2015, Cotton

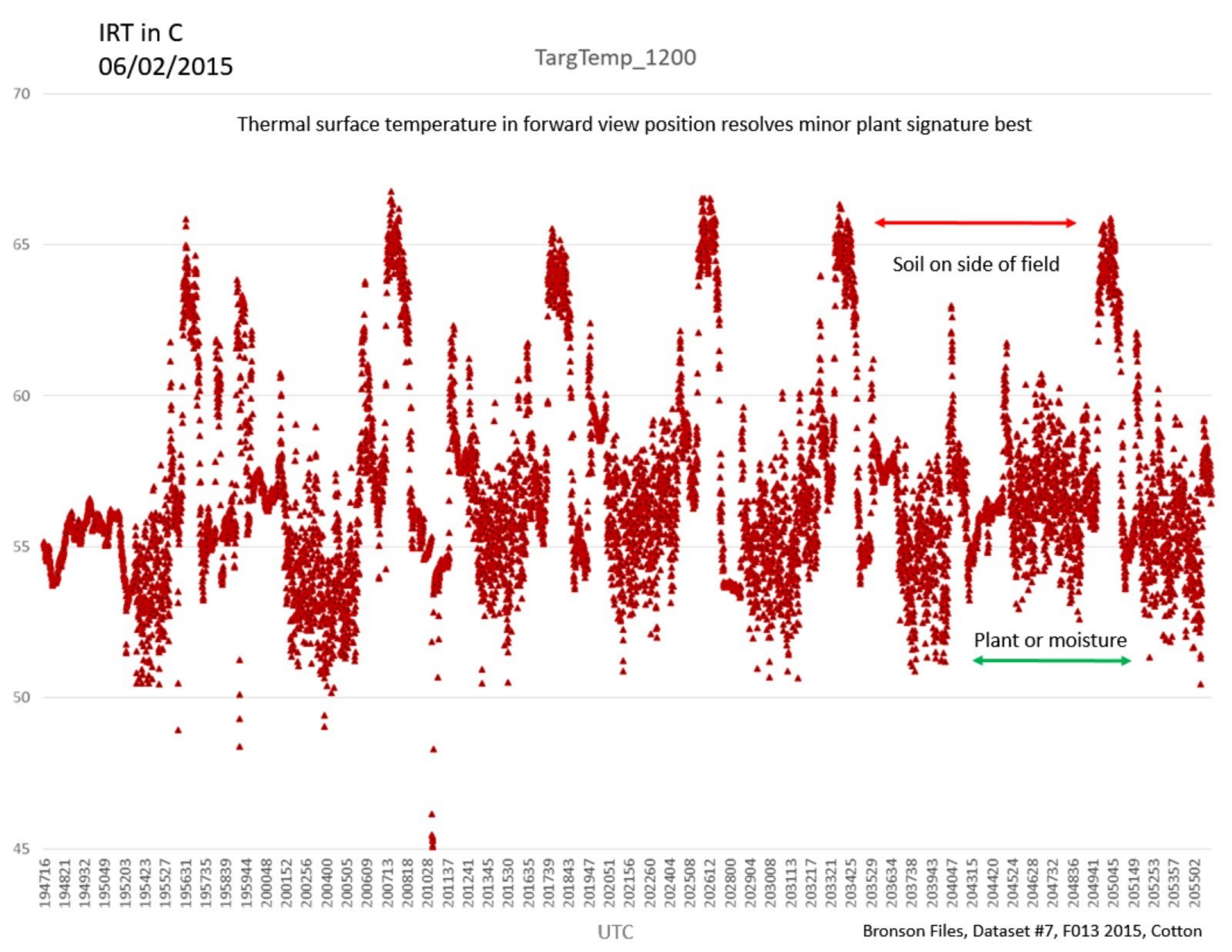

Raw displacement signal
05/21/2015
MaxBotixCM1
Sonic signal is more scattered than Honeywell
Although basic displacement pattern remains
129
124
119
114
109
104
99
94
160856
160951
161046
161141
161237
161332
161427
161522
161618
161713
161808
161903
161958
162054
162149
162244
162339
162434
162530
162625
162720
162815
162910
163006
163101
163156
163251
163346
163442
163537
163632
163727
163822
163918
164013
164108
164203
164258
164354
164449
164544
164639
164734
164830
164925
165020
165115
165210
165306
165401
165456
165551
165646
165742
165850
165945
170040
170135
UTC
Bronson Files, Dataset #7, F013 2015, Cotton

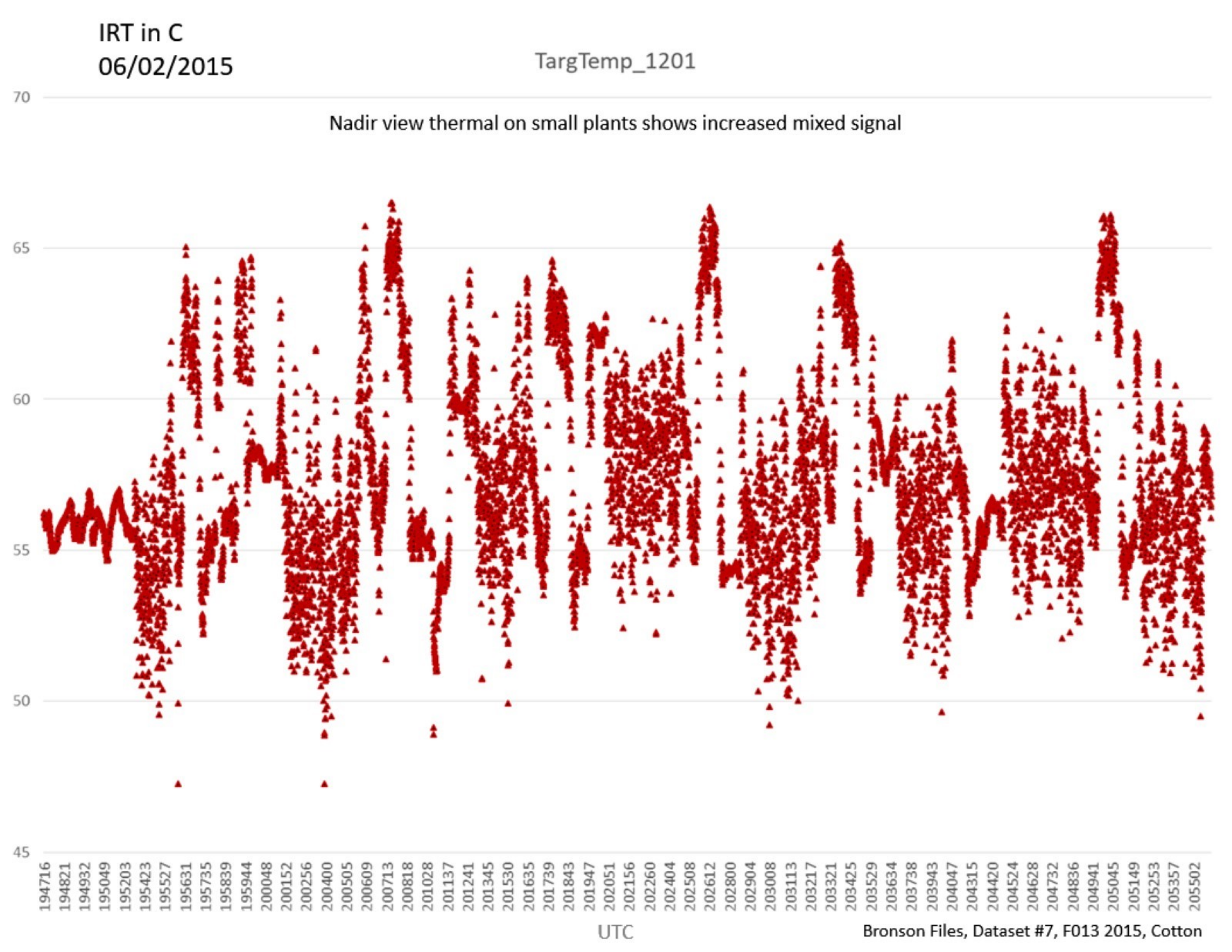

Raw displacement signal
05/21/2015
MaxBotixCM2
Second sensor shows same patterning
129
124
119
114
109
104
99
94
160856
160951
161046
161141
161237
161332
161427
161522
161618
161713
161808
161903
161958
162054
162149
162244
162339
162434
162530
162625
162720
162815
162910
163006
163101
163156
163251
163346
163442
163537
163632
163727
163822
163918
164013
164108
164203
164258
164354
164449
164544
164639
164734
164830
164925
165020
165115
165210
165306
165401
165456
165551
165646
165742
165850
165945
170040
170135
UTC
Bronson Files, Dataset #7, F013 2015, Cotton

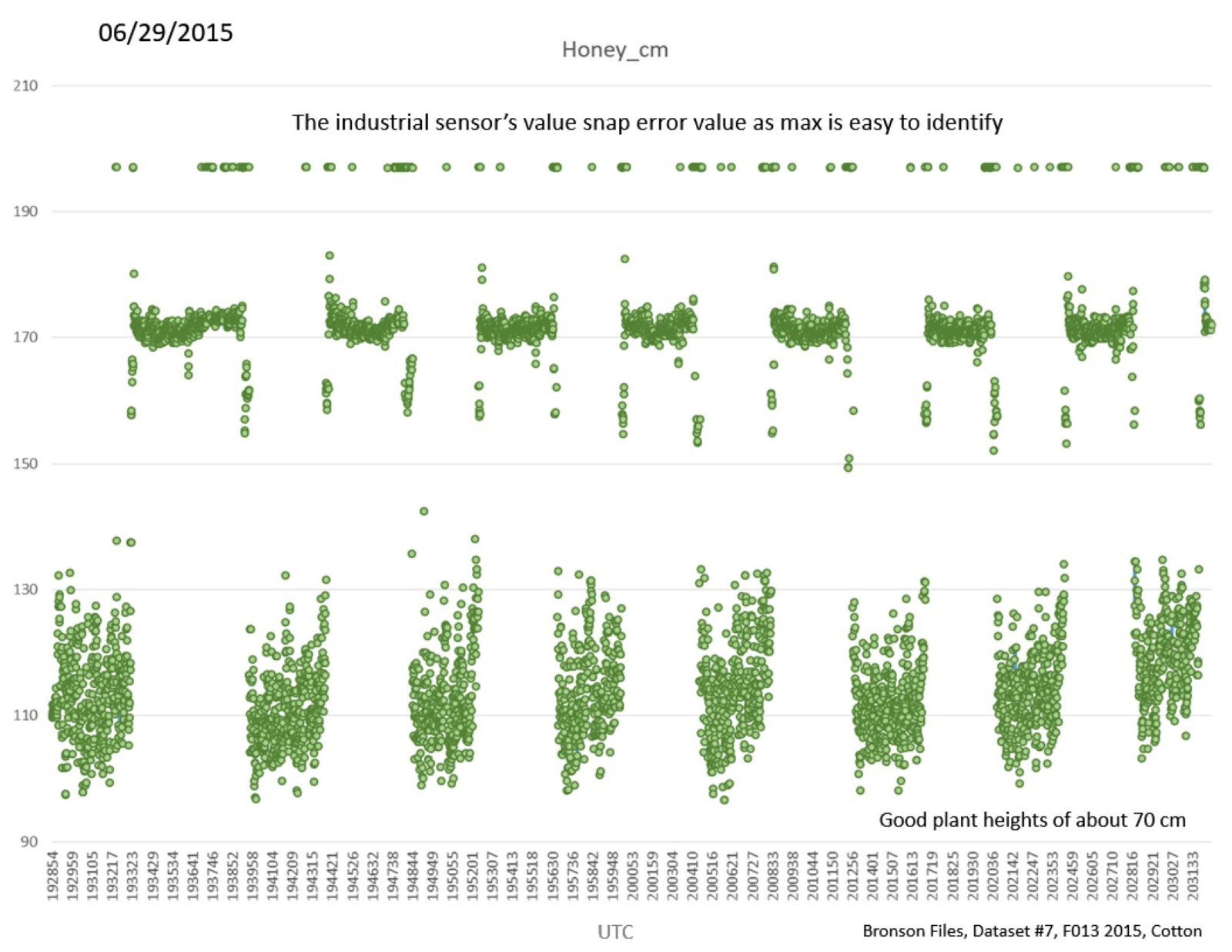

Improved signal patterning, second example as raw
Honey_cm
Raw sonic displacement signal
05/28/2015
129
124
119
114
109
104
99
94
160856
160951
161046
161141
161237
161332
161427
161522
161618
161713
161808
161903
161958
162054
162149
162244
162339
162434
162530
162625
162720
162815
162910
163006
163101
163156
163251
163346
163442
163537
163632
163727
163822
163918
164013
164108
164203
164258
164354
164449
164544
164639
164734
164830
164925
165020
165115
165210
165306
165401
165456
165551
165646
165742
165850
165945
170040
170135
UTC
Bronson Files, Dataset #7, F013 2015, Cotton

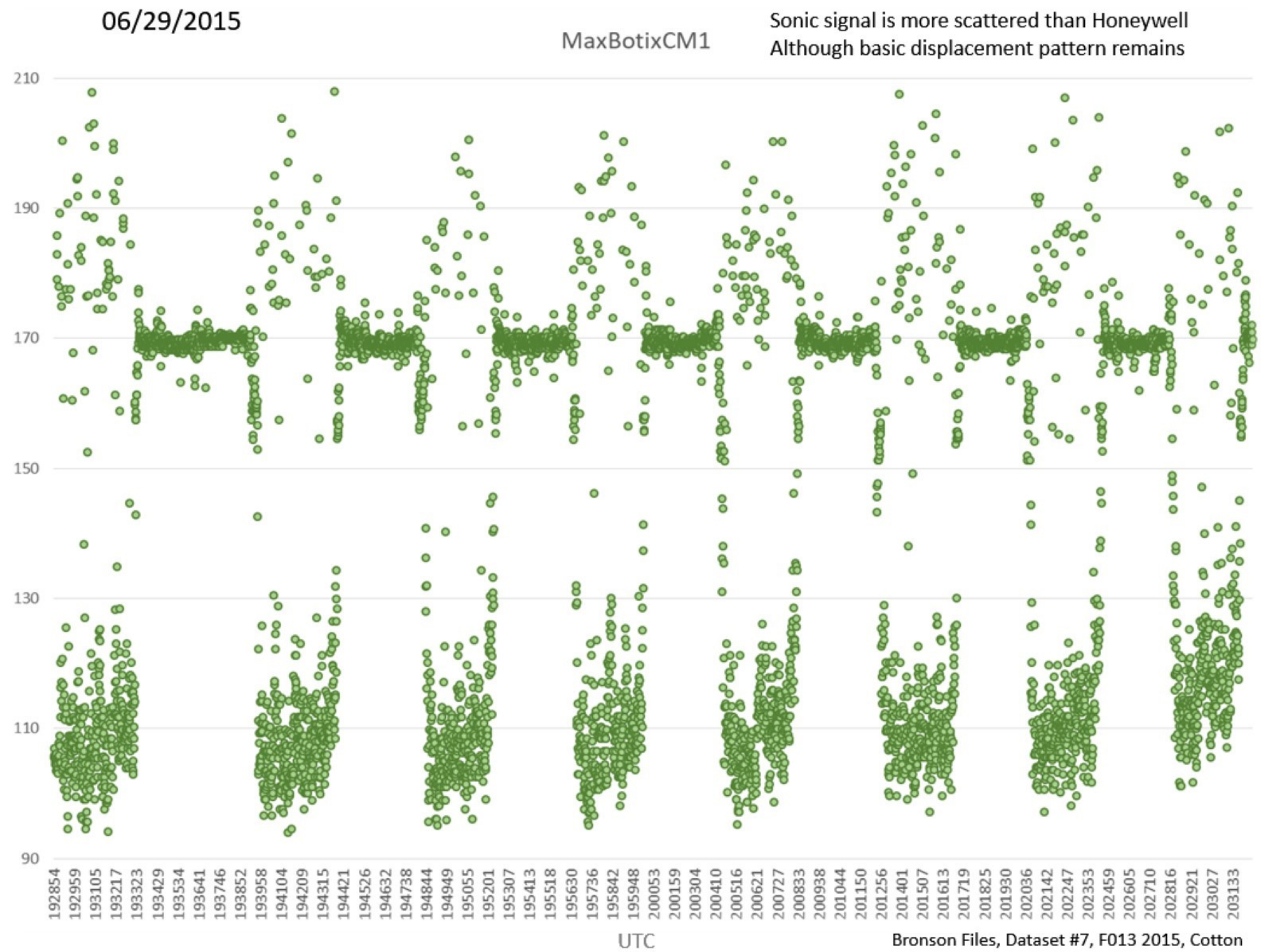

GPS – rig speed
05/28/2015
RMC_Knots
Rate of rig travel over the time-series
The rig turn-arounds, pauses, and in-transect periods are visible by speed
Turn-around
Transect
Pause
14
12
10
8
6
4
2
0
160856
160951
161046
161141
161237
161332
161427
161522
161618
161713
161808
161903
161958
162054
162149
162244
162339
162434
162530
162625
162720
162815
162910
163006
163101
163156
163251
163346
163442
163537
163632
163727
163822
163918
164013
164108
164203
164258
164354
164449
164544
164639
164734
164830
164925
165020
165115
165210
165306
165401
165456
165551
165646
165742
165850
165945
170040
170135
UTC
Bronson Files, Dataset #7, F013 2015, Cotton

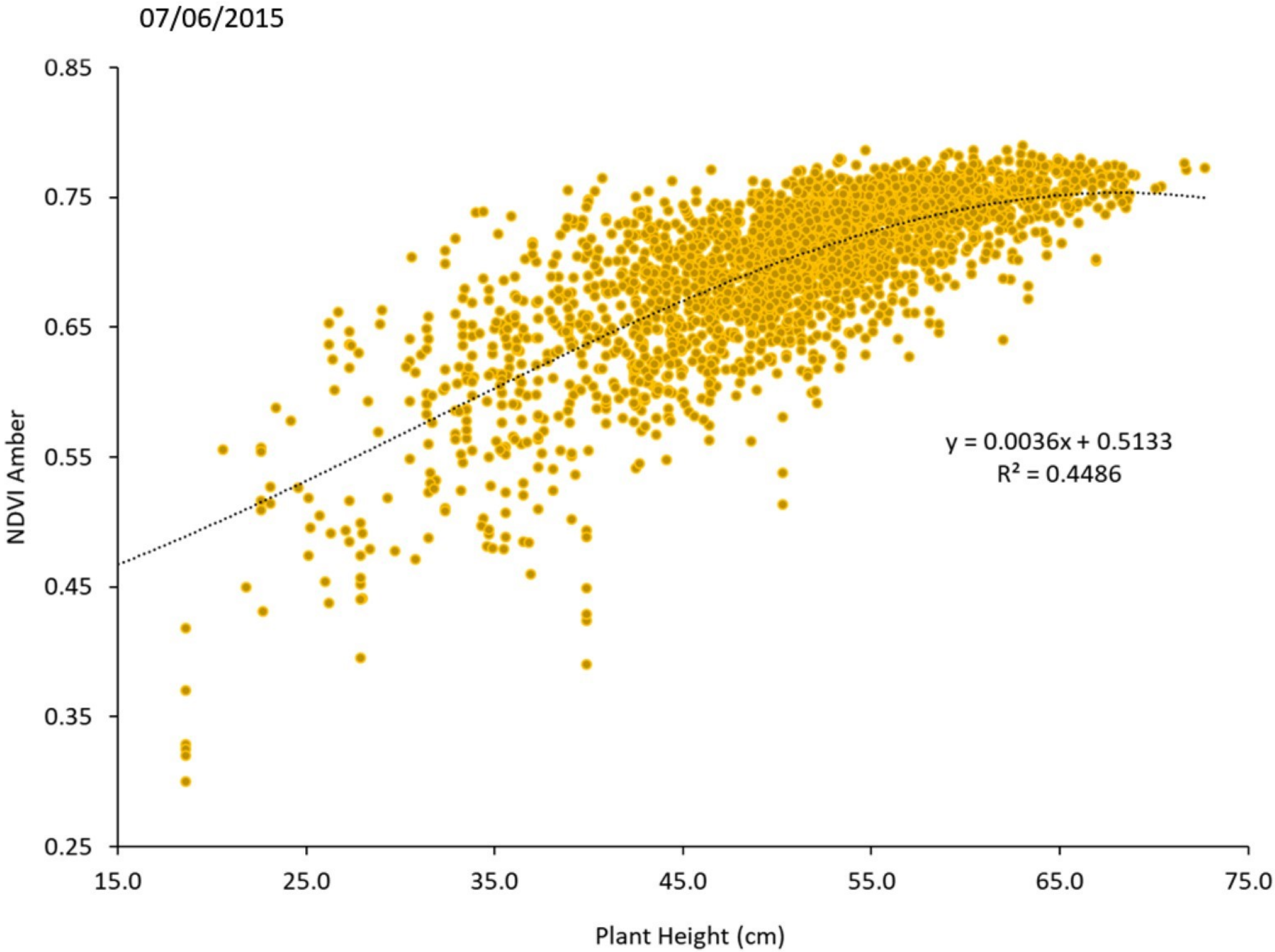

ActiveAir in C
06/02/2015
AirTemp
Roaming aspirated air temperature can resolve trend and local phenomena
The chart examples a stable thermal condition during the collection period
40.5
40
39.5
39
38.5
38
37.5
37
36.5
194716
194821
194932
195049
195203
195423
195527
195631
195735
195839
195944
200048
200152
200256
200400
200505
200609
200713
200818
201028
201137
201241
201345
201530
201635
201739
201843
201947
202051
202156
202260
202404
202508
202612
202800
202904
203008
203113
203217
203321
203425
203529
203634
203738
203943
204047
204315
204420
204524
204628
204732
204836
204941
205045
205149
205253
205357
205502
UTC
Bronson Files, Dataset #7, F013 2015, Cotton


IRT in C
06/02/2015
TargTemp_1200
Thermal surface temperature in forward view position resolves minor plant signature best
Soil on side of field
Plant or moisture
70
65
60
55
50
45
194716
194821
194932
195049
195203
195423
195527
195631
195735
195839
195944
200048
200152
200256
200400
200505
200609
200713
200818
201028
201137
201241
201345
201530
201635
201739
201843
201947
202051
202156
202260
202404
202508
202612
202800
202904
203008
203113
203217
203321
203425
203529
203634
203738
203943
204047
204315
204420
204524
204628
204732
204836
204941
205045
205149
205253
205357
205502
UTC
Bronson Files, Dataset #7, F013 2015, Cotton


IRT in C
06/02/2015
TargTemp_1201
Nadir view thermal on small plants shows increased mixed signal
70
65
60
55
50
45
194716
194821
194932
195049
195203
195423
195527
195631
195735
195839
195944
200048
200152
200256
200400
200505
200609
200713
200818
201028
201137
201241
201345
201530
201635
201739
201843
201947
202051
202156
202260
202404
202508
202612
202800
202904
203008
203113
203217
203321
203425
203529
203634
203738
203943
204047
204315
204420
204524
204628
204732
204836
204941
205045
205149
205253
205357
205502
UTC
Bronson Files, Dataset #7, F013 2015, Cotton

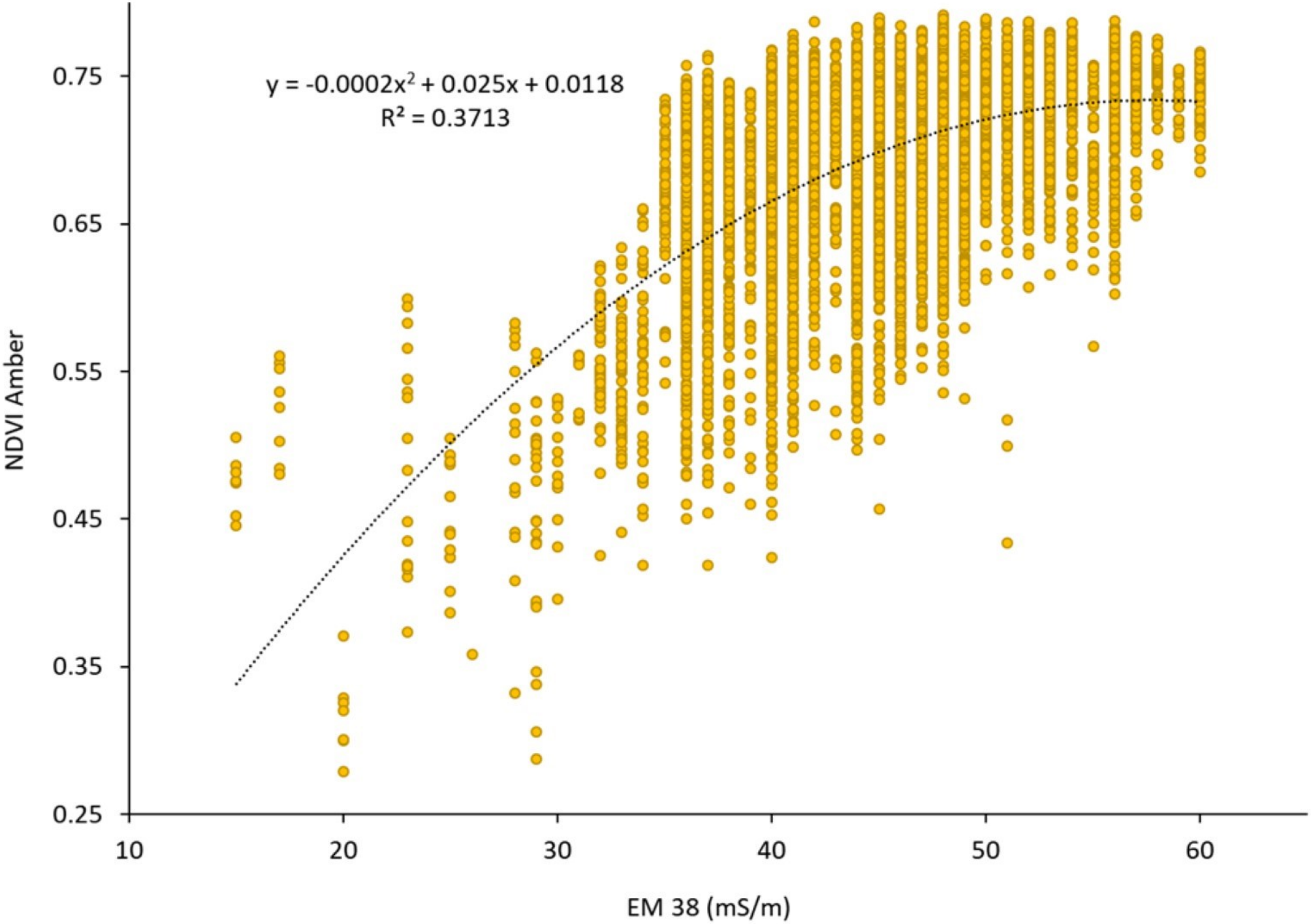

06/29/2015
Honey_cm
The industrial sensor's value snap error value as max is easy to identify
Good plant heights of about 70 cm
210
190
170
150
130
110
90
192854
192959
193105
193217
193323
193429
193534
193641
193746
193852
193958
194104
194209
194315
194421
194526
194632
194738
194844
194949
195055
195201
195307
195413
195518
195630
195736
195842
195948
200053
200159
200304
200410
200516
200621
200727
200833
200938
201044
201150
201256
201401
201507
201613
201719
201825
201930
202036
202142
202247
202353
202459
202605
202710
202816
202921
203027
203133
UTC
Bronson Files, Dataset #7, F013 2015, Cotton


06/29/2015
MaxBotixCM1
Sonic signal is more scattered than Honeywell
Although basic displacement pattern remains
210
190
170
150
130
110
90
192854
192959
193105
193217
193323
193429
193534
193641
193746
193852
193958
194104
194209
194315
194421
194526
194632
194738
194844
194949
195055
195201
195307
195413
195518
195630
195736
195842
195948
200053
200159
200304
200410
200516
200621
200727
200833
200938
201044
201150
201256
201401
201507
201613
201719
201825
201930
202036
202142
202247
202353
202459
202605
202710
202816
202921
203027
203133
UTC
Bronson Files, Dataset #7, F013 2015, Cotton

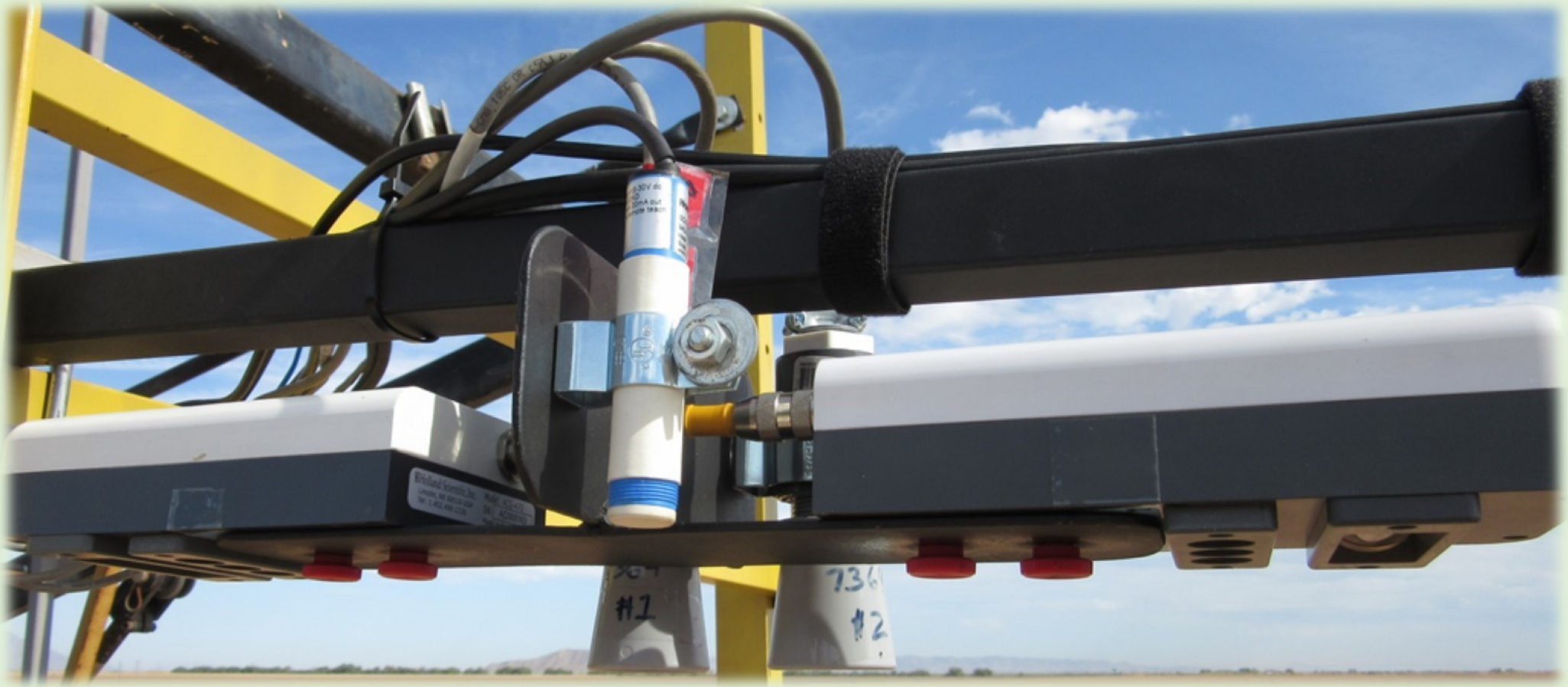


Bronson Files, Dataset #7, F013 2015, Cotton

07/06/2015



Bronson Files, Dataset #7, F013 2015, Cotton


#1
#2

GeoSCOUT X
Holland Scientific

Bronson Files, Dataset #7, F013 2015, Cotton – thank you