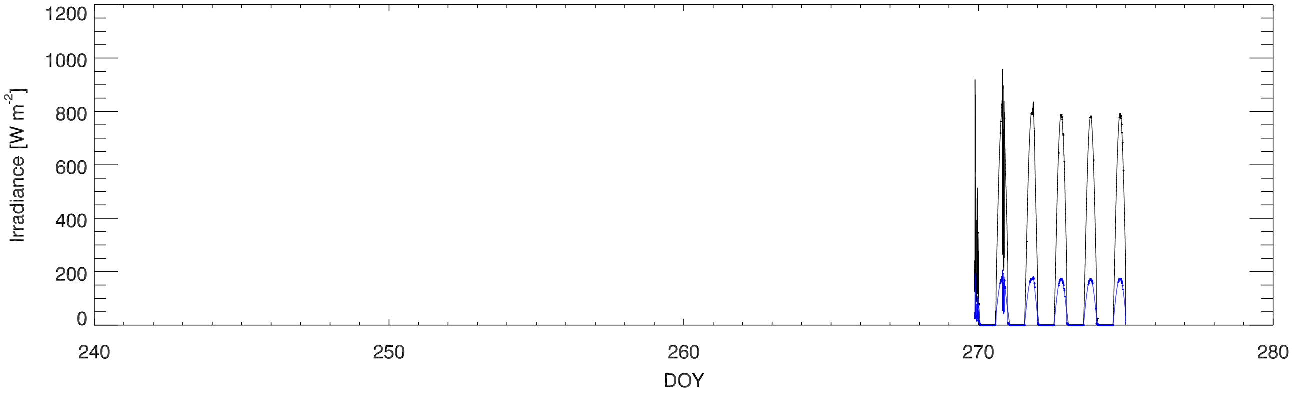
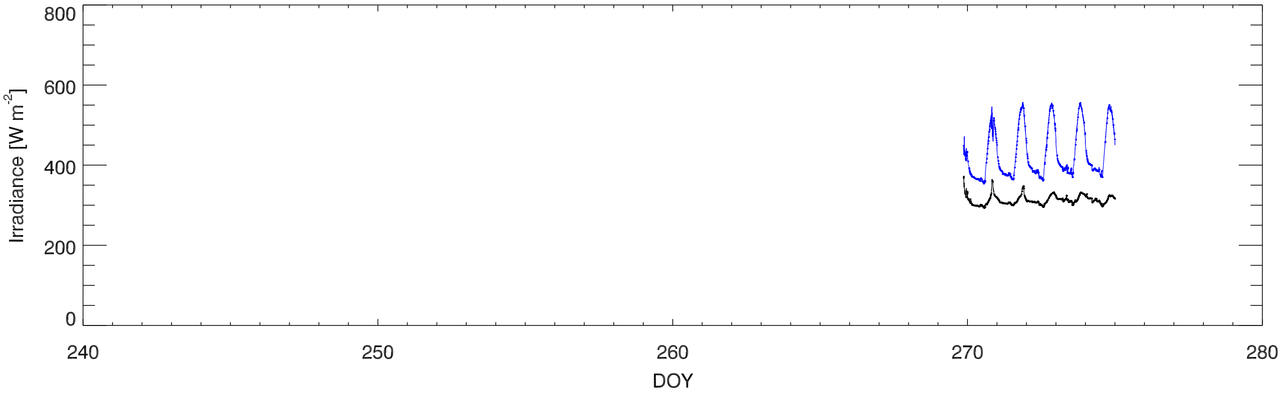
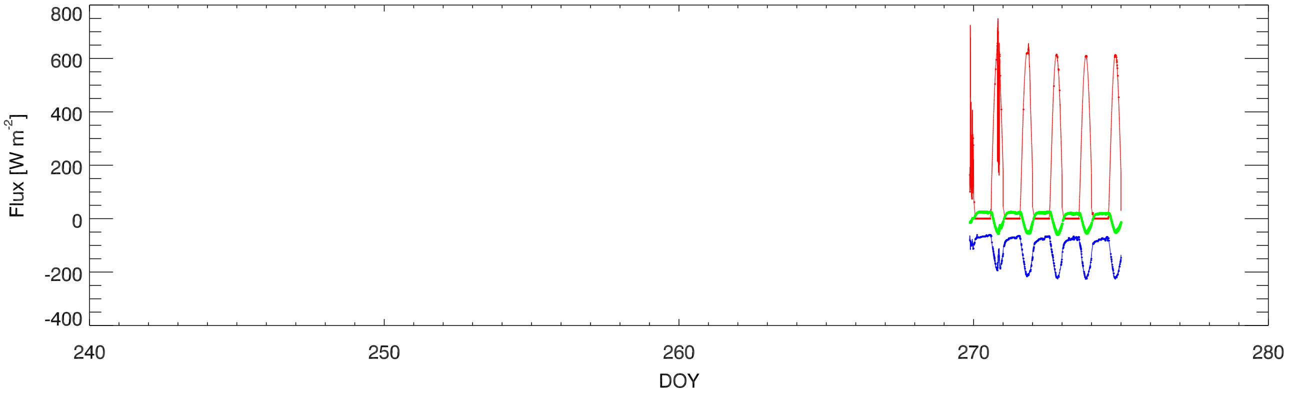
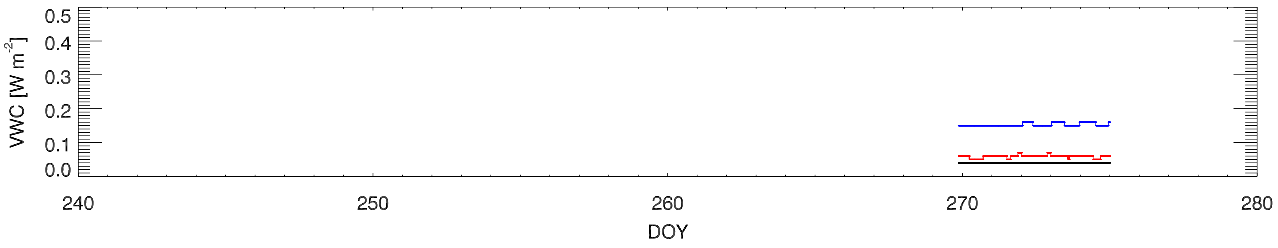
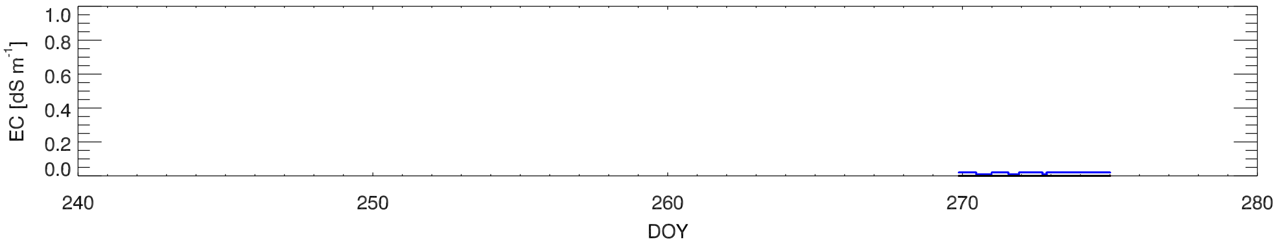
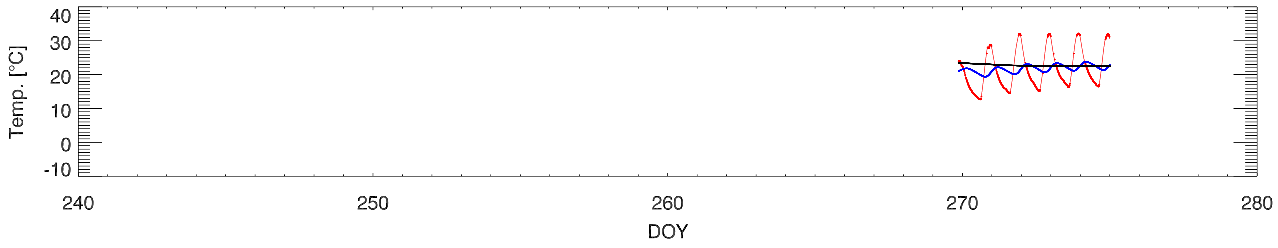

EFS Slope / ES3 Shortwave Fluxes: Black SWin; Blue:SWout

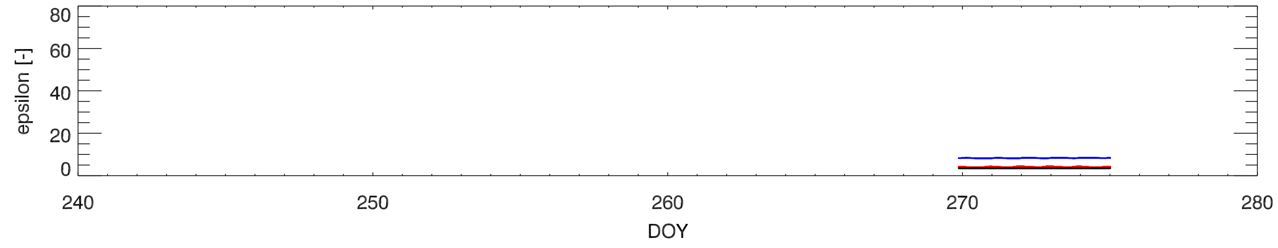

EFS Slope / ES3 Longwave Fluxes: Black LWin; Blue:LWout

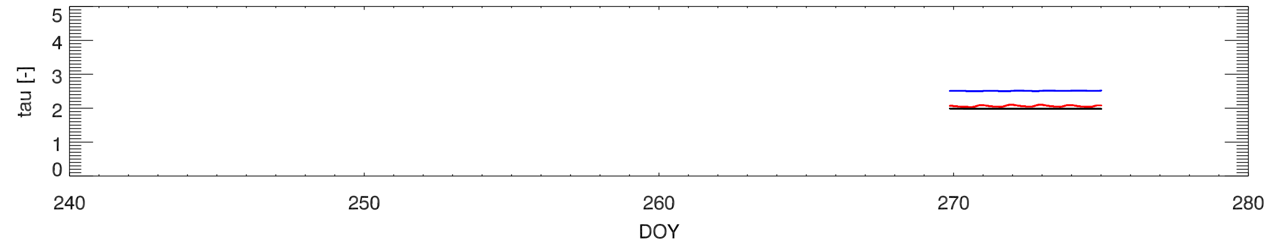

EFS Slope / ES3 Energy Budget: Red: SWnet; Blue:LWnet; Green: Subsurface Flux

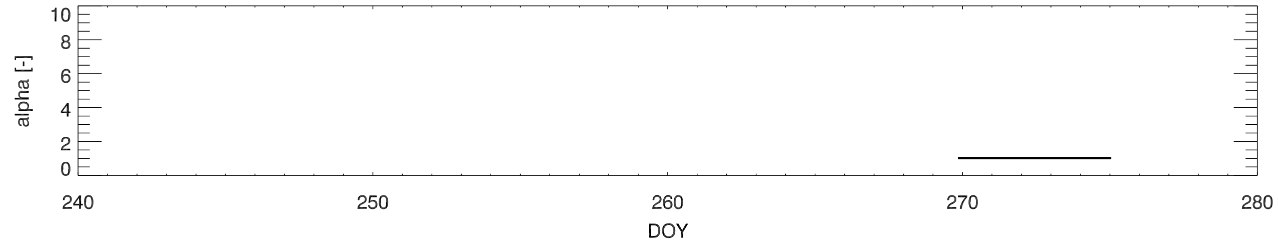

EFS Slope / ES3 CS650: Volumetric Water Content (7cm: red; 25cm: blue; 70cm: black)

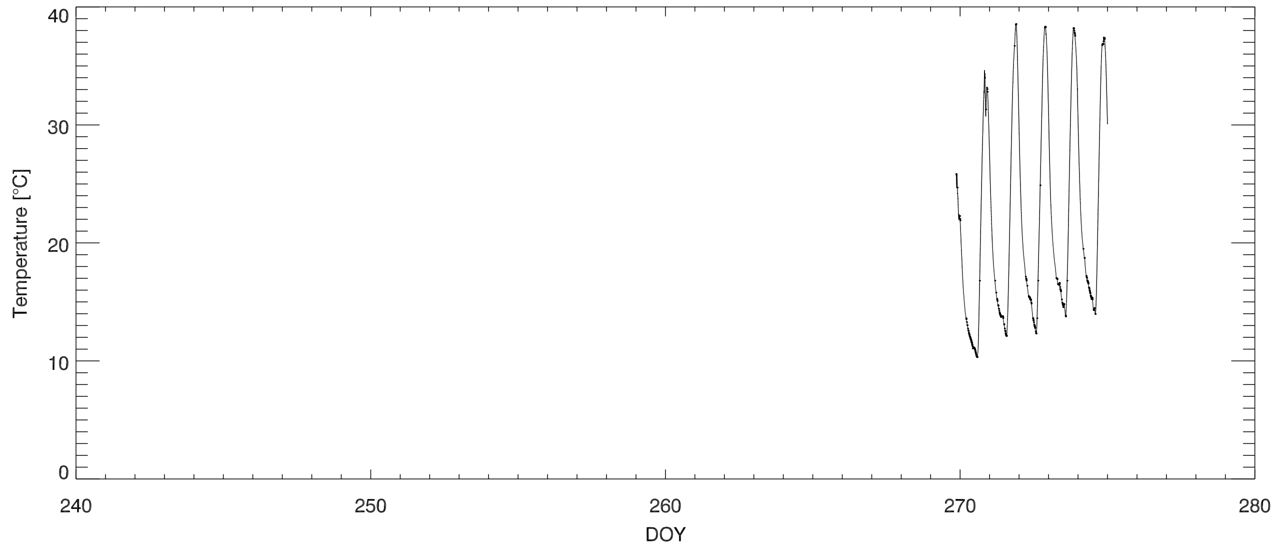

EFS Slope / ES3 Electrical Conductivity Sigma (7cm: red; 25cm Blue; 70cm: black)

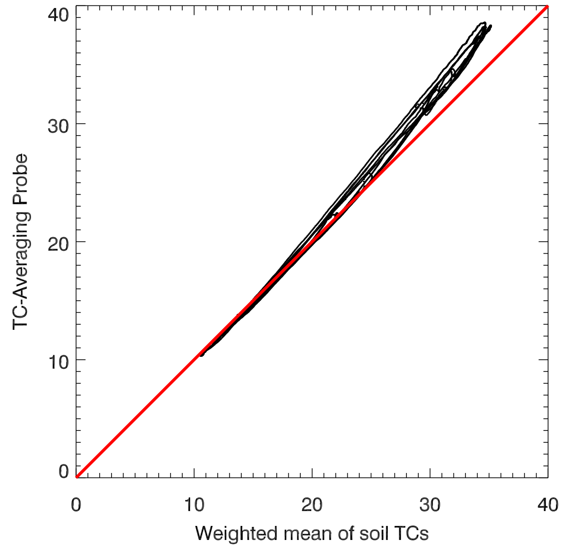

EFS Slope / ES3 Temperature (7cm: red; 25cm: blue; 70cm: black)

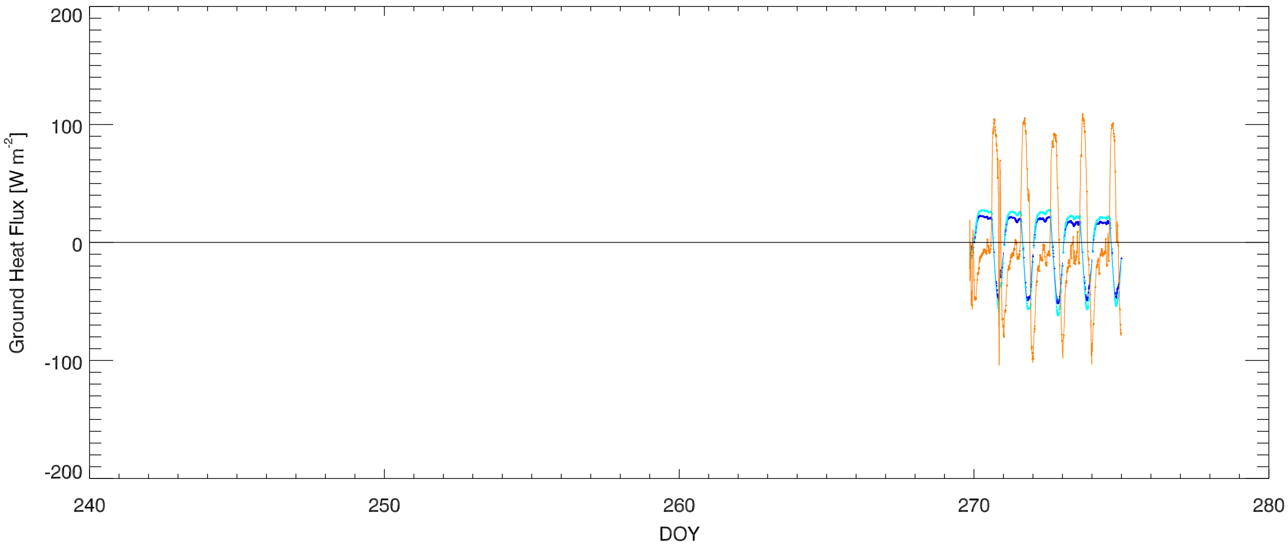

EFS Slope / ES3 Permittivity (epsilon) (7cm: red; 25cm: blue; 70cm: black)

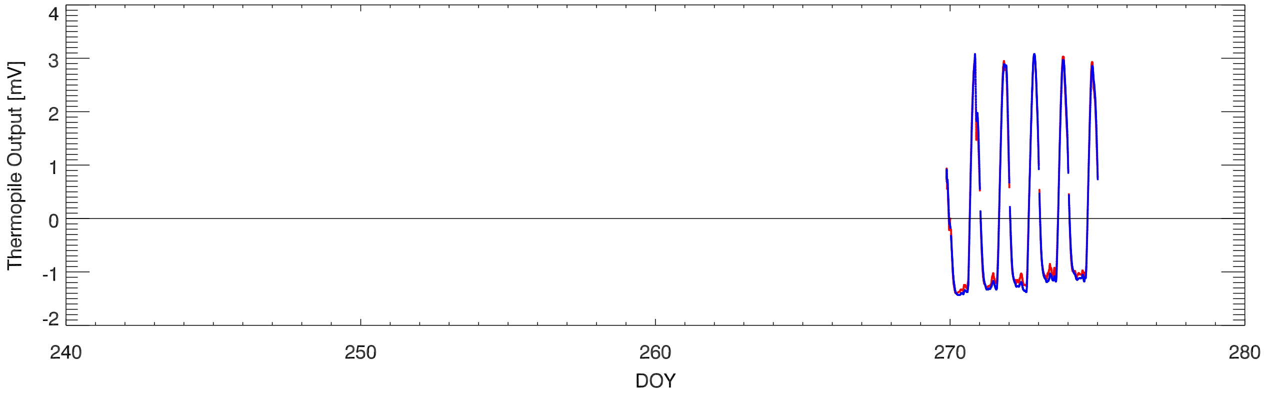

EFS Slope / ES3 Period (tau) (7cm: red; 25cm: blue; 70cm: black)


EFS Slope / ES3 Voltage Ratio (alpha) (7cm: red; 25cm: blue; 70cm: black)

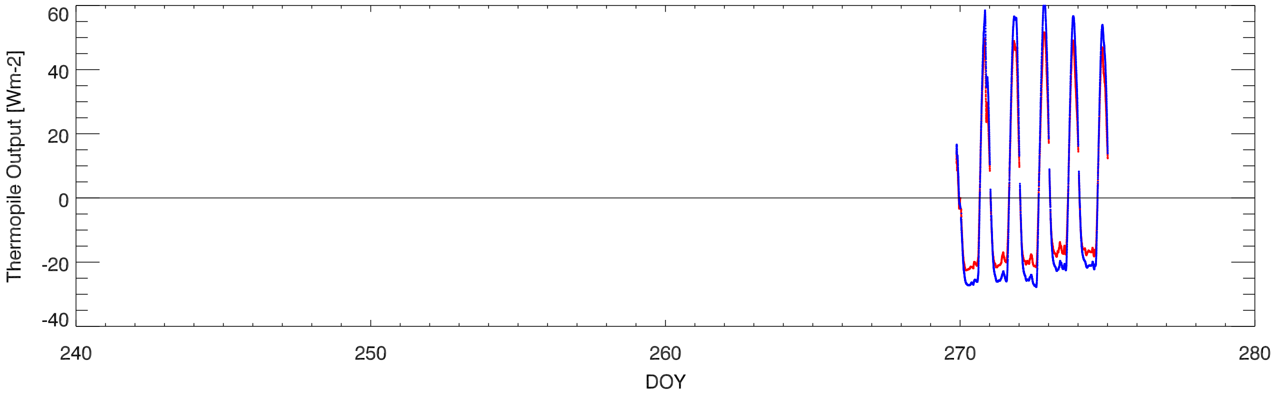

EFS Slope / ES3 Averaging Temperature Probe



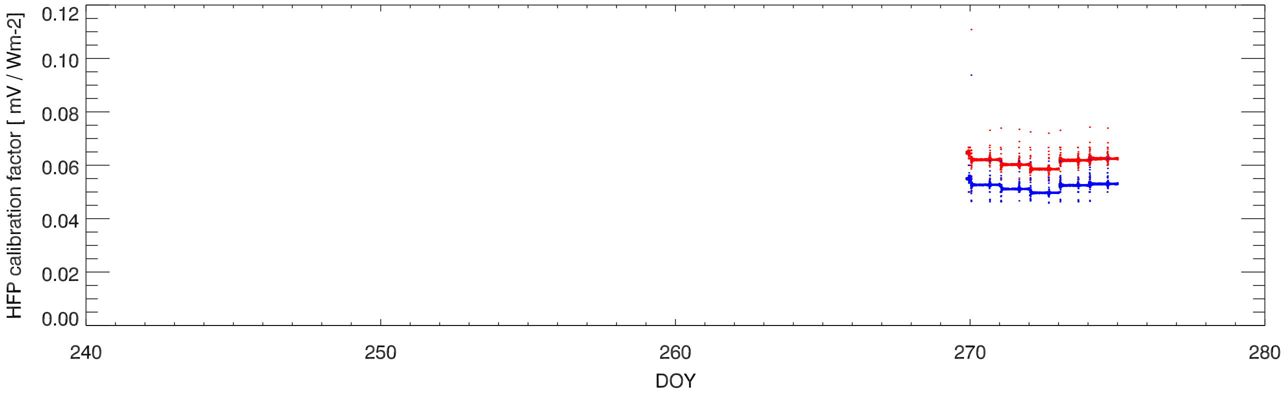

EFS Slope / ES3 Soil Heat Flux Components



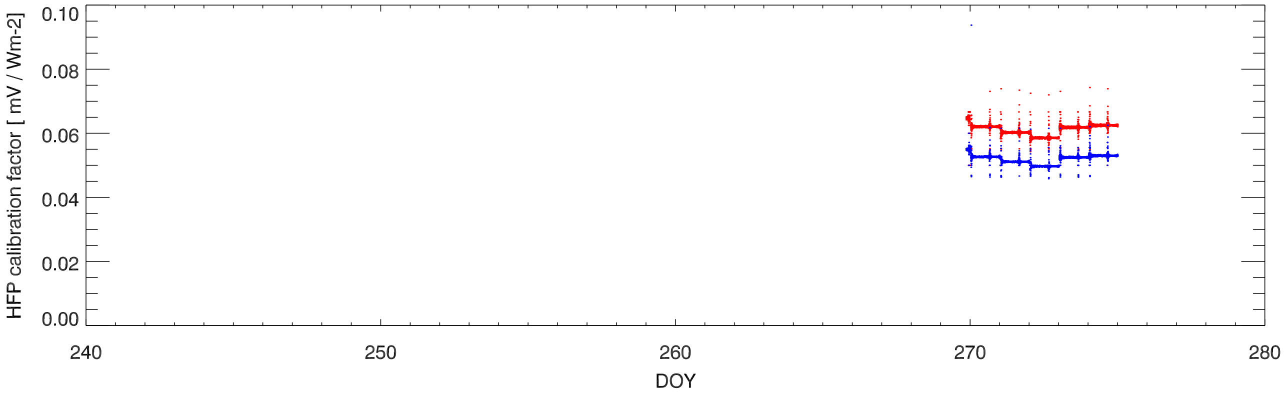
EFS Slope / ES3 Voltage HFP thermopile (A: red; B blue)



EFS Slope / ES3 HFP - FLUX (A: red; B blue)

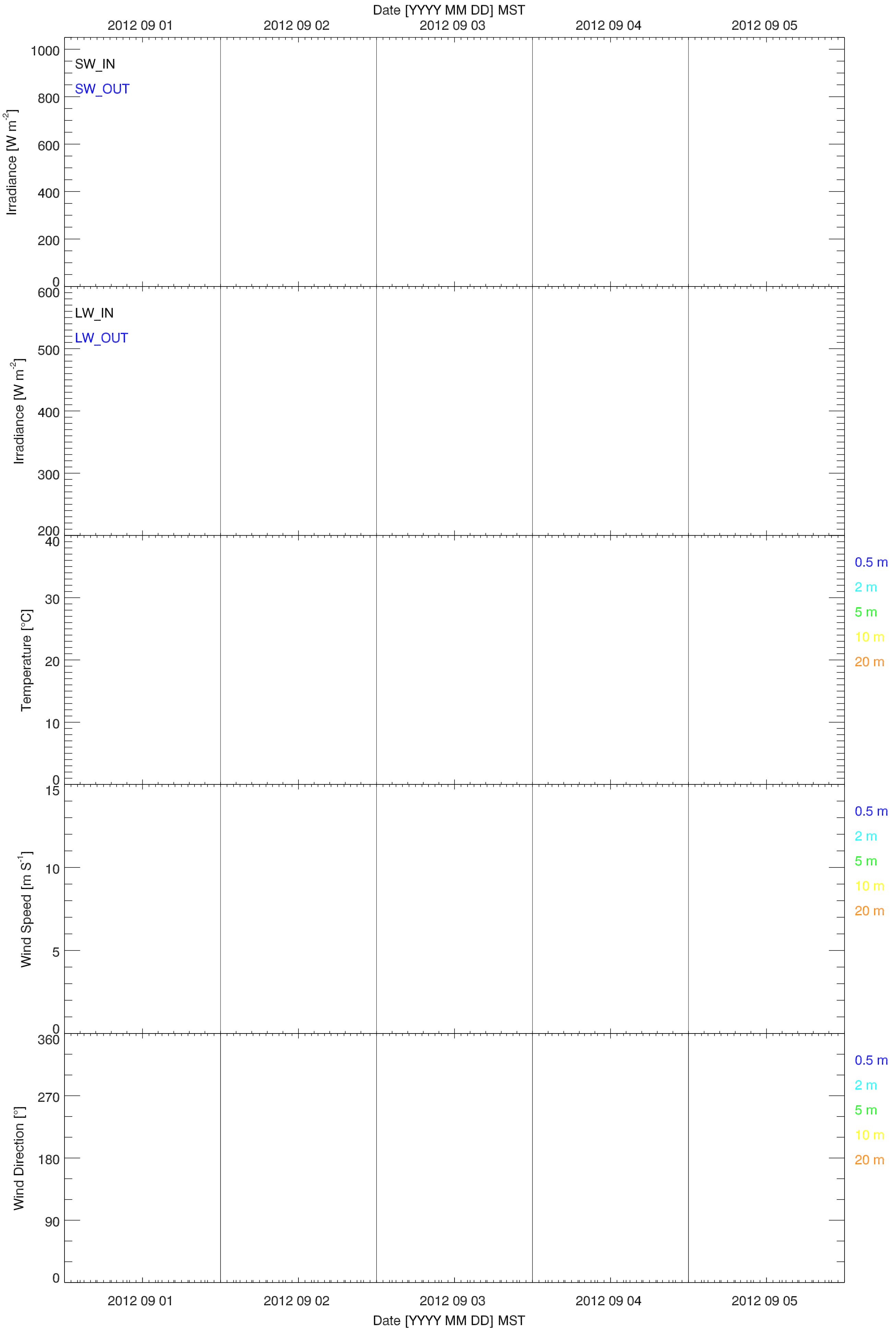


EFS Slope / ES3 HFP - Calibration Factor (A: red; B blue)

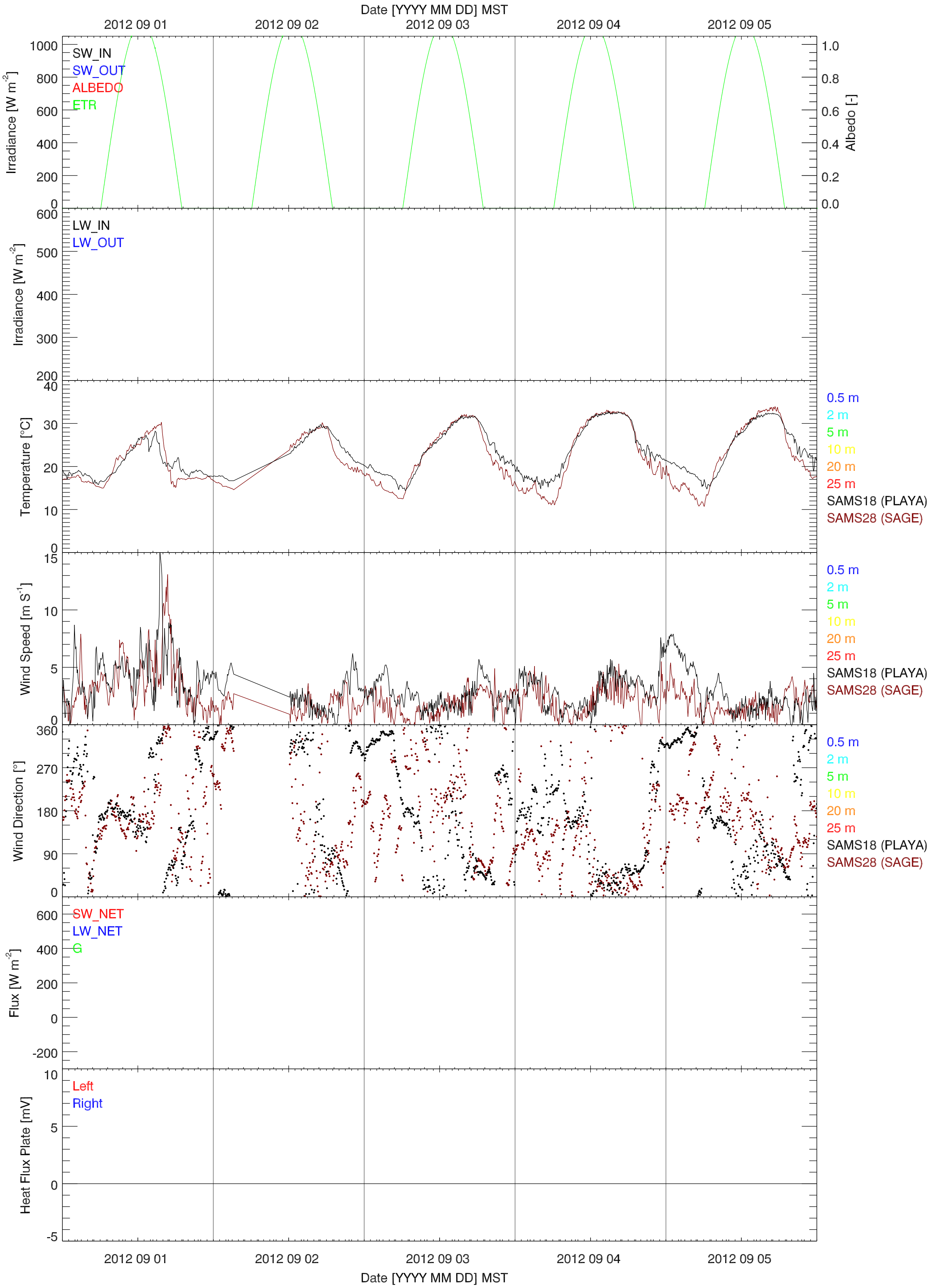


EFS Slope / ES3 HFP calibration factor (A: red; B blue) & Precip. cm/5min (green)

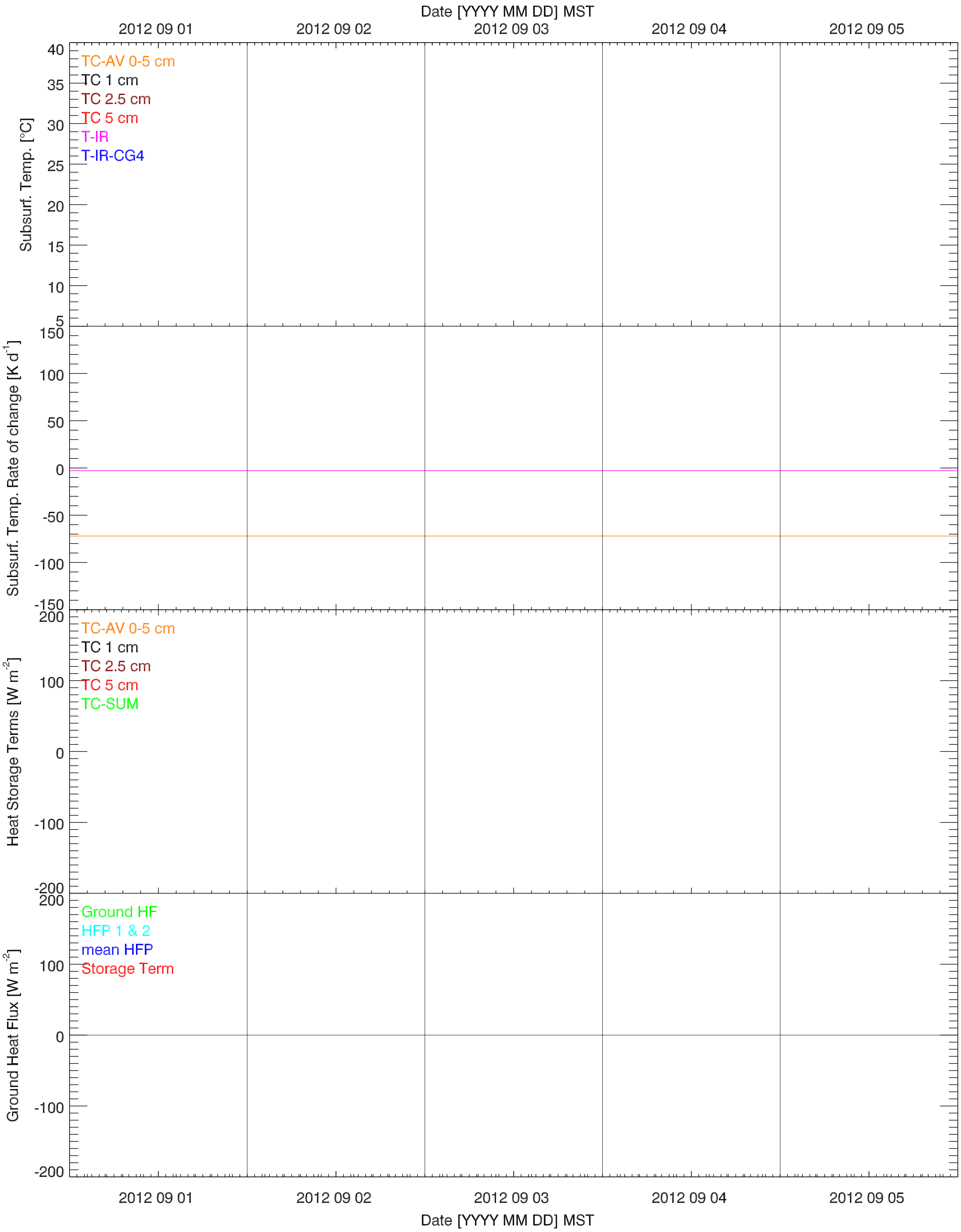
EFS ES3


Date [YYYY MM DD] MST
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Irradiance [W m^{-2}]
1000
800
600
400
200
0
SW_IN
SW_OUT
Irradiance [W m^{-2}]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Date [YYYY MM DD] MST

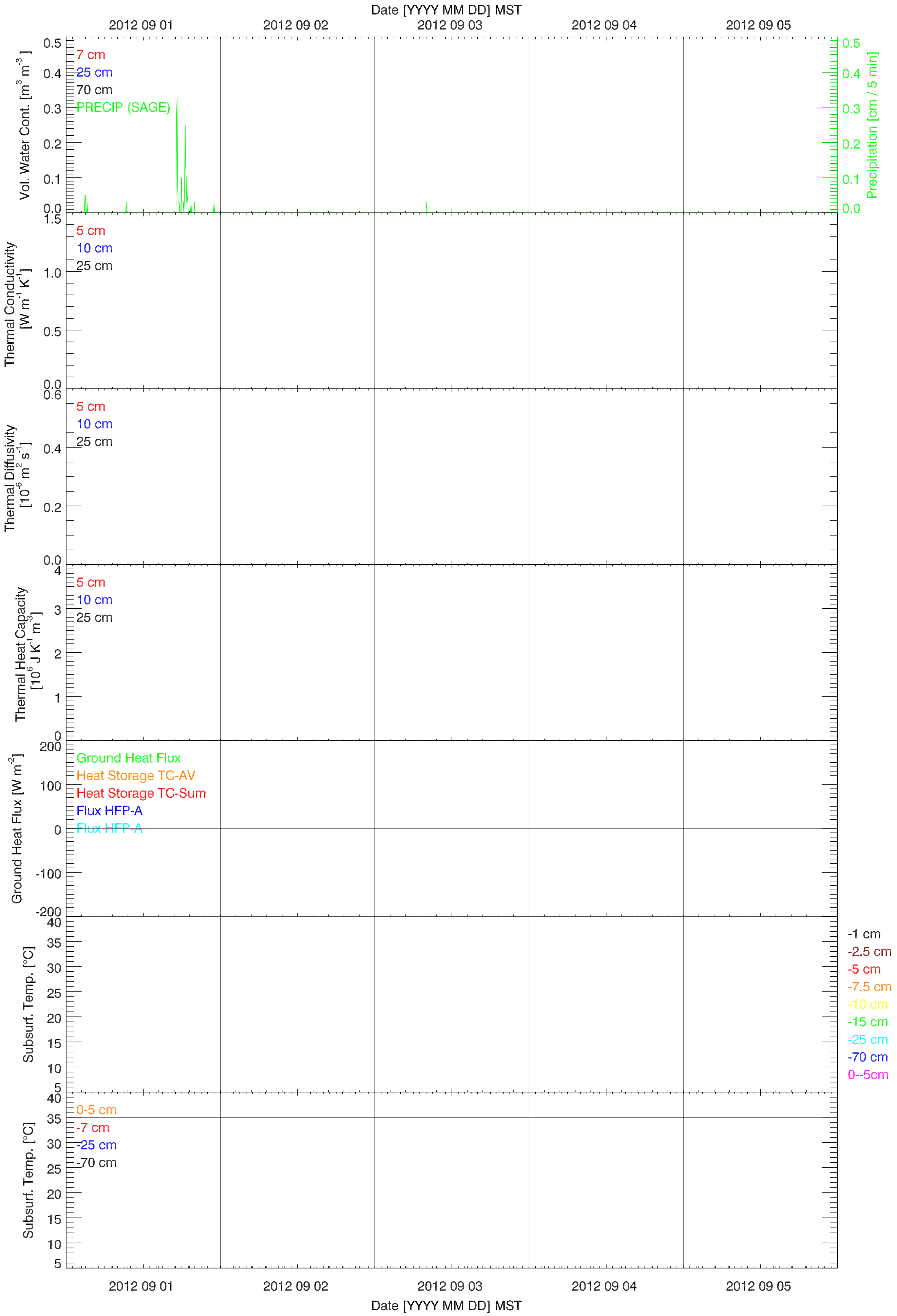
EFS ES3


Date [YYYY MM DD] MST
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Irradiance [W m-2]
1000
800
600
400
200
0
SW_IN
SW_OUT
ALBEDO
ETR
Albedo [-]
1.0
0.8
0.6
0.4
0.2
0.0
Irradiance [W m-2]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Speed [m S-1]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Flux [W m-2]
600
400
200
0
-200
SW_NET
LW_NET
G
Heat Flux Plate [mV]
10
5
0
-5
Left
Right
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Date [YYYY MM DD] MST

EFS ES3

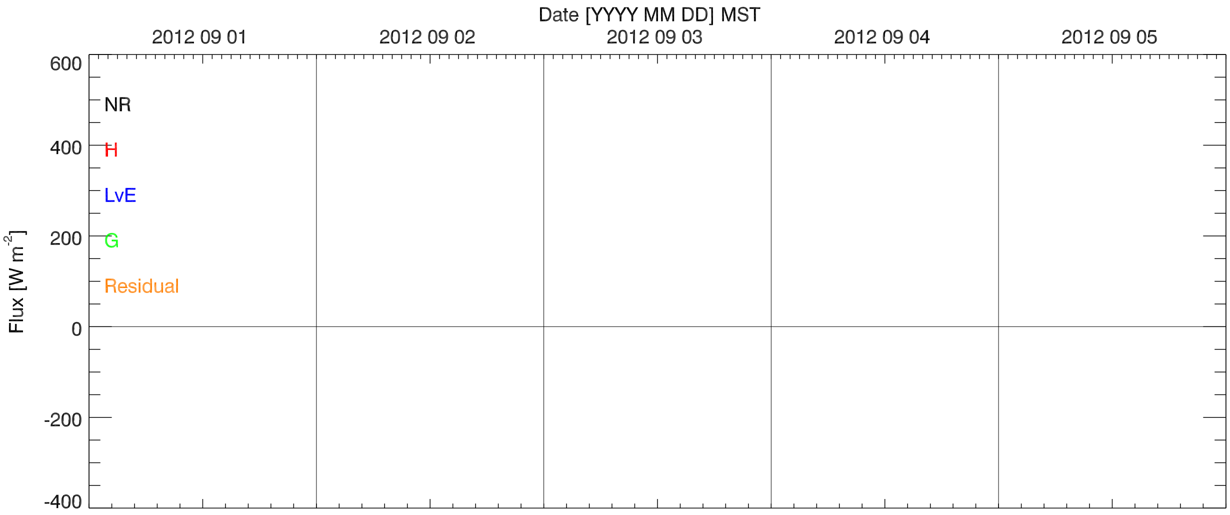

Date [YYYY MM DD] MST
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
T-IR
T-IR-CG4
Subsurf. Temp. Rate of change [K d-1]
150
100
50
0
-50
-100
-150
Heat Storage Terms [W m-2]
200
100
0
-100
-200
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
TC-SUM
Ground Heat Flux [W m-2]
200
100
0
-100
-200
Ground HF
HFP 1 & 2
mean HFP
Storage Term
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Date [YYYY MM DD] MST

EFS ES3

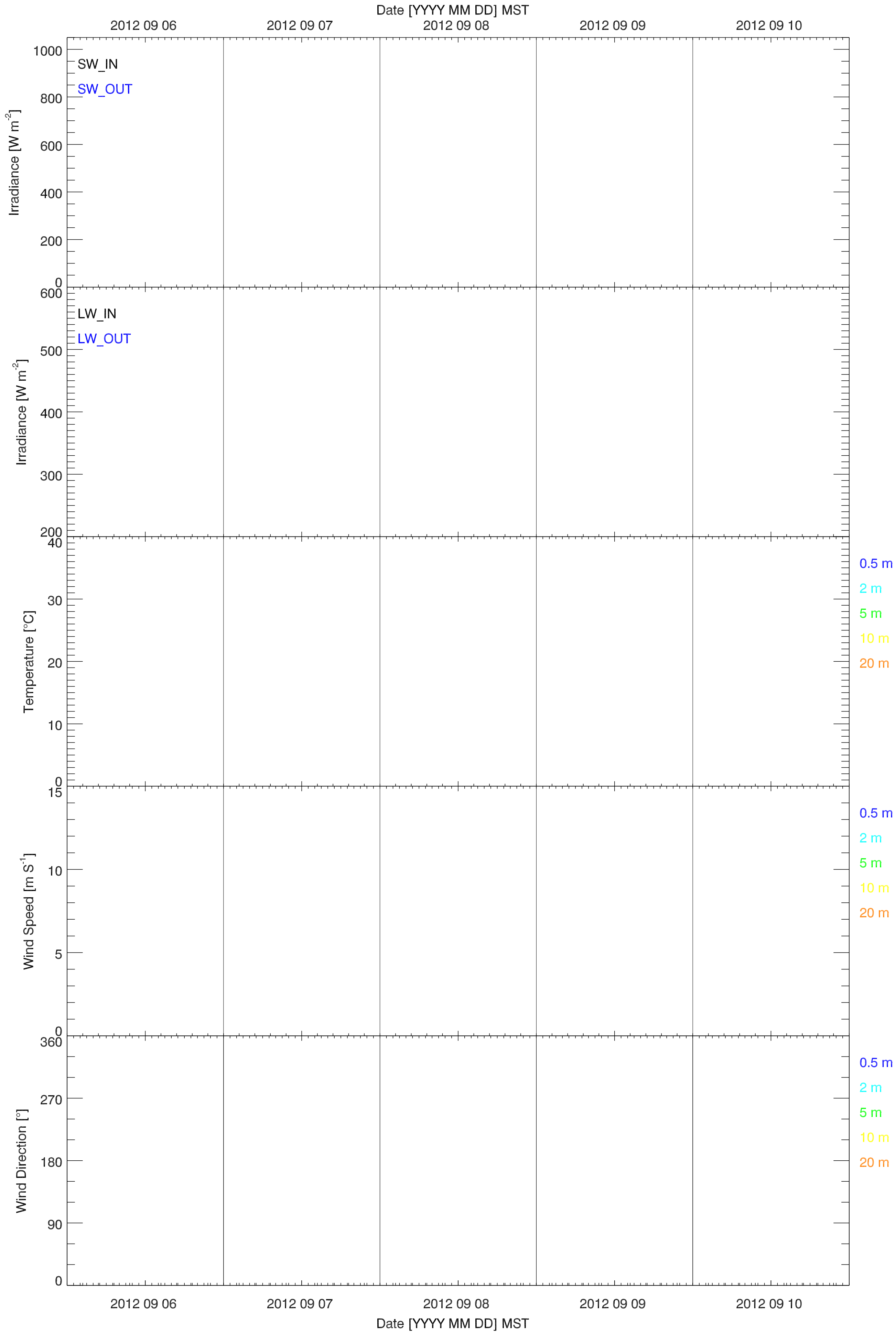


Date [YYYY MM DD] MST
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Vol. Water Cont. [m^3 m^-3]
0.0
0.1
0.2
0.3
0.4
0.5
7 cm
25 cm
70 cm
PRECIP (SAGE)
Precipitation [cm / 5 min]
Thermal Conductivity [W m^-1 K^-1]
0.0
0.5
1.0
1.5
5 cm
10 cm
25 cm
Thermal Diffusivity [10^-6 m^2 s^-1]
0.0
0.2
0.4
0.6
5 cm
10 cm
25 cm
Thermal Heat Capacity [10^6 J K^-1 m^-3]
0
1
2
3
4
5 cm
10 cm
25 cm
Ground Heat Flux [W m^-2]
-200
-100
0
100
200
Ground Heat Flux
Heat Storage TC-AV
Heat Storage TC-Sum
Flux HFP-A
Flux HFP-A
Subsurf. Temp. [°C]
5
10
15
20
25
30
35
40
-1 cm
-2.5 cm
-5 cm
-7.5 cm
-10 cm
-15 cm
-25 cm
-70 cm
0--5cm
Subsurf. Temp. [°C]
0-5 cm
-7 cm
-25 cm
-70 cm
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
Date [YYYY MM DD] MST

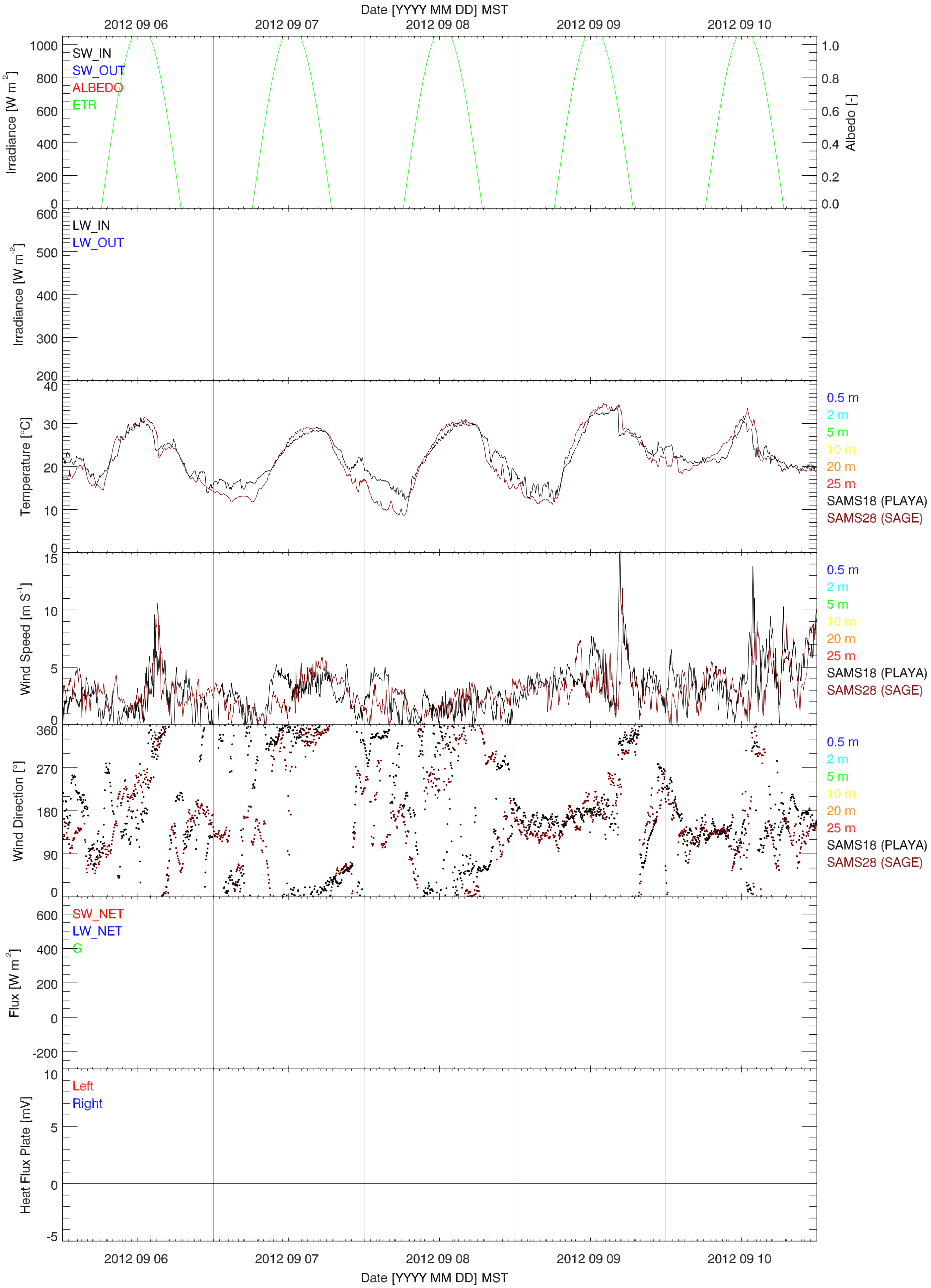
EFS ES3


Date [YYYY MM DD] MST
2012 09 01
2012 09 02
2012 09 03
2012 09 04
2012 09 05
600
400
200
0
-200
-400
Flux [W m^{-2}]
NR
H
LvE
G
Residual

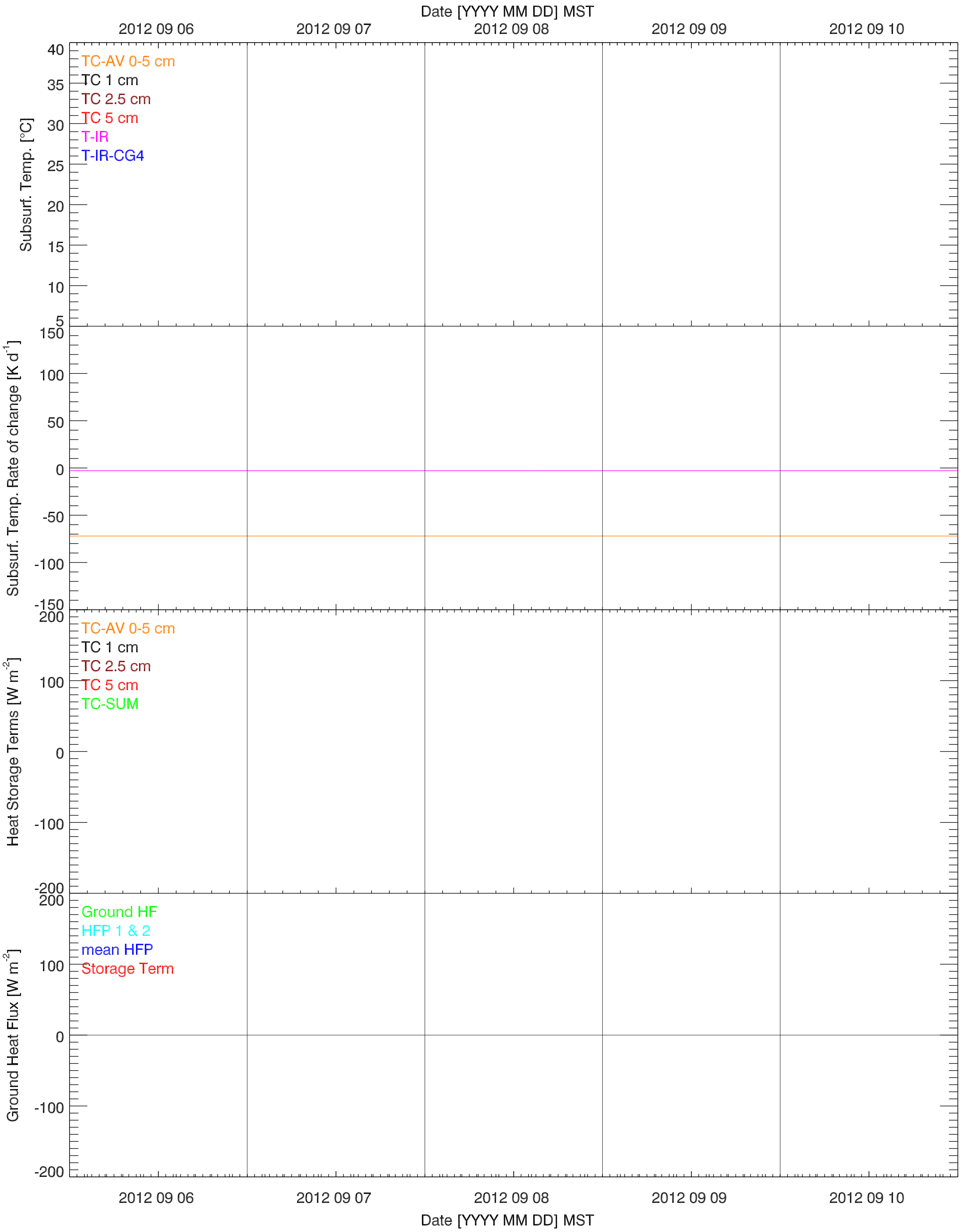
EFS ES3


Date [YYYY MM DD] MST
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
Irradiance [W m^{-2}]
1000
800
600
400
200
0
SW_IN
SW_OUT
Irradiance [W m^{-2}]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
Date [YYYY MM DD] MST

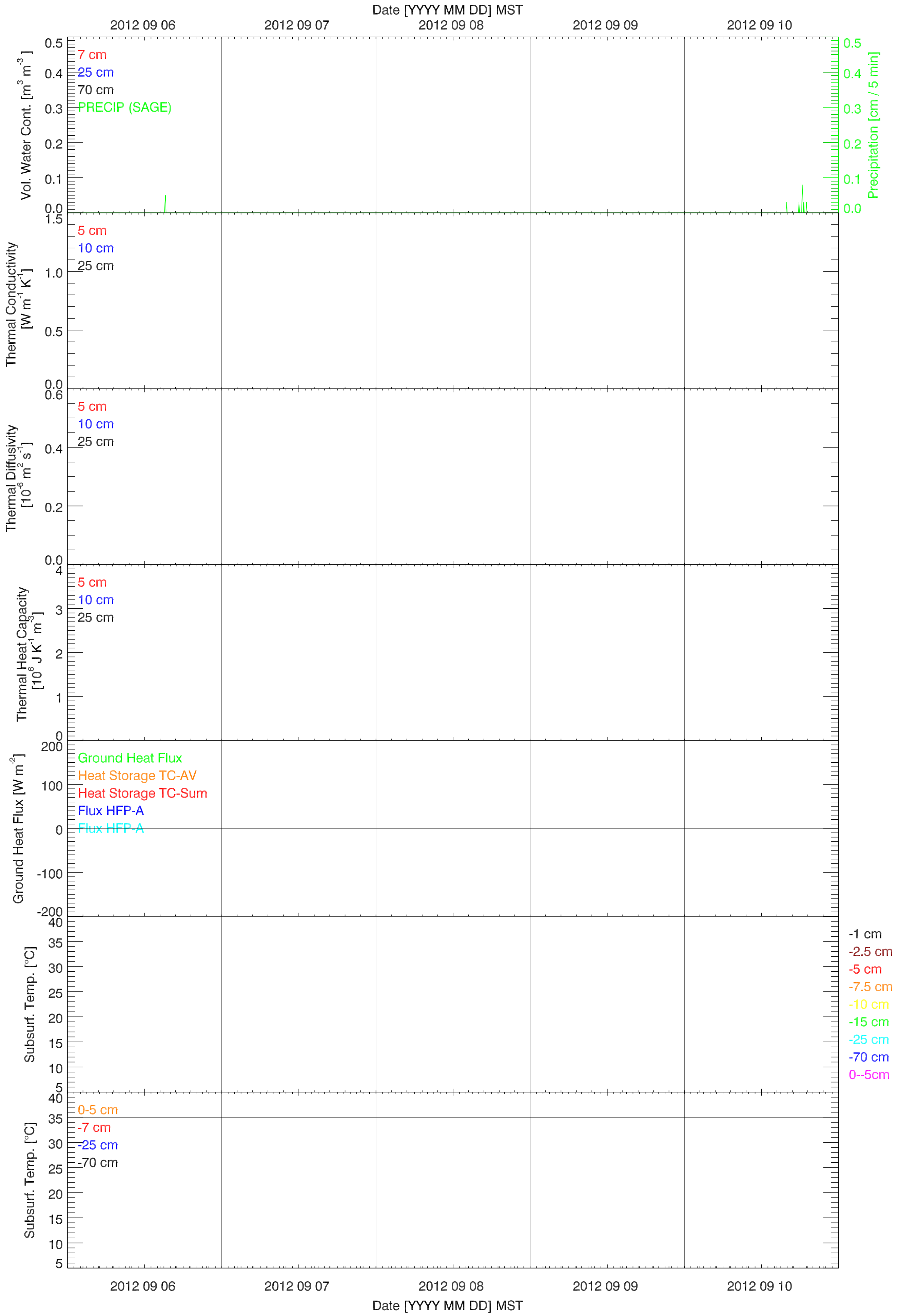
EFS ES3


Date [YYYY MM DD] MST
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
Irradiance [W m^{-2}]
Albedo [-]
SW_IN
SW_OUT
ALBEDO
ETR
1000
800
600
400
200
0
1.0
0.8
0.6
0.4
0.2
0.0
Irradiance [W m^{-2}]
LW_IN
LW_OUT
600
500
400
300
200
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Flux [W m^{-2}]
SW_NET
LW_NET
G
600
400
200
0
-200
Heat Flux Plate [mV]
Left
Right
10
5
0
-5
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
Date [YYYY MM DD] MST

EFS ES3

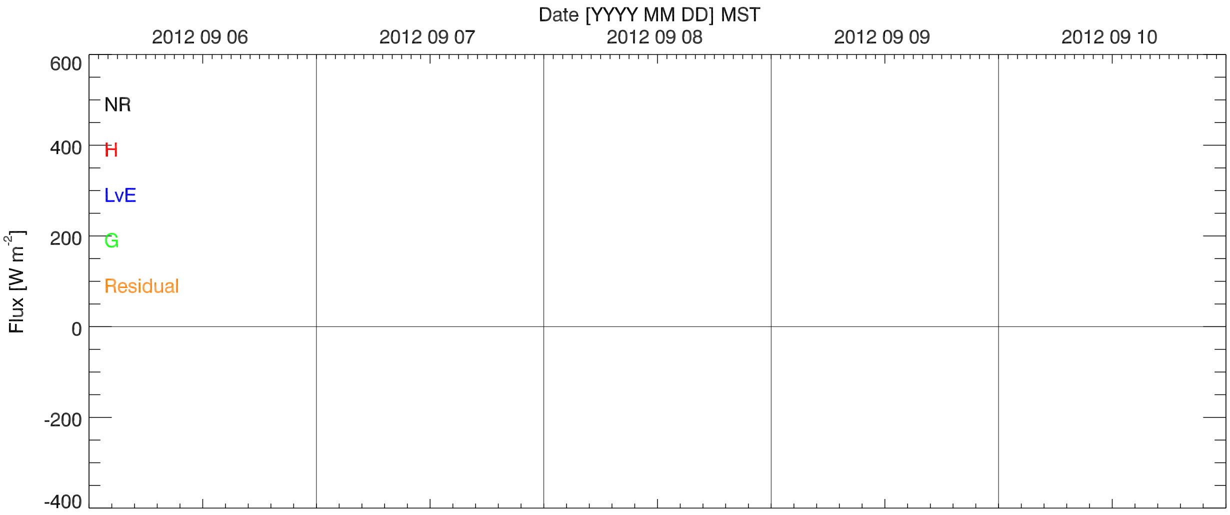

Date [YYYY MM DD] MST
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
T-IR
T-IR-CG4
Subsurf. Temp. Rate of change [K d^{-1}]
150
100
50
0
-50
-100
-150
Heat Storage Terms [W m^{-2}]
200
100
0
-100
-200
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
TC-SUM
Ground Heat Flux [W m^{-2}]
200
100
0
-100
-200
Ground HF
HFP 1 & 2
mean HFP
Storage Term
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
Date [YYYY MM DD] MST

EFS ES3

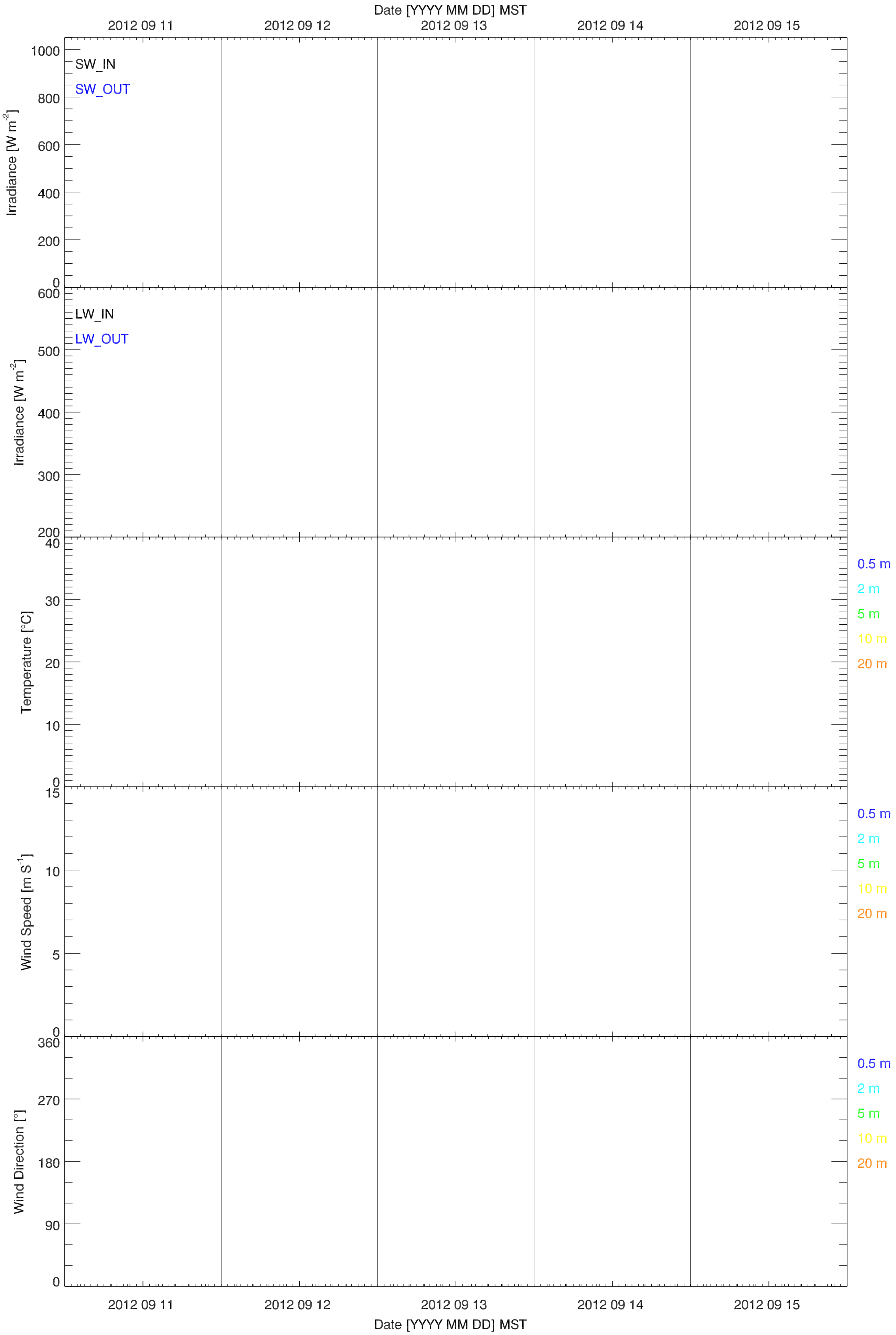


Date [YYYY MM DD] MST
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
Vol. Water Cont. [m^3 m^{-3}]
0.5
0.4
0.3
0.2
0.1
0.0
7 cm
25 cm
70 cm
PRECIP (SAGE)
Precipitation [cm / 5 min]
Thermal Conductivity [W m^{-1} K^{-1}]
1.5
1.0
0.5
0.0
5 cm
10 cm
25 cm
Thermal Diffusivity [10^{-6} m^2 s^{-1}]
0.6
0.4
0.2
0.0
5 cm
10 cm
25 cm
Thermal Heat Capacity [10^6 J K^{-1} m^{-3}]
4
3
2
1
0
5 cm
10 cm
25 cm
Ground Heat Flux [W m^{-2}]
200
100
0
-100
-200
Ground Heat Flux
Heat Storage TC-AV
Heat Storage TC-Sum
Flux HFP-A
Flux HFP-A
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
-1 cm
-2.5 cm
-5 cm
-7.5 cm
-10 cm
-15 cm
-25 cm
-70 cm
0--5cm
Subsurf. Temp. [°C]
0-5 cm
-7 cm
-25 cm
-70 cm

EFS ES3

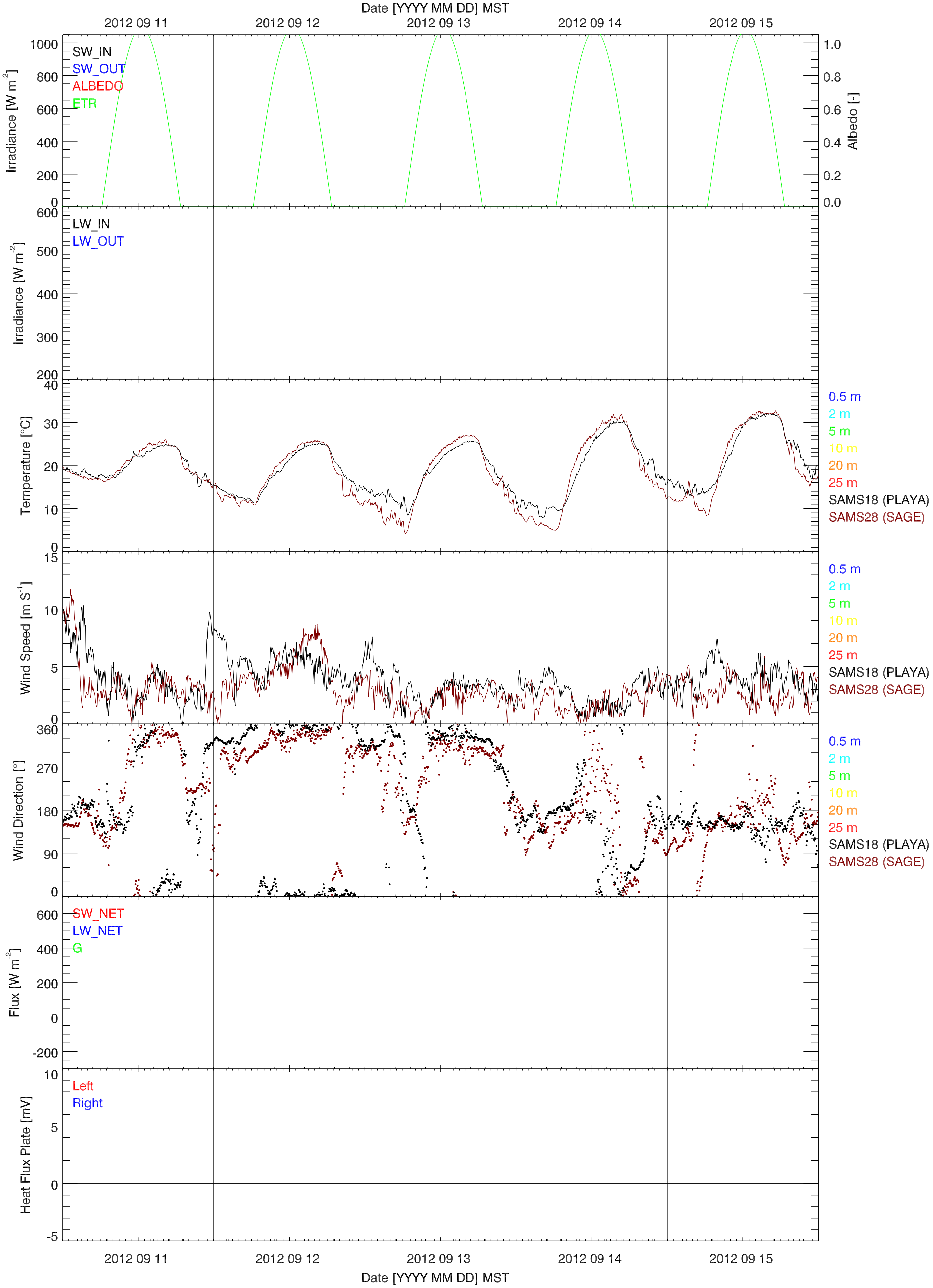

Date [YYYY MM DD] MST
2012 09 06
2012 09 07
2012 09 08
2012 09 09
2012 09 10
600
400
200
0
-200
-400
Flux [W m^-2]
NR
H
LvE
G
Residual

EFS ES3



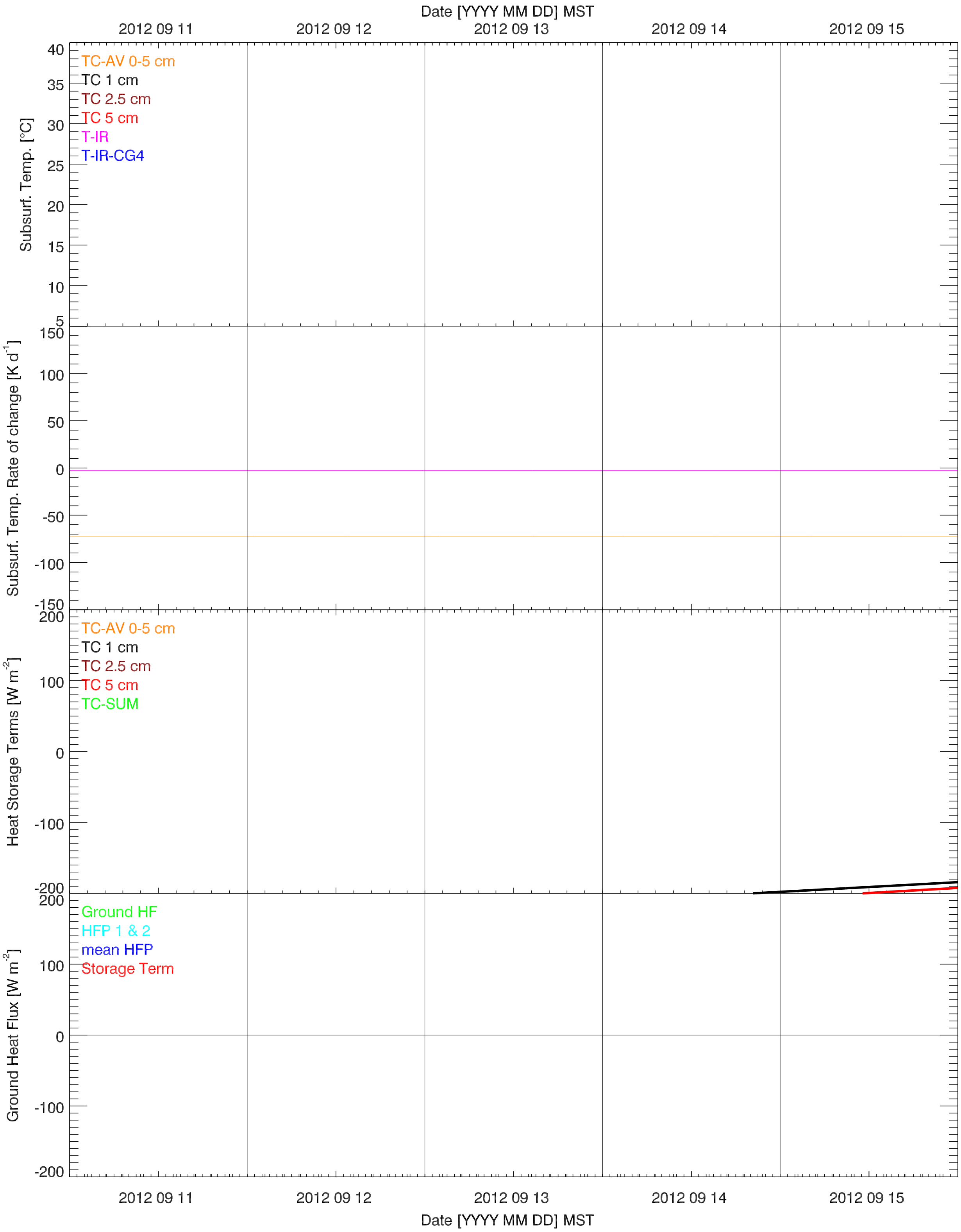
Date [YYYY MM DD] MST
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
Irradiance [W m^{-2}]
1000
800
600
400
200
0
SW_IN
SW_OUT
Irradiance [W m^{-2}]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
Date [YYYY MM DD] MST

EFS ES3

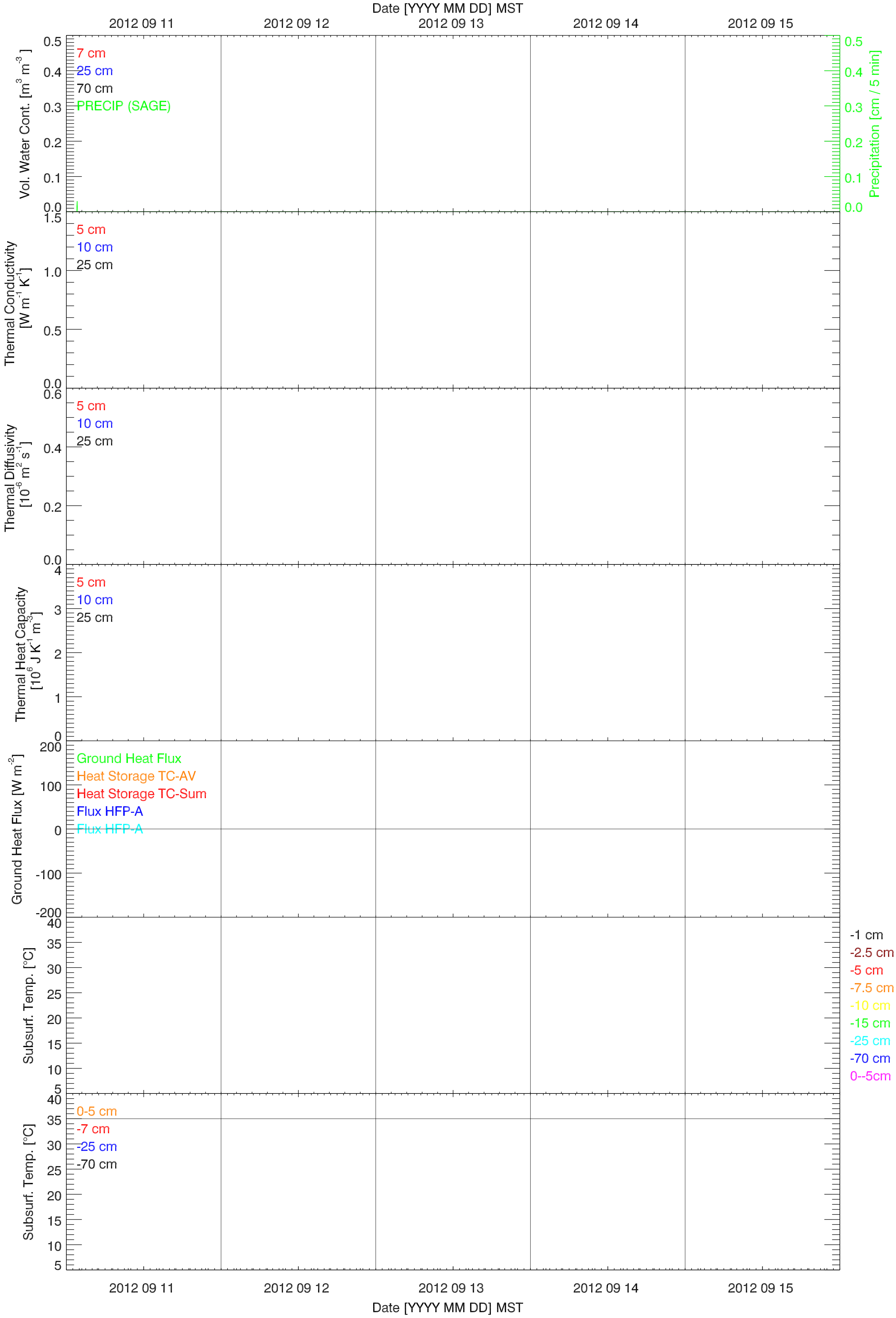


Date [YYYY MM DD] MST
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
Irradiance [W m^{-2}]
1000
800
600
400
200
0
SW_IN
SW_OUT
ALBEDO
ETR
Albedo [-]
1.0
0.8
0.6
0.4
0.2
0.0
Irradiance [W m^{-2}]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Flux [W m^{-2}]
600
400
200
0
-200
SW_NET
LW_NET
G
Heat Flux Plate [mV]
10
5
0
-5
Left
Right
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
Date [YYYY MM DD] MST

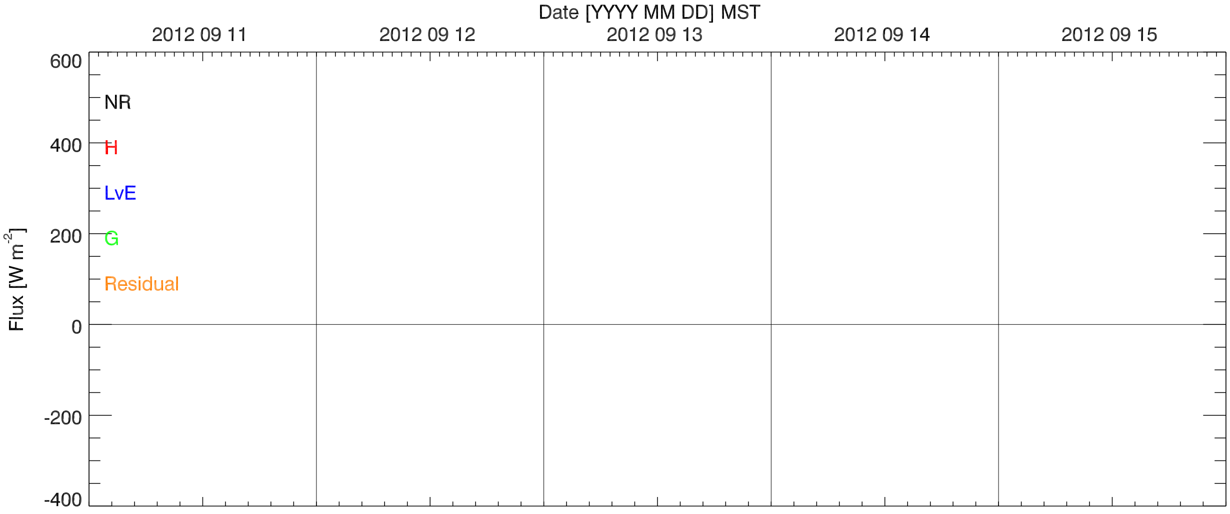
EFS ES3


Date [YYYY MM DD] MST
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
T-IR
T-IR-CG4
Subsurf. Temp. Rate of change [K d^{-1}]
150
100
50
0
-50
-100
-150
Heat Storage Terms [W m^{-2}]
200
100
0
-100
-200
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
TC-SUM
Ground Heat Flux [W m^{-2}]
200
100
0
-100
-200
Ground HF
HFP 1 & 2
mean HFP
Storage Term
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
Date [YYYY MM DD] MST

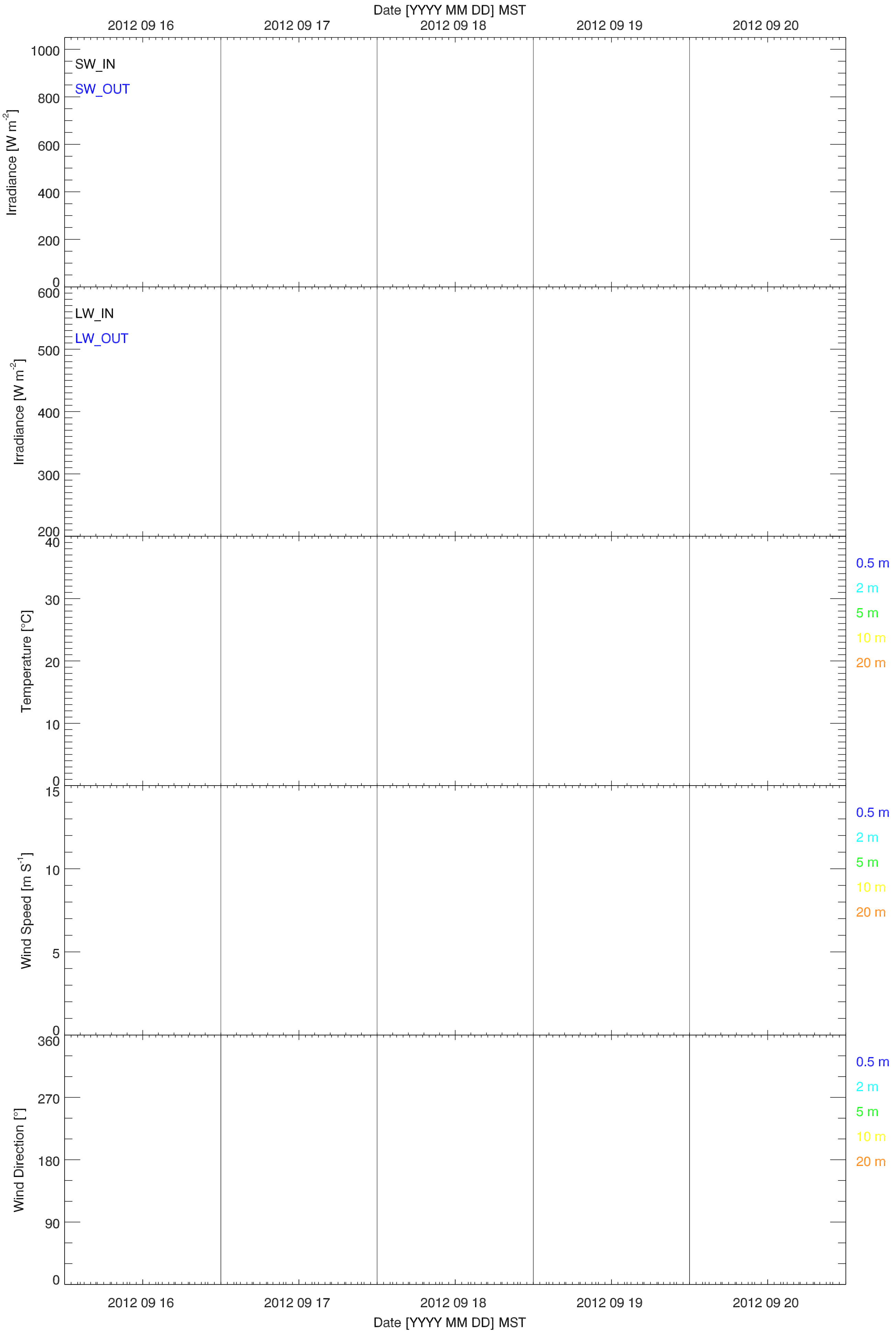
EFS ES3


Date [YYYY MM DD] MST
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
Vol. Water Cont. [m^3 m^-3]
0.5
0.4
0.3
0.2
0.1
0.0
7 cm
25 cm
70 cm
PRECIP (SAGE)
Precipitation [cm / 5 min]
Thermal Conductivity [W m^-1 K^-1]
1.5
1.0
0.5
0.0
5 cm
10 cm
25 cm
Thermal Diffusivity [10^-6 m^2 s^-1]
0.6
0.4
0.2
0.0
Thermal Heat Capacity [10^6 J K^-1 m^-3]
4
3
2
1
0
Ground Heat Flux [W m^-2]
200
100
0
-100
-200
Ground Heat Flux
Heat Storage TC-AV
Heat Storage TC-Sum
Flux HFP-A
Flux HFP-A
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
-1 cm
-2.5 cm
-5 cm
-7.5 cm
-10 cm
-15 cm
-25 cm
-70 cm
0--5cm
0-5 cm
-7 cm
-25 cm
-70 cm

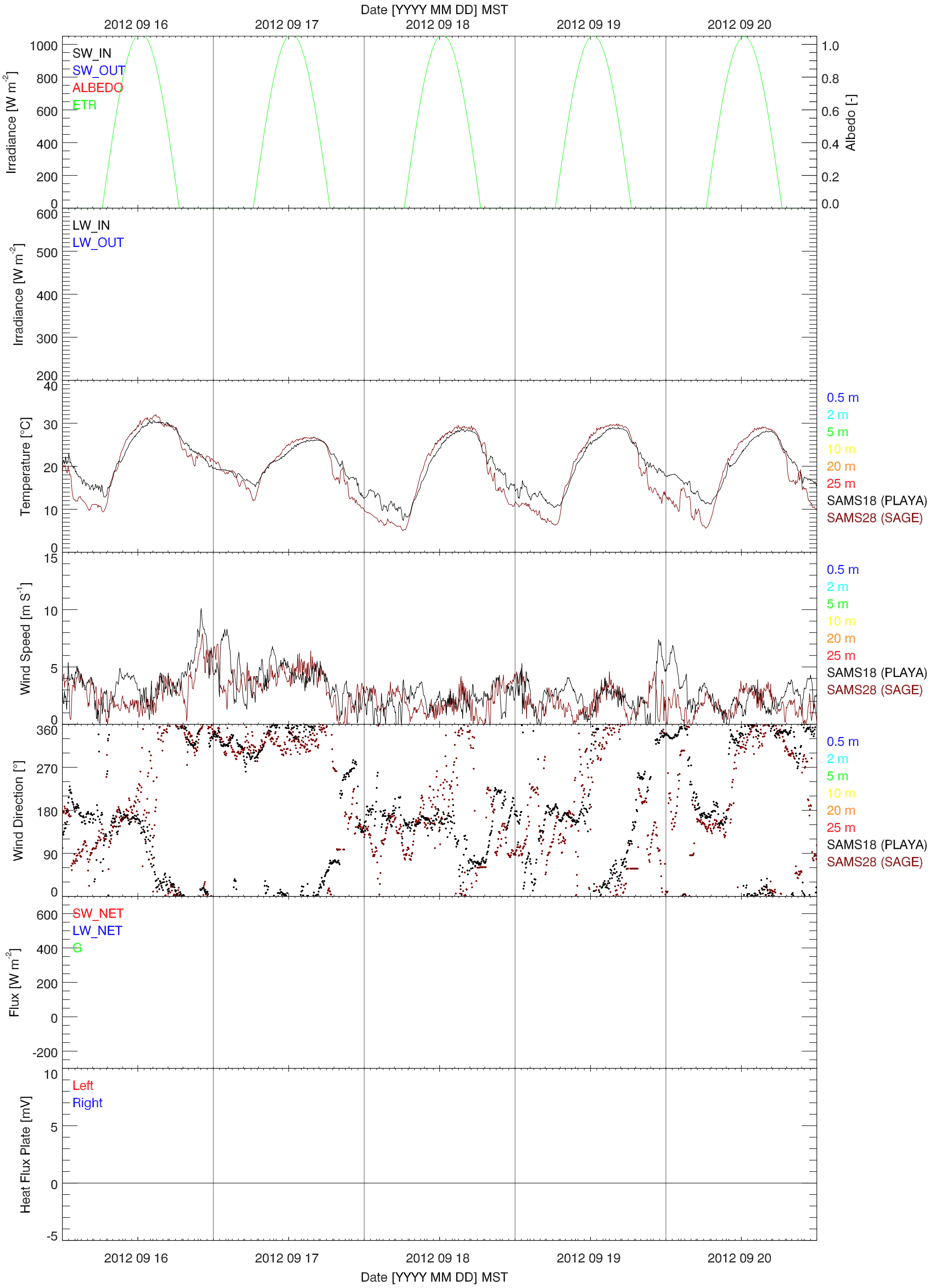
EFS ES3


Date [YYYY MM DD] MST
2012 09 11
2012 09 12
2012 09 13
2012 09 14
2012 09 15
600
400
200
0
-200
-400
Flux [W m^{-2}]
NR
H
LvE
G
Residual

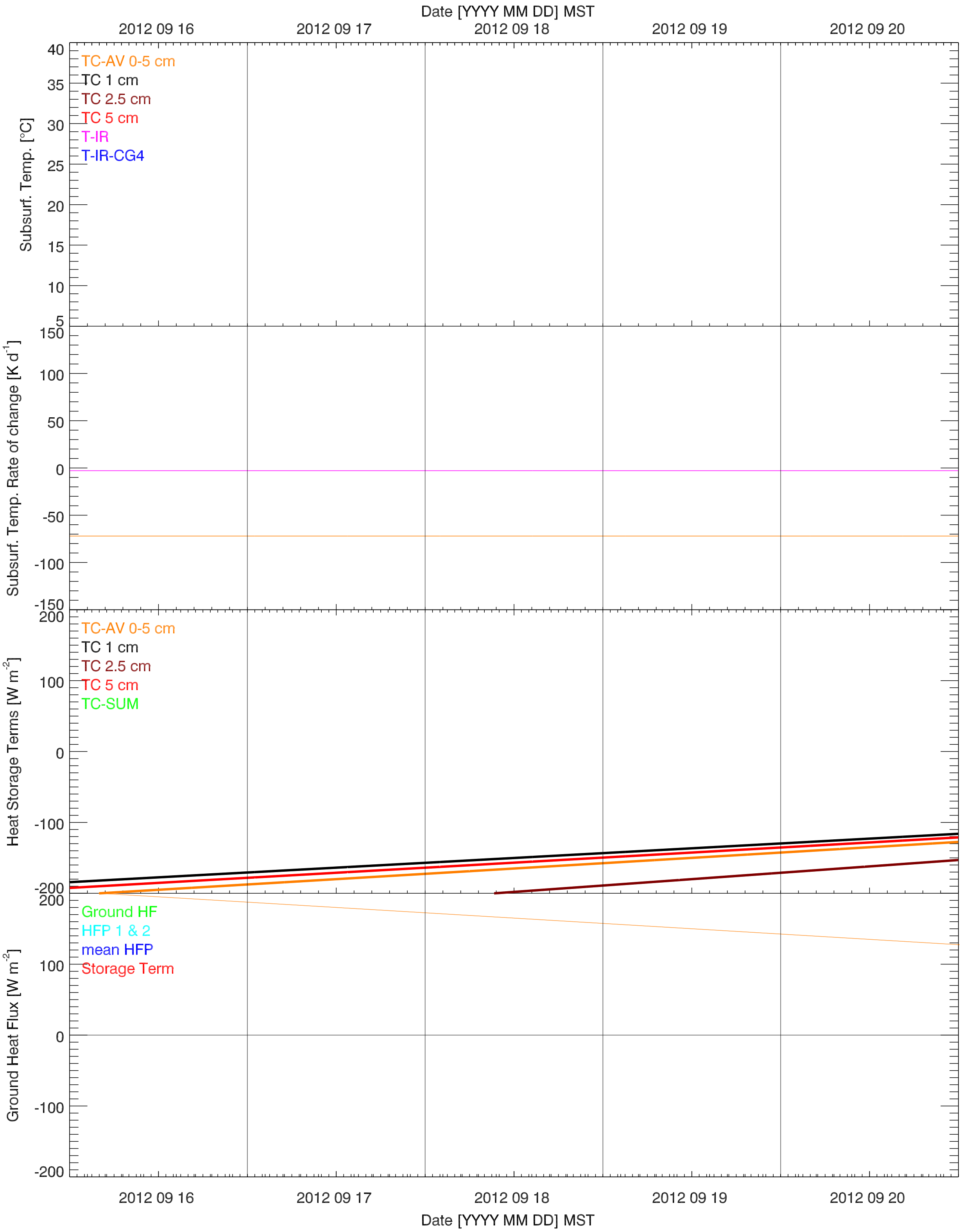
EFS ES3


Date [YYYY MM DD] MST
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Irradiance [W m-2]
1000
800
600
400
200
0
SW_IN
SW_OUT
Irradiance [W m-2]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
Wind Speed [m S-1]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Date [YYYY MM DD] MST

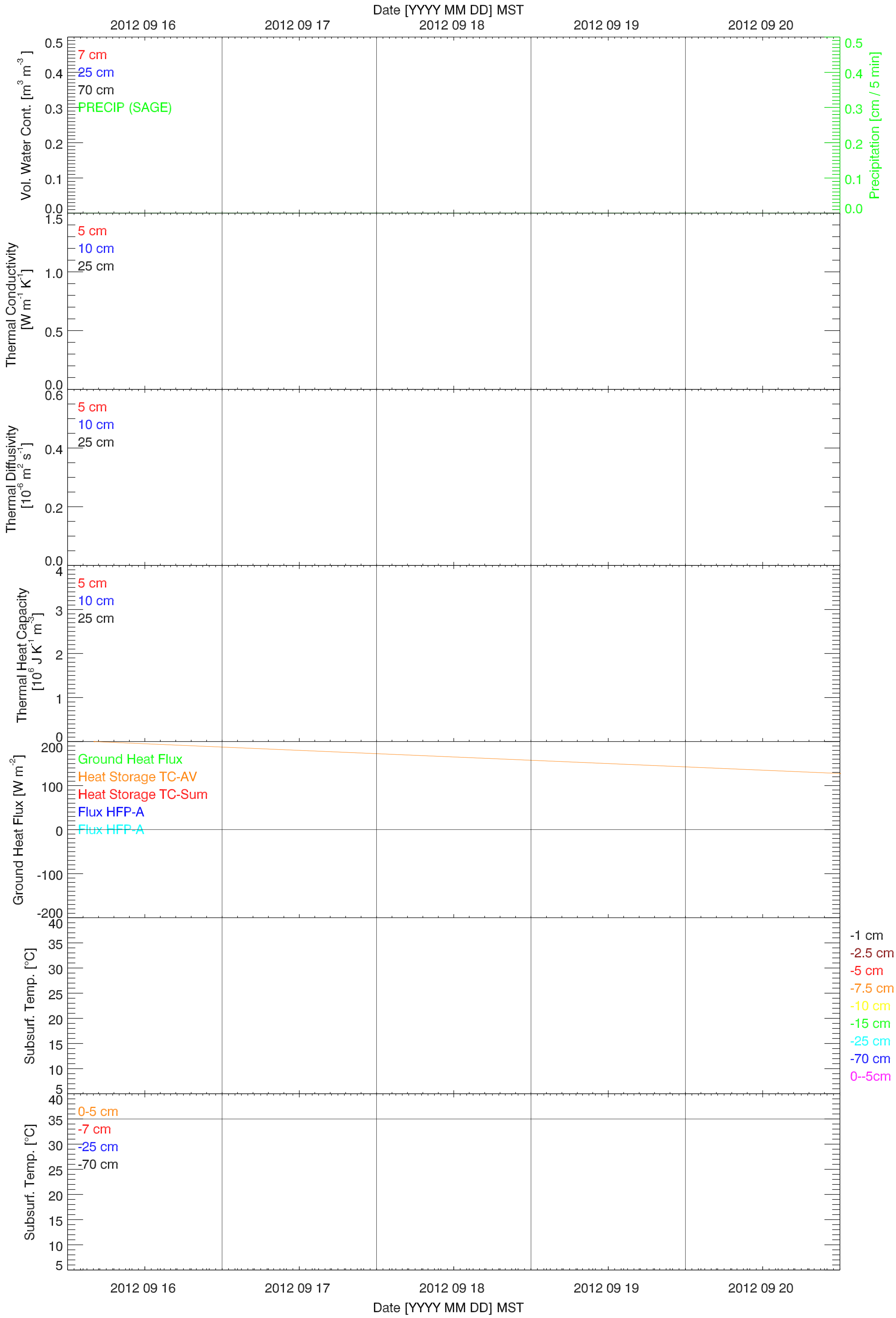
EFS ES3


Date [YYYY MM DD] MST
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Irradiance [W m^{-2}]
1000
800
600
400
200
0
SW_IN
SW_OUT
ALBEDO
ETR
Albedo [-]
1.0
0.8
0.6
0.4
0.2
0.0
Irradiance [W m^{-2}]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Flux [W m^{-2}]
600
400
200
0
-200
SW_NET
LW_NET
G
Heat Flux Plate [mV]
10
5
0
-5
Left
Right
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Date [YYYY MM DD] MST

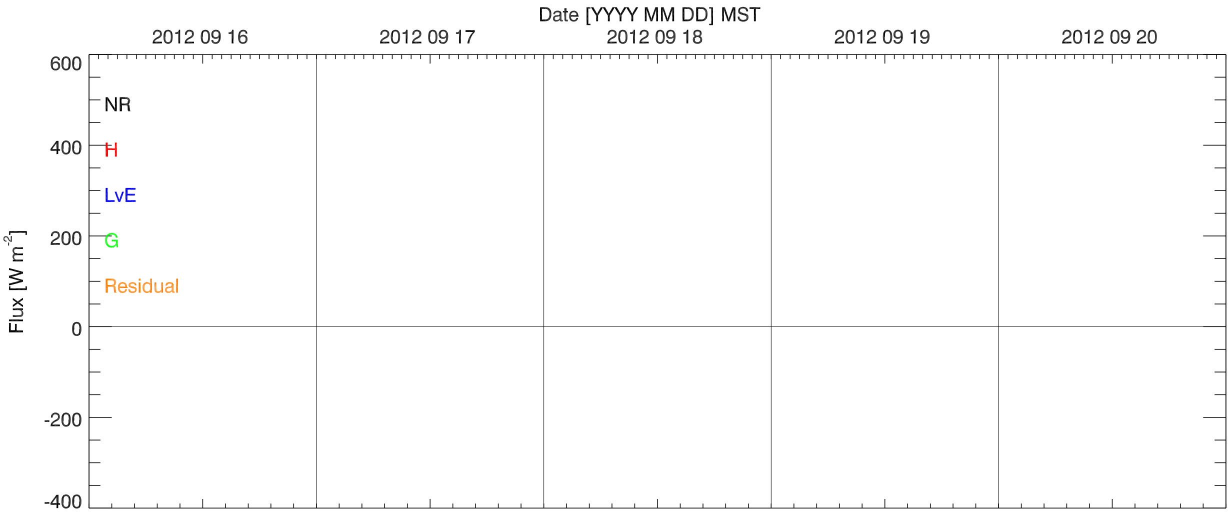
EFS ES3


Date [YYYY MM DD] MST
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
T-IR
T-IR-CG4
Subsurf. Temp. Rate of change [K d^{-1}]
150
100
50
0
-50
-100
-150
Heat Storage Terms [W m^{-2}]
200
100
0
-100
-200
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
TC-SUM
Ground Heat Flux [W m^{-2}]
200
100
0
-100
-200
Ground HF
HFP 1 & 2
mean HFP
Storage Term
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Date [YYYY MM DD] MST

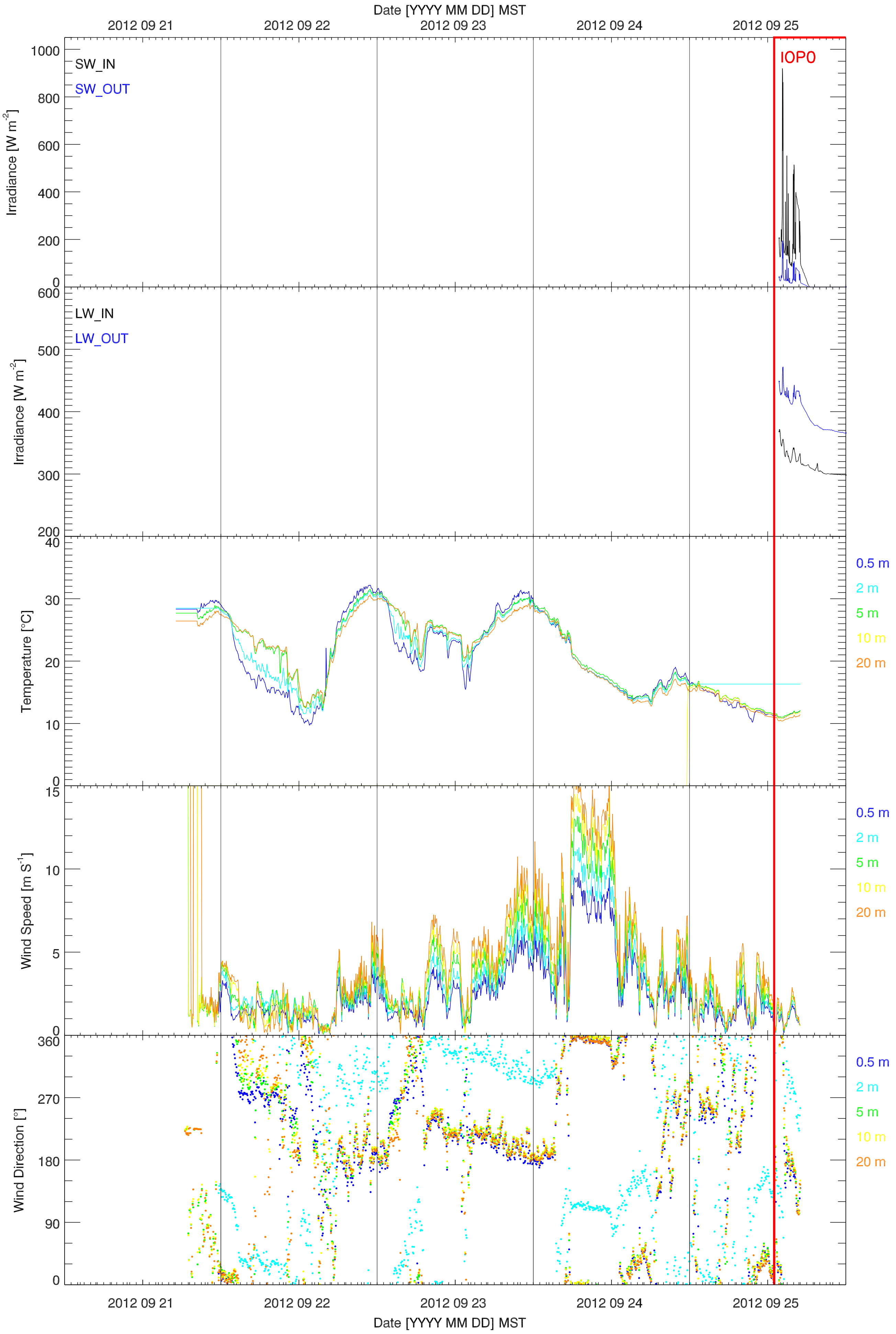
EFS ES3


Date [YYYY MM DD] MST
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Vol. Water Cont. [m^3 m^{-3}]
0.0
0.1
0.2
0.3
0.4
0.5
7 cm
25 cm
70 cm
PRECIP (SAGE)
Precipitation [cm / 5 min]
Thermal Conductivity [W m^{-1} K^{-1}]
0.0
0.5
1.0
1.5
5 cm
10 cm
25 cm
Thermal Diffusivity [10^{-6} m^2 s^{-1}]
0.0
0.2
0.4
0.6
5 cm
10 cm
25 cm
Thermal Heat Capacity [10^6 J K^{-1} m^{-3}]
0
1
2
3
4
5 cm
10 cm
25 cm
Ground Heat Flux [W m^{-2}]
-200
-100
0
100
200
Ground Heat Flux
Heat Storage TC-AV
Heat Storage TC-Sum
Flux HFP-A
Flux HFP-A
Subsurf. Temp. [°C]
5
10
15
20
25
30
35
40
-1 cm
-2.5 cm
-5 cm
-7.5 cm
-10 cm
-15 cm
-25 cm
-70 cm
0--5cm
Subsurf. Temp. [°C]
0-5 cm
-7 cm
-25 cm
-70 cm
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Date [YYYY MM DD] MST

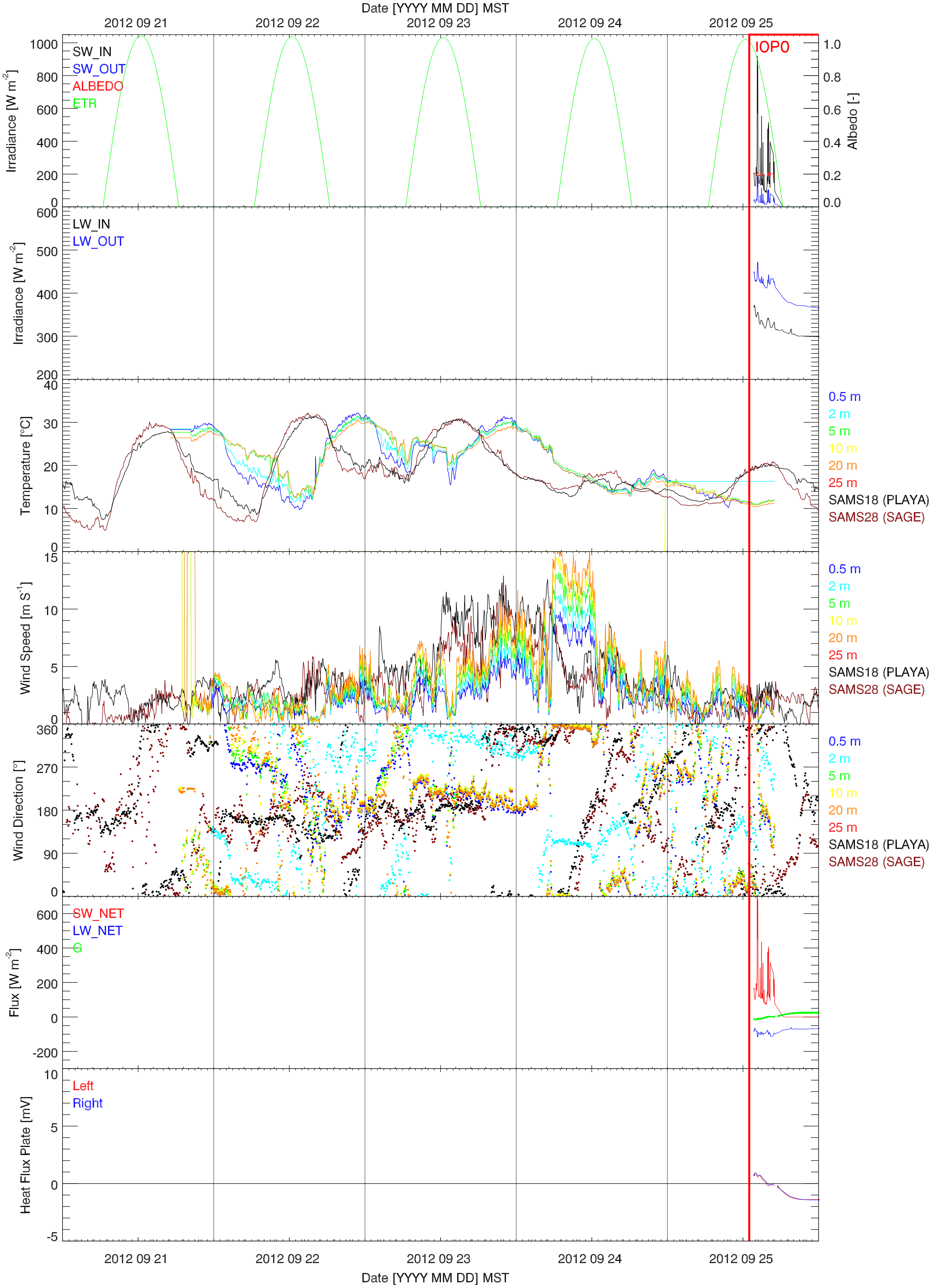
EFS ES3


Date [YYYY MM DD] MST
2012 09 16
2012 09 17
2012 09 18
2012 09 19
2012 09 20
Flux [W m^{-2}]
600
400
200
0
-200
-400
NR
H
LvE
G
Residual

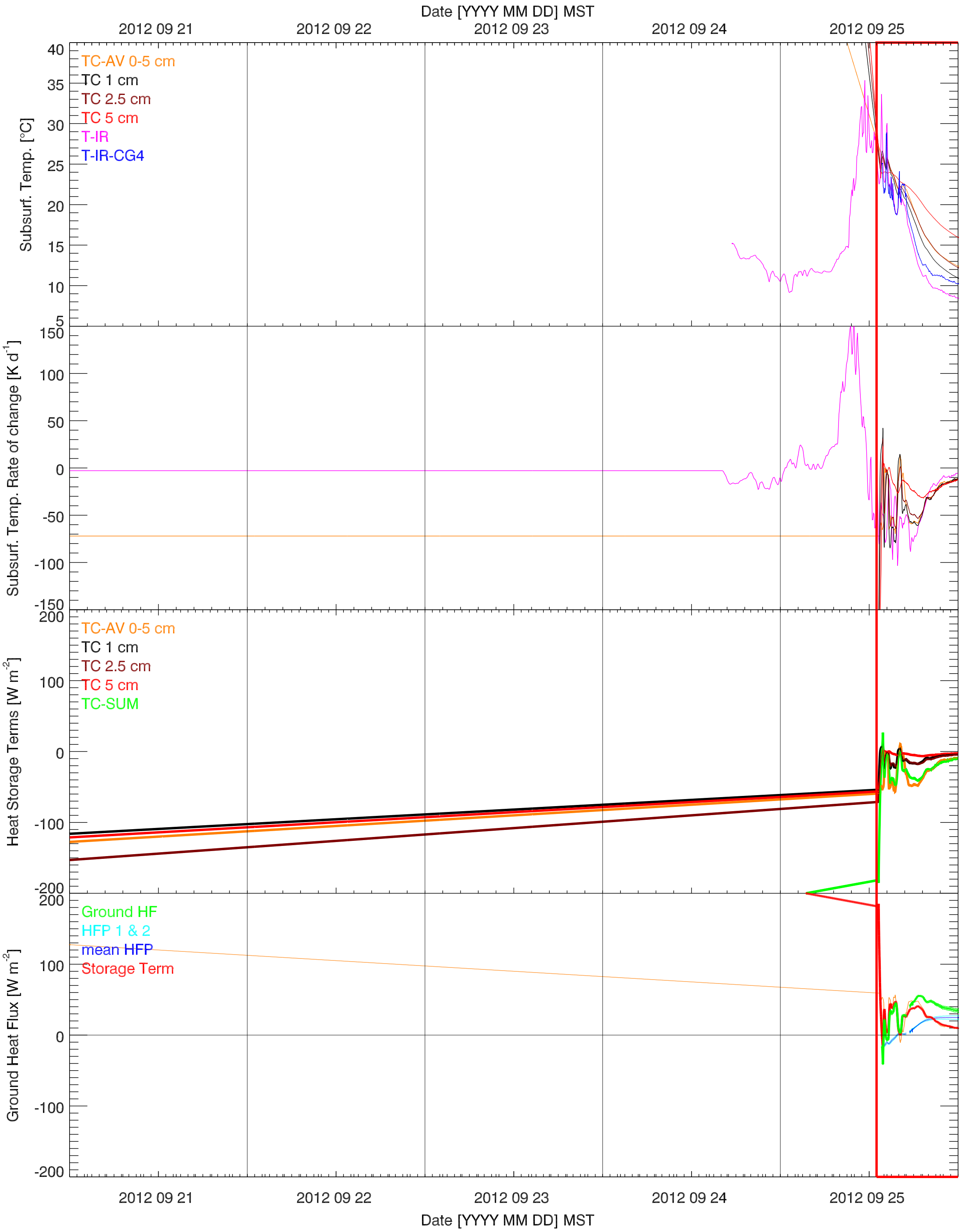
EFS ES3


Date [YYYY MM DD] MST
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
IOP0
Irradiance [W m^{-2}]
SW_IN
SW_OUT
0
200
400
600
800
1000
Irradiance [W m^{-2}]
LW_IN
LW_OUT
200
300
400
500
600
Temperature [°C]
0
10
20
30
40
0.5 m
2 m
5 m
10 m
20 m
Wind Speed [m S^{-1}]
0
5
10
15
Wind Direction [°]
0
90
180
270
360
Date [YYYY MM DD] MST

EFS ES3

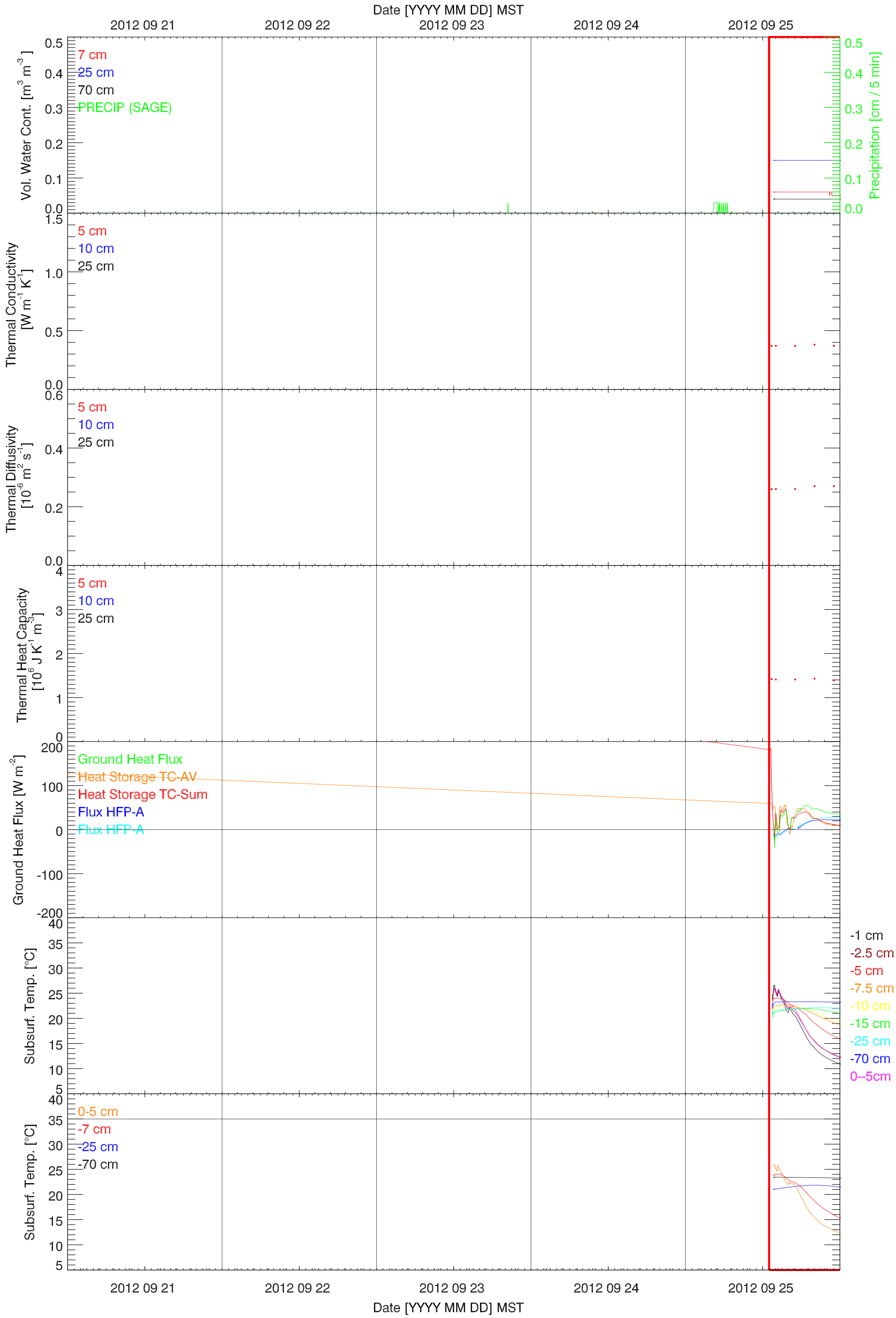

Date [YYYY MM DD] MST
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
IOP0
Irradiance [W m^{-2}]
SW_IN
SW_OUT
ALBEDO
ETR
1000
800
600
400
200
0
Albedo [-]
1.0
0.8
0.6
0.4
0.2
0.0
Irradiance [W m^{-2}]
LW_IN
LW_OUT
600
500
400
300
200
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Flux [W m^{-2}]
SW_NET
LW_NET
G
600
400
200
0
-200
Heat Flux Plate [mV]
Left
Right
10
5
0
-5
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
Date [YYYY MM DD] MST

EFS ES3

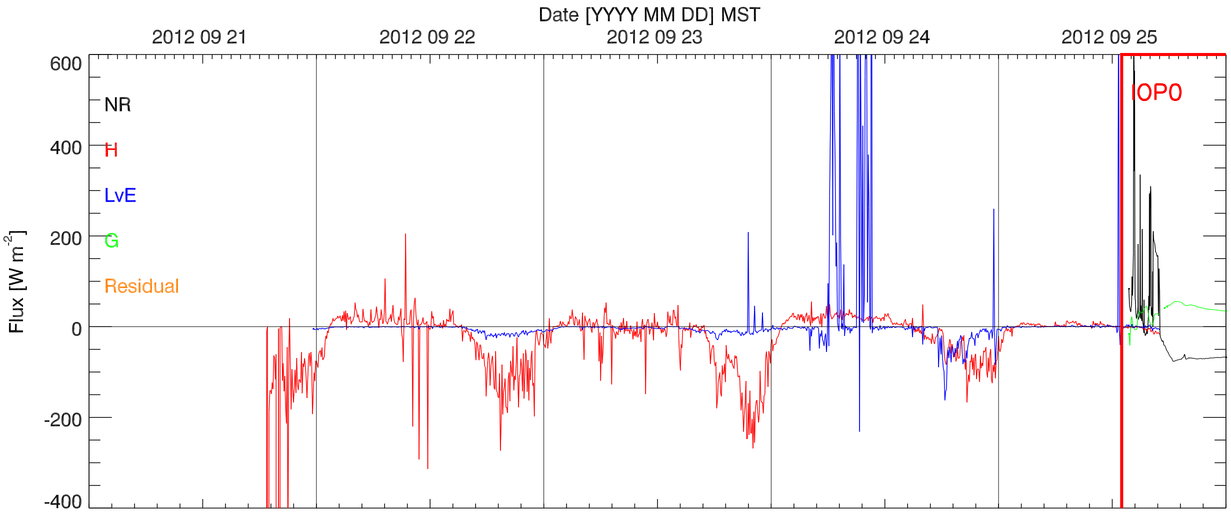


Date [YYYY MM DD] MST
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
T-IR
T-IR-CG4
Subsurf. Temp. Rate of change [K d-1]
150
100
50
0
-50
-100
-150
Heat Storage Terms [W m-2]
200
100
0
-100
-200
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
TC-SUM
Ground Heat Flux [W m-2]
200
100
0
-100
-200
Ground HF
HFP 1 & 2
mean HFP
Storage Term
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
Date [YYYY MM DD] MST

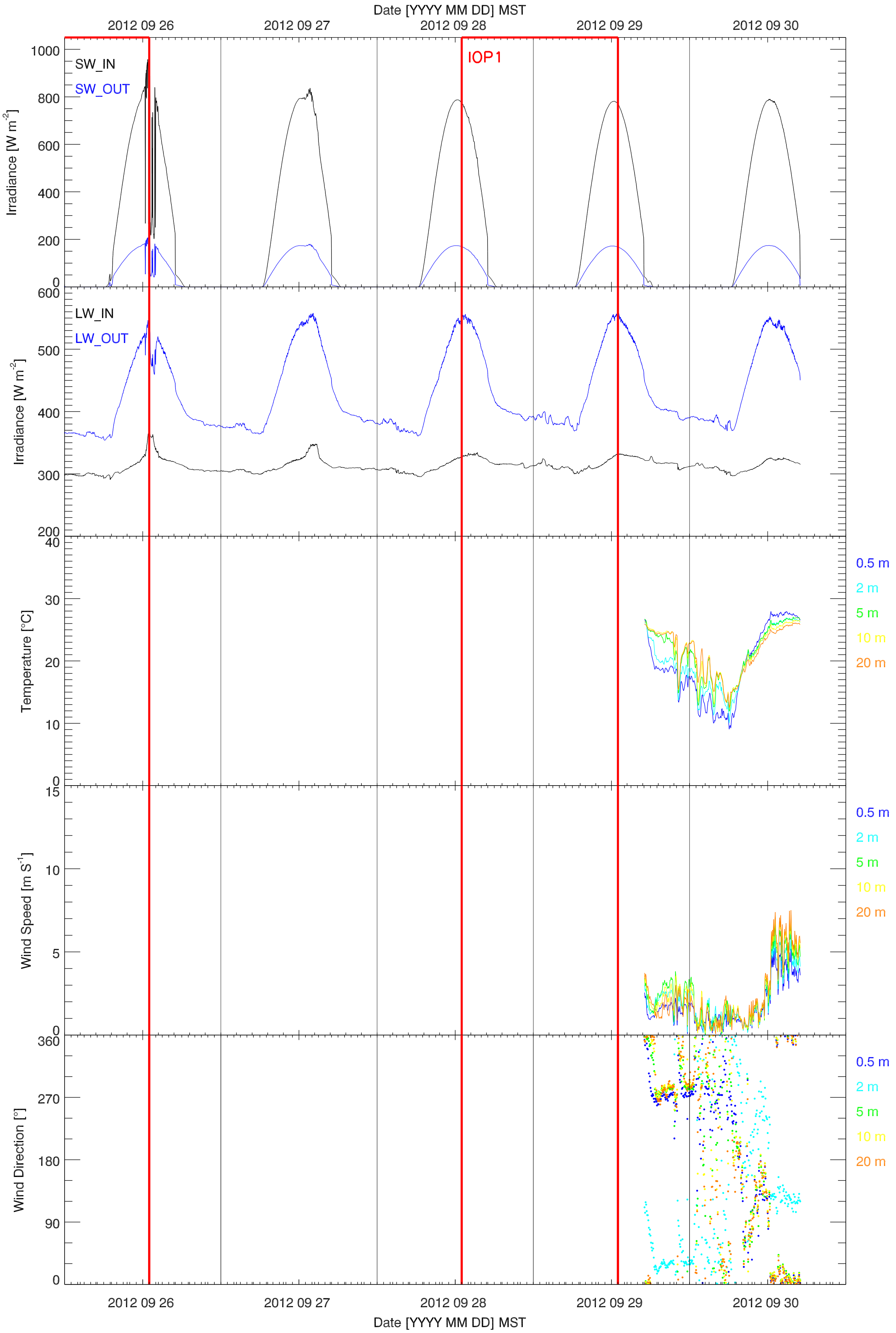
EFS ES3


Date [YYYY MM DD] MST
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
Vol. Water Cont. [m^3 m^-3]
7 cm
25 cm
70 cm
PRECIP (SAGE)
Precipitation [cm / 5 min]
0.0
0.1
0.2
0.3
0.4
0.5
Thermal Conductivity [W m^-1 K^-1]
5 cm
10 cm
25 cm
0.0
0.5
1.0
1.5
Thermal Diffusivity [10^-6 m^2 s^-1]
0.0
0.2
0.4
0.6
Thermal Heat Capacity [10^6 J K^-1 m^-3]
0
1
2
3
4
Ground Heat Flux [W m^-2]
Ground Heat Flux
Heat Storage TC-AV
Heat Storage TC-Sum
Flux HFP-A
Flux HFP-A
-200
-100
0
100
200
Subsurf. Temp. [°C]
-1 cm
-2.5 cm
-5 cm
-7.5 cm
-10 cm
-15 cm
-25 cm
-70 cm
0--5cm
5
10
15
20
25
30
35
40
Subsurf. Temp. [°C]
0-5 cm
-7 cm
-25 cm
-70 cm
5
10
15
20
25
30
35
40
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
Date [YYYY MM DD] MST

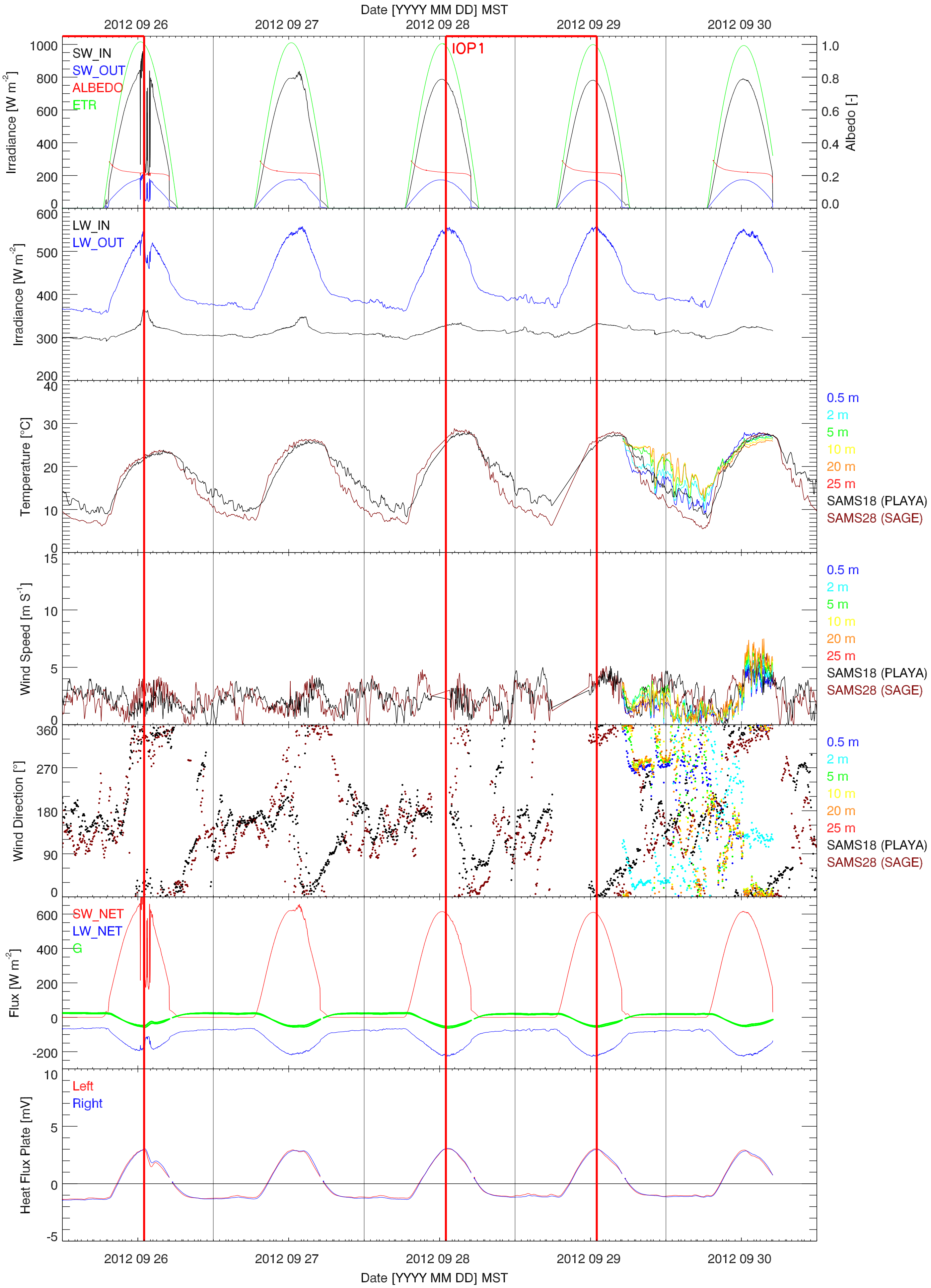
EFS ES3


Date [YYYY MM DD] MST
2012 09 21
2012 09 22
2012 09 23
2012 09 24
2012 09 25
600
400
200
0
-200
-400
Flux [W m^{-2}]
NR
H
LvE
G
Residual
IOP0

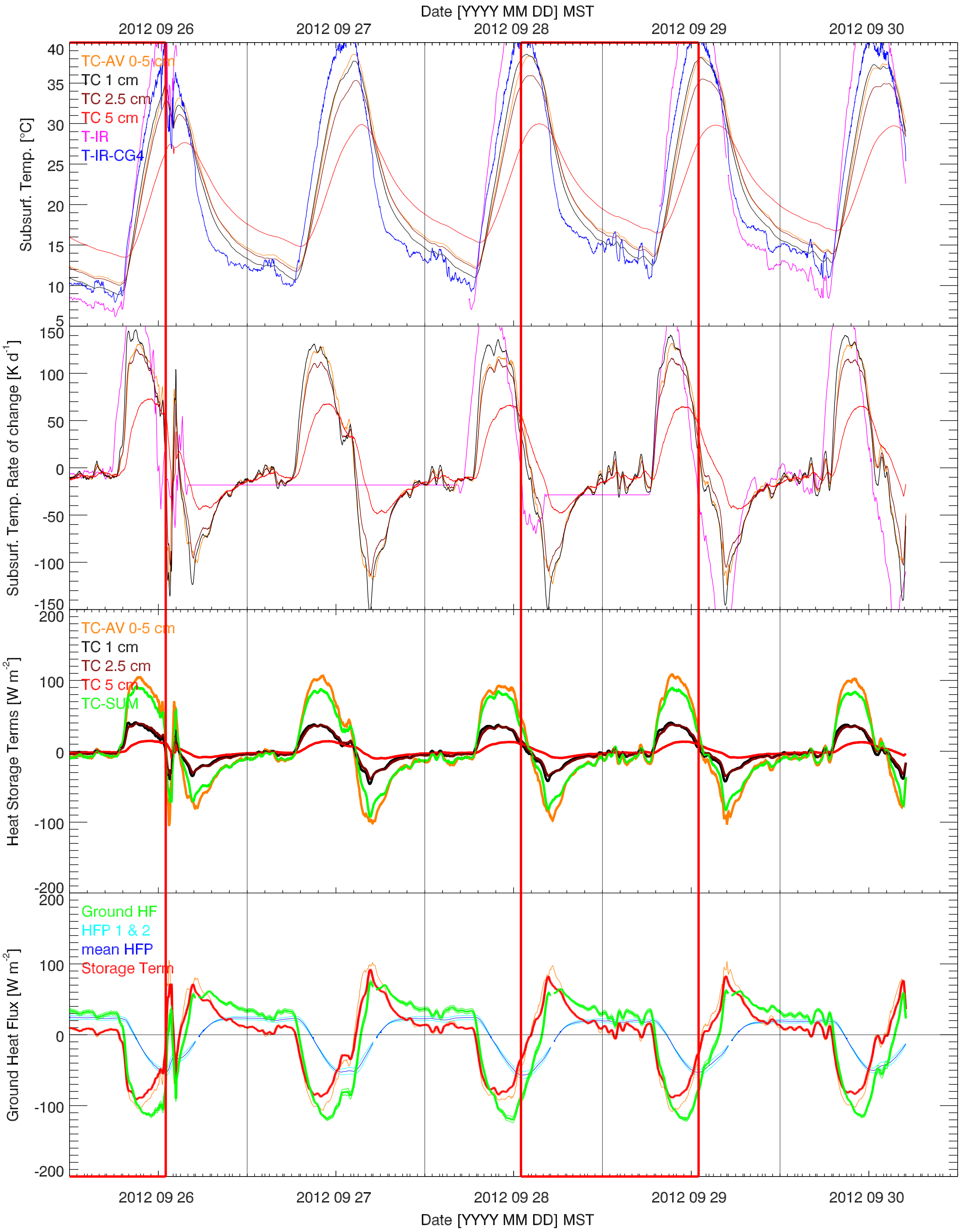
EFS ES3


Date [YYYY MM DD] MST
2012 09 26
2012 09 27
2012 09 28
2012 09 29
2012 09 30
IOP1
Irradiance [W m^{-2}]
SW_IN
SW_OUT
1000
800
600
400
200
0
LW_IN
LW_OUT
600
500
400
300
200
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
Wind Speed [m S^{-1}]
15
10
5
0
Wind Direction [°]
360
270
180
90
0

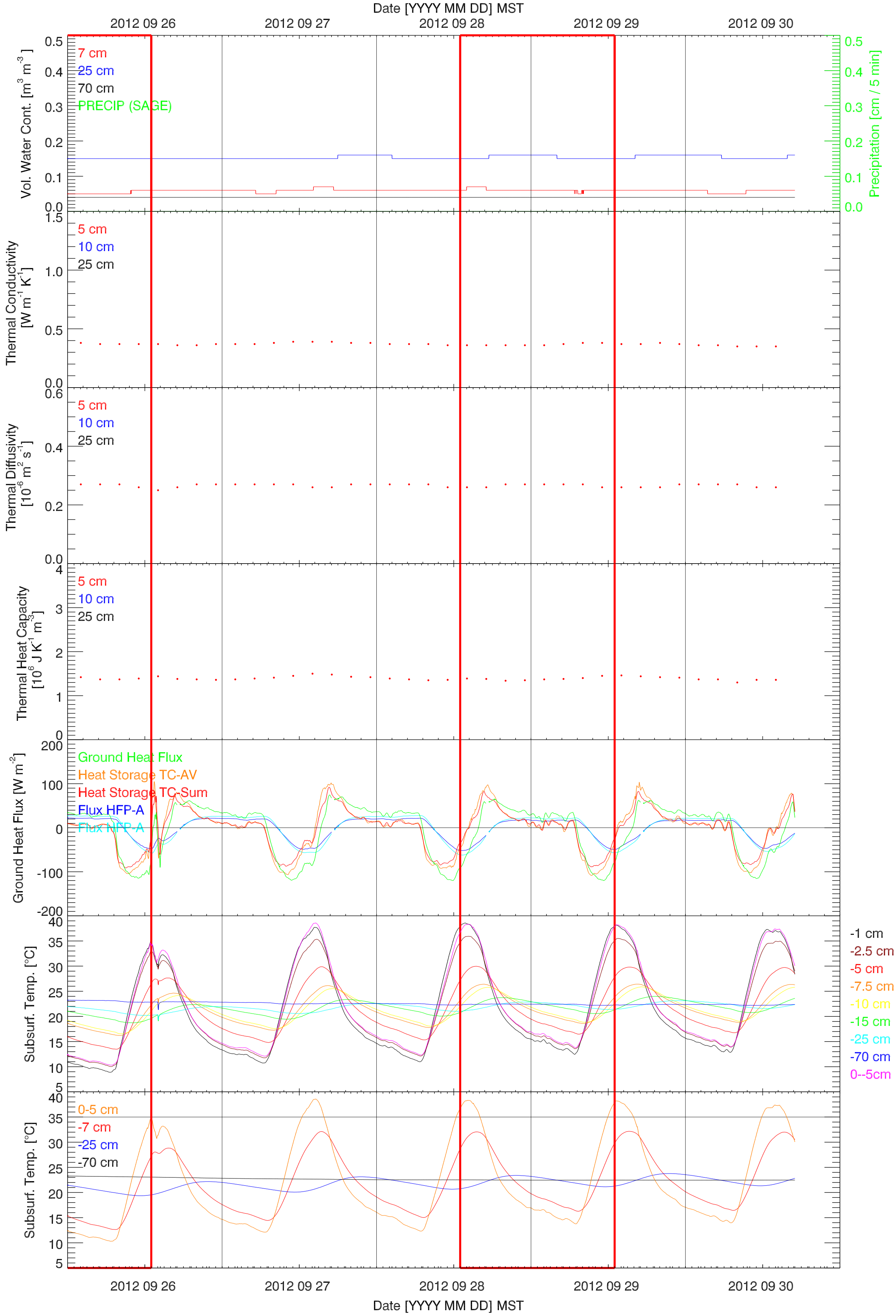
EFS ES3


Date [YYYY MM DD] MST
2012 09 26
2012 09 27
2012 09 28
2012 09 29
2012 09 30
IOP1
SW_IN
SW_OUT
ALBEDO
ETR
Irradiance [W m^{-2}]
Albedo [-]
1000
800
600
400
200
0
1.0
0.8
0.6
0.4
0.2
0.0
LW_IN
LW_OUT
Irradiance [W m^{-2}]
600
500
400
300
200
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
SW_NET
LW_NET
G
Flux [W m^{-2}]
600
400
200
0
-200
Left
Right
Heat Flux Plate [mV]
10
5
0
-5
2012 09 26
2012 09 27
2012 09 28
2012 09 29
2012 09 30
Date [YYYY MM DD] MST

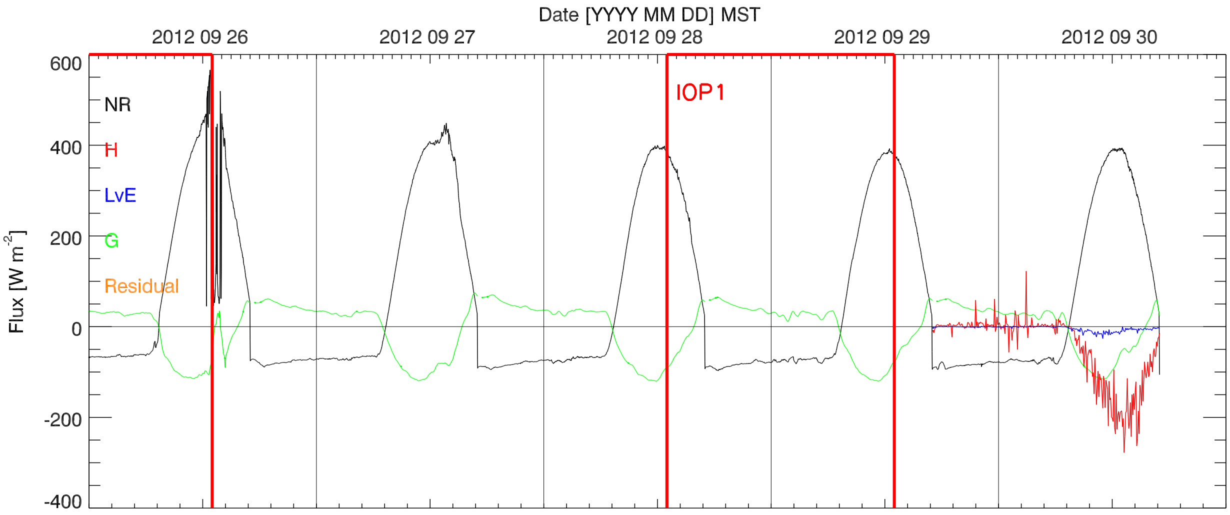
EFS ES3


Date [YYYY MM DD] MST
2012 09 26
2012 09 27
2012 09 28
2012 09 29
2012 09 30
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
T-IR
T-IR-CG4
Subsurf. Temp. Rate of change [K d^{-1}]
150
100
50
0
-50
-100
-150
Heat Storage Terms [W m^{-2}]
200
100
0
-100
-200
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
TC-SUM
Ground Heat Flux [W m^{-2}]
200
100
0
-100
-200
Ground HF
HFP 1 & 2
mean HFP
Storage Term
2012 09 26
2012 09 27
2012 09 28
2012 09 29
2012 09 30
Date [YYYY MM DD] MST

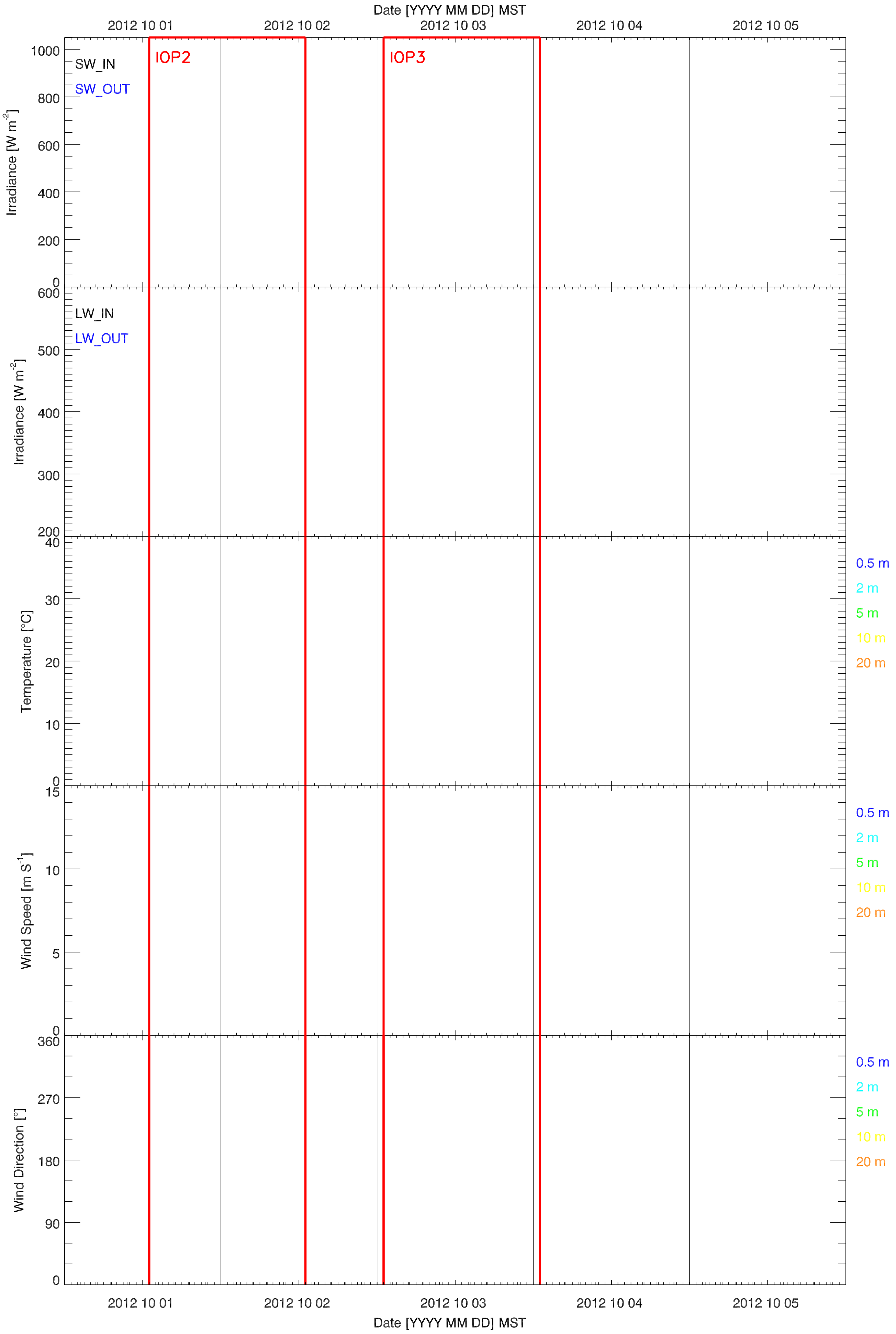
EFS ES3


Date [YYYY MM DD] MST
2012 09 26
2012 09 27
2012 09 28
2012 09 29
2012 09 30
Vol. Water Cont. [m³ m⁻³]
7 cm
25 cm
70 cm
PRECIP (SAGE)
Precipitation [cm / 5 min]
0.0
0.1
0.2
0.3
0.4
0.5
Thermal Conductivity [W m⁻¹ K⁻¹]
5 cm
10 cm
25 cm
0.0
0.5
1.0
1.5
Thermal Diffusivity [10⁻⁶ m² s⁻¹]
0.0
0.2
0.4
0.6
Thermal Heat Capacity [10⁶ J K⁻¹ m⁻³]
0
1
2
3
4
Ground Heat Flux [W m⁻²]
Ground Heat Flux
Heat Storage TC-AV
Heat Storage TC-Sum
Flux HFP-A
Flux NFP-A
-200
-100
0
100
200
Subsurf. Temp. [°C]
-1 cm
-2.5 cm
-5 cm
-7.5 cm
-10 cm
-15 cm
-25 cm
-70 cm
0--5cm
5
10
15
20
25
30
35
40
0-5 cm
-7 cm
-25 cm
-70 cm

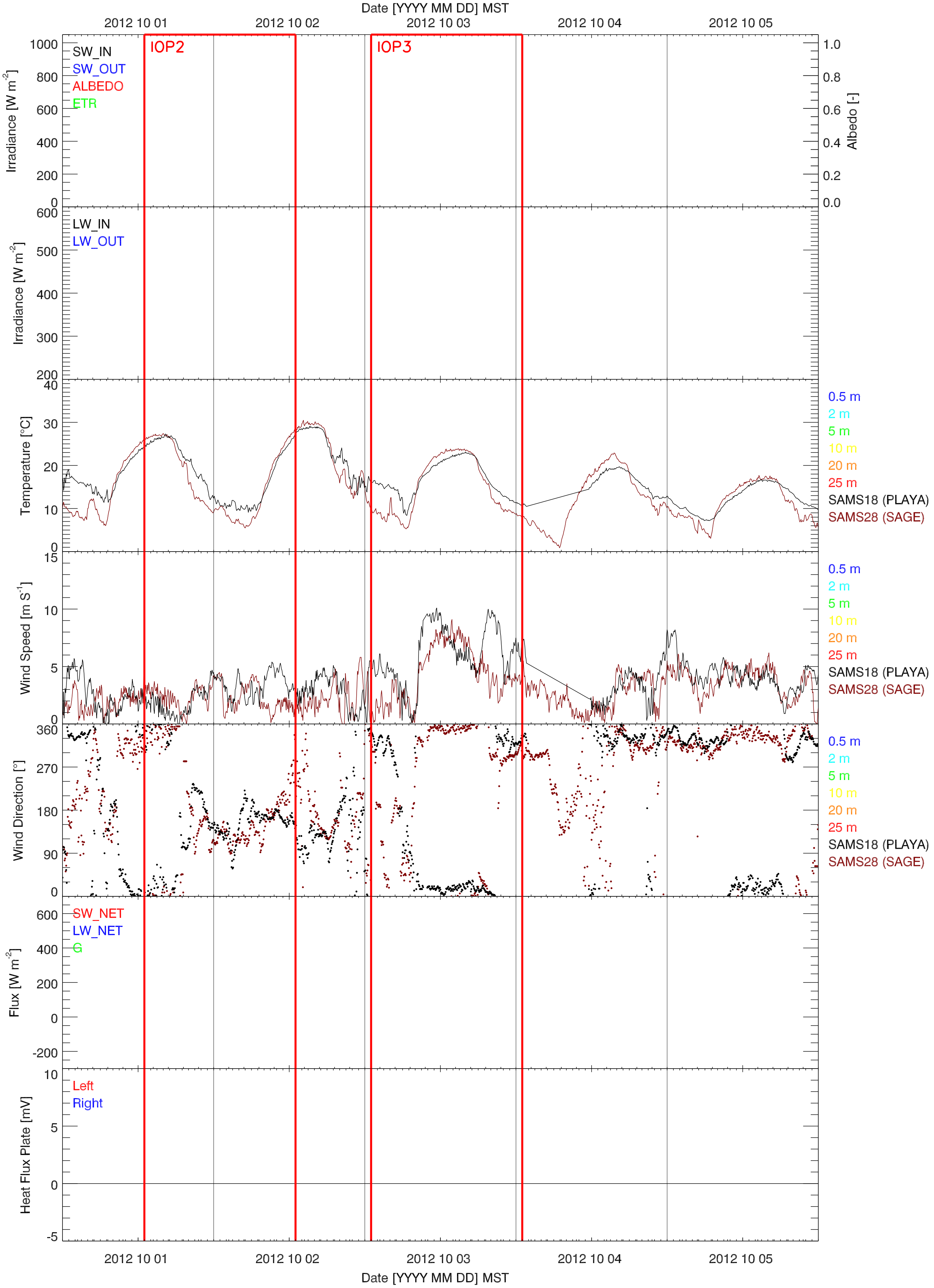
EFS ES3


Date [YYYY MM DD] MST
2012 09 26
2012 09 27
2012 09 28
2012 09 29
2012 09 30
IOP1
NR
H
LvE
G
Residual
Flux [W m^{-2}]
600
400
200
0
-200
-400

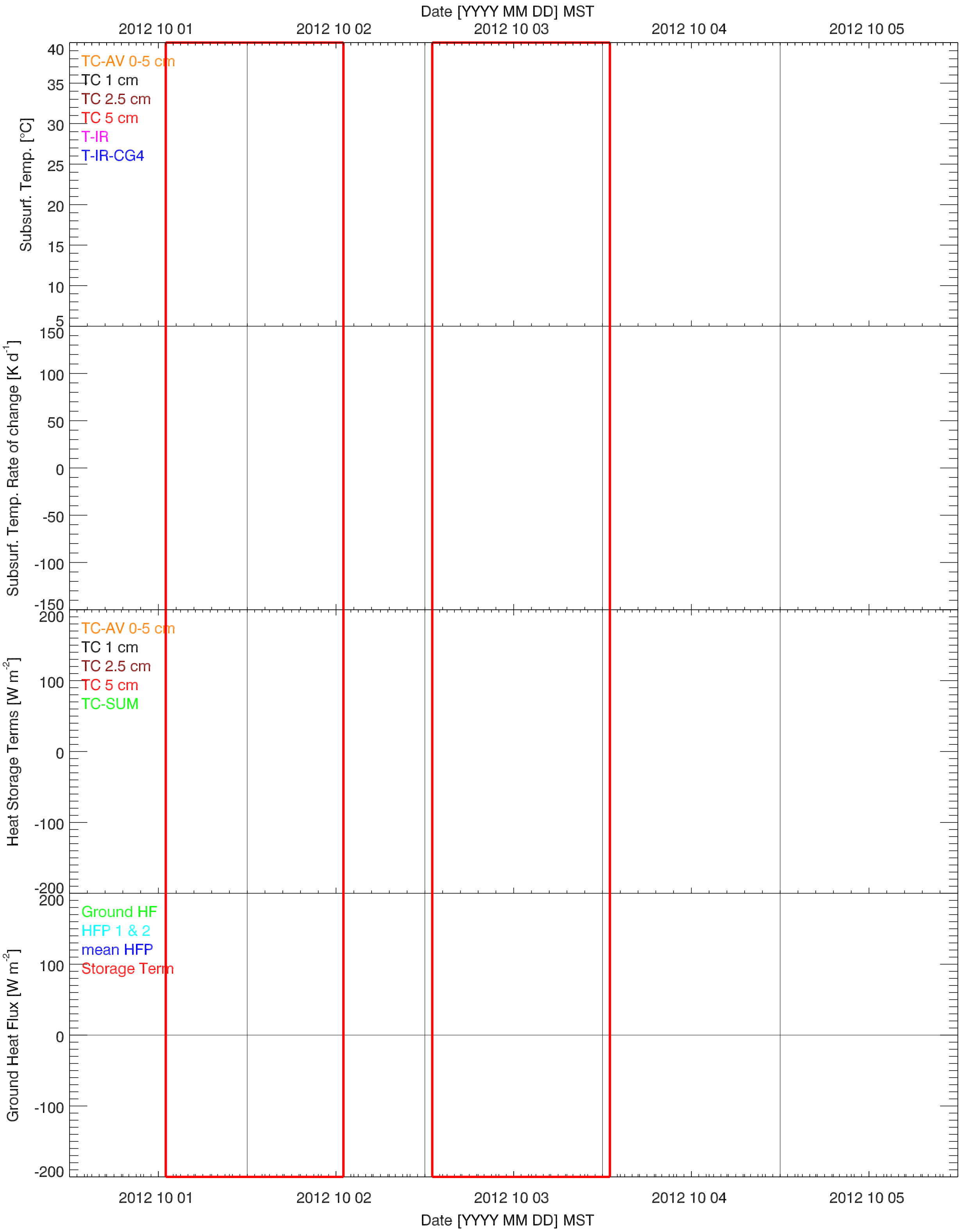
EFS ES3


Date [YYYY MM DD] MST
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
IOP2
IOP3
Irradiance [W m^{-2}]
1000
800
600
400
200
0
SW_IN
SW_OUT
Irradiance [W m^{-2}]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
Date [YYYY MM DD] MST

EFS ES3

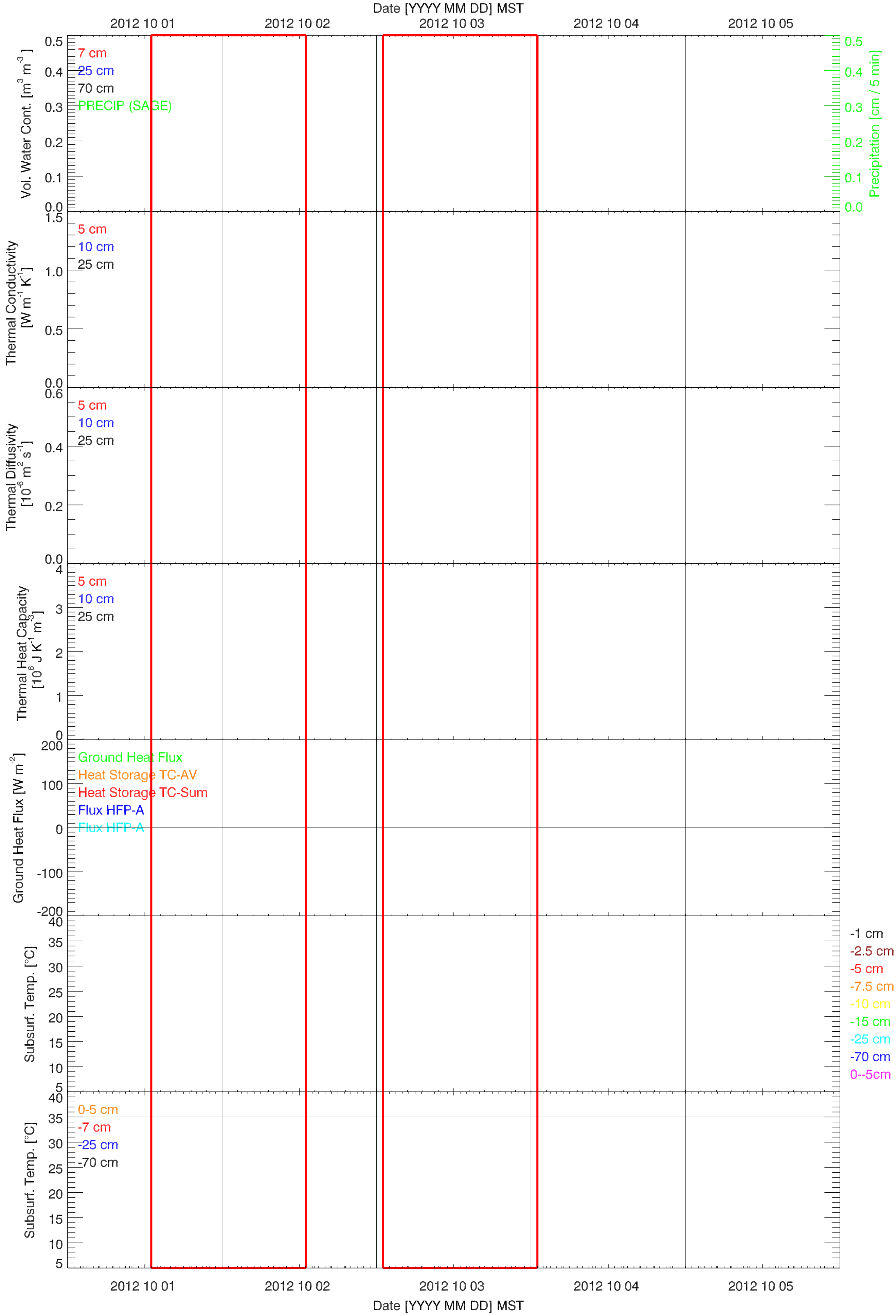

Date [YYYY MM DD] MST
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
IOP2
IOP3
Irradiance [W m^{-2}]
1000
800
600
400
200
0
SW_IN
SW_OUT
ALBEDO
ETR
Albedo [-]
1.0
0.8
0.6
0.4
0.2
0.0
Irradiance [W m^{-2}]
600
500
400
300
200
LW_IN
LW_OUT
Temperature [°C]
40
30
20
10
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Speed [m S^{-1}]
15
10
5
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Wind Direction [°]
360
270
180
90
0
0.5 m
2 m
5 m
10 m
20 m
25 m
SAMS18 (PLAYA)
SAMS28 (SAGE)
Flux [W m^{-2}]
600
400
200
0
-200
SW_NET
LW_NET
G
Heat Flux Flux Plate [mV]
10
5
0
-5
Left
Right
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
Date [YYYY MM DD] MST

EFS ES3



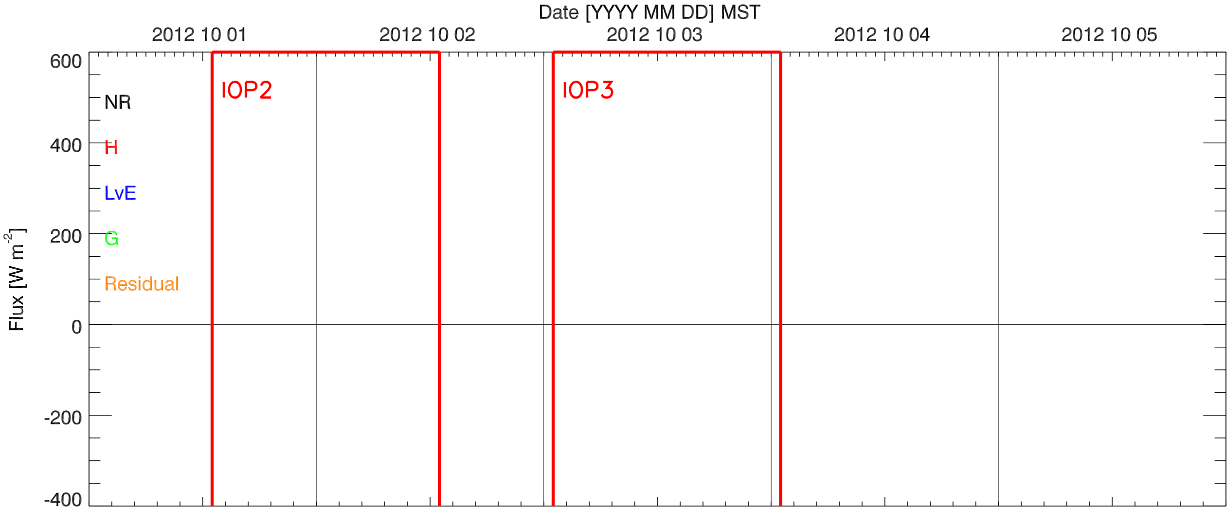
Date [YYYY MM DD] MST
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
Subsurf. Temp. [°C]
40
35
30
25
20
15
10
5
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
T-IR
T-IR-CG4
Subsurf. Temp. Rate of change [K d^{-1}]
150
100
50
0
-50
-100
-150
Heat Storage Terms [W m^{-2}]
200
100
0
-100
-200
TC-AV 0-5 cm
TC 1 cm
TC 2.5 cm
TC 5 cm
TC-SUM
Ground Heat Flux [W m^{-2}]
200
100
0
-100
-200
Ground HF
HFP 1 & 2
mean HFP
Storage Term
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
Date [YYYY MM DD] MST

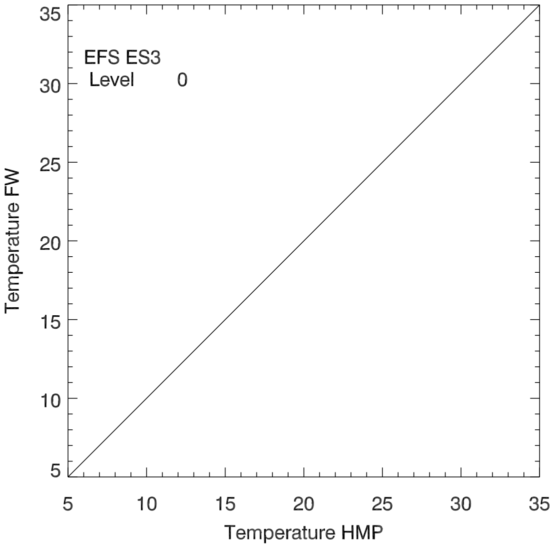
EFS ES3

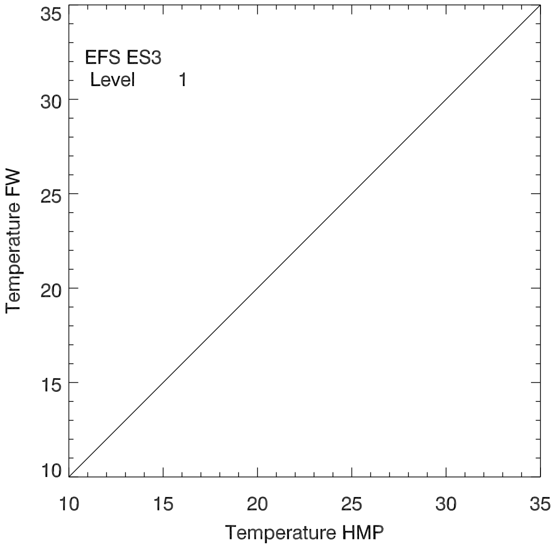


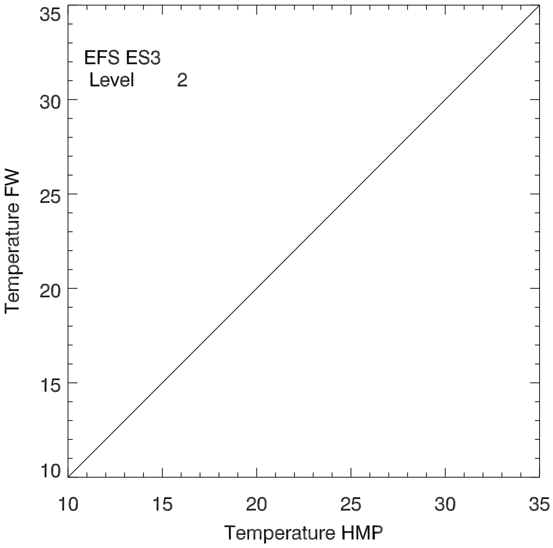
Date [YYYY MM DD] MST
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
Vol. Water Cont. [m^3 m^-3]
0.0
0.1
0.2
0.3
0.4
0.5
7 cm
25 cm
70 cm
PRECIP (SAGE)
Precipitation [cm / 5 min]
Thermal Conductivity [W m^-1 K^-1]
0.0
0.5
1.0
1.5
5 cm
10 cm
25 cm
Thermal Diffusivity [10^-6 m^2 s^-1]
0.0
0.2
0.4
0.6
5 cm
10 cm
25 cm
Thermal Heat Capacity [10^6 J K^-1 m^-3]
0
1
2
3
4
5 cm
10 cm
25 cm
Ground Heat Flux [W m^-2]
-200
-100
0
100
200
Ground Heat Flux
Heat Storage TC-AV
Heat Storage TC-Sum
Flux HFP-A
Flux HFP-A
Subsurf. Temp. [°C]
5
10
15
20
25
30
35
40
-1 cm
-2.5 cm
-5 cm
-7.5 cm
-10 cm
-15 cm
-25 cm
-70 cm
0--5cm
Subsurf. Temp. [°C]
0-5 cm
-7 cm
-25 cm
-70 cm

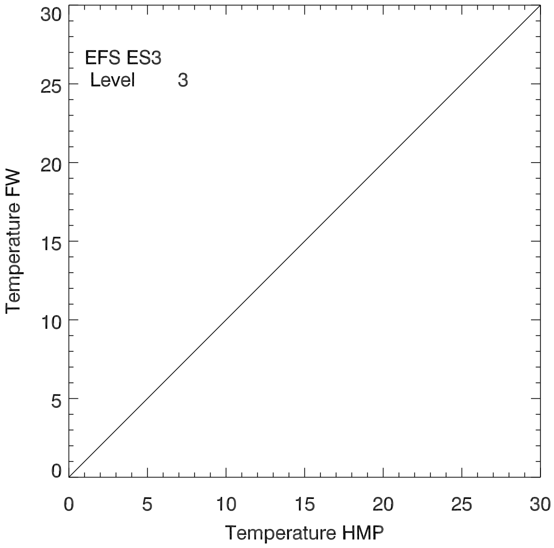
EFS ES3

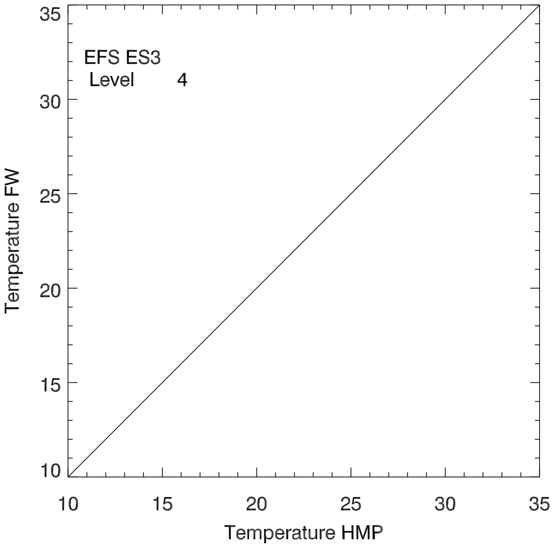

Date [YYYY MM DD] MST
2012 10 01
2012 10 02
2012 10 03
2012 10 04
2012 10 05
600
400
200
0
-200
-400
Flux [W m^{-2}]
IOP2
IOP3
NR
H
LvE
G
Residual

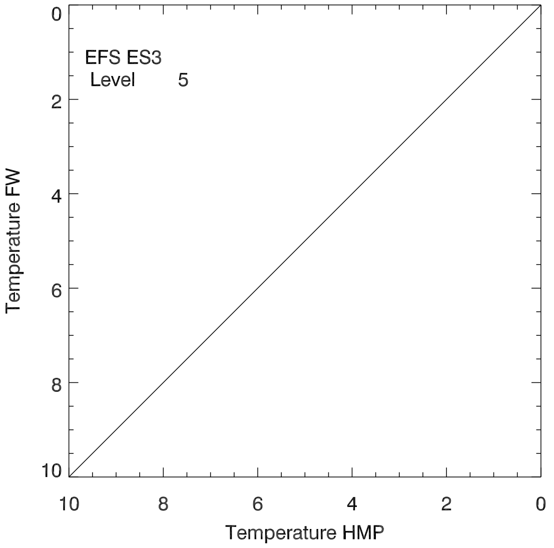

EFS ES3
Level 0
Temperature FW
Temperature HMP
5
10
15
20
25
30
35


EFS ES3
Level 1
Temperature FW
Temperature HMP
10
15
20
25
30
35


EFS ES3
Level 2
Temperature FW
Temperature HMP
10
15
20
25
30
35


EFS ES3
Level 3
Temperature FW
Temperature HMP
0
5
10
15
20
25
30


EFS ES3
Level 4
Temperature FW
Temperature HMP
10
15
20
25
30
35


EFS ES3
Level 5
Temperature FW
Temperature HMP
0
2
4
6
8
10