

Gasex2001 Temperature data

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1 Underway Calibration

A comparison of the underway thermosalinograph with the CTD was carried out in order to determine the accuracy of the underway temperature (the CTD had a pre- and post-cruise difference of 0.5 mK). The CTD comparison data used was the mean temperature between depths of 3 and 7 metres, but only between the local hours of 2100 and 0600 so as to eliminate any diurnal gradients. The comparison data are plotted in figure 1. There are only 14 data points and all but one fall within a difference of 30 mK. The mean difference between the CTD and the underway thermometer is 18.6 mK.

2 Temperature Information

The available temperature data acquired during GasEx2001 are shown in the tables on pages 2-5. There are six columns;

- **Platform** the location of the sensor
- **Sensor** the sensor's name indicating the PI responsible for the measurement
- **Deployment no.**
- **Logging start** time when useful data became available during a particular deployment
- **Logging end** time when last data point was acquired during a particular deployment
- **Logging interval** sampling frequency
- **Nominal depth**

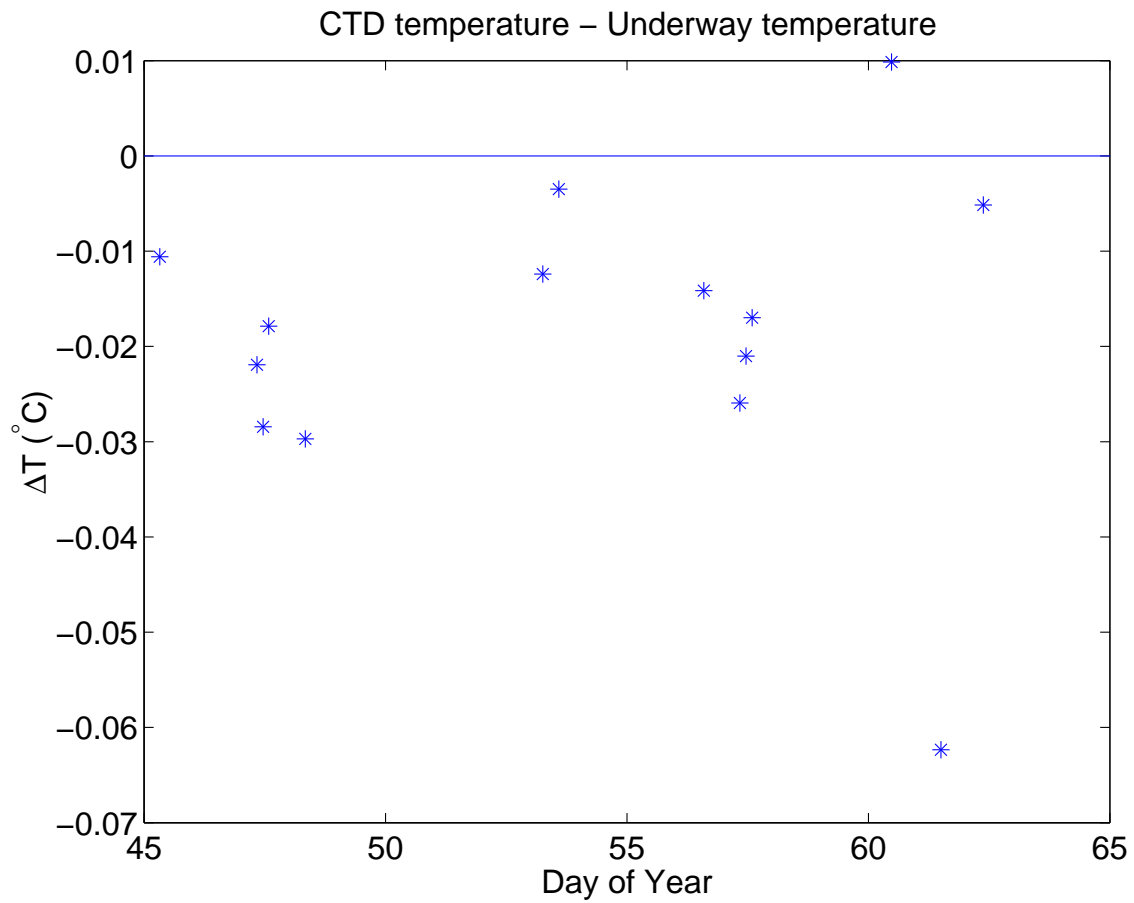


Figure 1: Difference between the CTD data and underway thermosalinograph.

Plots of the data between the February 15 and February 28 are shown as grid plots (pages 6–31) and a time series (pages 32–57).

Platform	Sensor	Deployment no.	Logging start (UTC)	Logging end (UTC)	Logging Interval (s)	Nominal depth (m)
SkinDeEP-1	T sensor ^a	1	Feb15 22:18	Feb15 23:57	~ 500	~ 7-0
SkinDeEP-1	T sensor ^a	2	Feb16 22:05	Feb16 23:08	~ 180	~ 7-0
SkinDeEP-2	T sensor ^a	1	Feb08 20:23	Feb08 22:01	~ 180	~ 7-0
SkinDeEP-2	T sensor ^a	2	Feb10 19:32	Feb11 00:50	~ 180	~ 7-0
SkinDeEP-2	T sensor ^a	3	Feb15 22:59	Feb16 06:10	~ 180	~ 7-0
SkinDeEP-2	T sensor ^a	4	Feb17 23:49	Feb18 01:25	~ 180	~ 7-0
SkinDeEP-2	T sensor ^a	5	Feb25 01:47	Feb25 22:48	~ 180	~ 7-0
ASIS	8727 ^b	1	Feb15 02:45	Feb23 16:48	120	2.4
ASIS	8727 ^b	2	Feb25 18:18	Feb26 22:48	120	2.4
ASIS	8727 ^b	3	Feb27 18:04	Mar01 00:00	120	2.4
ASIS	8728 ^b	1	Feb25 18:18	Feb26 22:48	120	3.7
ASIS	8728 ^b	2	Feb27 18:04	Mar01 00:00	120	3.7
ASIS	8229 ^b	1	Feb15 02:48	Feb23 16:48	120	7.4
ASIS	8229 ^b	2	Feb25 18:18	Feb26 22:48	120	7.4
ASIS	8229 ^b	3	Feb27 18:04	Mar01 00:00	120	7.4
ASIS	SAMI 4 ^c	1	Feb15 03:00	Feb23 16:30	1800	1
ASIS	SAMI 4 ^c	2	Feb26 12:30	Feb26 23:00	1800	1
ASIS	SAMI 4 ^c	3	Feb28 00:30	Feb28 22:30	1800	1
ASIS	SAMI 11 ^c	1	Feb15 03:00	Feb23 16:30	1800	1
ASIS	SAMI 11 ^c	2	Feb26 12:30	Feb26 23:00	1800	1
ASIS	SAMI 11 ^c	3	Feb28 00:30	Feb28 22:30	1800	1
ASIS	SAMI 15 ^c	1	Feb15 03:00	Feb23 16:30	1800	5
ASIS	SAMI 15 ^c	2	Feb26 12:30	Feb26 23:00	1800	5
ASIS	SAMI 15 ^c	3	Feb28 00:30	Feb28 22:30	1800	5
ASIS	YSI 904 ^c	1	Feb15 03:00	Feb23 16:30	1800	1
ASIS	YSI 904 ^c	2	Feb26 12:30	Feb26 23:00	1800	1
ASIS	YSI 904 ^c	3	Feb28 00:30	Feb28 22:30	1800	1

Platform	Sensor	Deployment no.	Logging start (UTC)	Logging end (UTC)	Logging Interval (s)	Nominal depth (m)
CARIOCA	T sensor ^d	1	Feb16 00:00	Feb28 23:00	3600	1.5
CARIOCA	SAMI 10 ^c	1	Feb15 20:00	Mar01 00:00	1800	1
CARIOCA	YSI 400 ^c	1	Feb15 20:00	Mar01 00:00	1800	1
Drogue	SAMI 6 ^c	1	Feb15 05:00	Mar01 00:00	1800	30
Drogue	SAMI 16 ^c	1	Feb15 05:00	Mar01 00:00	1800	4
Drogue	YSI 583 ^c	1	Feb15 05:00	Feb26 08:00	1800	4
Drogue	YSI 379 ^c	1	Feb15 05:00	Mar01 00:00	1800	30
Drogue	Langdon 84 ^c	1	Feb15 05:00	Mar01 00:00	1800	10
Drogue	Langdon 85 ^c	1	Feb15 05:00	Mar01 00:00	1800	15
R/V RB	CIRIMS ^e	1	Feb07 14:30	Mar07 21:30	1800	0
R/V RB	CTD ^j					
R/V RB	HardHat ^f	1	Feb14 22:10	Feb15 03:36	60	0.1
R/V RB	HardHat ^f	2	Feb15 03:36	Feb16 00:19	60	0.1
R/V RB	HardHat ^f	3	Feb16 07:07	Feb16 17:26	60	0.1
R/V RB	HardHat ^f	4	Feb16 21:31	Feb17 03:23	60	0.1
R/V RB	HardHat ^f	5	Feb17 18:40	Feb18 00:00	60	0.1
R/V RB	HardHat ^f	6	Feb18 08:00	Feb18 14:26	60	0.1
R/V RB	HardHat ^f	7	Feb19 19:16	Feb19 22:07	60	0.1
R/V RB	HardHat ^f	8	Feb19 23:31	Feb20 01:10	60	0.1
R/V RB	HardHat ^f	9	Feb20 17:04	Feb21 00:40	60	0.1
R/V RB	HardHat ^f	10	Feb21 02:40	Feb21 07:10	60	0.1
R/V RB	HardHat ^f	11	Feb21 07:45	Feb21 11:52	60	0.1
R/V RB	HardHat ^f	12	Feb23 01:40	Feb23 06:46	60	0.1
R/V RB	HardHat ^f	13	Feb23 23:18	Feb24 00:22	60	0.1
R/V RB	HardHat ^f	14	Feb25 01:58	Feb25 11:54	60	0.1
R/V RB	HardHat ^f	15	Feb25 19:07	Feb25 23:55	60	0.1

Platform	Sensor	Deployment no.	Logging start (UTC)	Logging end (UTC)	Logging Interval (s)	Nominal depth (m)
R/V RB	HardHat ^f	16	Feb26 02:04	Feb26 03:22	60	0.1
R/V RB	HardHat ^f	17	Feb26 09:04	Feb26 11:49	60	0.1
R/V RB	HardHat ^f	18	Feb26 15:28	Feb26 17:58	60	0.1
R/V RB	HardHat ^f	19	Feb27 15:56	Feb28 00:40	60	0.1
R/V RB	HardHat ^f	20	Feb28 19:08	Feb28 20:03	60	0.1
R/V RB	HardHat ^f	21	Feb28 20:21	Feb28 23:51	60	0.1
R/V RB	HardHat ^f	22	Mar01 00:31	Mar01 03:12	60	0.1
R/V RB	HardHat ^f	23	Mar01 07:55	Mar01 08:07	60	0.1
R/V RB	HRP ^g	1	Feb08 02:03	Feb08 02:03	n/a	20-5
R/V RB	HRP ^g	2	Feb20 22:45	Feb20 22:45	n/a	10-1
R/V RB	HRP ^g	3	Feb27 22:48	Feb27 22:48	n/a	10-1
R/V RB	HRP ^g	4	Feb28 23:30	Feb28 23:30	n/a	10-1
R/V RB	M-AERI ^f	1	Jan01 17:21	Feb16 21:19	600	0
R/V RB	M-AERI ^f	2	Feb28 00:09	Mar07 23:45	600	0
R/V RB	IMET ^h	1	Feb07 11:50	Mar07 21:48	60	2
R/V RB	TSG ^h	1	Feb07 11:50	Mar07 21:48	60	5
R/V RB	SeaSnake ⁱ	1	Feb07 12:00	Mar03 20:50	600	0.5

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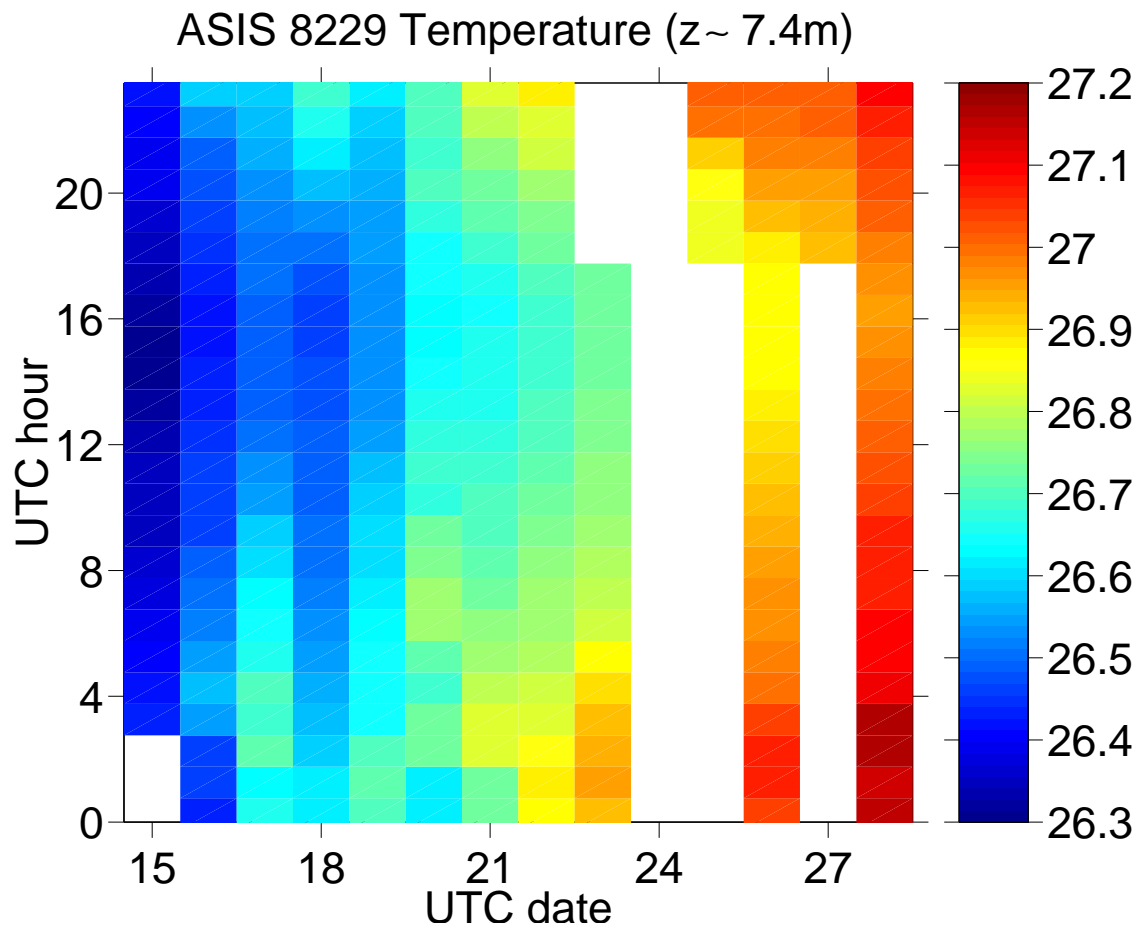
^gsabine@pmel.noaa.gov

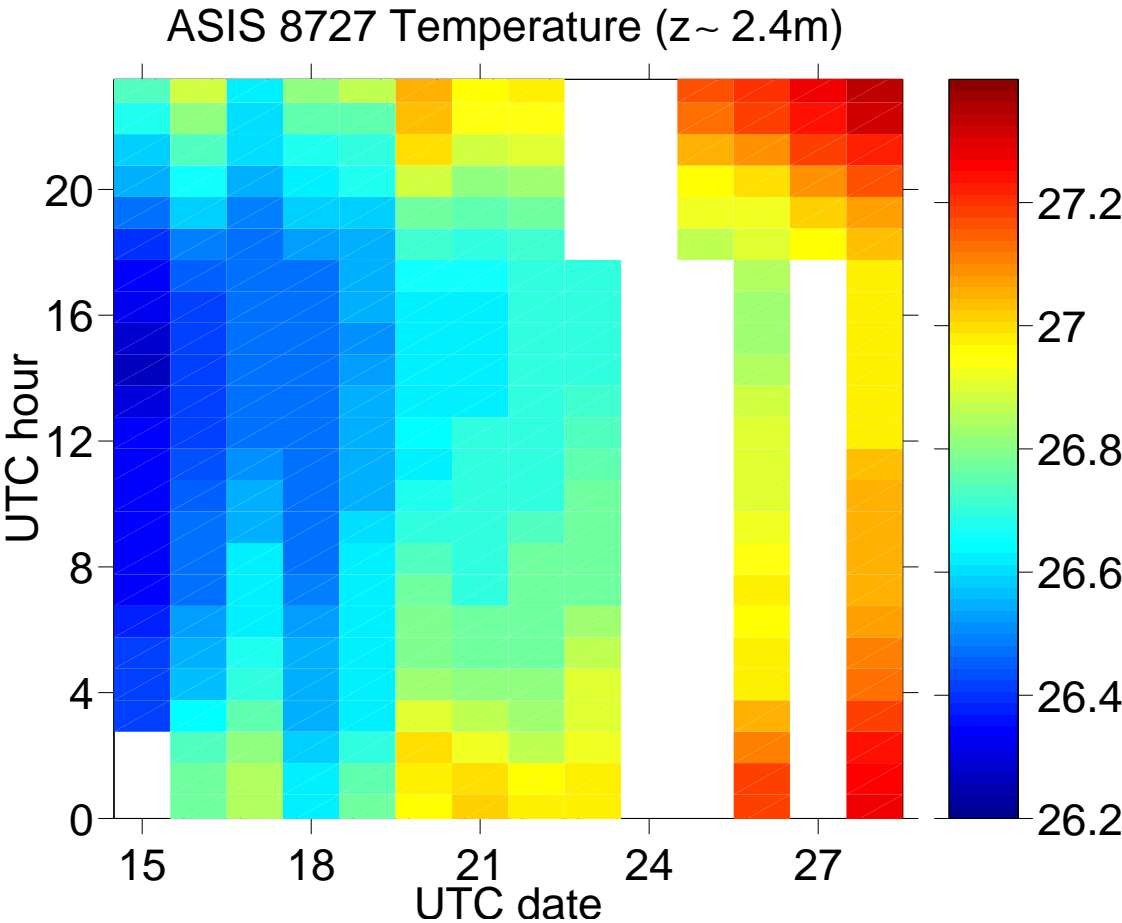
^hjonathan.shannahoff@noaa.gov

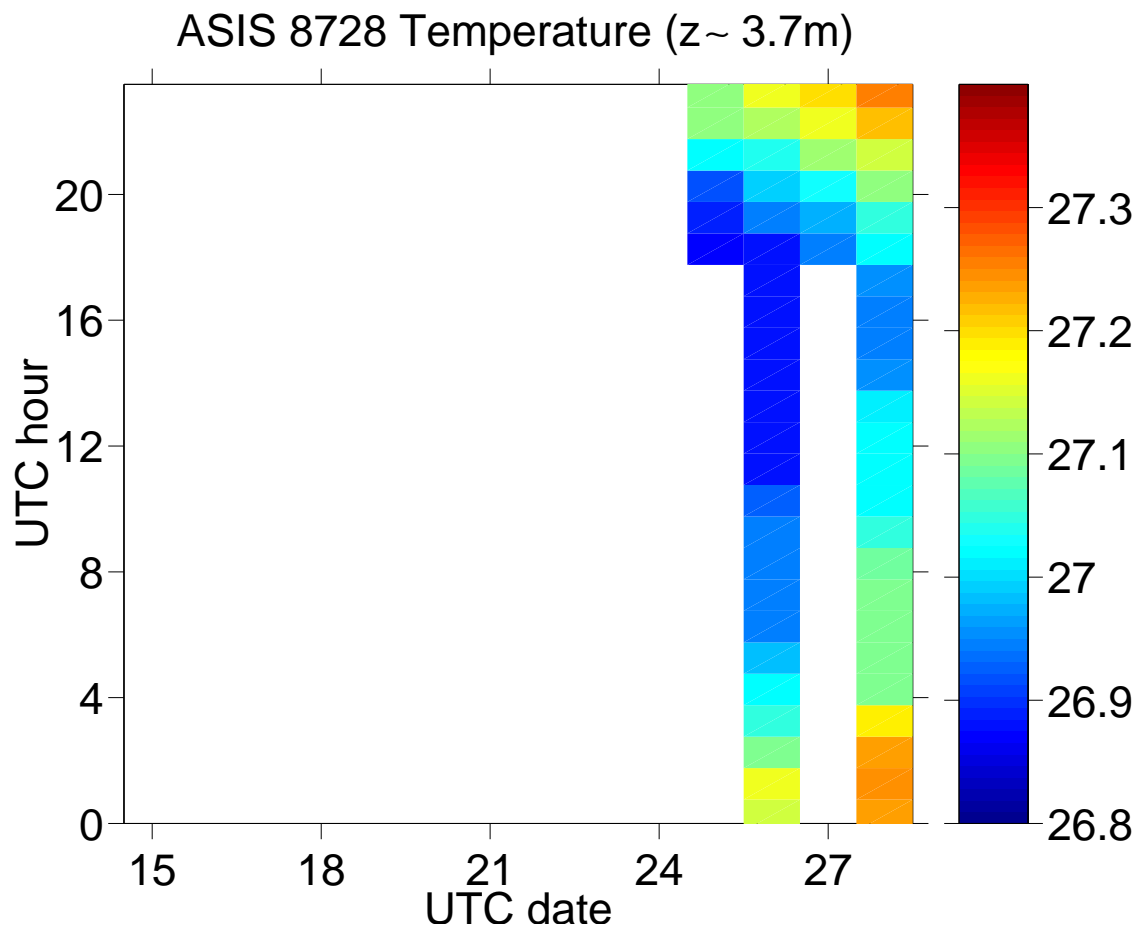
ⁱJeff.Hare@noaa.gov

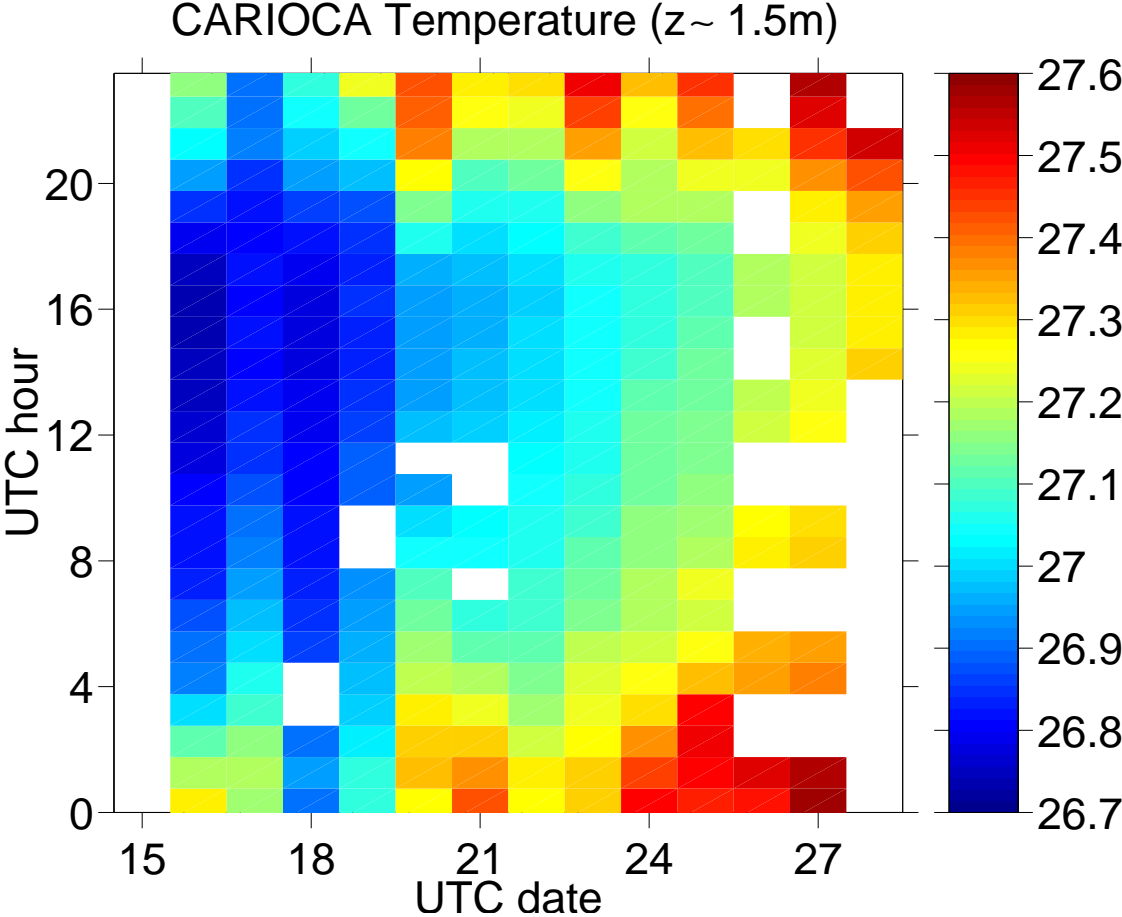
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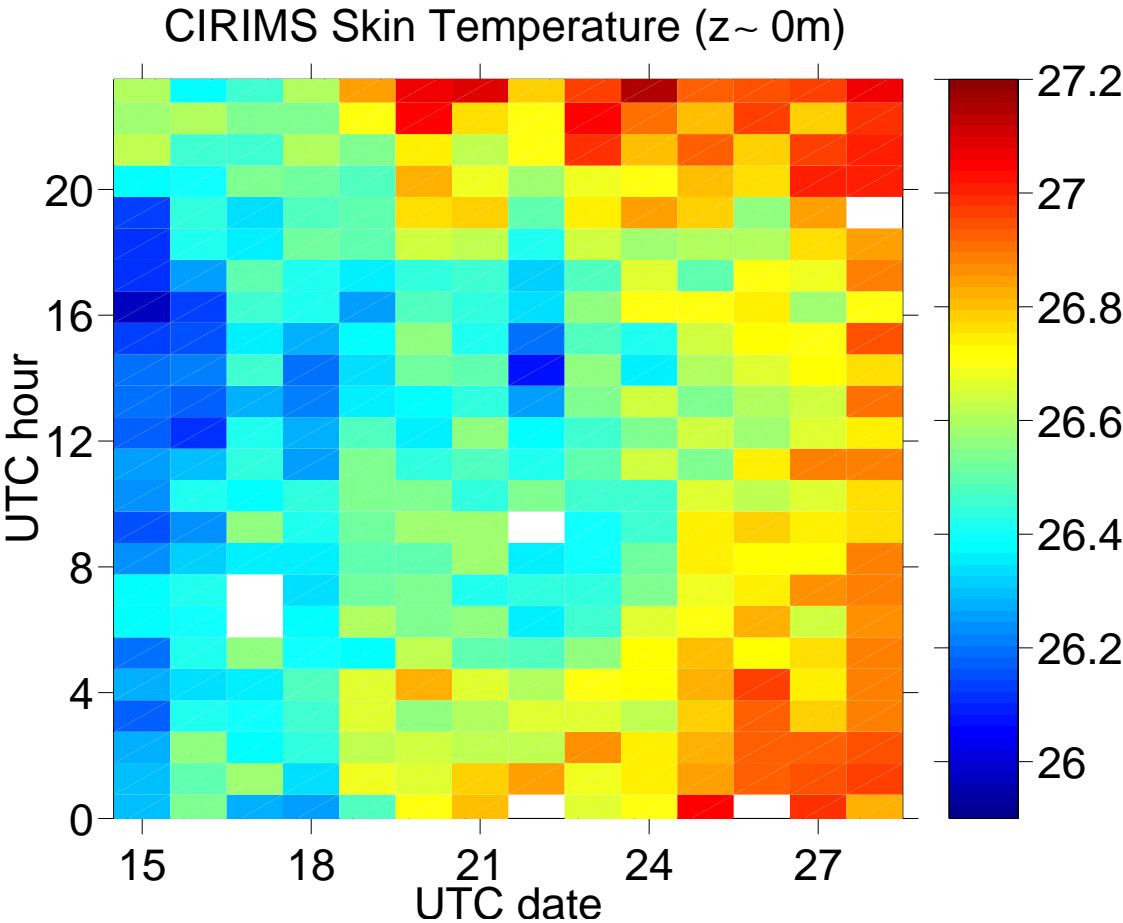
3 Grid Plots

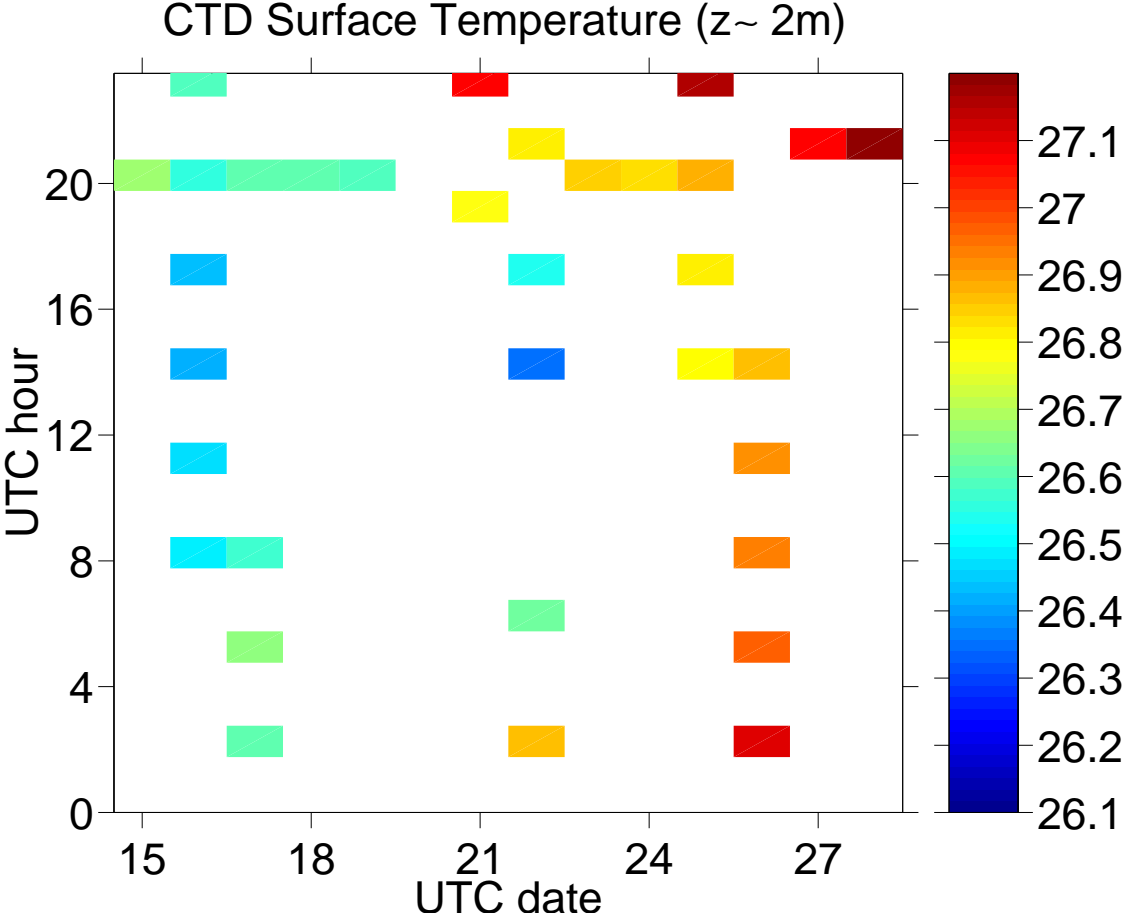


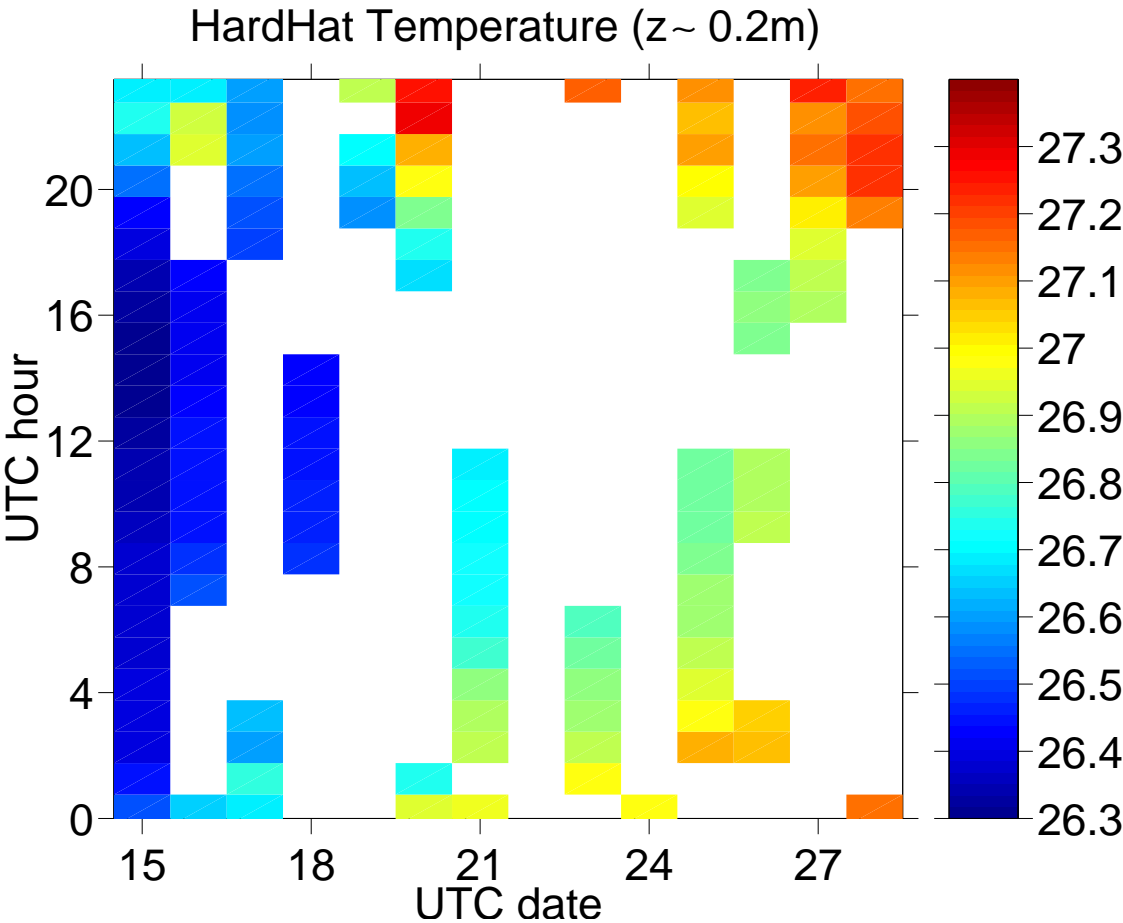


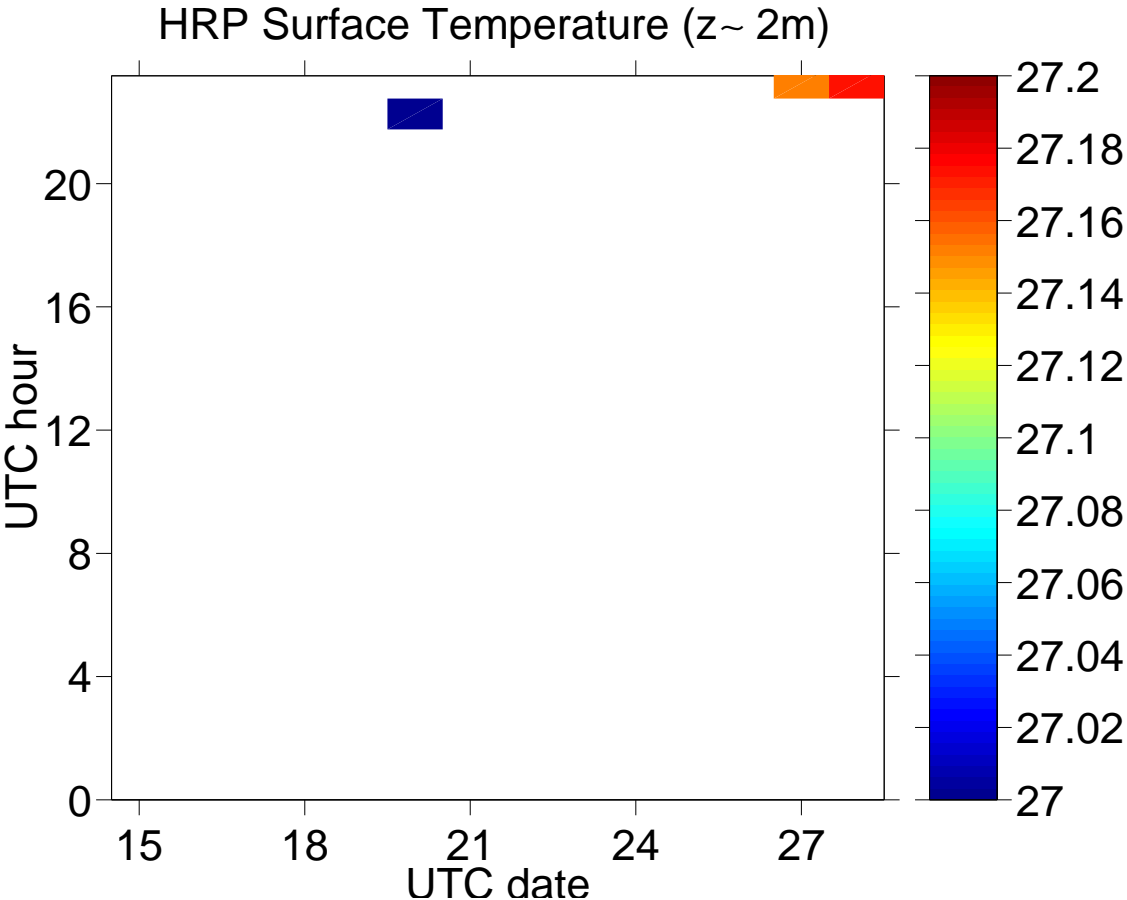




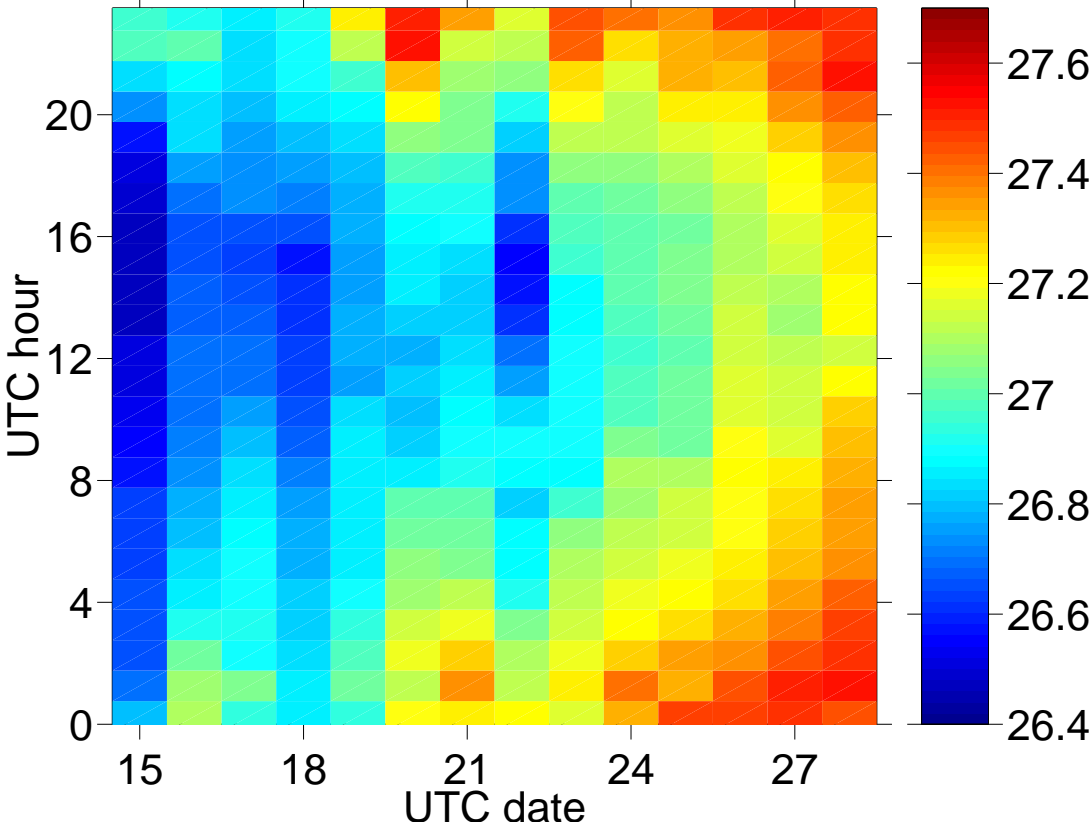




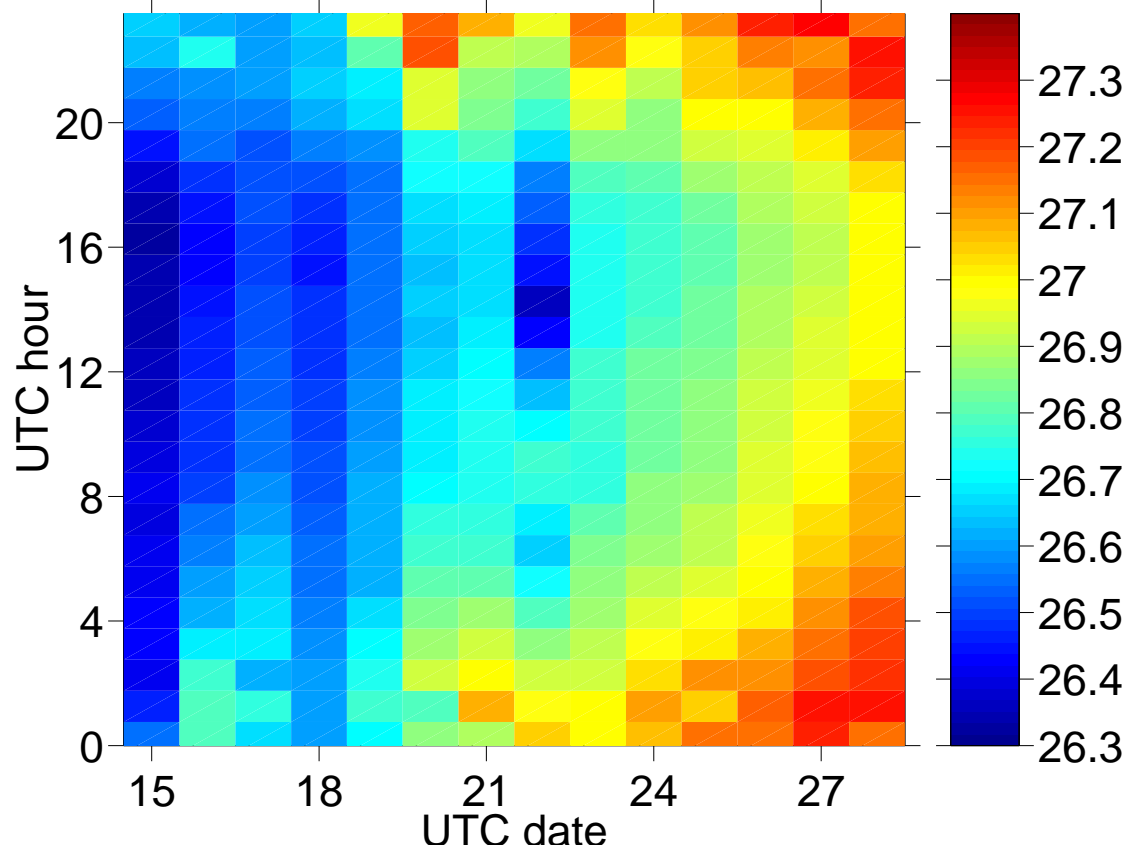


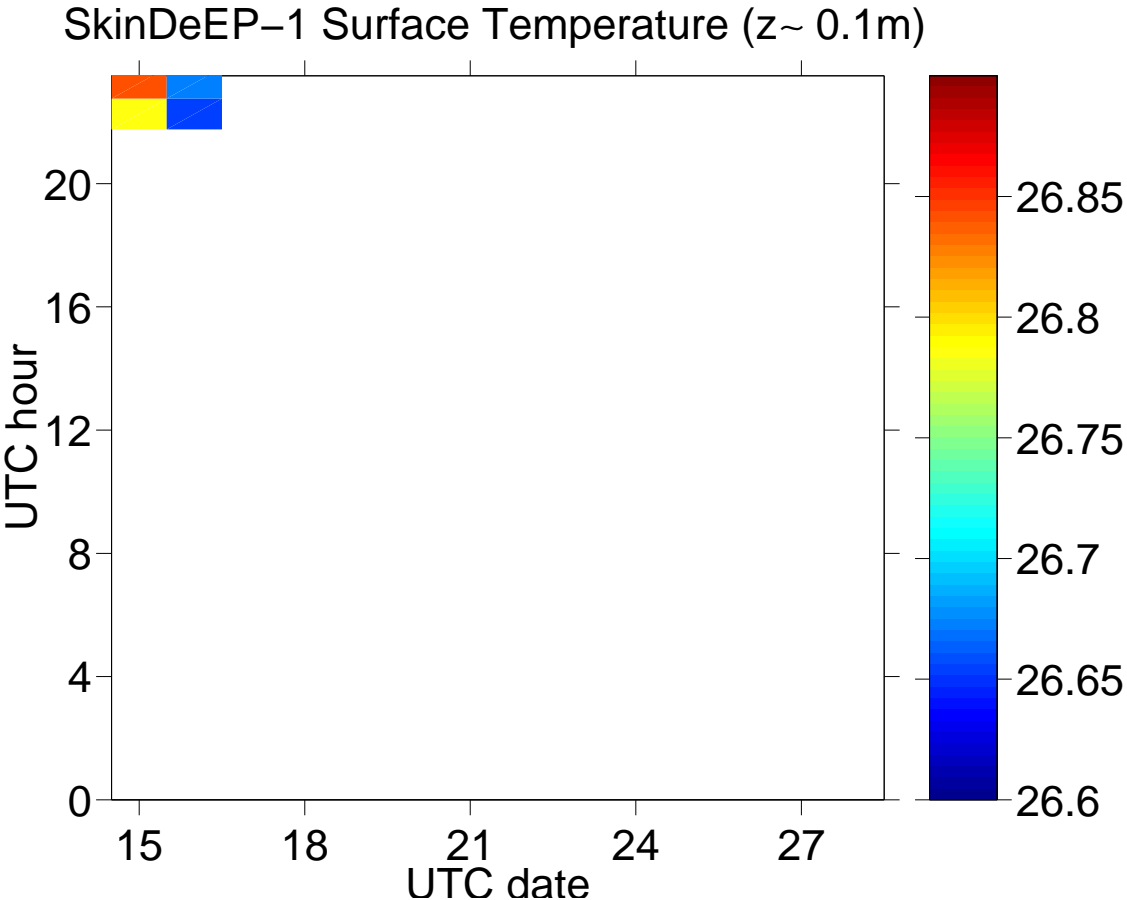


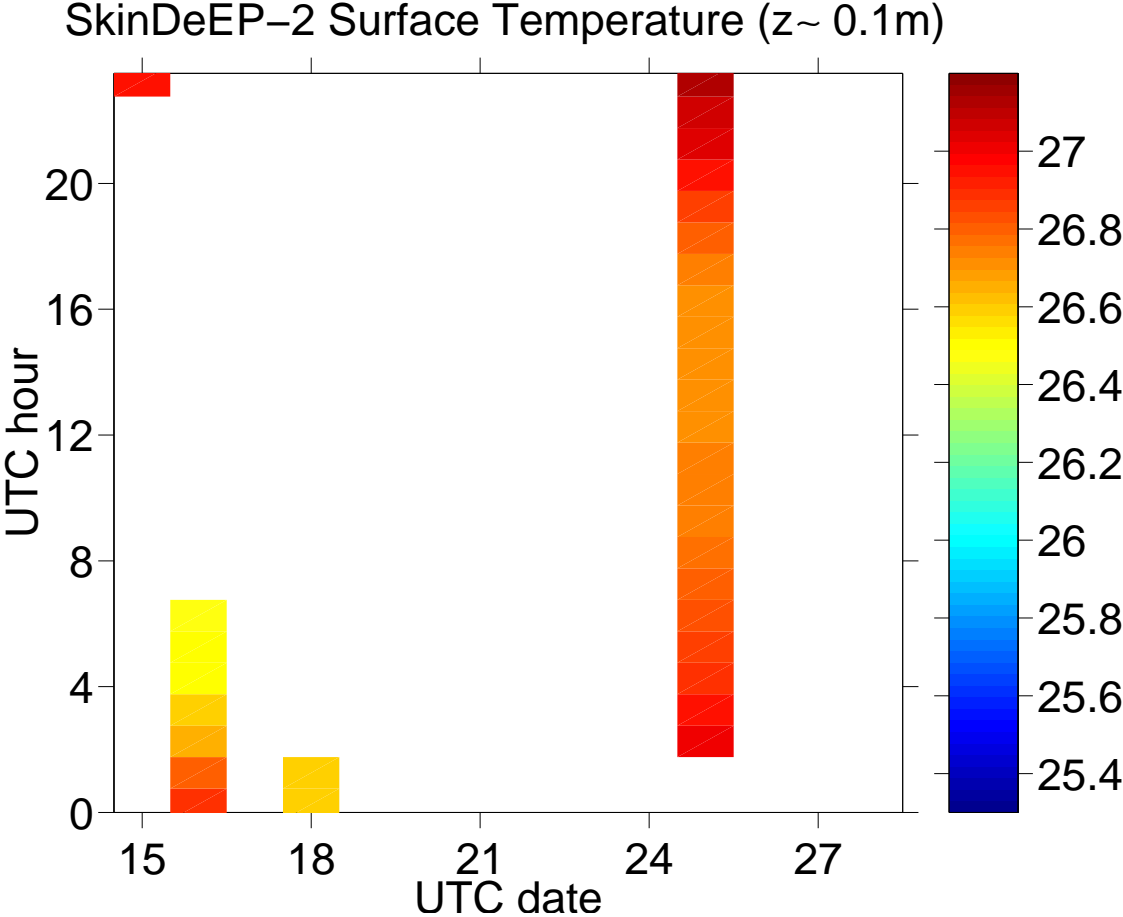
Ron Brown IMET hull thermometer Temperature (z~ 2m)

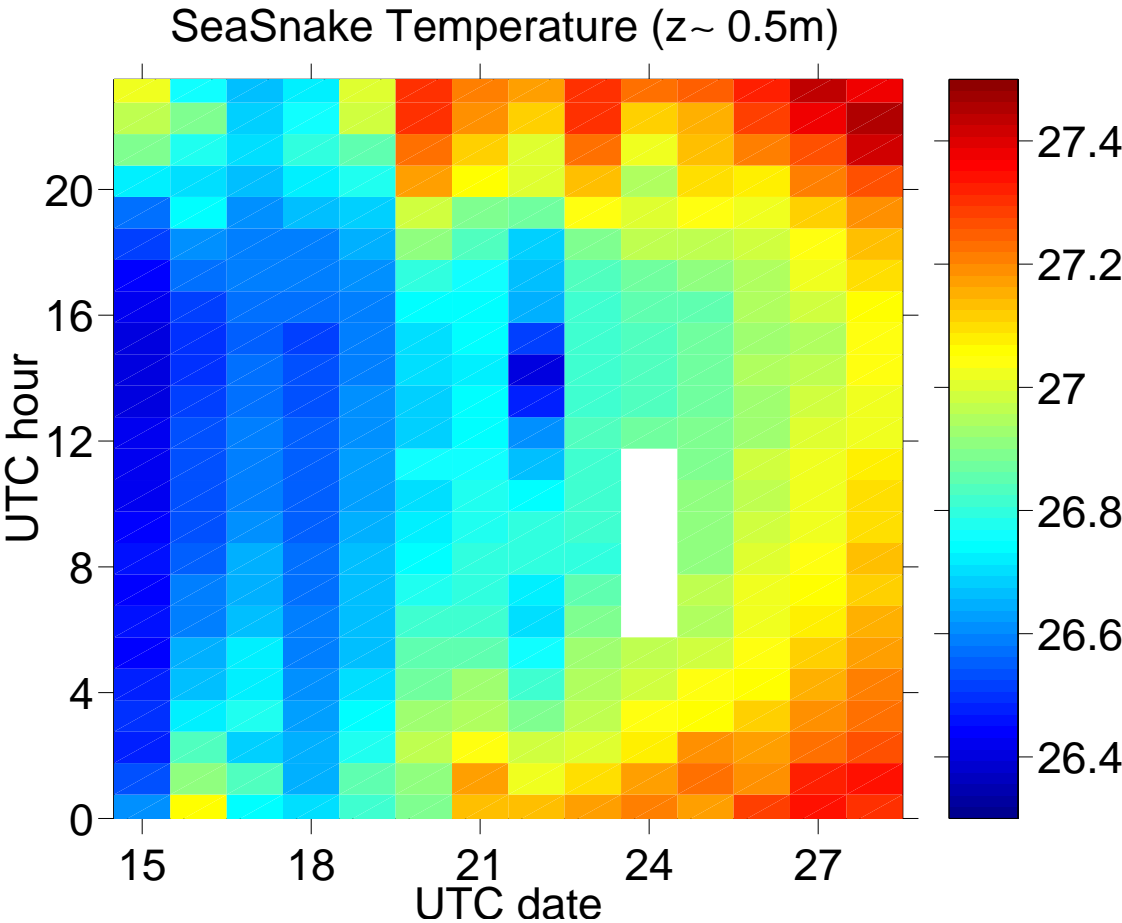


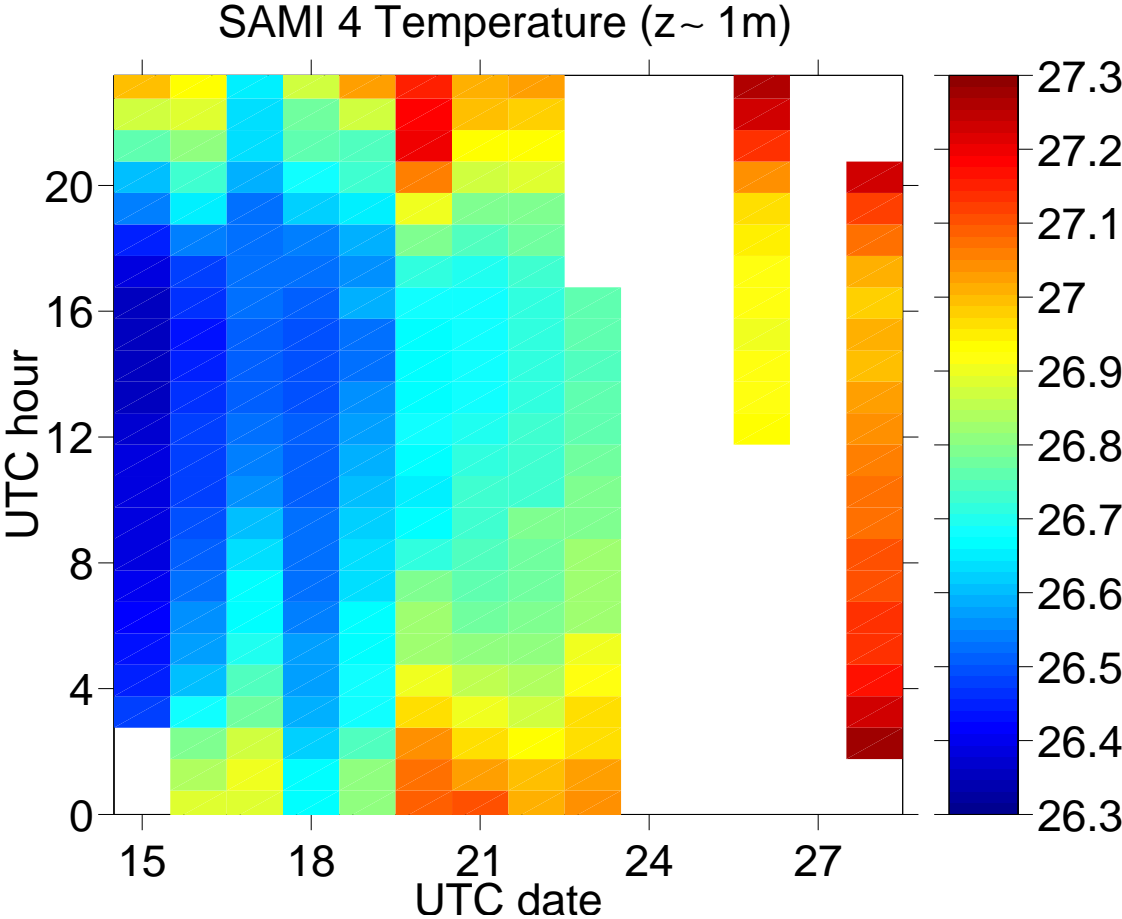
Ron Brown Thermosalinograph Temperature (z~ 5m)

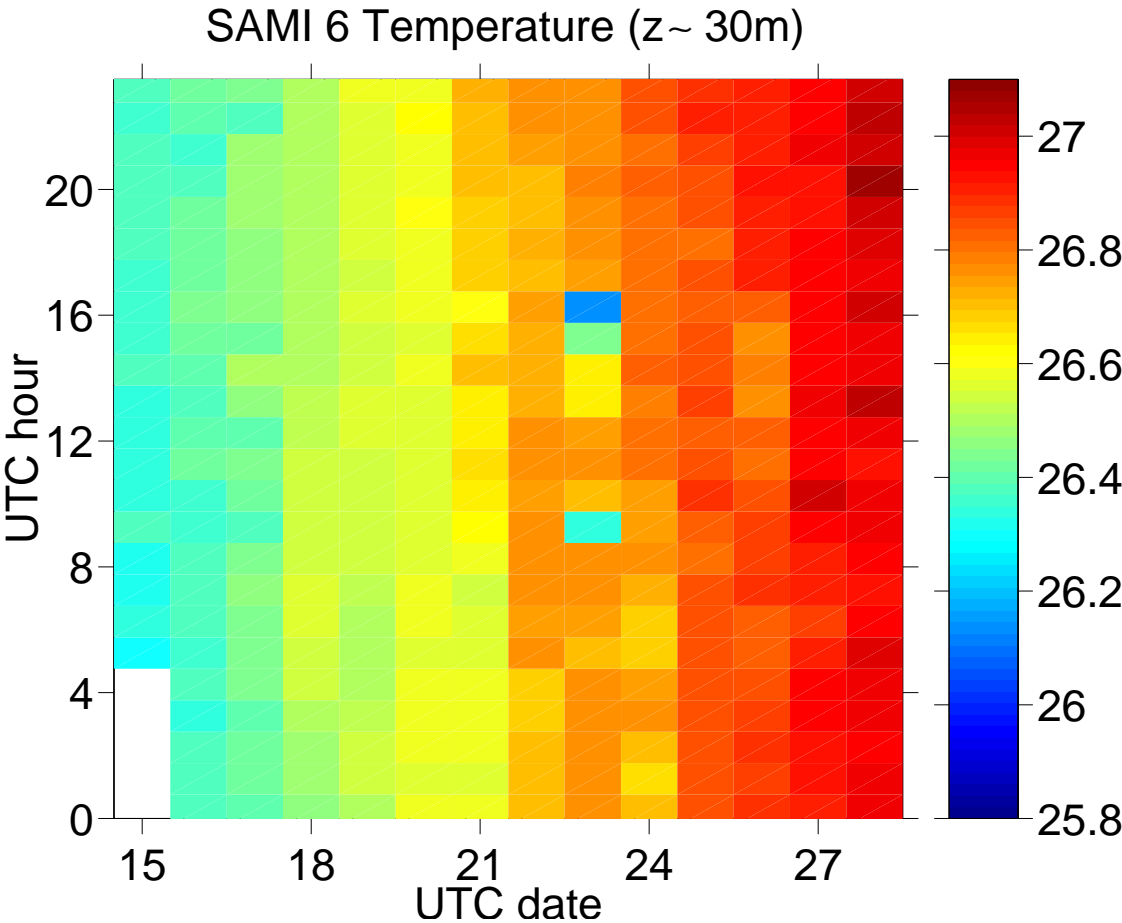


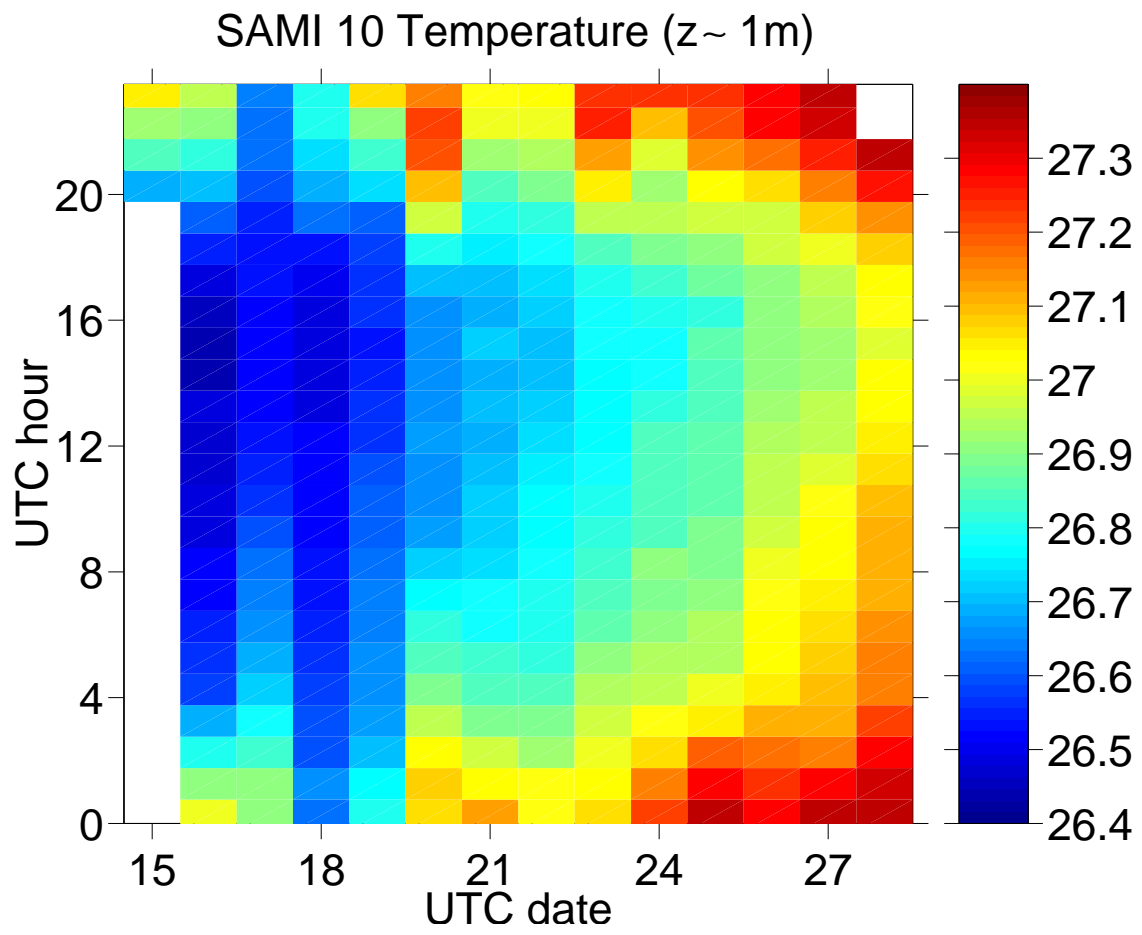


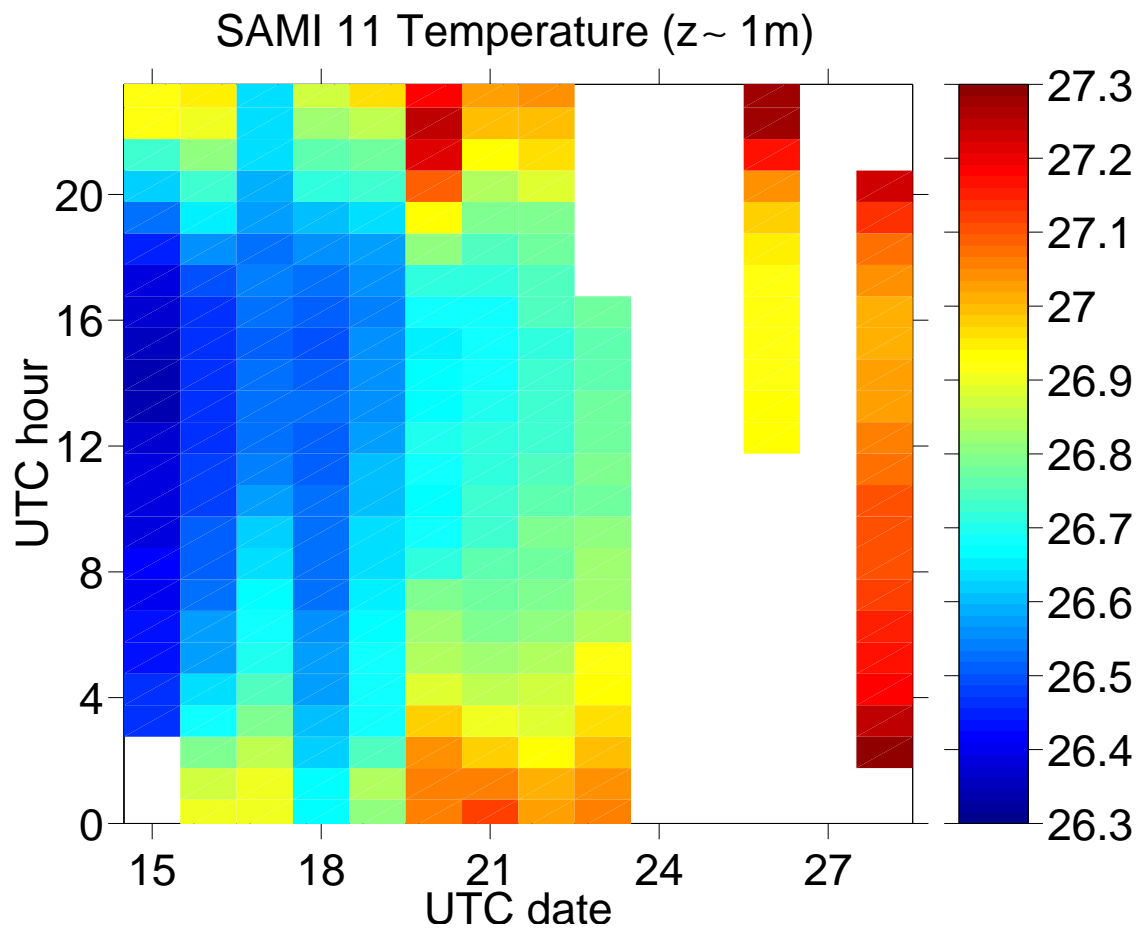


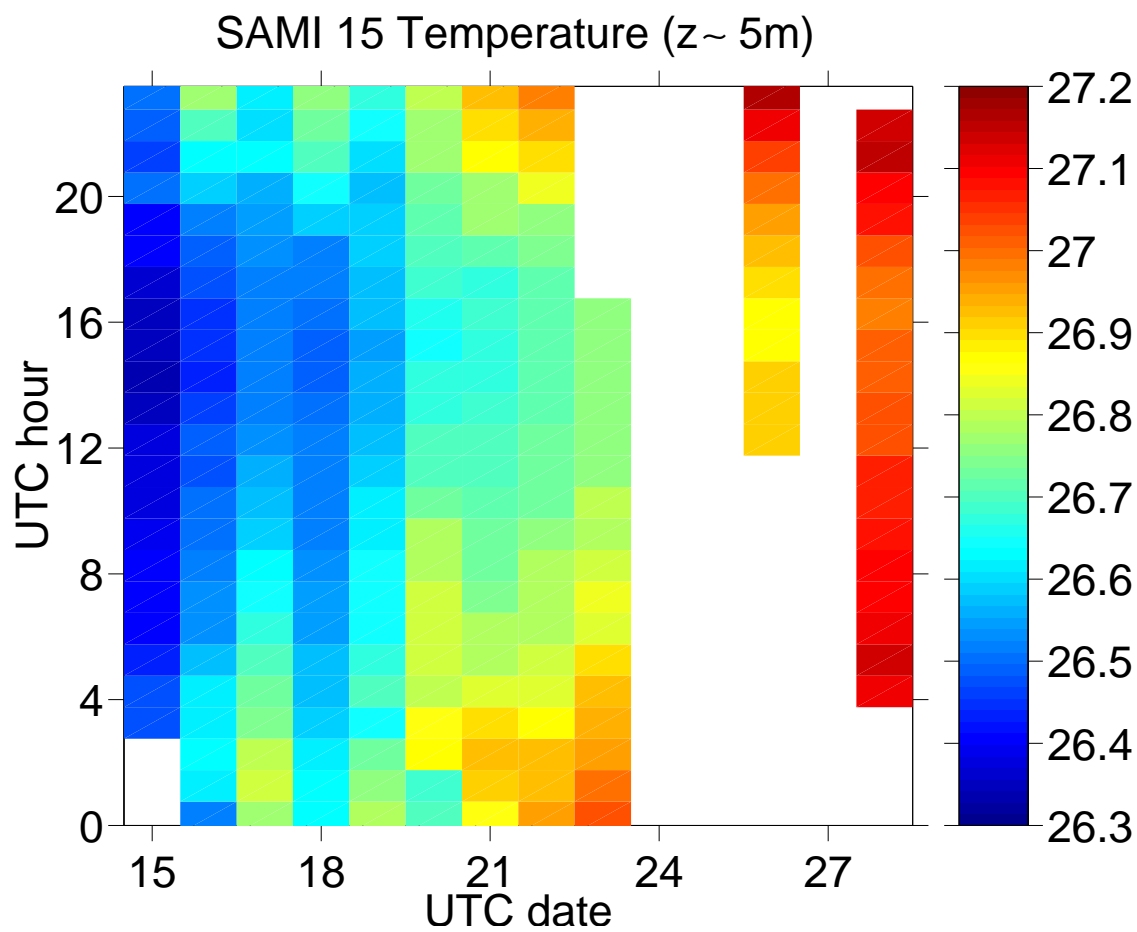


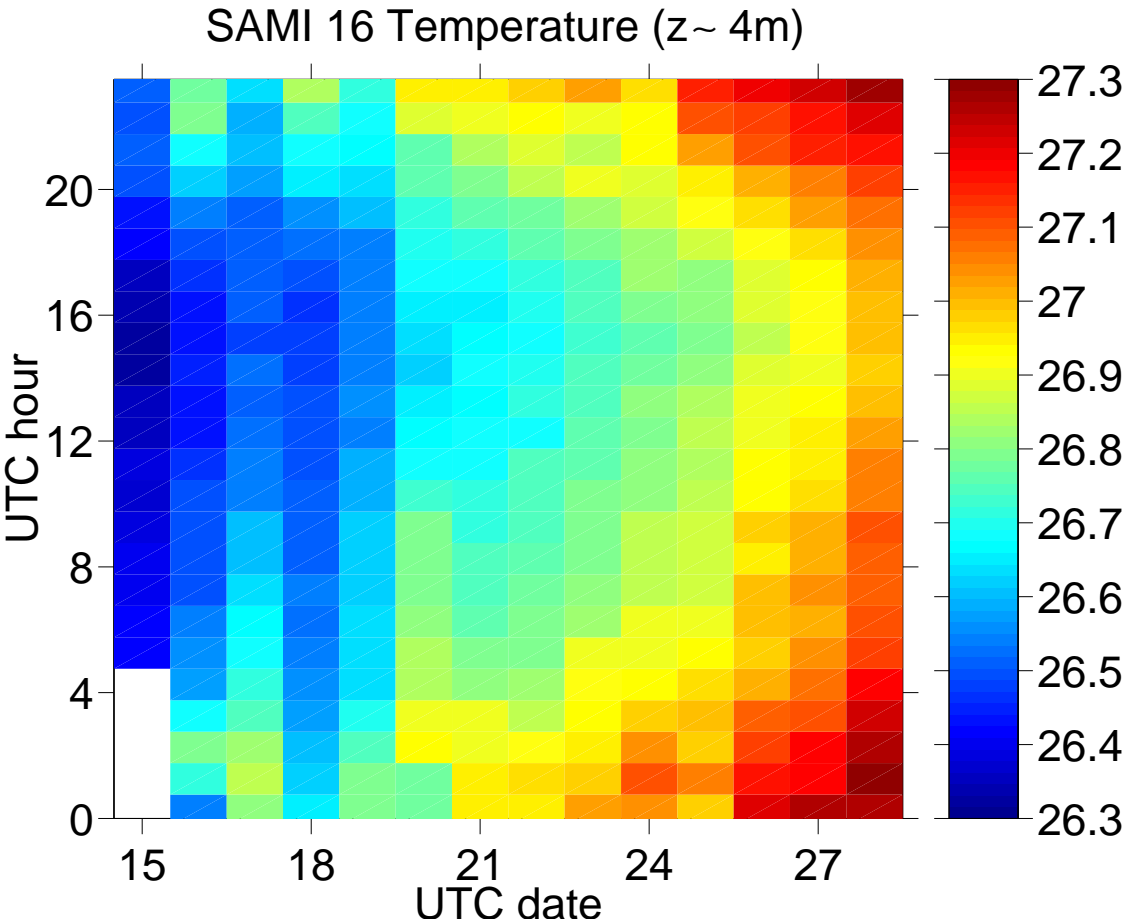


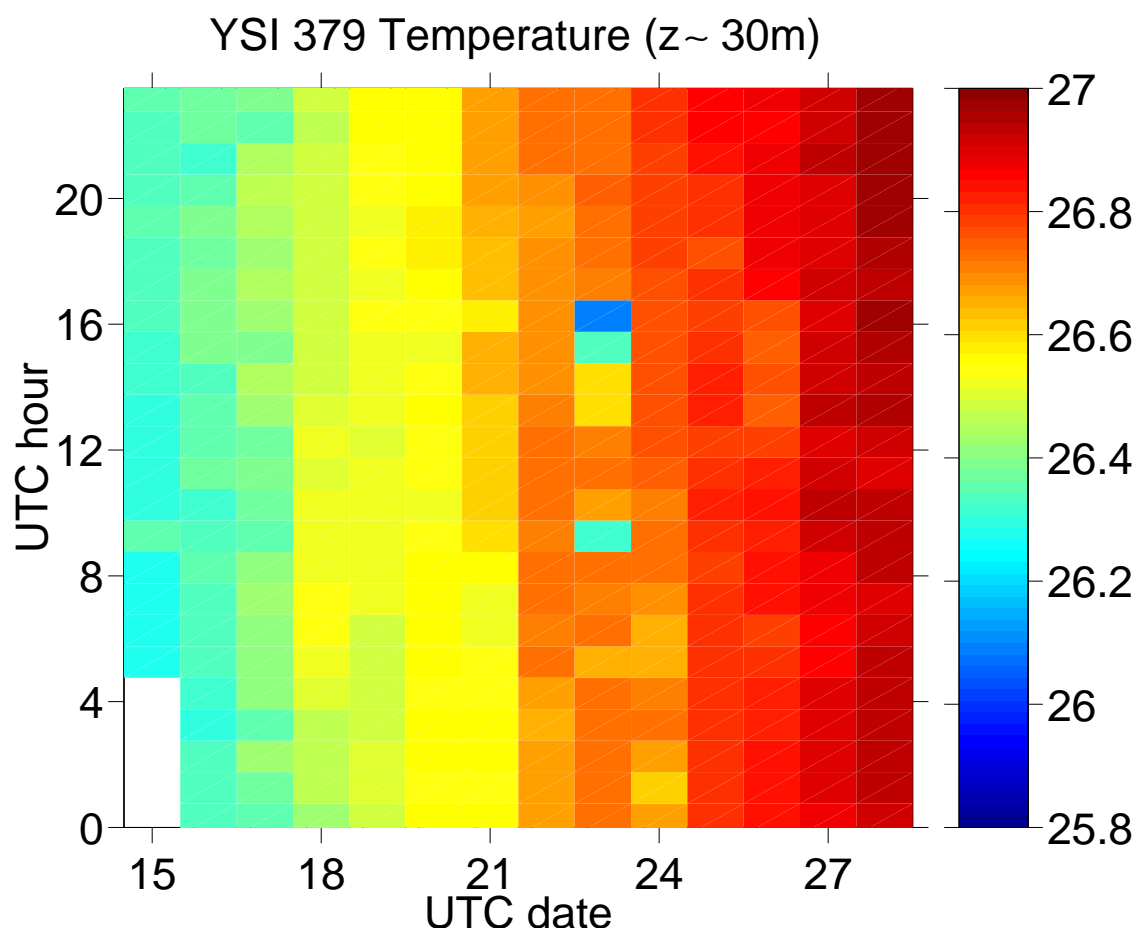


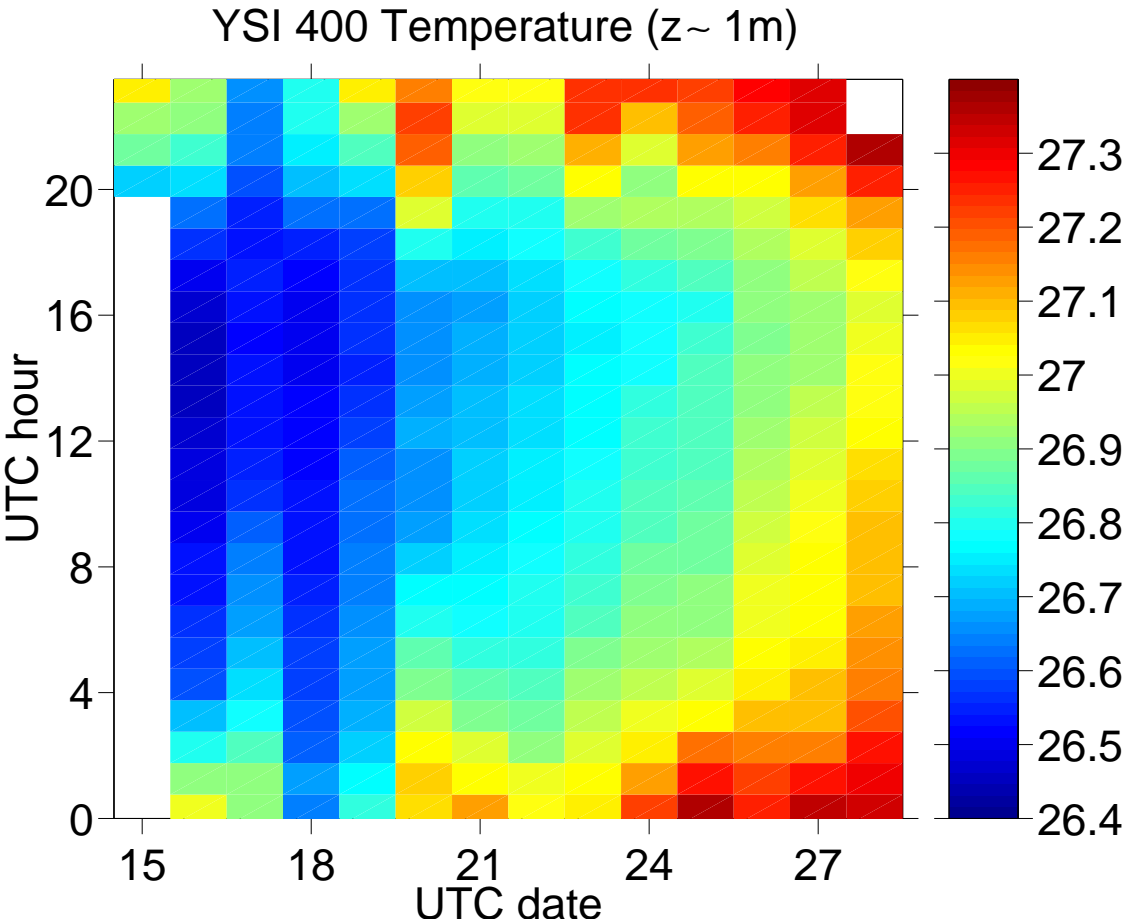


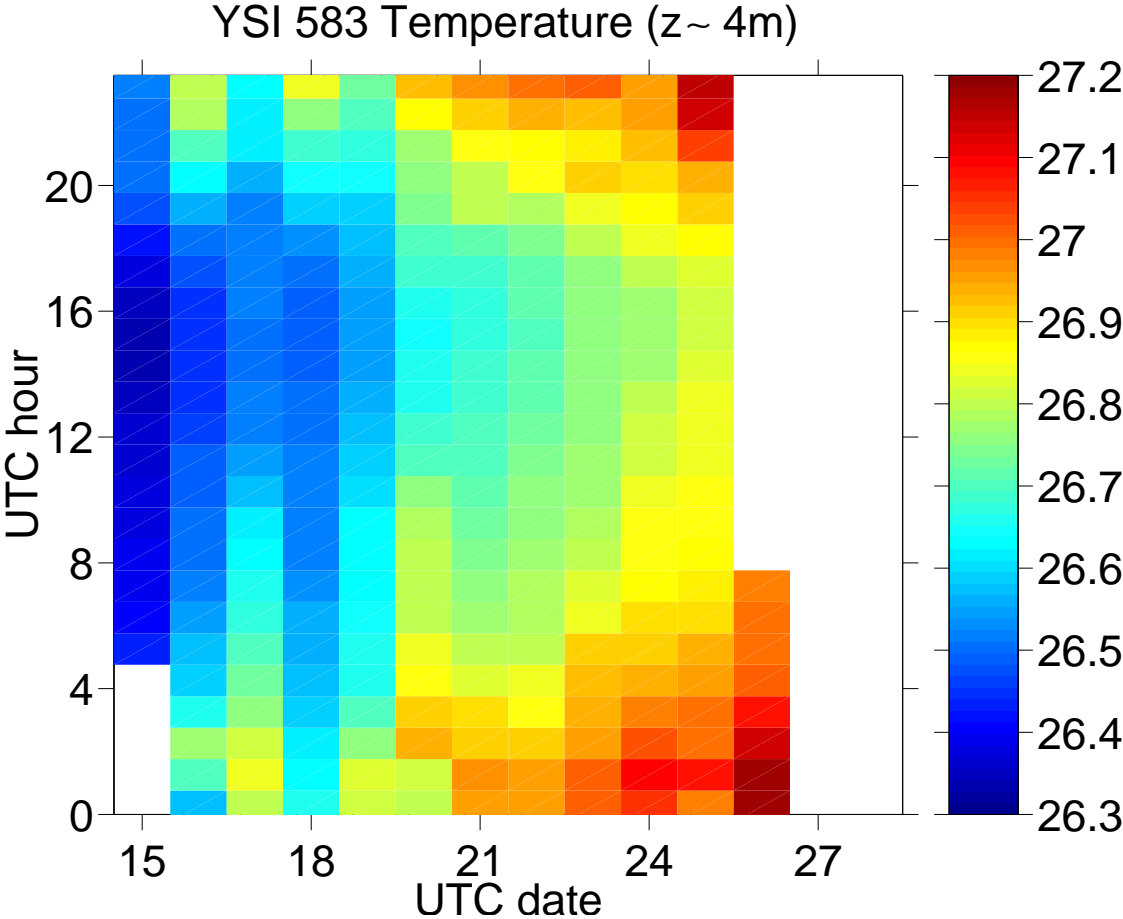


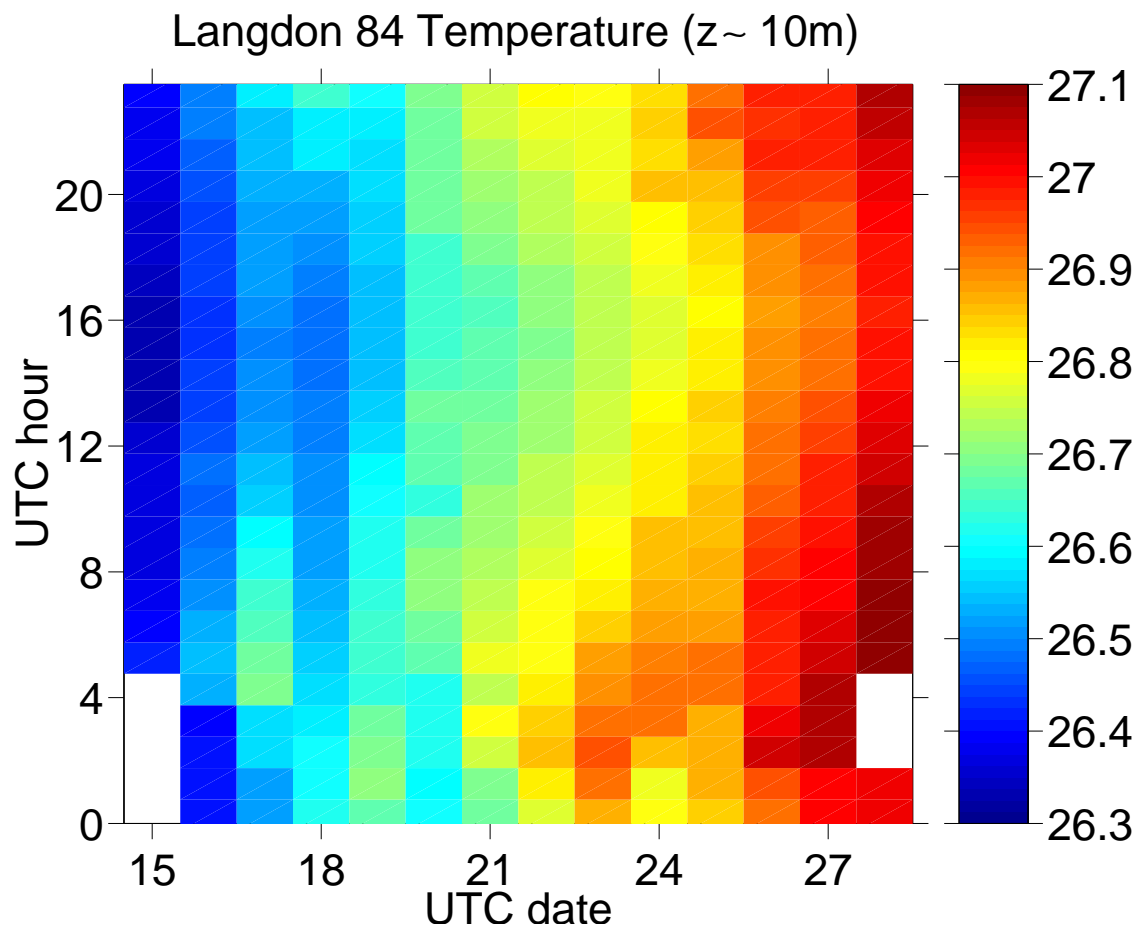


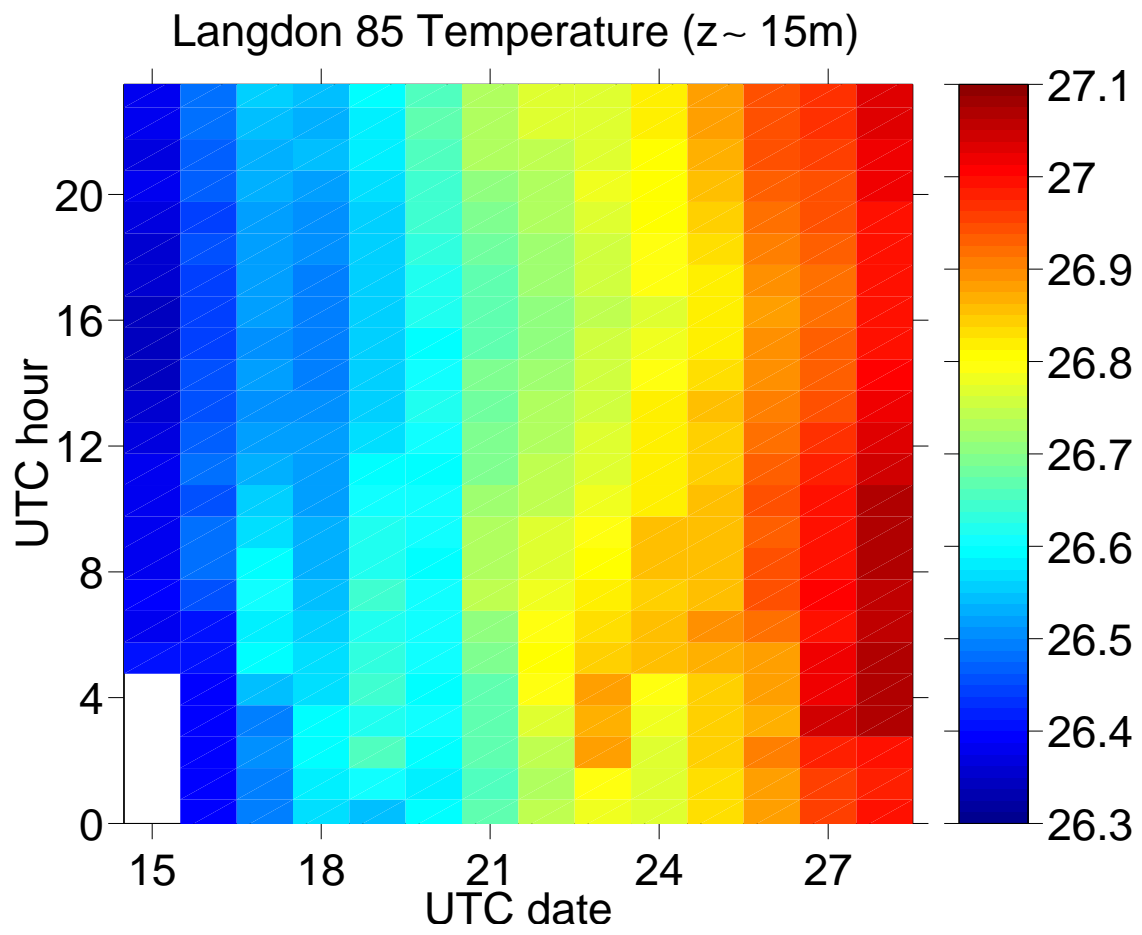


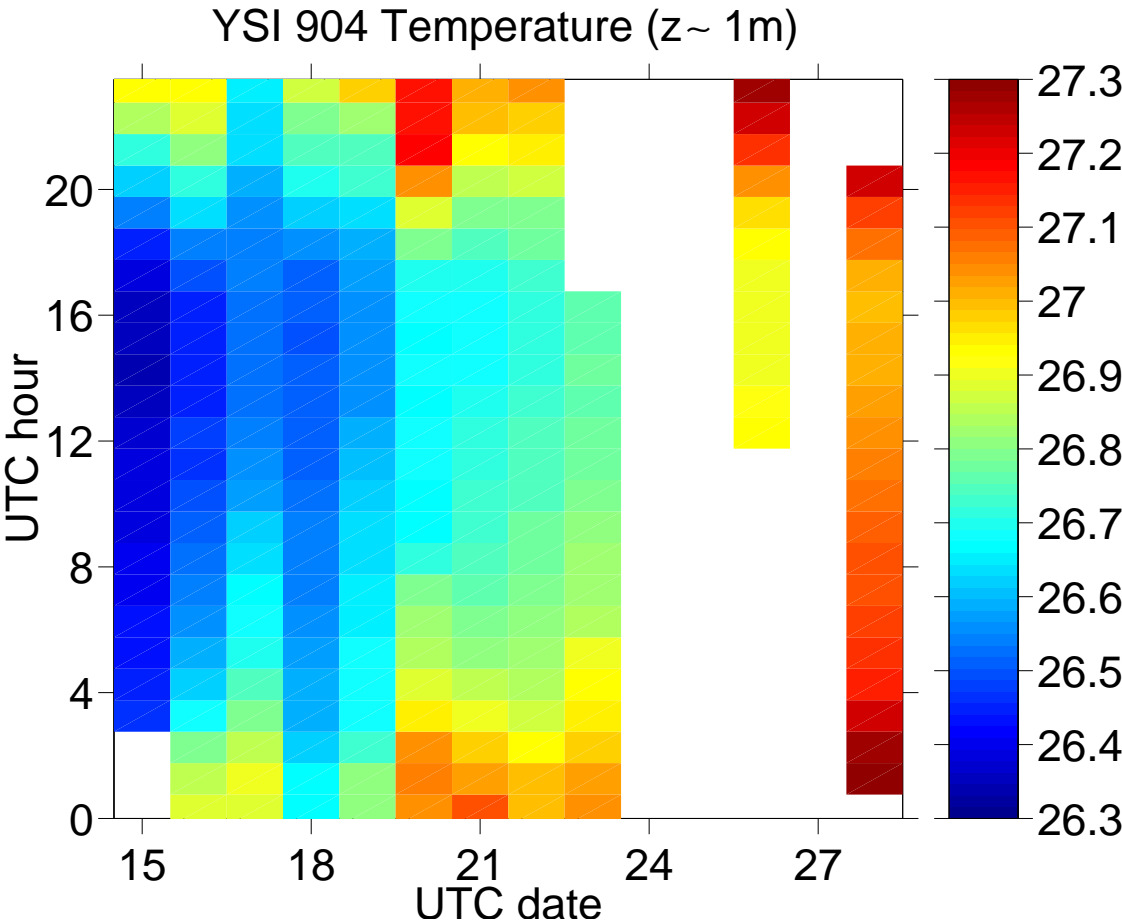












4 Time Series Plots

