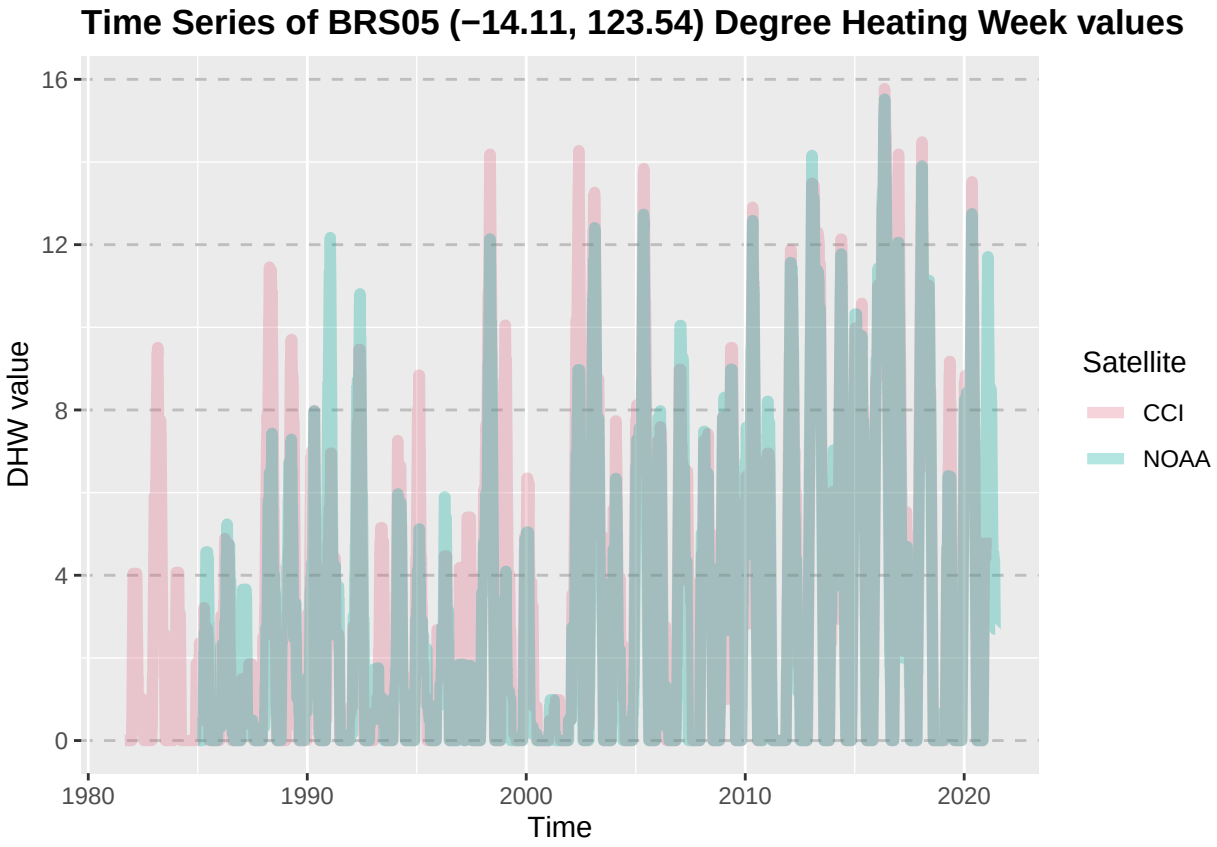
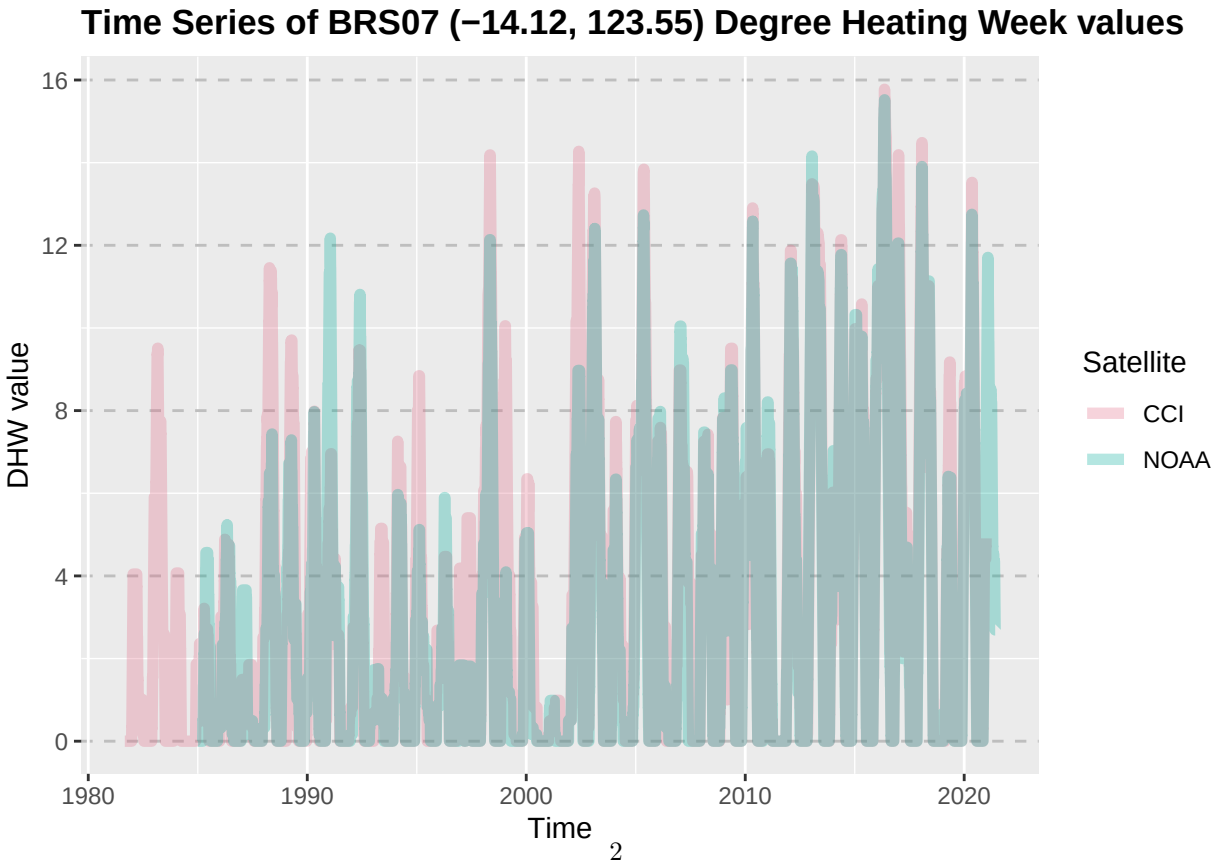
Degree Heating Week Analysis

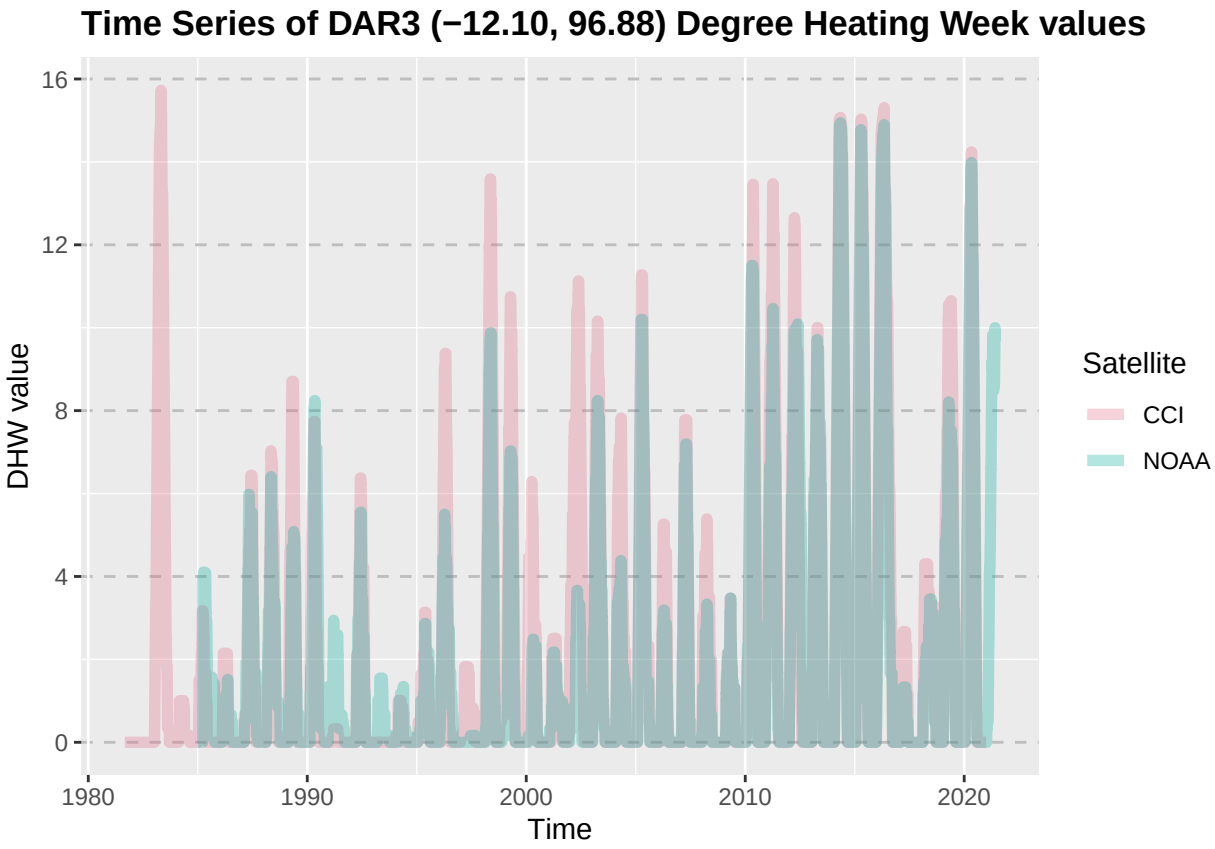
Vanessa

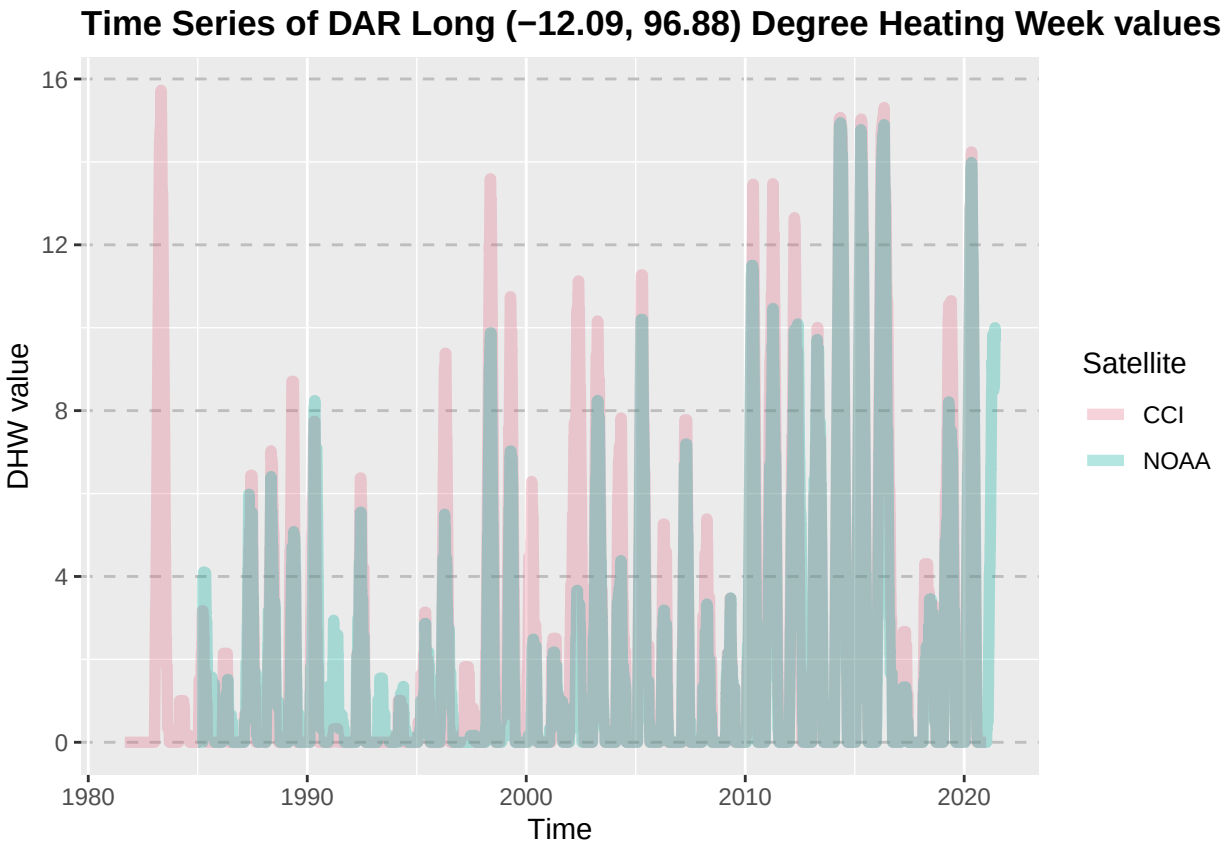
2021-09-13

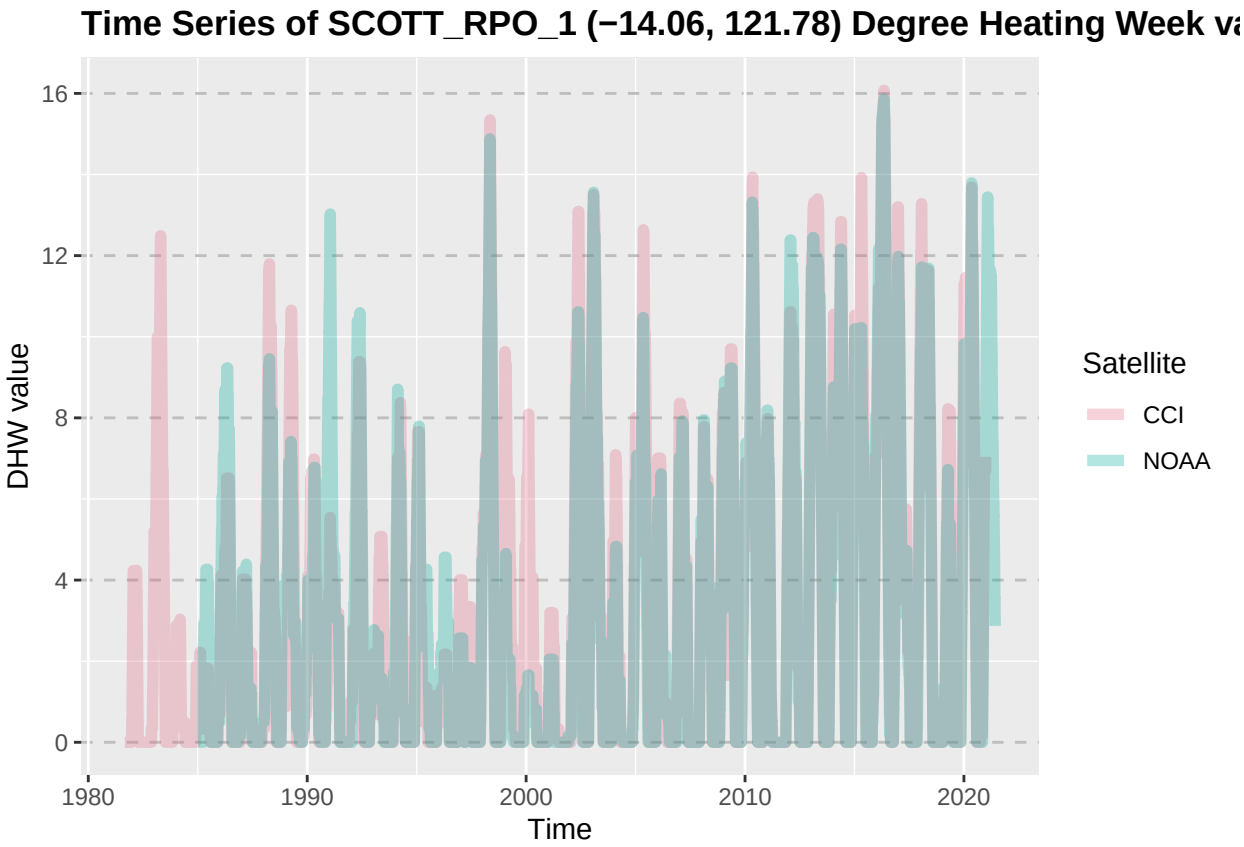
Degree Heating Week Time Series Plots for CCI and NOAA data:

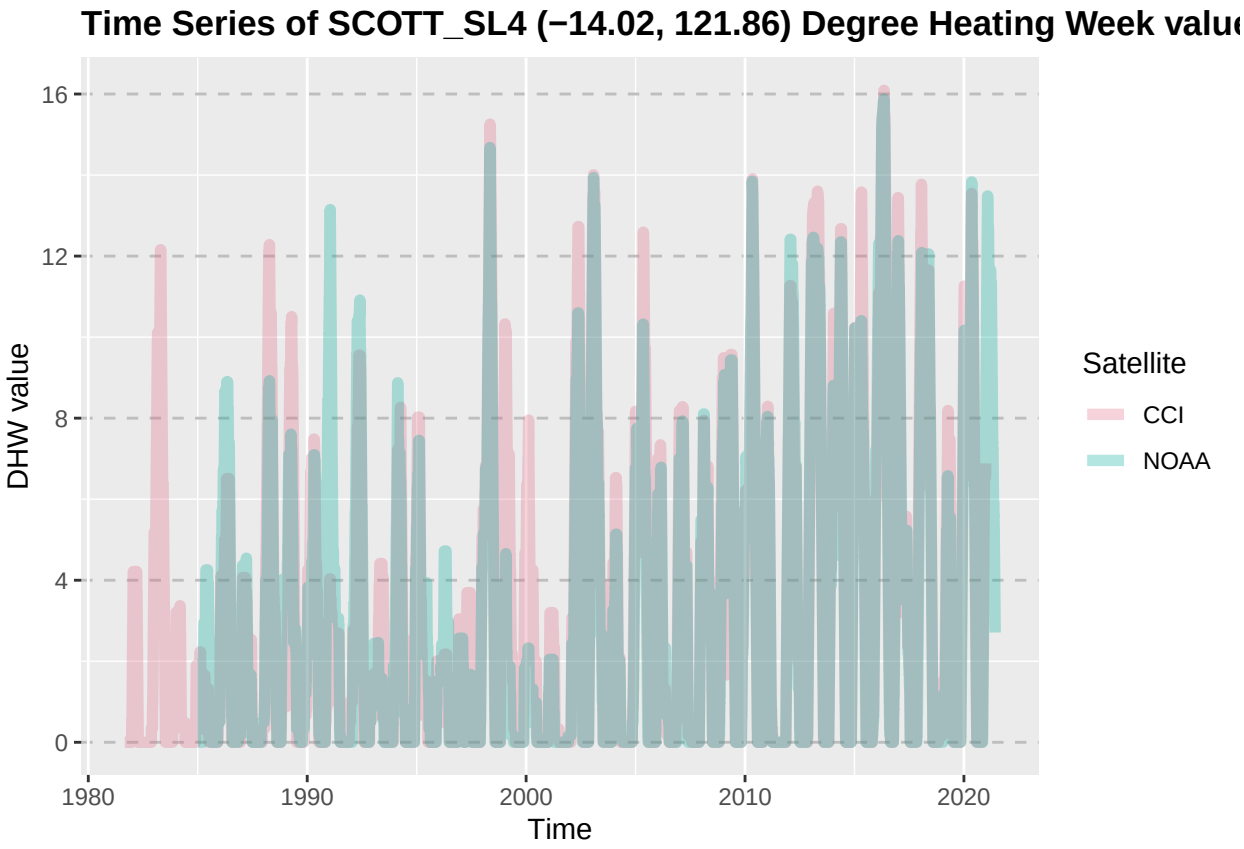


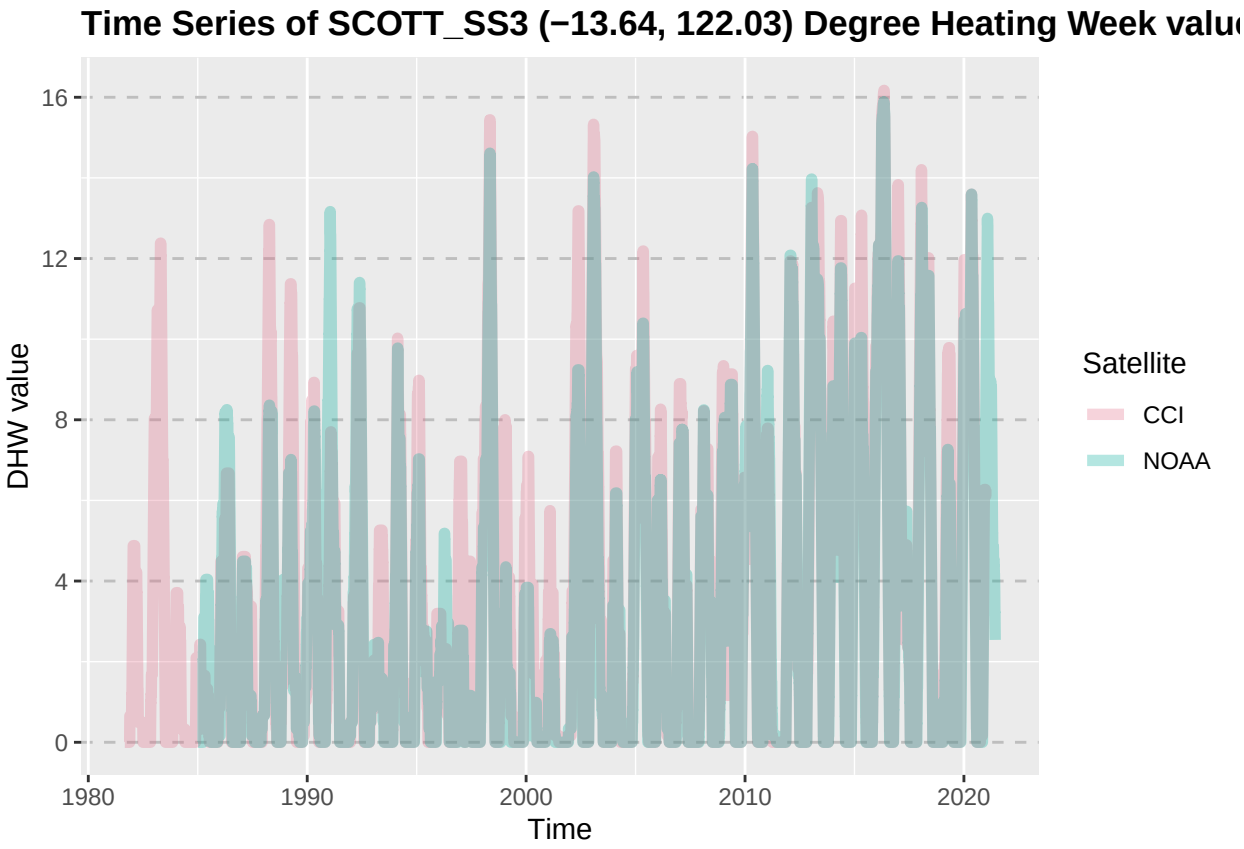


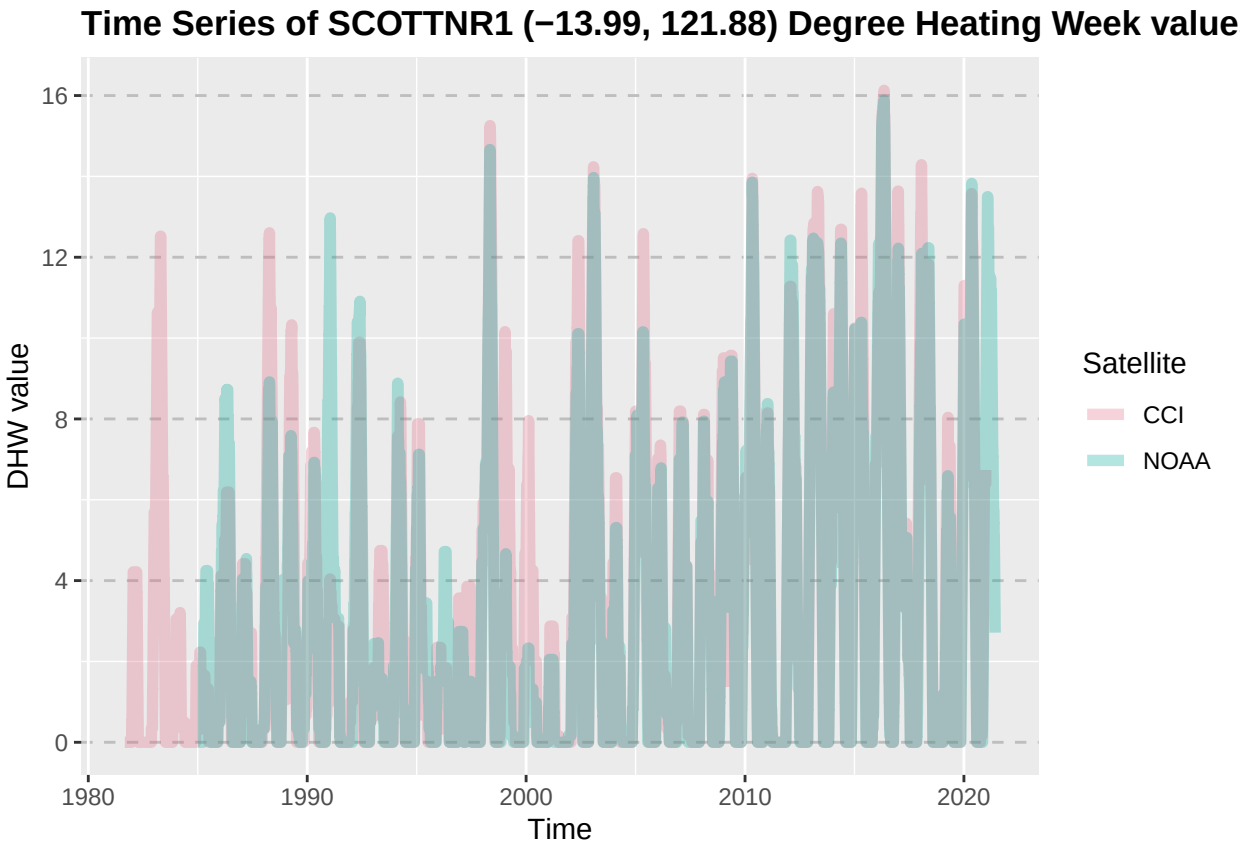

Time Series of DAR3 (−12.10, 96.88) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

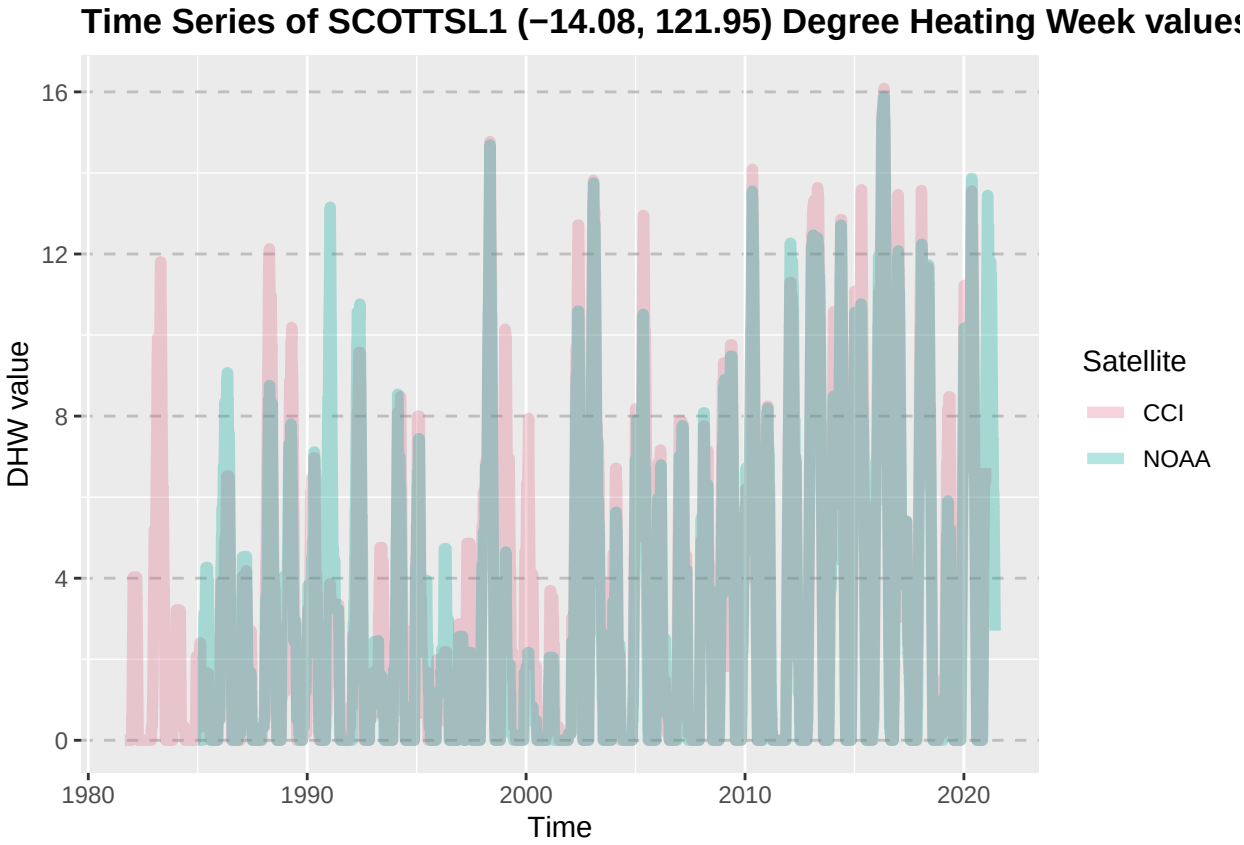

Time Series of DAR Long (−12.09, 96.88) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

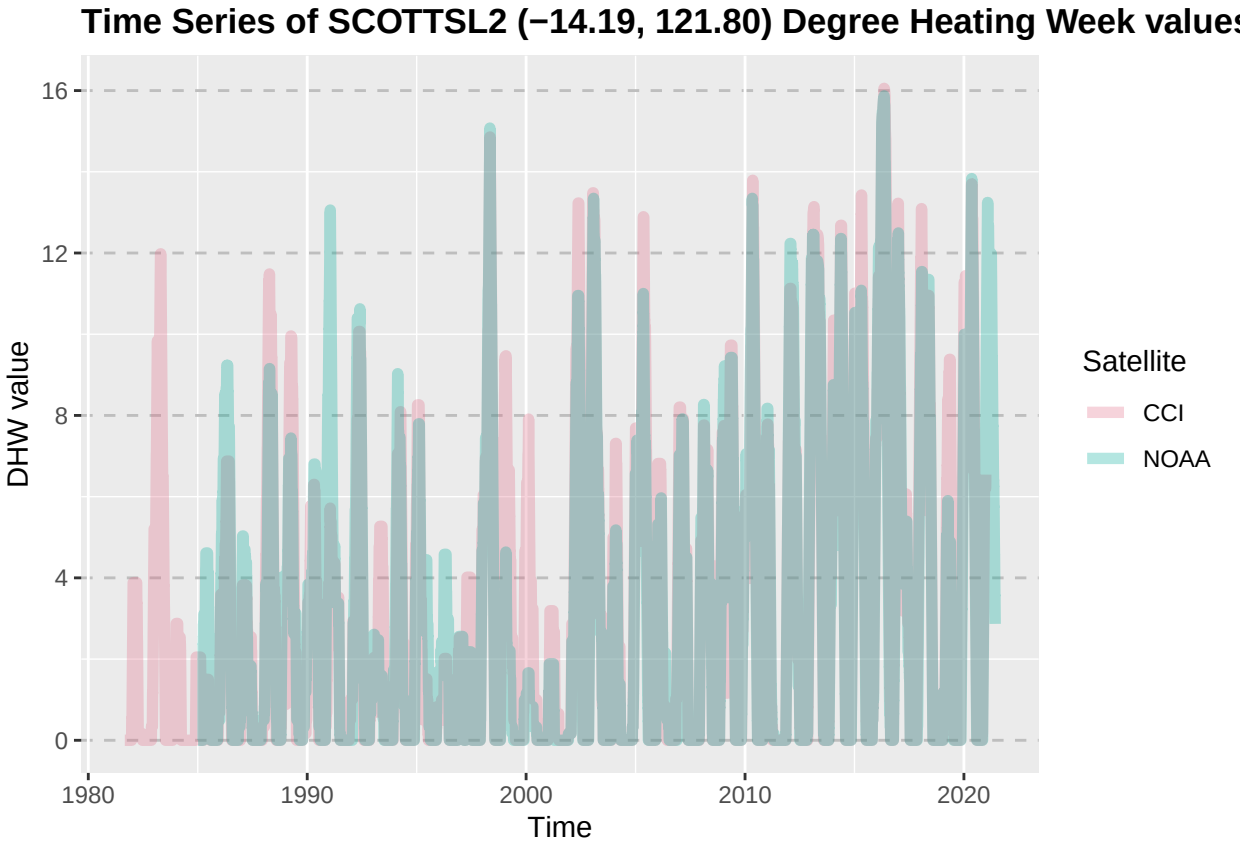

Time Series of SCOTT_RPO_1 (−14.06, 121.78) Degree Heating Week va
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

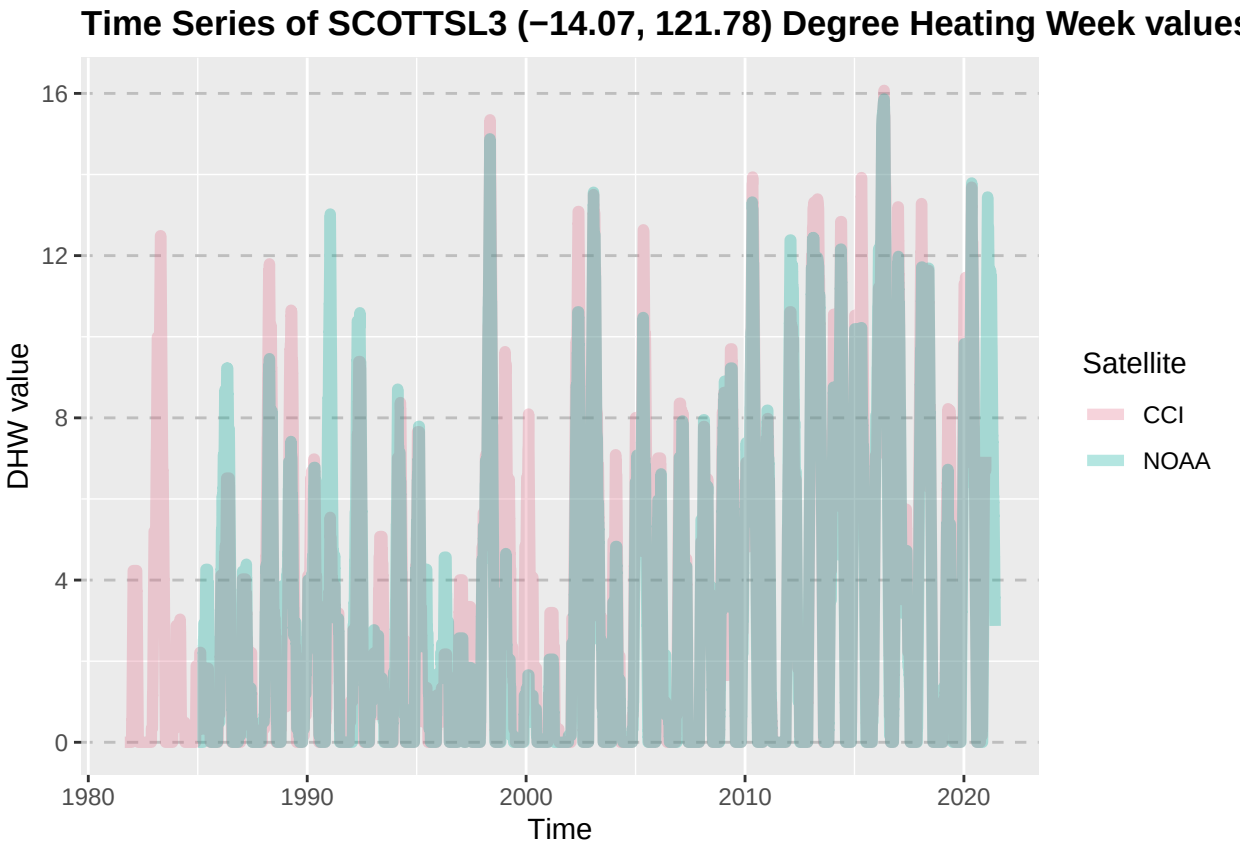

Time Series of SCOTT_SL4 (−14.02, 121.86) Degree Heating Week valu
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

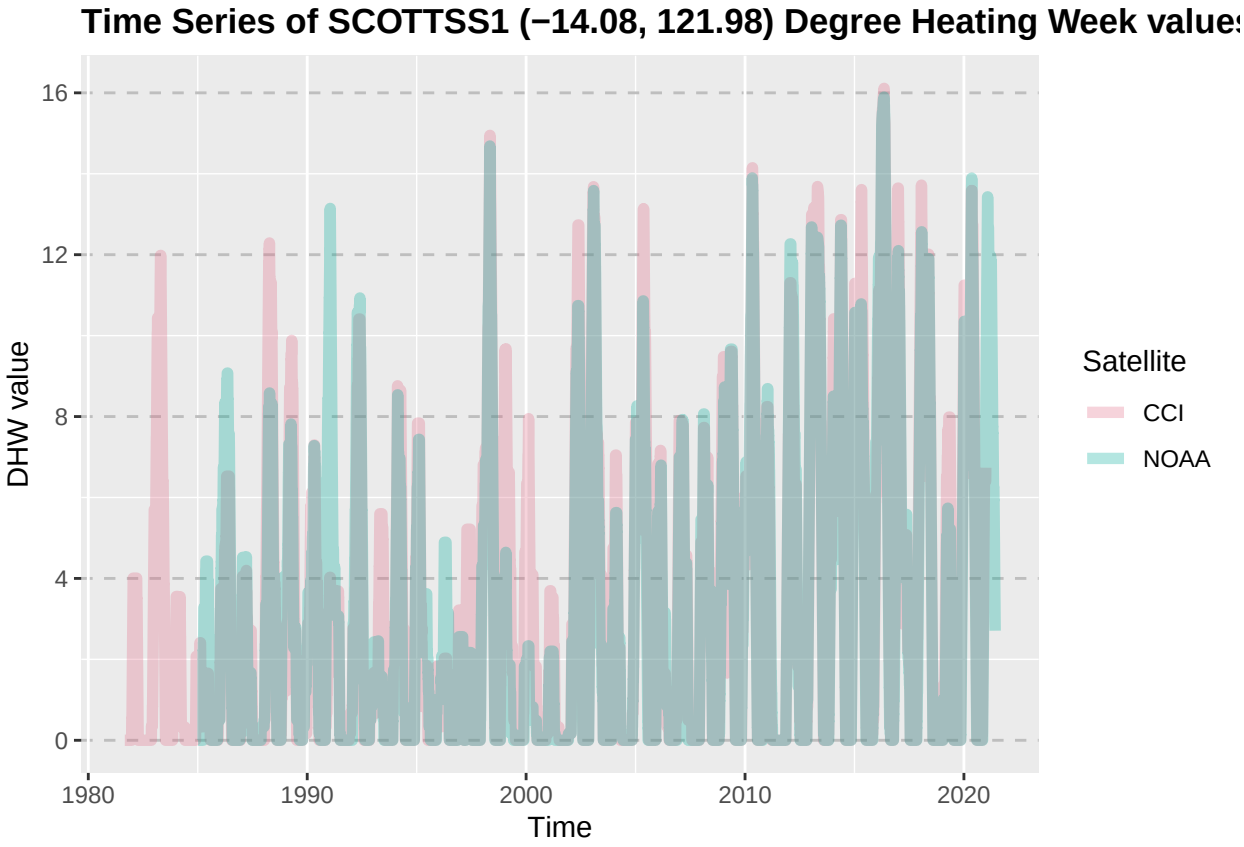

Time Series of SCOTT_SS3 (−13.64, 122.03) Degree Heating Week valu
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

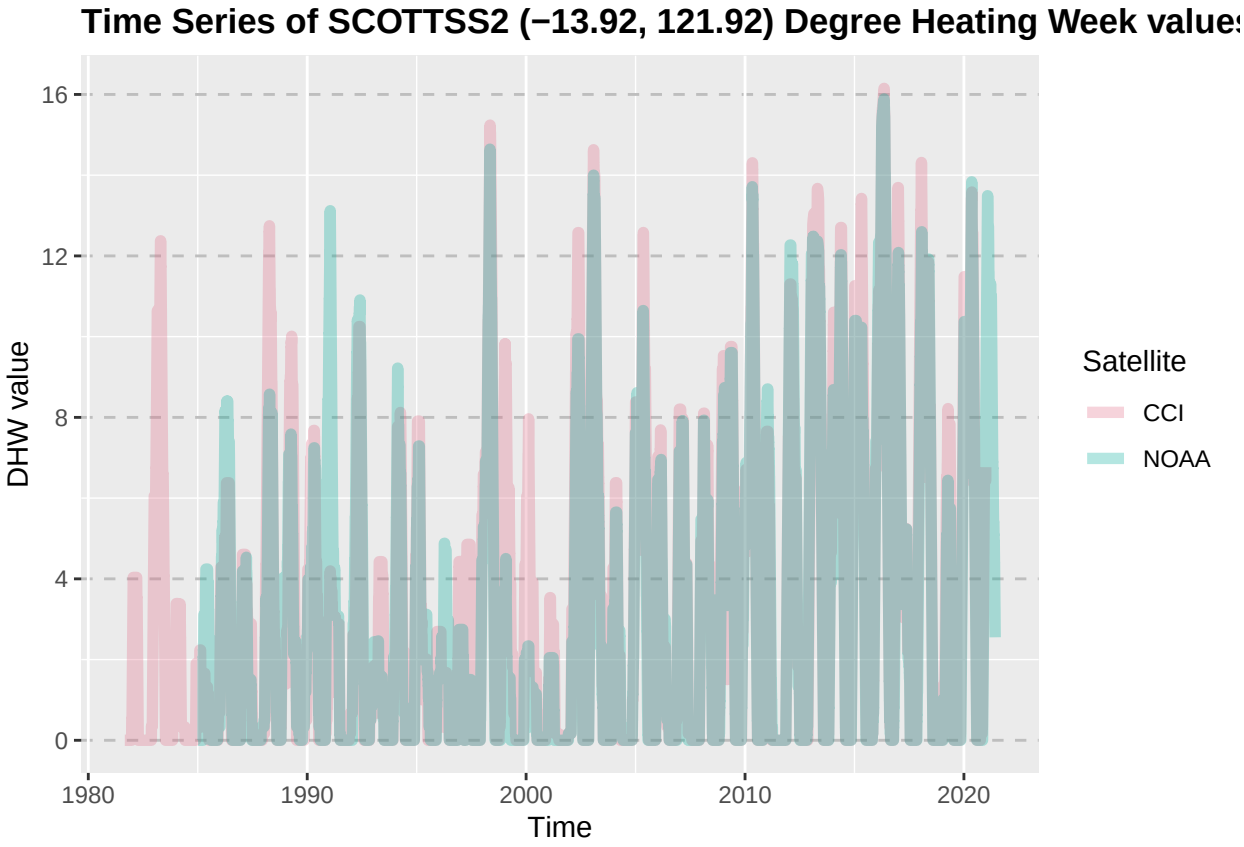

Time Series of SCOTTNR1 (−13.99, 121.88) Degree Heating Week value
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

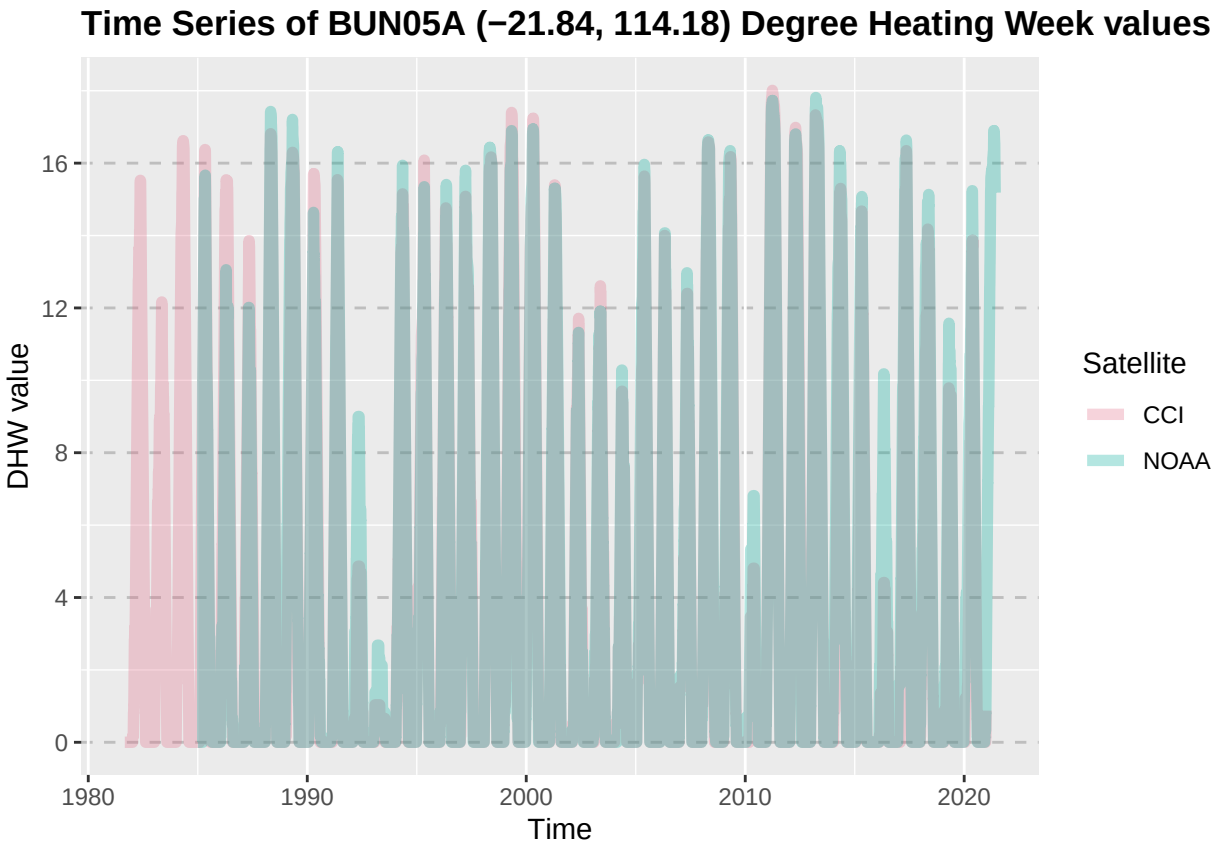

Time Series of SCOTTSL1 (−14.08, 121.95) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

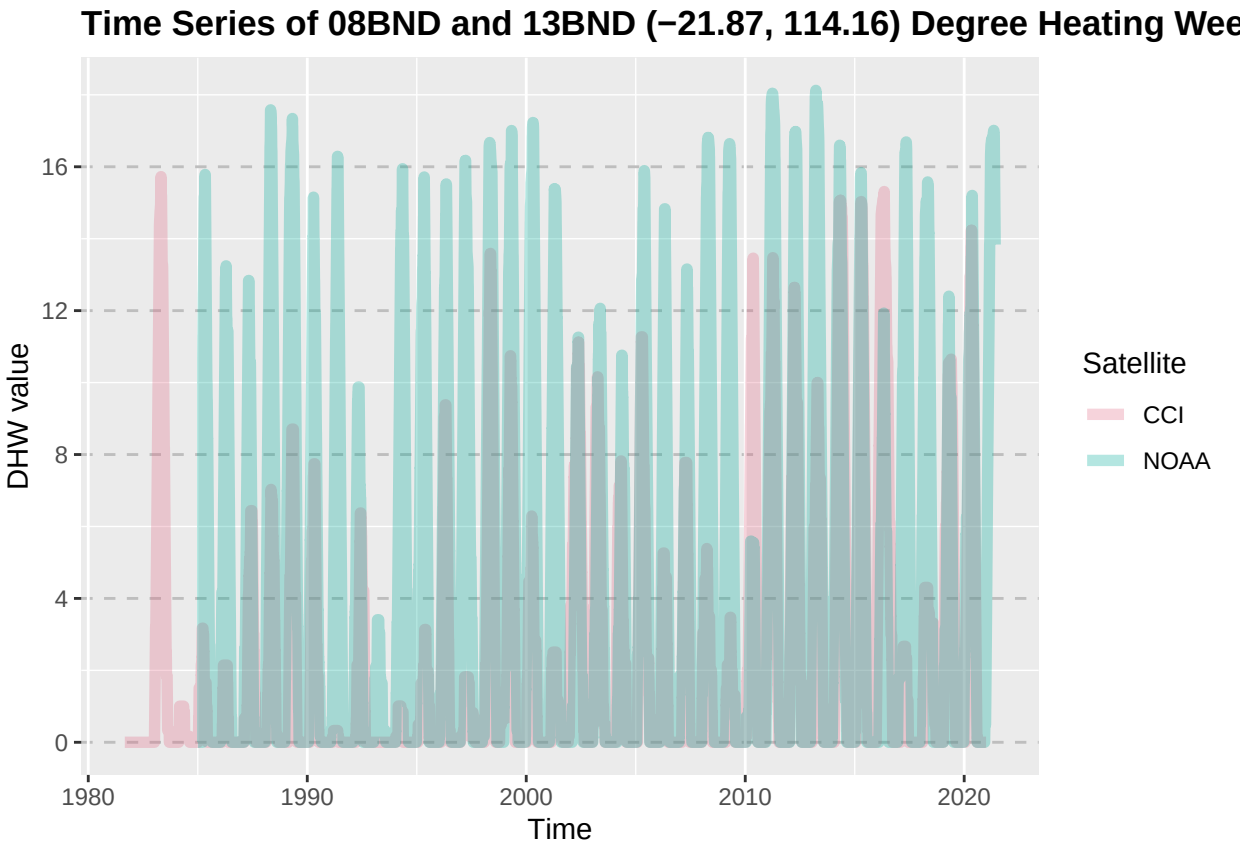

Time Series of SCOTTSL2 (−14.19, 121.80) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

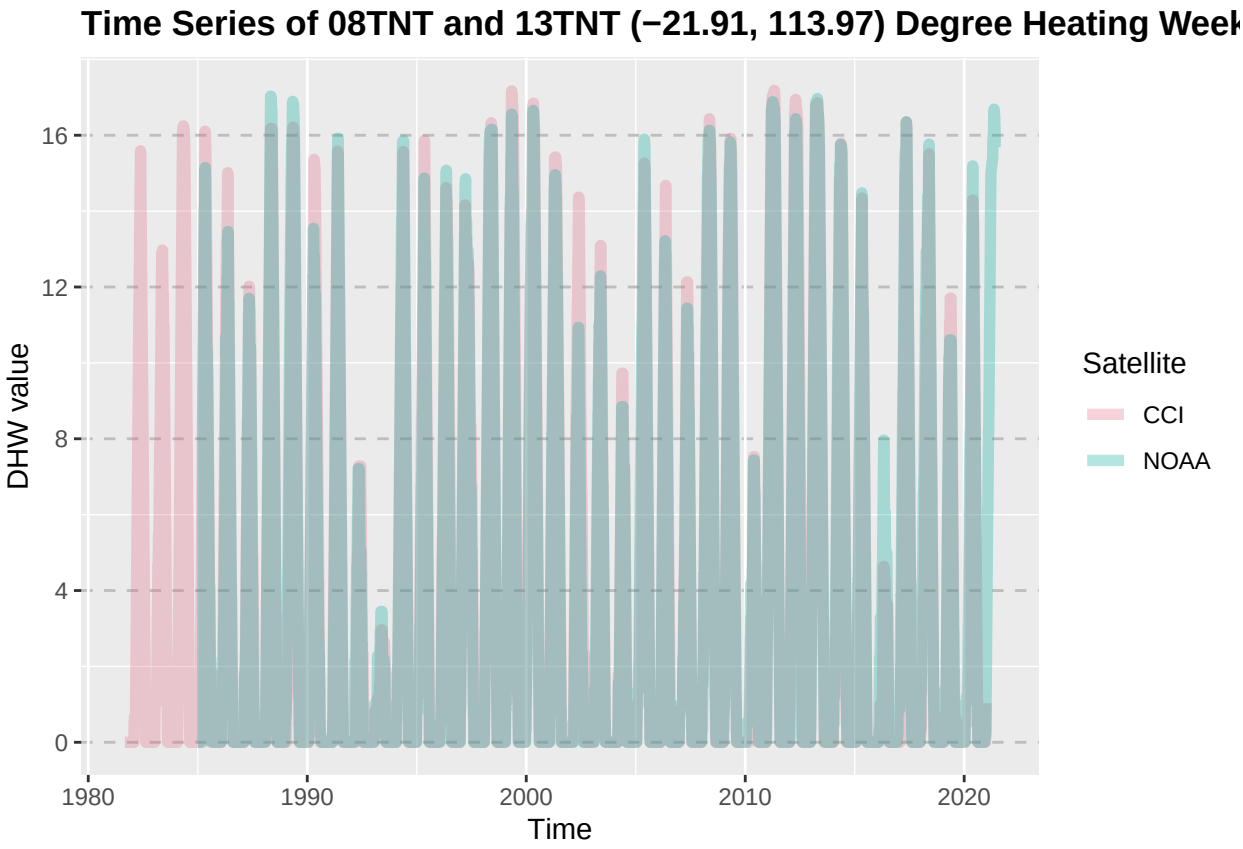

Time Series of SCOTTSL3 (−14.07, 121.78) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

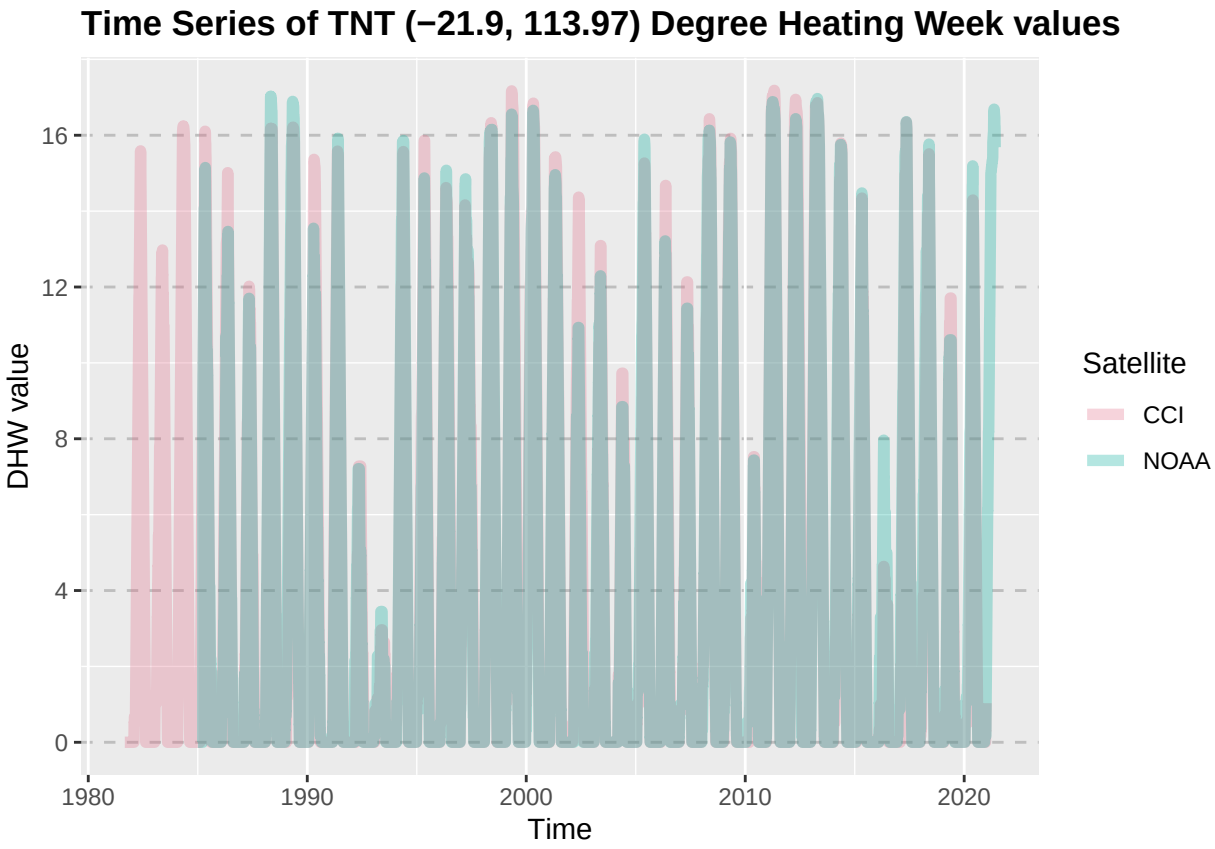

Time Series of SCOTTSS1 (−14.08, 121.98) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

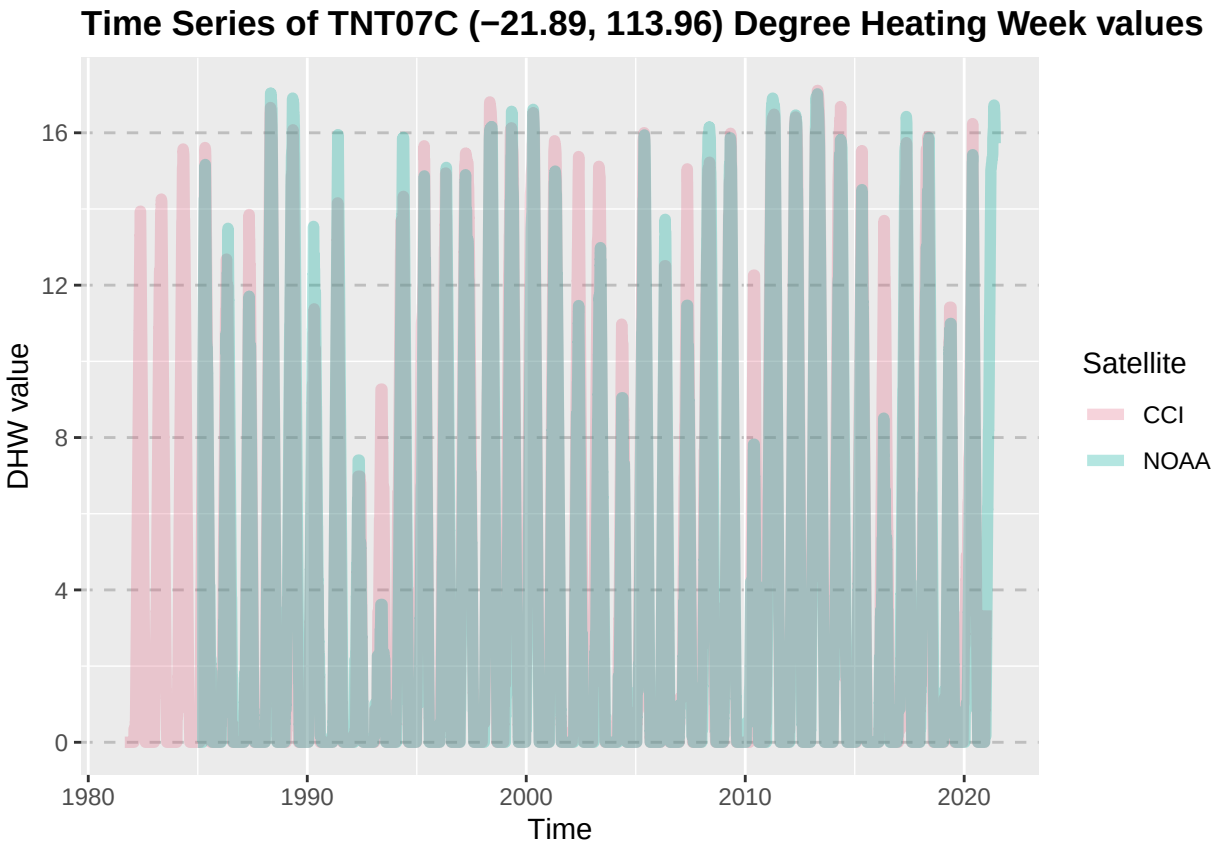

Time Series of SCOTTSS2 (−13.92, 121.92) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

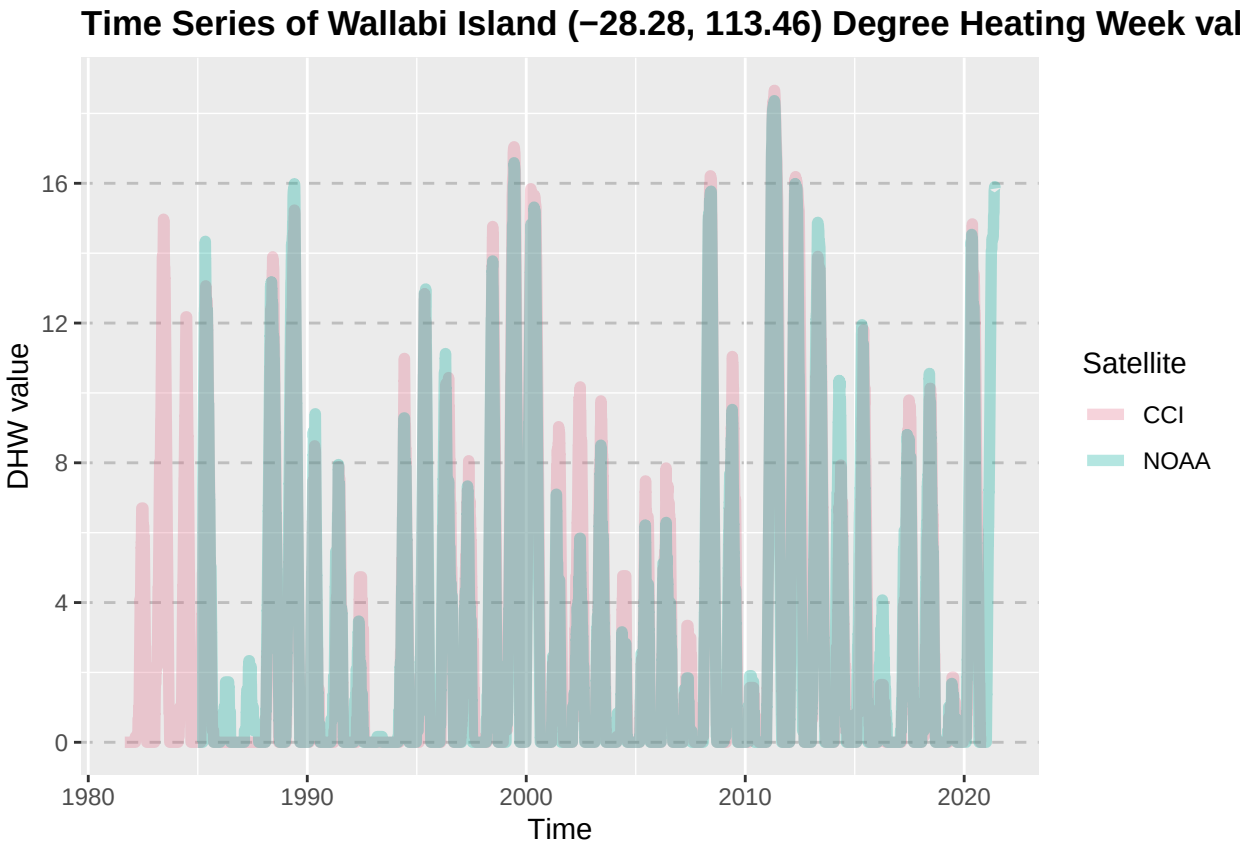

Time Series of BUN05A (−21.84, 114.18) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

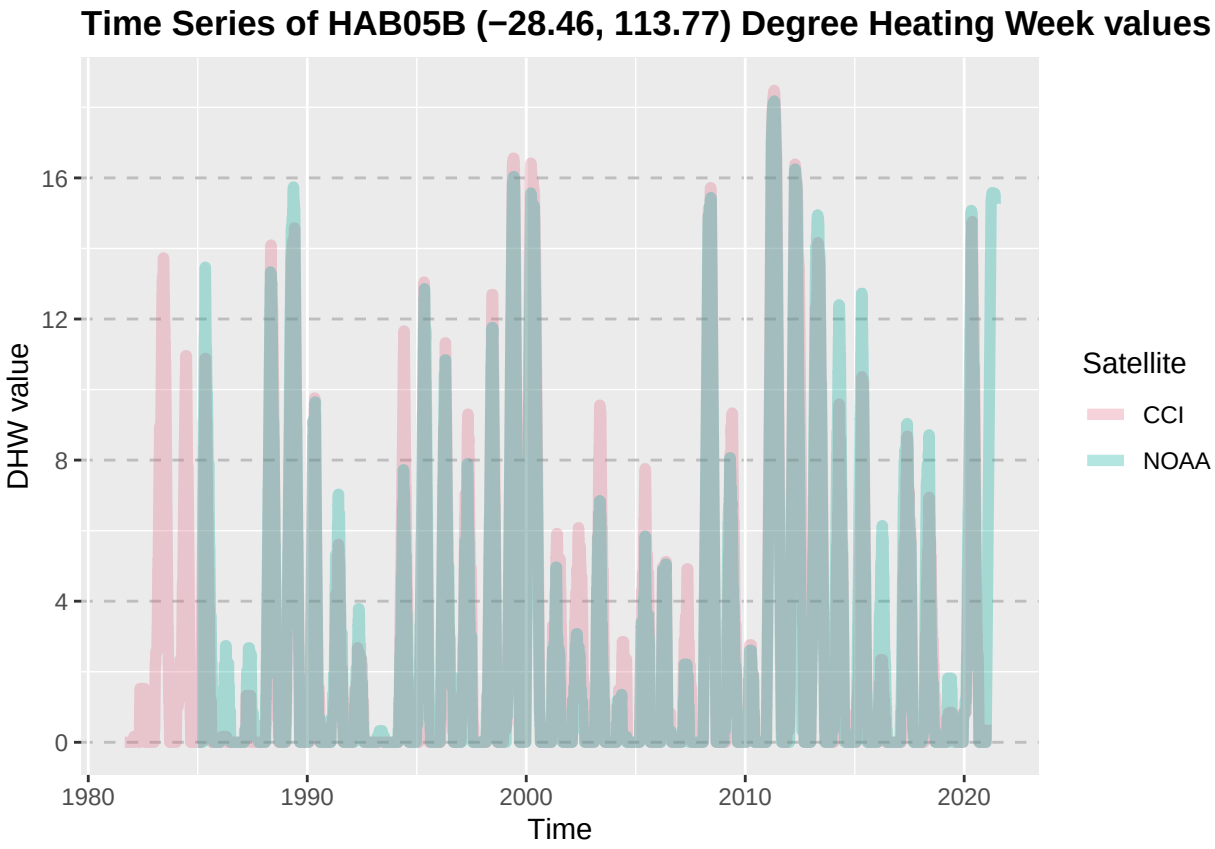

Time Series of 08BND and 13BND (−21.87, 114.16) Degree Heating Wee
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

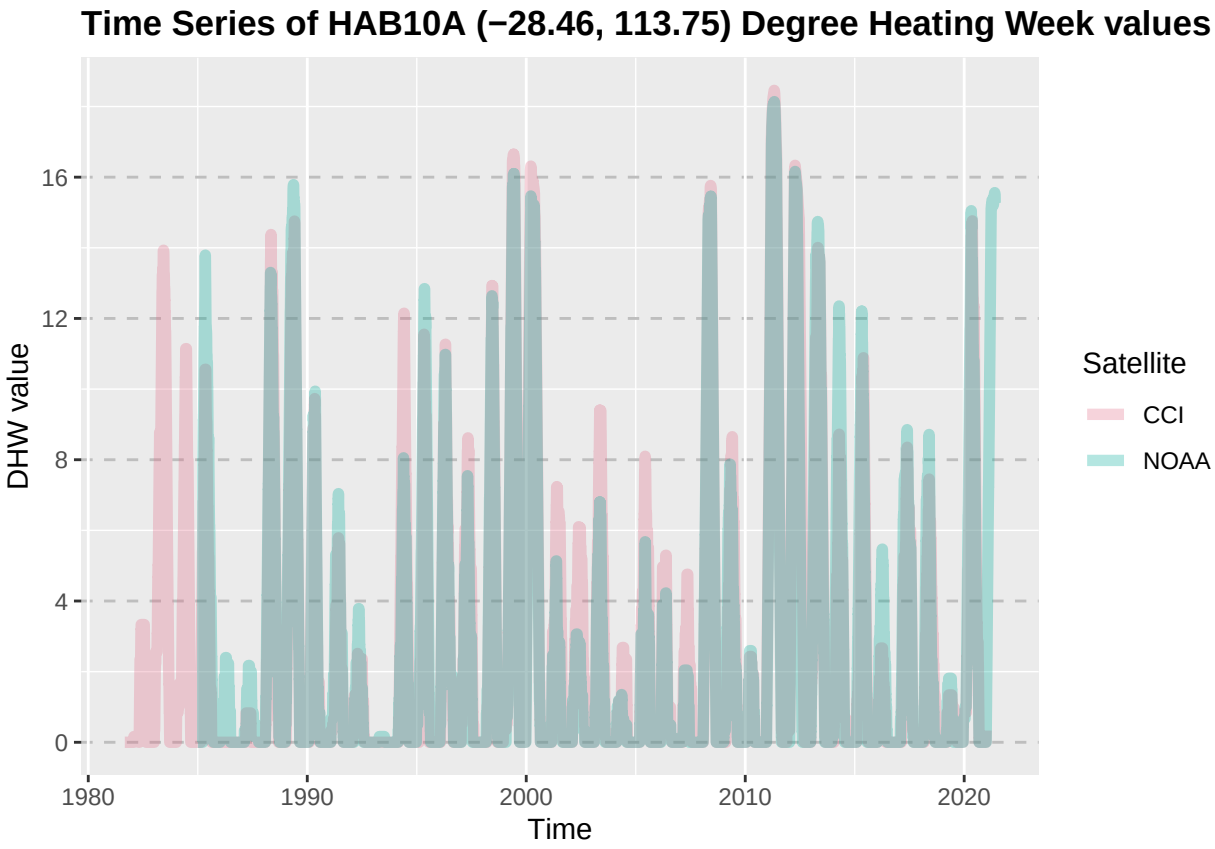

Time Series of 08TNT and 13TNT (−21.91, 113.97) Degree Heating Week
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA


Time Series of TNT (−21.9, 113.97) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA


Time Series of TNT07C (−21.89, 113.96) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA


Time Series of Wallabi Island (−28.28, 113.46) Degree Heating Week val
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA


Time Series of HAB05B (−28.46, 113.77) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA


Time Series of HAB10A (−28.46, 113.75) Degree Heating Week values
DHW value
16
12
8
4
0
1980
1990
2000
2010
2020
Time
Satellite
CCI
NOAA

BRS05 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

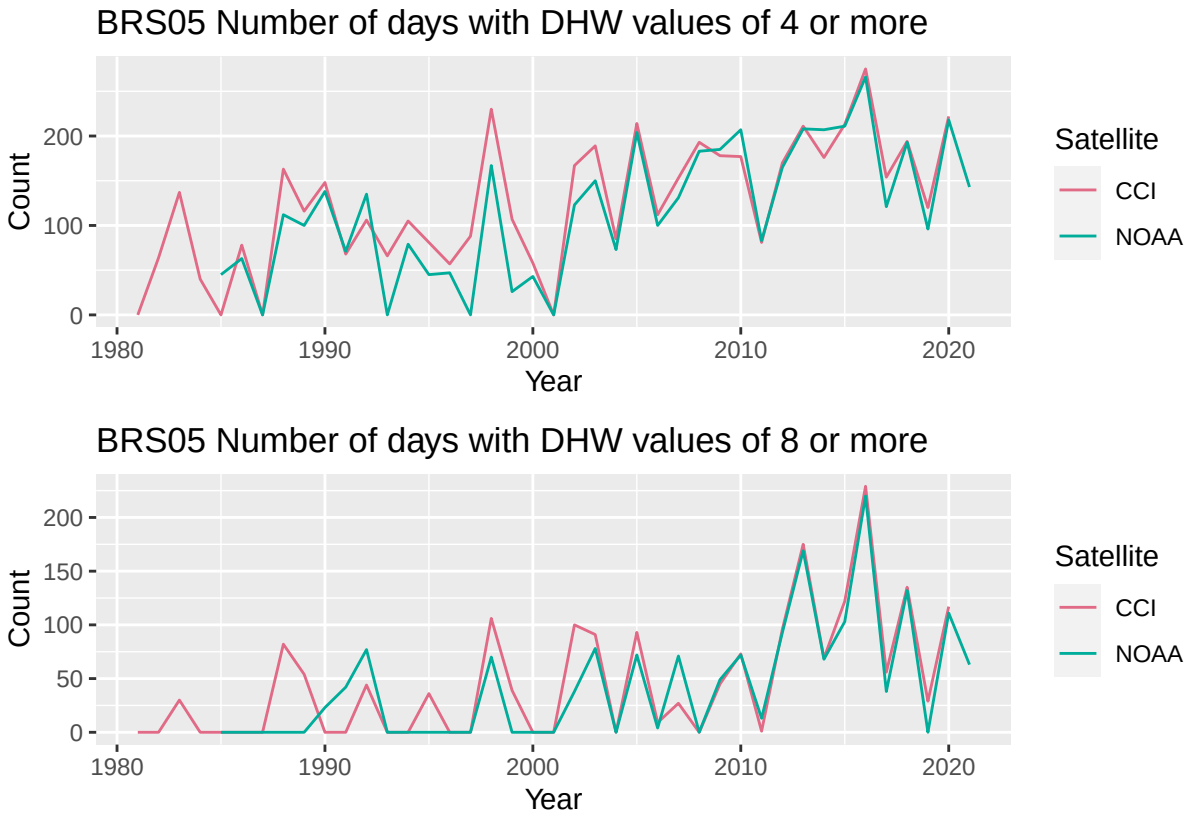


Table 1: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	275	2016	266
1998	230	2020	218
2020	222	2015	211
2005	214	2013	208
2015	213	2010	207
2013	211	2014	207
2018	194	2005	204
2008	193	2018	193
2003	189	2009	185
2009	178	2008	183
2010	177	1998	167
2014	176	2012	165
2012	170	2003	150
2002	167	2021	143
1988	163	1990	138
2017	154	1992	135
2007	153	2007	131
1990	148	2002	123
1983	137	2017	121
2019	120	1988	112
1989	116	1989	100
2006	112	2006	100
1999	107	2019	96
1992	106	2011	83
1994	105	1994	79
1997	88	2004	73
2004	85	1991	71
1995	81	1986	63
2011	81	1996	47
1986	78	1985	45
1991	68	1995	45
1993	66	2000	43
1982	64	1999	26
2000	58	1987	0
1996	57	1993	0
1984	40	1997	0
1981	0	2001	0
1985	0	1981	NA
1987	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 2: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	229	2016	220
2013	175	2013	169
2018	135	2018	132
2015	122	2020	111
2020	117	2015	103
1998	106	2012	93
2002	100	2003	78
2012	96	1992	77
2005	93	2005	72
2003	91	2010	72
1988	82	2007	71
2010	73	1998	70
2014	69	2014	68
2017	56	2021	63
1989	54	2009	49
2009	45	1991	42
1992	44	2002	38
1999	39	2017	38
1995	36	1990	23
1983	30	2011	13
2019	29	2006	4
2007	27	1985	0
2006	9	1986	0
2011	1	1987	0
1981	0	1988	0
1982	0	1989	0
1984	0	1993	0
1985	0	1994	0
1986	0	1995	0
1987	0	1996	0
1990	0	1997	0
1991	0	1999	0
1993	0	2000	0
1994	0	2001	0
1996	0	2004	0
1997	0	2008	0
2000	0	2019	0
2001	0	1981	NA
2004	0	1982	NA
2008	0	1983	NA
2021	NA	1984	NA

BRS07 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

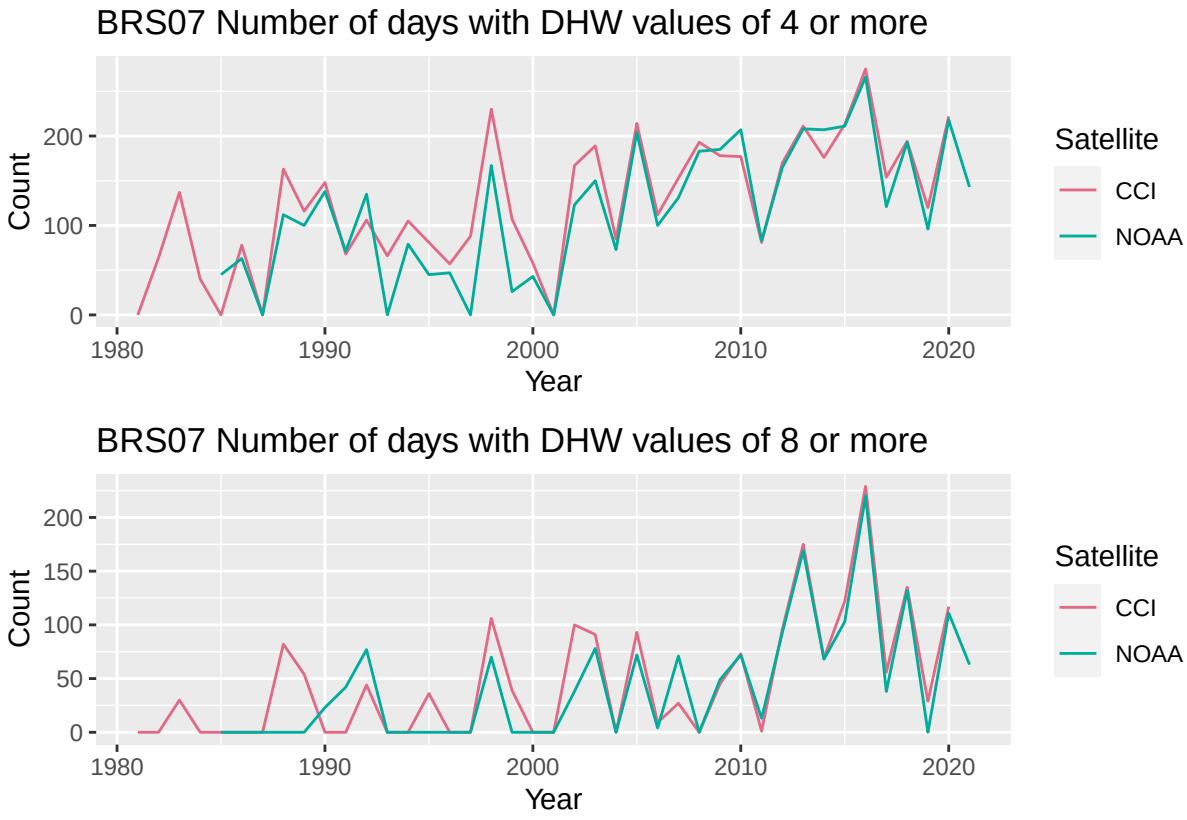


Table 3: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	275	2016	266
1998	230	2020	218
2020	222	2015	211
2005	214	2013	208
2015	213	2010	207
2013	211	2014	207
2018	194	2005	204
2008	193	2018	193
2003	189	2009	185
2009	178	2008	183
2010	177	1998	167
2014	176	2012	165
2012	170	2003	150
2002	167	2021	143
1988	163	1990	138
2017	154	1992	135
2007	153	2007	131
1990	148	2002	123
1983	137	2017	121
2019	120	1988	112
1989	116	1989	100
2006	112	2006	100
1999	107	2019	96
1992	106	2011	83
1994	105	1994	79
1997	88	2004	73
2004	85	1991	71
1995	81	1986	63
2011	81	1996	47
1986	78	1985	45
1991	68	1995	45
1993	66	2000	43
1982	64	1999	26
2000	58	1987	0
1996	57	1993	0
1984	40	1997	0
1981	0	2001	0
1985	0	1981	NA
1987	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 4: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	229	2016	220
2013	175	2013	169
2018	135	2018	132
2015	122	2020	111
2020	117	2015	103
1998	106	2012	93
2002	100	2003	78
2012	96	1992	77
2005	93	2005	72
2003	91	2010	72
1988	82	2007	71
2010	73	1998	70
2014	69	2014	68
2017	56	2021	63
1989	54	2009	49
2009	45	1991	42
1992	44	2002	38
1999	39	2017	38
1995	36	1990	23
1983	30	2011	13
2019	29	2006	4
2007	27	1985	0
2006	9	1986	0
2011	1	1987	0
1981	0	1988	0
1982	0	1989	0
1984	0	1993	0
1985	0	1994	0
1986	0	1995	0
1987	0	1996	0
1990	0	1997	0
1991	0	1999	0
1993	0	2000	0
1994	0	2001	0
1996	0	2004	0
1997	0	2008	0
2000	0	2019	0
2001	0	1981	NA
2004	0	1982	NA
2008	0	1983	NA
2021	NA	1984	NA

DAR3 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

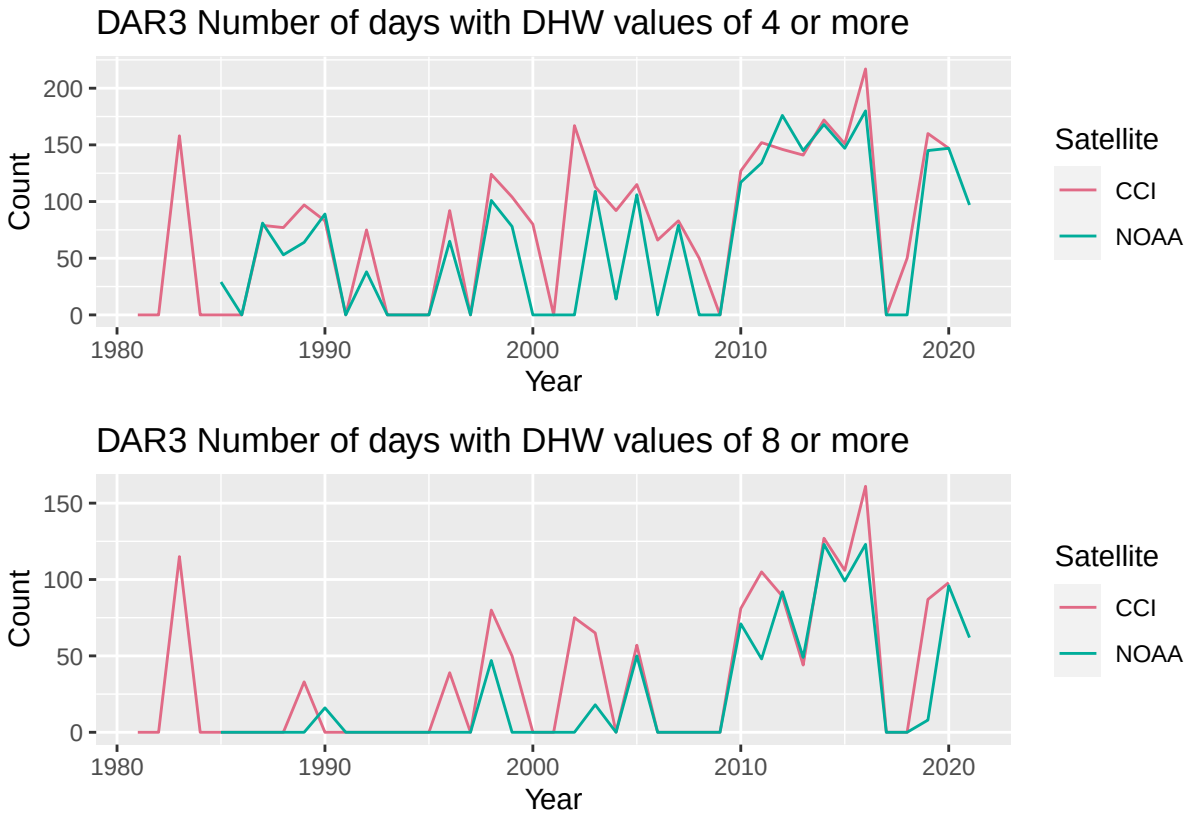


Table 5: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	217	2016	180
2014	172	2012	176
2002	167	2014	168
2019	160	2015	147
1983	158	2020	147
2011	152	2013	145
2015	151	2019	145
2020	147	2011	134
2012	146	2010	117
2013	141	2003	109
2010	127	2005	106
1998	124	1998	101
2005	115	2021	97
2003	113	1990	89
1999	104	1987	81
1989	97	2007	79
1996	92	1999	78
2004	92	1996	65
1990	83	1989	64
2007	83	1988	53
2000	80	1992	38
1987	79	1985	29
1988	77	2004	14
1992	75	1986	0
2006	66	1991	0
2008	50	1993	0
2018	50	1994	0
1981	0	1995	0
1982	0	1997	0
1984	0	2000	0
1985	0	2001	0
1986	0	2002	0
1991	0	2006	0
1993	0	2008	0
1994	0	2009	0
1995	0	2017	0
1997	0	2018	0
2001	0	1981	NA
2009	0	1982	NA
2017	0	1983	NA
2021	NA	1984	NA

Table 6: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	161	2014	123
2014	127	2016	123
1983	115	2015	99
2015	106	2020	96
2011	105	2012	92
2020	98	2010	71
2012	89	2021	62
2019	87	2005	50
2010	81	2013	49
1998	80	2011	48
2002	75	1998	47
2003	65	2003	18
2005	57	1990	16
1999	50	2019	8
2013	44	1985	0
1996	39	1986	0
1989	33	1987	0
1981	0	1988	0
1982	0	1989	0
1984	0	1991	0
1985	0	1992	0
1986	0	1993	0
1987	0	1994	0
1988	0	1995	0
1990	0	1996	0
1991	0	1997	0
1992	0	1999	0
1993	0	2000	0
1994	0	2001	0
1995	0	2002	0
1997	0	2004	0
2000	0	2006	0
2001	0	2007	0
2004	0	2008	0
2006	0	2009	0
2007	0	2017	0
2008	0	2018	0
2009	0	1981	NA
2017	0	1982	NA
2018	0	1983	NA
2021	NA	1984	NA

DAR Long Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

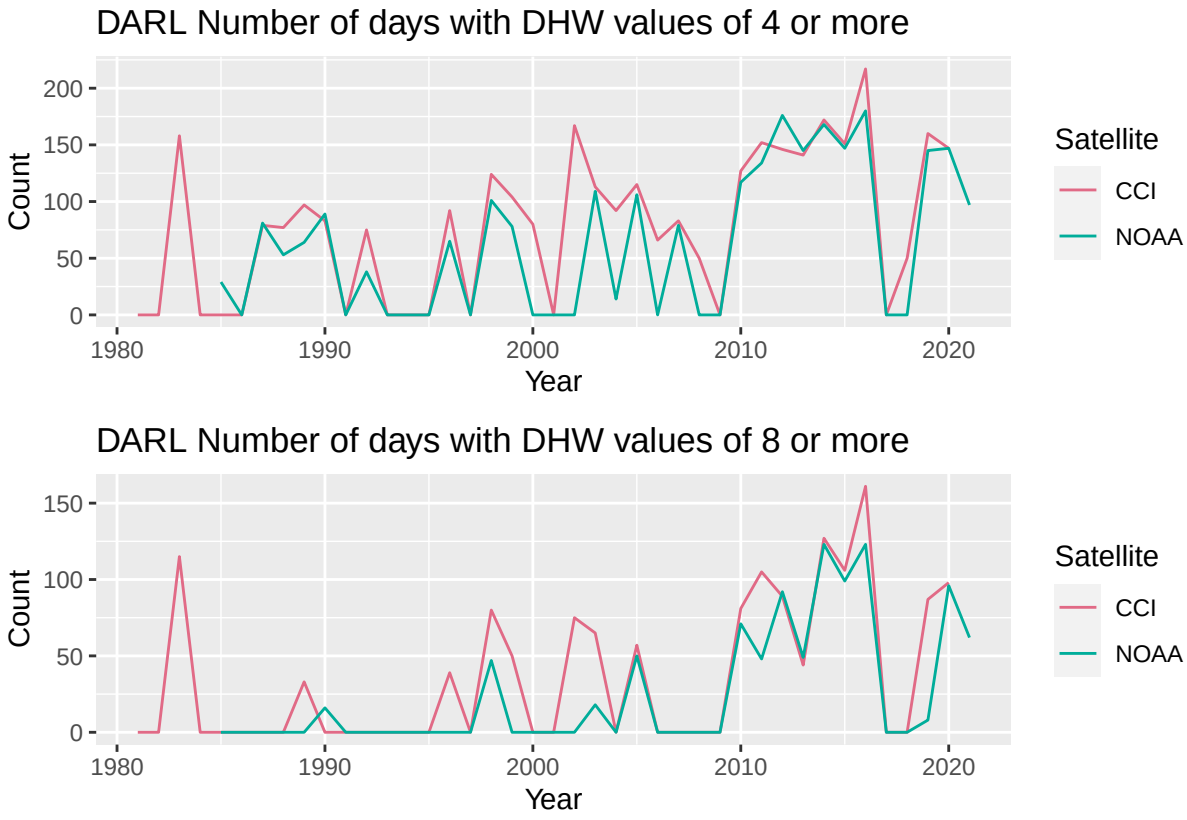


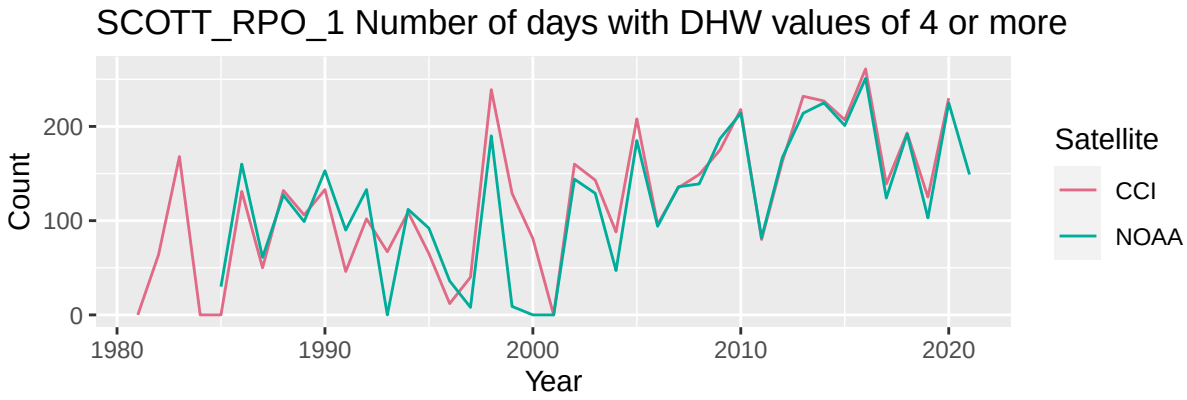
Table 7: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	217	2016	180
2014	172	2012	176
2002	167	2014	168
2019	160	2015	147
1983	158	2020	147
2011	152	2013	145
2015	151	2019	145
2020	147	2011	134
2012	146	2010	117
2013	141	2003	109
2010	127	2005	106
1998	124	1998	101
2005	115	2021	97
2003	113	1990	89
1999	104	1987	81
1989	97	2007	79
1996	92	1999	78
2004	92	1996	65
1990	83	1989	64
2007	83	1988	53
2000	80	1992	38
1987	79	1985	29
1988	77	2004	14
1992	75	1986	0
2006	66	1991	0
2008	50	1993	0
2018	50	1994	0
1981	0	1995	0
1982	0	1997	0
1984	0	2000	0
1985	0	2001	0
1986	0	2002	0
1991	0	2006	0
1993	0	2008	0
1994	0	2009	0
1995	0	2017	0
1997	0	2018	0
2001	0	1981	NA
2009	0	1982	NA
2017	0	1983	NA
2021	NA	1984	NA

Table 8: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	161	2014	123
2014	127	2016	123
1983	115	2015	99
2015	106	2020	96
2011	105	2012	92
2020	98	2010	71
2012	89	2021	62
2019	87	2005	50
2010	81	2013	49
1998	80	2011	48
2002	75	1998	47
2003	65	2003	18
2005	57	1990	16
1999	50	2019	8
2013	44	1985	0
1996	39	1986	0
1989	33	1987	0
1981	0	1988	0
1982	0	1989	0
1984	0	1991	0
1985	0	1992	0
1986	0	1993	0
1987	0	1994	0
1988	0	1995	0
1990	0	1996	0
1991	0	1997	0
1992	0	1999	0
1993	0	2000	0
1994	0	2001	0
1995	0	2002	0
1997	0	2004	0
2000	0	2006	0
2001	0	2007	0
2004	0	2008	0
2006	0	2009	0
2007	0	2017	0
2008	0	2018	0
2009	0	1981	NA
2017	0	1982	NA
2018	0	1983	NA
2021	NA	1984	NA

SCOTT_RPO_1 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data



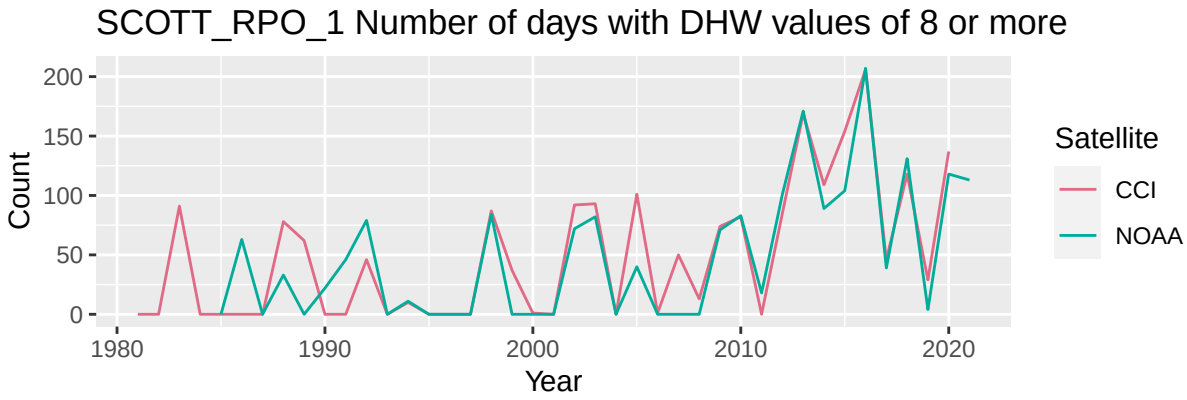


Table 9: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	261	2016	251
1998	239	2014	225
2013	232	2020	225
2020	230	2010	214
2014	227	2013	214
2010	218	2015	201
2005	208	2018	192
2015	207	1998	190
2018	193	2009	187
2009	175	2005	185
1983	168	2012	167
2012	163	1986	160
2002	160	1990	153
2008	149	2021	149
2003	143	2002	144
2017	139	2008	139
2007	135	2007	136
1990	133	1992	133
1988	132	2003	129
1986	131	1988	127
1999	129	2017	124
2019	125	1994	112
1994	109	2019	103
1989	106	1989	99
1992	102	2006	94
2006	96	1995	92
2004	88	1991	90
2000	81	2011	82
2011	80	1987	61
1993	67	2004	47
1995	65	1996	36
1982	64	1985	30
1987	50	1999	9
1991	46	1997	8
1997	40	1993	0
1996	12	2000	0
1981	0	2001	0
1984	0	1981	NA
1985	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 10: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	206	2016	207
2013	169	2013	171
2015	154	2018	131
2020	137	2020	118
2018	118	2021	113
2014	109	2015	104
2005	101	2012	101
2003	93	2014	89
2002	92	1998	84
1983	91	2010	83
1998	87	2003	82
2012	85	1992	79
2010	82	2002	72
1988	78	2009	71
2009	74	1986	63
1989	62	1991	46
2007	50	2005	40
1992	46	2017	39
2017	46	1988	33
1999	37	1990	22
2019	29	2011	18
2008	13	1994	11
1994	10	2019	4
2000	1	1985	0
2006	1	1987	0
1981	0	1989	0
1982	0	1993	0
1984	0	1995	0
1985	0	1996	0
1986	0	1997	0
1987	0	1999	0
1990	0	2000	0
1991	0	2001	0
1993	0	2004	0
1995	0	2006	0
1996	0	2007	0
1997	0	2008	0
2001	0	1981	NA
2004	0	1982	NA
2011	0	1983	NA
2021	NA	1984	NA

SCOTT_SL4 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

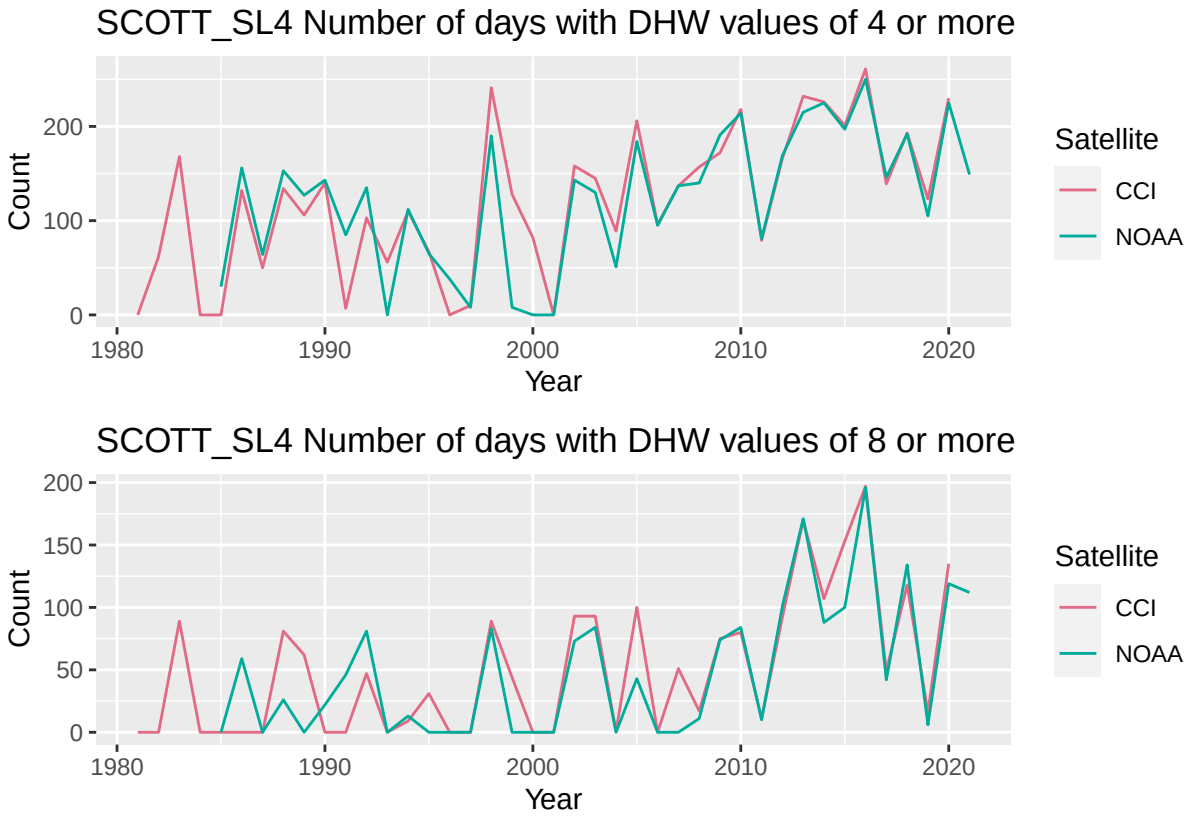


Table 11: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	261	2016	250
1998	241	2014	225
2013	232	2020	225
2020	230	2013	215
2014	226	2010	214
2010	218	2015	197
2005	206	2018	192
2015	201	2009	191
2018	193	1998	190
2009	172	2005	184
1983	168	2012	169
2012	166	1986	156
2002	158	1988	153
2008	157	2021	149
2003	145	2017	146
1990	140	1990	143
2017	139	2002	143
2007	137	2008	140
1988	134	2007	137
1986	132	1992	135
1999	128	2003	130
2019	123	1989	127
1994	110	1994	112
1989	106	2019	105
1992	103	2006	95
2006	96	1991	85
2004	89	2011	81
2000	82	1995	65
2011	79	1987	64
1995	67	2004	51
1982	62	1996	38
1993	56	1985	30
1987	50	1997	8
1997	10	1999	8
1991	7	1993	0
1981	0	2000	0
1984	0	2001	0
1985	0	1981	NA
1996	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 12: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	197	2016	196
2013	170	2013	171
2015	153	2018	134
2020	135	2020	119
2018	118	2021	112
2014	107	2012	101
2005	100	2015	100
2002	93	2014	88
2003	93	2003	84
2012	92	2010	84
1983	89	1998	83
1998	89	1992	81
1988	81	2009	74
2010	80	2002	73
2009	75	1986	59
1989	62	1991	46
2007	51	2005	43
2017	49	2017	42
1992	47	1988	26
1999	44	1990	22
1995	31	1994	13
2008	17	2008	11
2019	16	2011	10
2011	11	2019	6
1994	9	1985	0
2004	1	1987	0
1981	0	1989	0
1982	0	1993	0
1984	0	1995	0
1985	0	1996	0
1986	0	1997	0
1987	0	1999	0
1990	0	2000	0
1991	0	2001	0
1993	0	2004	0
1996	0	2006	0
1997	0	2007	0
2000	0	1981	NA
2001	0	1982	NA
2006	0	1983	NA
2021	NA	1984	NA

SCOTT_SS3 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

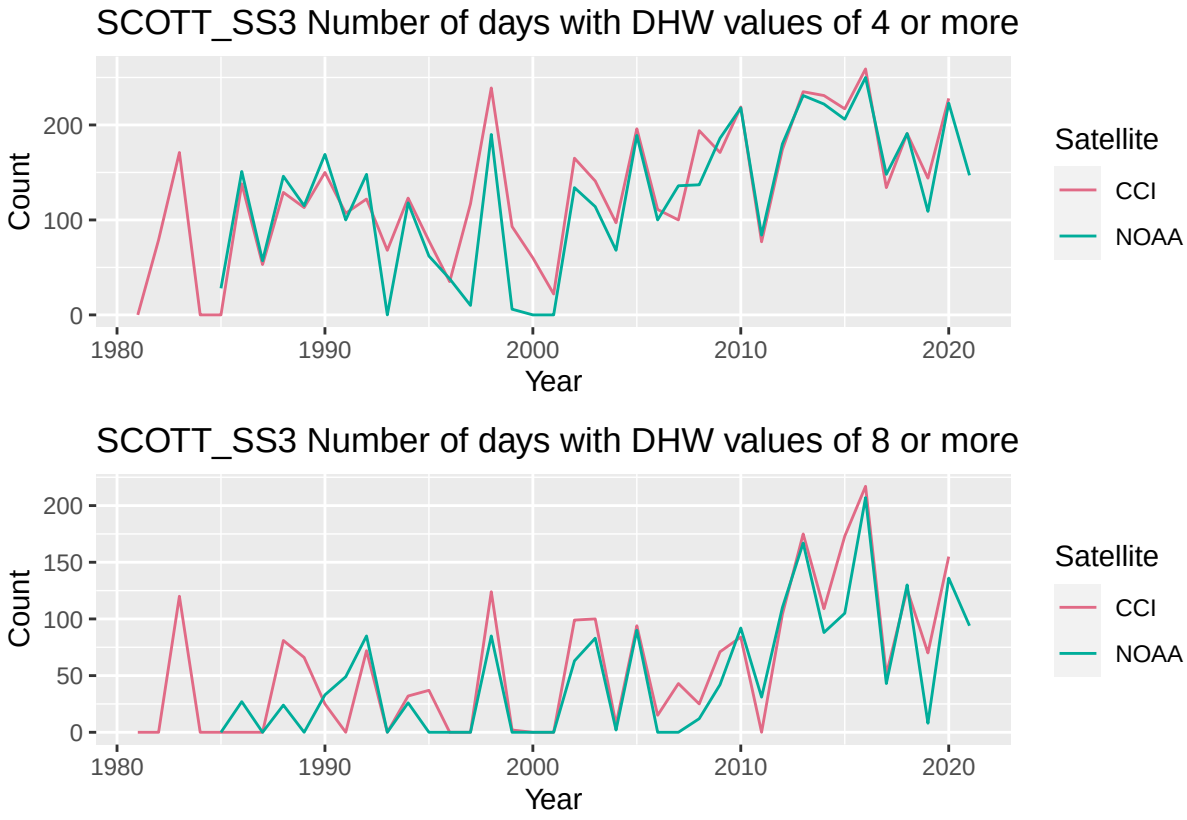


Table 13: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	259	2016	250
1998	239	2013	231
2013	235	2020	223
2014	231	2014	222
2020	228	2010	218
2010	219	2015	206
2015	217	2018	191
2005	196	1998	190
2008	194	2005	189
2018	191	2009	186
2012	174	2012	180
1983	171	1990	169
2009	171	1986	151
2002	165	1992	148
1990	150	2017	148
2019	144	2021	147
2003	141	1988	146
1986	138	2008	137
2017	134	2007	136
1988	129	2002	134
1994	123	1994	118
1992	122	1989	115
1997	117	2003	114
1989	113	2019	109
2006	111	1991	100
1991	107	2006	100
2007	100	2011	84
2004	97	2004	68
1999	93	1995	62
1982	79	1987	57
1995	78	1996	38
2011	77	1985	28
1993	68	1997	10
2000	60	1999	6
1987	53	1993	0
1996	35	2000	0
2001	22	2001	0
1981	0	1981	NA
1984	0	1982	NA
1985	0	1983	NA
2021	NA	1984	NA

Table 14: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	217	2016	207
2013	175	2013	167
2015	173	2020	136
2020	155	2018	130
2018	126	2012	110
1998	124	2015	105
1983	120	2021	94
2014	109	2010	92
2012	104	2005	90
2003	100	2014	88
2002	99	1992	85
2005	94	1998	85
2010	84	2003	83
1988	81	2002	63
1992	72	1991	49
2009	71	2017	43
2019	70	2009	42
1989	66	1990	33
2017	51	2011	31
2007	43	1986	27
1995	37	1994	26
1994	32	1988	24
1990	25	2008	12
2008	25	2019	8
2006	15	2004	2
2004	7	1985	0
1999	2	1987	0
1981	0	1989	0
1982	0	1993	0
1984	0	1995	0
1985	0	1996	0
1986	0	1997	0
1987	0	1999	0
1991	0	2000	0
1993	0	2001	0
1996	0	2006	0
1997	0	2007	0
2000	0	1981	NA
2001	0	1982	NA
2011	0	1983	NA
2021	NA	1984	NA

SCOTTNR1 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

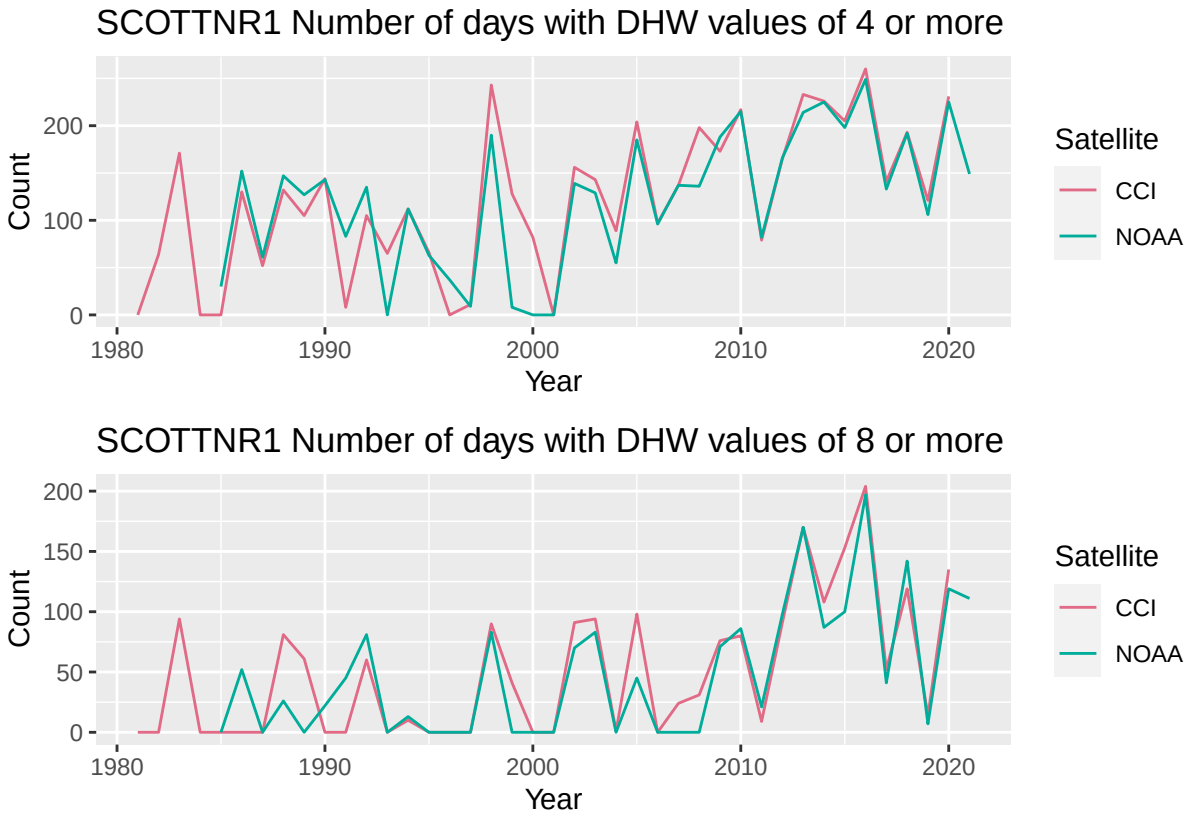


Table 15: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	260	2016	249
1998	243	2014	225
2013	233	2020	225
2020	231	2010	215
2014	226	2013	214
2010	217	2015	198
2015	205	2018	192
2005	204	1998	190
2008	198	2009	188
2018	193	2005	185
2009	173	2012	166
1983	171	1986	152
2012	165	2021	149
2002	156	1988	147
1990	144	1990	143
2003	143	2002	139
2017	141	2007	137
2007	137	2008	136
1988	132	1992	135
1986	130	2017	133
1999	128	2003	129
2019	121	1989	127
1994	112	1994	112
1989	105	2019	106
1992	105	2006	96
2006	97	1991	83
2004	89	2011	82
2000	82	1995	63
2011	79	1987	61
1995	66	2004	55
1993	65	1996	37
1982	64	1985	30
1987	52	1997	9
1997	11	1999	8
1991	8	1993	0
1981	0	2000	0
1984	0	2001	0
1985	0	1981	NA
1996	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 16: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	204	2016	197
2013	170	2013	170
2015	153	2018	142
2020	135	2020	119
2018	119	2021	111
2014	108	2015	100
2005	98	2012	98
1983	94	2014	87
2003	94	2010	86
2002	91	1998	83
2012	91	2003	83
1998	90	1992	81
1988	81	2009	71
2010	80	2002	70
2009	76	1986	52
1989	61	1991	45
1992	60	2005	45
2017	52	2017	41
1999	41	1988	26
2008	31	1990	22
2007	24	2011	21
2019	14	1994	13
1994	10	2019	7
2011	9	1985	0
2004	1	1987	0
1981	0	1989	0
1982	0	1993	0
1984	0	1995	0
1985	0	1996	0
1986	0	1997	0
1987	0	1999	0
1990	0	2000	0
1991	0	2001	0
1993	0	2004	0
1995	0	2006	0
1996	0	2007	0
1997	0	2008	0
2000	0	1981	NA
2001	0	1982	NA
2006	0	1983	NA
2021	NA	1984	NA

SCOTTSL1 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

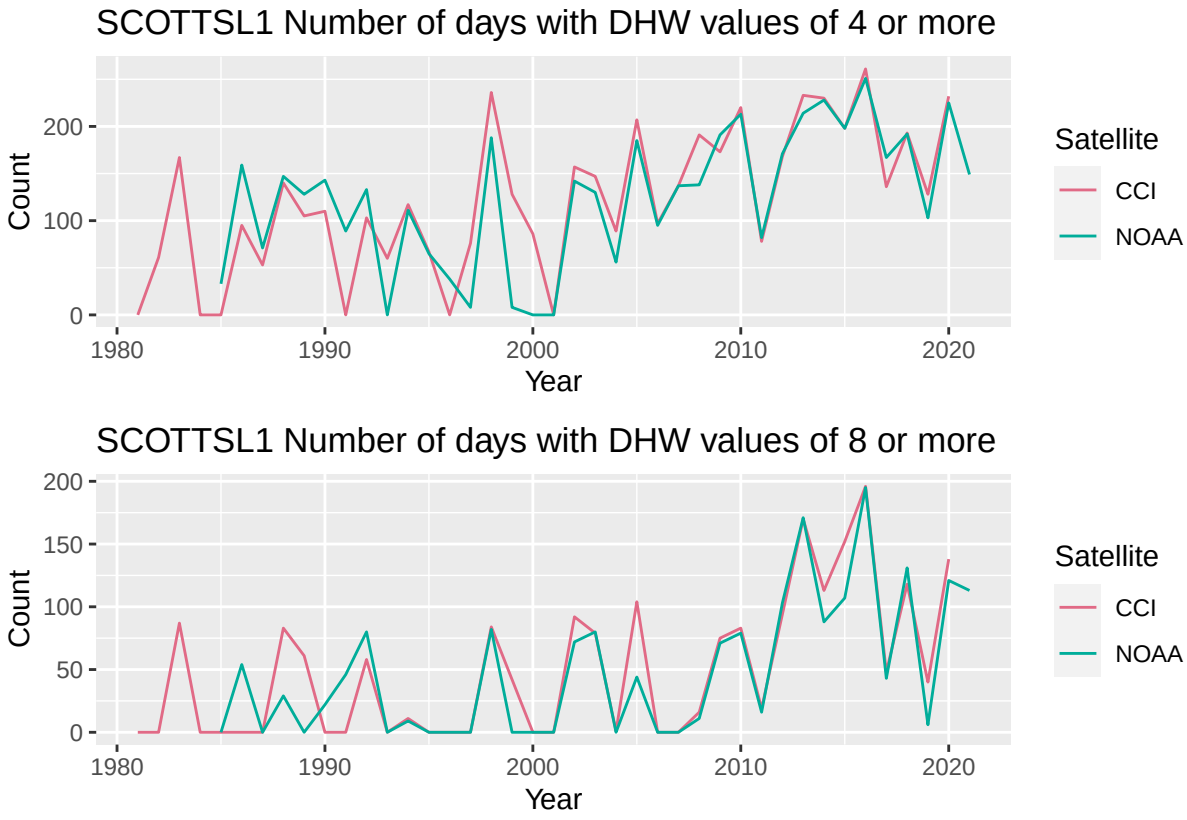


Table 17: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	261	2016	251
1998	236	2014	228
2013	233	2020	225
2020	232	2013	214
2014	230	2010	213
2010	220	2015	198
2005	207	2018	192
2015	198	2009	191
2018	193	1998	188
2008	191	2005	185
2009	173	2012	171
2012	168	2017	167
1983	167	1986	159
2002	157	2021	149
2003	147	1988	147
1988	140	1990	143
2007	137	2002	142
2017	136	2008	138
1999	128	2007	137
2019	128	1992	133
1994	117	2003	130
1990	110	1989	128
1989	105	1994	111
1992	103	2019	103
2006	97	2006	95
1986	95	1991	89
2004	89	2011	82
2000	86	1987	71
2011	78	1995	65
1997	76	2004	56
1995	67	1996	38
1982	61	1985	33
1993	60	1997	8
1987	53	1999	8
1981	0	1993	0
1984	0	2000	0
1985	0	2001	0
1991	0	1981	NA
1996	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 18: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	196	2016	195
2013	170	2013	171
2015	152	2018	131
2020	138	2020	121
2018	118	2021	113
2014	113	2015	107
2005	104	2012	103
2012	94	2014	88
2002	92	1998	82
1983	87	1992	80
1998	84	2003	80
1988	83	2010	79
2010	83	2002	72
2003	79	2009	71
2009	75	1986	54
1989	61	1991	46
1992	58	2005	44
2017	48	2017	43
1999	42	1988	29
2019	40	1990	22
2011	19	2011	16
2008	16	2008	11
1994	11	1994	9
2004	1	2019	6
1981	0	1985	0
1982	0	1987	0
1984	0	1989	0
1985	0	1993	0
1986	0	1995	0
1987	0	1996	0
1990	0	1997	0
1991	0	1999	0
1993	0	2000	0
1995	0	2001	0
1996	0	2004	0
1997	0	2006	0
2000	0	2007	0
2001	0	1981	NA
2006	0	1982	NA
2007	0	1983	NA
2021	NA	1984	NA

SCOTTSL2 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

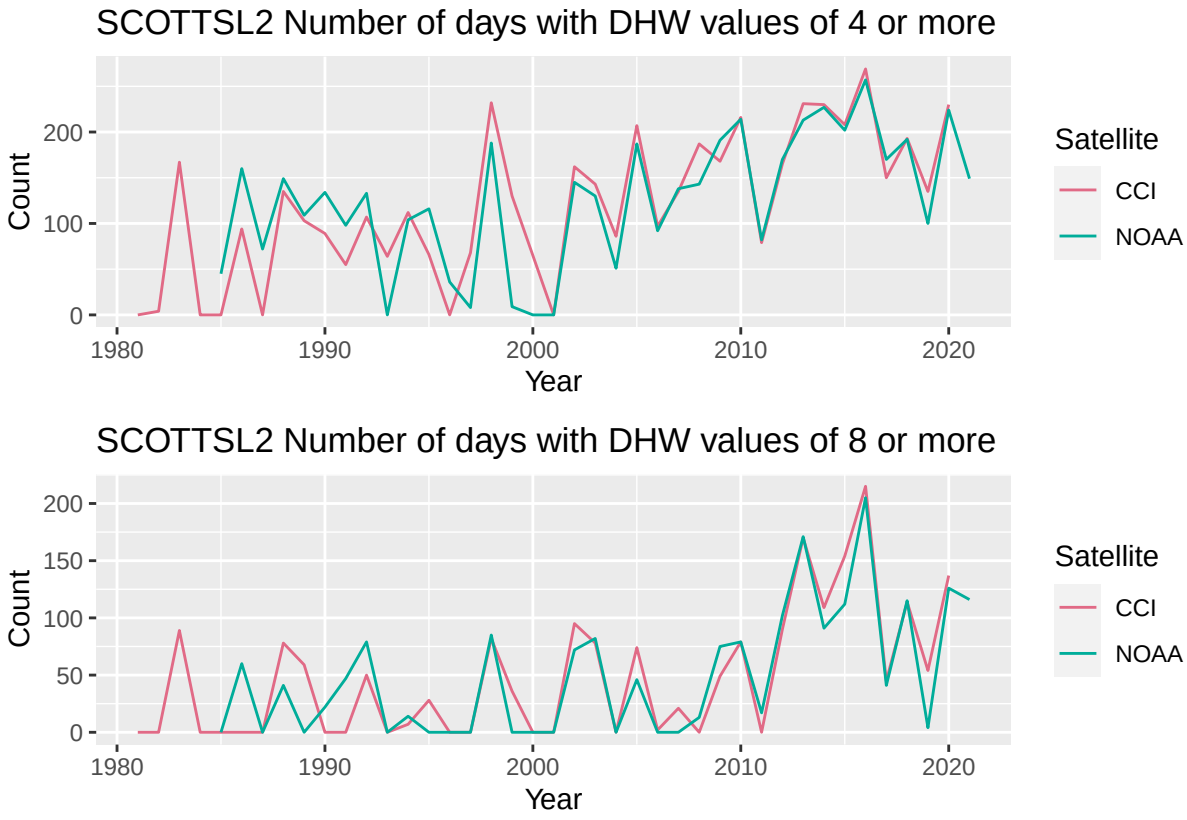


Table 19: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	269	2016	257
1998	232	2014	227
2013	231	2020	224
2014	230	2010	214
2020	230	2013	213
2010	216	2015	202
2015	208	2018	192
2005	207	2009	191
2018	193	1998	188
2008	187	2005	187
2009	168	2012	170
1983	167	2017	170
2012	165	1986	160
2002	162	1988	149
2017	150	2021	149
2003	143	2002	145
1988	135	2008	143
2007	135	2007	138
2019	135	1990	134
1999	130	1992	133
1994	112	2003	130
1992	107	1995	116
1989	103	1989	109
2006	97	1994	104
1986	94	2019	100
1990	89	1991	98
2004	86	2006	92
2011	79	2011	82
1997	68	1987	72
1995	66	2004	51
2000	65	1985	45
1993	64	1996	36
1991	55	1999	9
1982	4	1997	8
1981	0	1993	0
1984	0	2000	0
1985	0	2001	0
1987	0	1981	NA
1996	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 20: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	215	2016	205
2013	170	2013	171
2015	154	2020	126
2020	137	2021	116
2018	114	2018	115
2014	109	2015	112
2002	95	2012	102
2012	90	2014	91
1983	89	1998	85
1998	82	2003	82
2010	79	1992	79
1988	78	2010	79
2003	78	2009	75
2005	74	2002	72
1989	59	1986	60
2019	54	1991	47
1992	50	2005	46
2009	49	1988	41
2017	45	2017	41
1999	36	1990	22
1995	28	2011	17
2007	21	1994	14
1994	7	2008	13
2006	2	2019	4
1981	0	1985	0
1982	0	1987	0
1984	0	1989	0
1985	0	1993	0
1986	0	1995	0
1987	0	1996	0
1990	0	1997	0
1991	0	1999	0
1993	0	2000	0
1996	0	2001	0
1997	0	2004	0
2000	0	2006	0
2001	0	2007	0
2004	0	1981	NA
2008	0	1982	NA
2011	0	1983	NA
2021	NA	1984	NA

SCOTTSL3 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

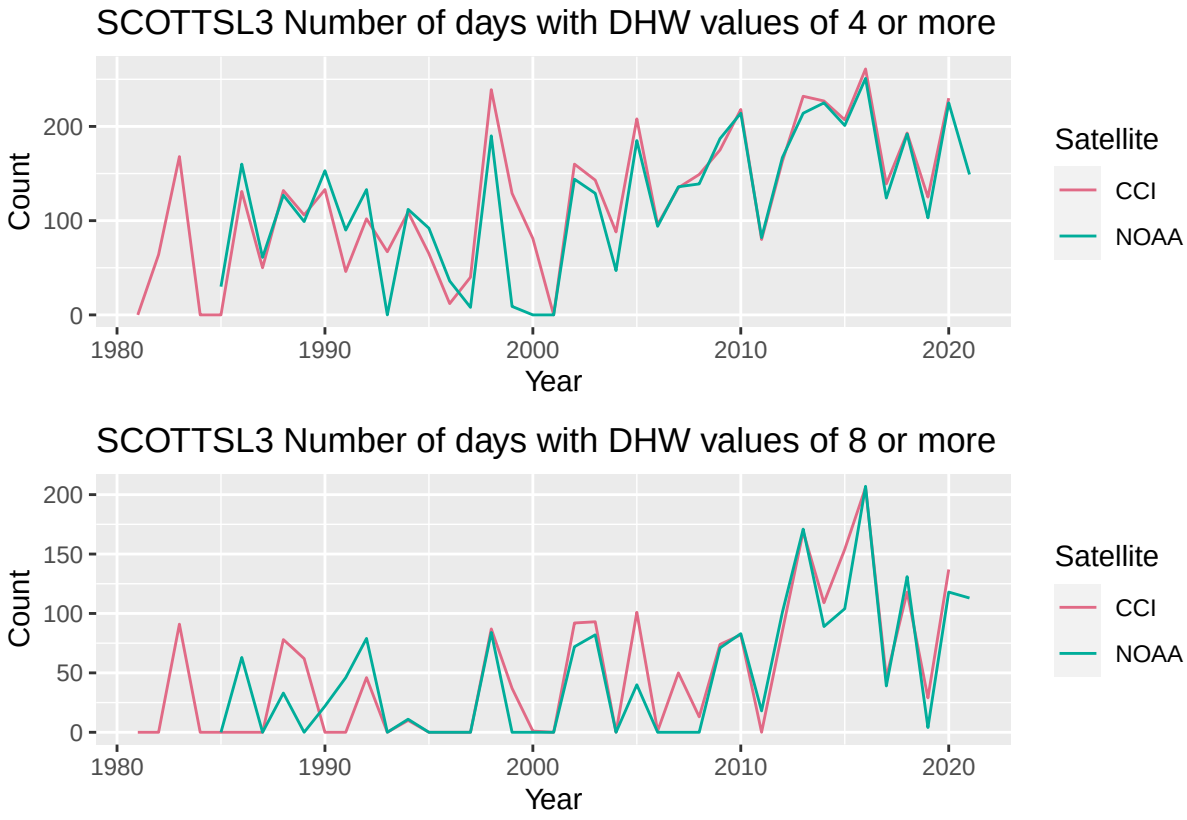


Table 21: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	261	2016	251
1998	239	2014	225
2013	232	2020	225
2020	230	2010	214
2014	227	2013	214
2010	218	2015	201
2005	208	2018	192
2015	207	1998	190
2018	193	2009	187
2009	175	2005	185
1983	168	2012	167
2012	163	1986	160
2002	160	1990	153
2008	149	2021	149
2003	143	2002	144
2017	139	2008	139
2007	135	2007	136
1990	133	1992	133
1988	132	2003	129
1986	131	1988	127
1999	129	2017	124
2019	125	1994	112
1994	109	2019	103
1989	106	1989	99
1992	102	2006	94
2006	96	1995	92
2004	88	1991	90
2000	81	2011	82
2011	80	1987	61
1993	67	2004	47
1995	65	1996	36
1982	64	1985	30
1987	50	1999	9
1991	46	1997	8
1997	40	1993	0
1996	12	2000	0
1981	0	2001	0
1984	0	1981	NA
1985	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 22: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	206	2016	207
2013	169	2013	171
2015	154	2018	131
2020	137	2020	118
2018	118	2021	113
2014	109	2015	104
2005	101	2012	101
2003	93	2014	89
2002	92	1998	84
1983	91	2010	83
1998	87	2003	82
2012	85	1992	79
2010	82	2002	72
1988	78	2009	71
2009	74	1986	63
1989	62	1991	46
2007	50	2005	40
1992	46	2017	39
2017	46	1988	33
1999	37	1990	22
2019	29	2011	18
2008	13	1994	11
1994	10	2019	4
2000	1	1985	0
2006	1	1987	0
1981	0	1989	0
1982	0	1993	0
1984	0	1995	0
1985	0	1996	0
1986	0	1997	0
1987	0	1999	0
1990	0	2000	0
1991	0	2001	0
1993	0	2004	0
1995	0	2006	0
1996	0	2007	0
1997	0	2008	0
2001	0	1981	NA
2004	0	1982	NA
2011	0	1983	NA
2021	NA	1984	NA

SCOTTSS1 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

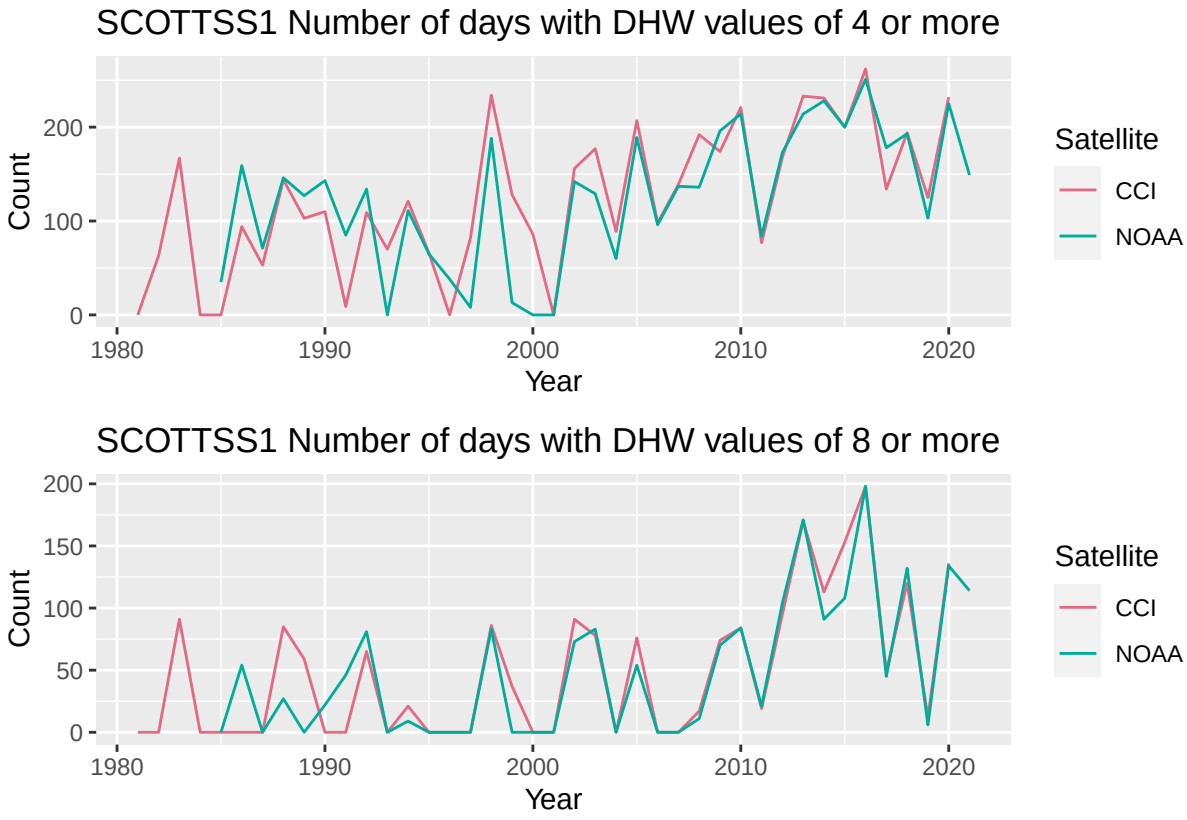


Table 23: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	262	2016	251
1998	234	2014	228
2013	233	2020	225
2020	232	2010	214
2014	231	2013	214
2010	221	2015	200
2005	207	2009	196
2015	200	2018	193
2018	194	2005	189
2008	192	1998	188
2003	177	2017	178
2009	174	2012	173
2012	168	1986	159
1983	167	2021	149
2002	156	1988	146
1988	144	1990	143
2007	139	2002	142
2017	134	2007	137
1999	128	2008	136
2019	125	1992	134
1994	121	2003	129
1990	110	1989	127
1992	109	1994	111
1989	103	2019	103
2006	98	2006	96
1986	94	1991	85
2004	89	2011	84
2000	86	1987	71
1997	82	1995	65
2011	77	2004	60
1993	70	1996	38
1995	66	1985	35
1982	63	1999	13
1987	53	1997	8
1991	9	1993	0
1981	0	2000	0
1984	0	2001	0
1985	0	1981	NA
1996	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 24: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	198	2016	198
2013	170	2013	171
2015	153	2020	134
2020	136	2018	132
2018	120	2021	114
2014	113	2015	108
2012	95	2012	104
1983	91	2014	91
2002	91	2010	84
1998	86	1998	83
1988	85	2003	83
2010	84	1992	81
2003	78	2002	73
2005	76	2009	70
2009	74	1986	54
1992	65	2005	54
1989	59	1991	46
2017	49	2017	45
1999	37	1988	27
1994	21	1990	22
2011	19	2011	21
2008	17	2008	11
2019	12	1994	9
1981	0	2019	6
1982	0	1985	0
1984	0	1987	0
1985	0	1989	0
1986	0	1993	0
1987	0	1995	0
1990	0	1996	0
1991	0	1997	0
1993	0	1999	0
1995	0	2000	0
1996	0	2001	0
1997	0	2004	0
2000	0	2006	0
2001	0	2007	0
2004	0	1981	NA
2006	0	1982	NA
2007	0	1983	NA
2021	NA	1984	NA

SCOTTSS2 Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

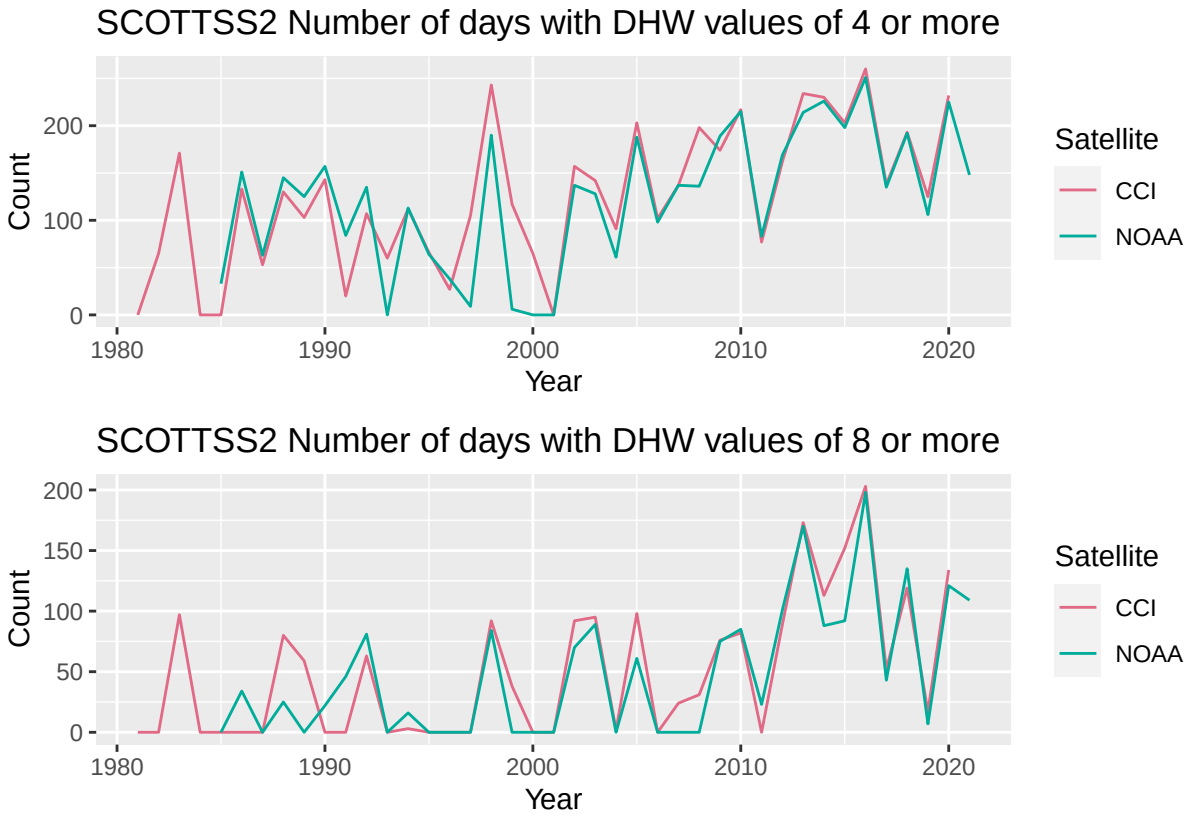


Table 25: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2016	260	2016	251
1998	243	2014	226
2013	234	2020	225
2020	232	2010	215
2014	230	2013	214
2010	217	2015	198
2005	203	2018	192
2015	203	1998	190
2008	198	2009	189
2018	193	2005	188
2009	174	2012	169
1983	171	1990	157
2012	162	1986	151
2002	157	2021	148
1990	143	1988	145
2003	142	2002	137
2017	138	2007	137
2007	137	2008	136
1986	133	1992	135
1988	130	2017	135
2019	125	2003	128
1999	117	1989	125
1994	112	1994	113
1992	107	2019	106
1997	105	2006	98
1989	103	1991	84
2006	102	2011	83
2004	91	1995	64
2011	77	1987	63
1995	66	2004	61
1982	65	1996	38
2000	65	1985	33
1993	60	1997	9
1987	53	1999	6
1996	27	1993	0
1991	20	2000	0
1981	0	2001	0
1984	0	1981	NA
1985	0	1982	NA
2001	0	1983	NA
2021	NA	1984	NA

Table 26: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2016	203	2016	198
2013	173	2013	170
2015	152	2018	135
2020	134	2020	121
2018	119	2021	109
2014	113	2012	101
2005	98	2015	92
1983	97	2003	89
2003	95	2014	88
1998	92	2010	85
2002	92	1998	84
2012	89	1992	81
2010	82	2009	75
1988	80	2002	70
2009	76	2005	61
1992	63	1991	46
1989	59	2017	43
2017	52	1986	34
1999	38	1988	25
2008	31	2011	23
2007	24	1990	22
2019	17	1994	16
1994	3	2019	7
2004	2	1985	0
1981	0	1987	0
1982	0	1989	0
1984	0	1993	0
1985	0	1995	0
1986	0	1996	0
1987	0	1997	0
1990	0	1999	0
1991	0	2000	0
1993	0	2001	0
1995	0	2004	0
1996	0	2006	0
1997	0	2007	0
2000	0	2008	0
2001	0	1981	NA
2006	0	1982	NA
2011	0	1983	NA
2021	NA	1984	NA

Tantabiddi Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

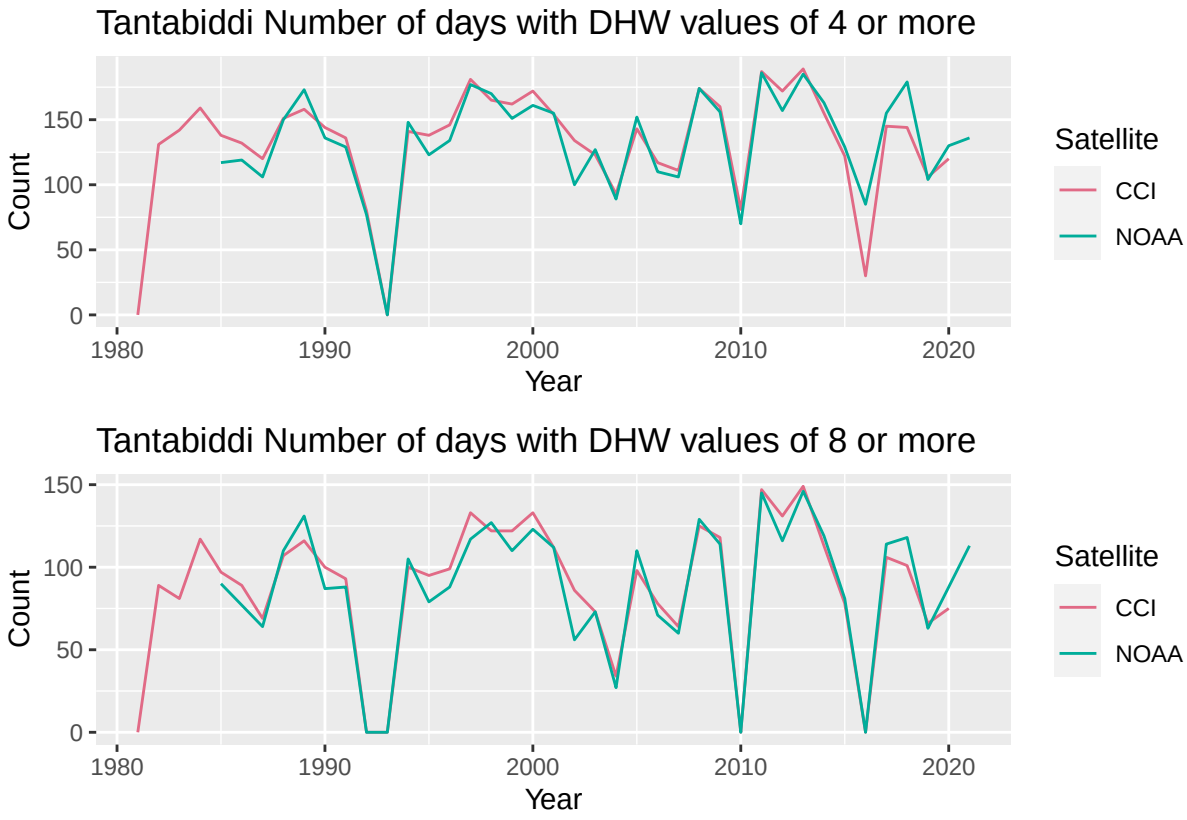


Table 27: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2013	189	2011	186
2011	187	2013	185
1997	181	2018	179
2008	174	1997	177
2000	172	2008	174
2012	172	1989	173
1998	165	1998	170
1999	162	2014	163
2009	160	2000	161
1984	159	2012	157
1989	158	2009	156
2014	155	2001	155
2001	154	2017	155
1988	151	2005	152
1996	146	1999	151
2017	145	1988	150
1990	144	1994	148
2018	144	1990	136
2005	143	2021	136
1983	142	1996	134
1994	141	2020	130
1985	138	1991	129
1995	138	2015	129
1991	136	2003	127
2002	134	1995	123
1986	132	1986	119
1982	131	1985	117
2003	123	2006	110
2015	122	1987	106
1987	120	2007	106
2020	120	2019	104
2006	117	2002	100
2007	111	2004	89
2019	106	2016	85
2004	93	1992	77
2010	81	2010	70
1992	80	1993	0
2016	30	1981	NA
1981	0	1982	NA
1993	0	1983	NA
2021	NA	1984	NA

Table 28: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2013	149	2013	146
2011	147	2011	145
1997	133	1989	131
2000	133	2008	129
2012	131	1998	127
2008	125	2000	123
1998	122	2014	119
1999	122	2018	118
2009	118	1997	117
1984	117	2012	116
1989	116	2009	114
2014	113	2017	114
2001	112	2021	113
1988	107	2001	112
2017	106	1988	110
2018	101	1999	110
1990	100	2005	110
1994	100	1994	105
1996	99	1985	90
2005	98	1991	88
1985	97	1996	88
1995	95	2020	88
1991	93	1990	87
1982	89	2015	81
1986	89	1995	79
2002	86	1986	77
1983	81	2003	73
2006	78	2006	71
2015	78	1987	64
2020	75	2019	63
2003	73	2007	60
1987	69	2002	56
2019	66	2004	27
2007	64	1992	0
2004	34	1993	0
1981	0	2010	0
1992	0	2016	0
1993	0	1981	NA
2010	0	1982	NA
2016	0	1983	NA
2021	NA	1984	NA

TNT Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

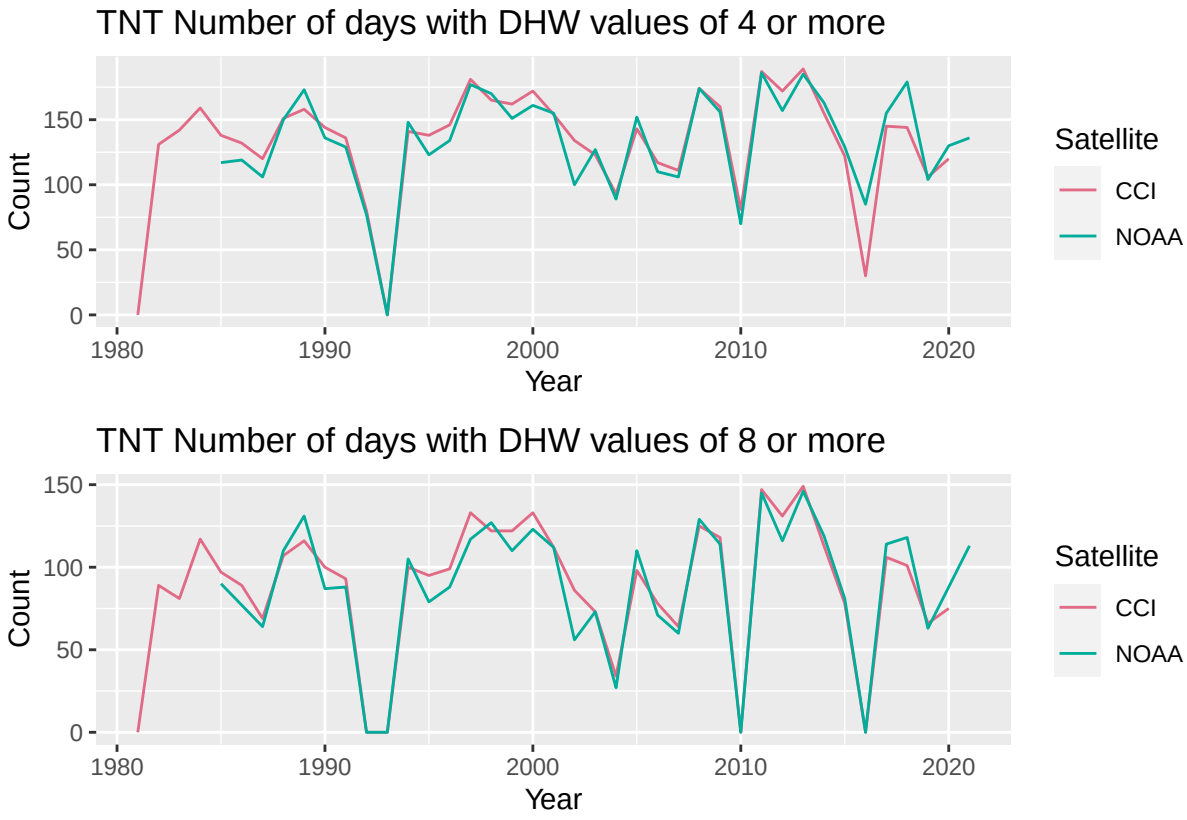


Table 29: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2013	189	2011	186
2011	187	2013	185
1997	181	2018	179
2008	174	1997	177
2000	172	2008	174
2012	172	1989	173
1998	165	1998	170
1999	162	2014	163
2009	160	2000	161
1984	159	2012	157
1989	158	2009	156
2014	155	2001	155
2001	154	2017	155
1988	151	2005	152
1996	146	1999	151
2017	145	1988	150
1990	144	1994	148
2018	144	1990	136
2005	143	2021	136
1983	142	1996	134
1994	141	2020	130
1985	138	1991	129
1995	138	2015	129
1991	136	2003	127
2002	134	1995	123
1986	132	1986	119
1982	131	1985	117
2003	123	2006	110
2015	122	1987	106
1987	120	2007	106
2020	120	2019	104
2006	117	2002	100
2007	111	2004	89
2019	106	2016	85
2004	93	1992	77
2010	81	2010	70
1992	80	1993	0
2016	30	1981	NA
1981	0	1982	NA
1993	0	1983	NA
2021	NA	1984	NA

Table 30: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2013	149	2013	146
2011	147	2011	145
1997	133	1989	131
2000	133	2008	129
2012	131	1998	127
2008	125	2000	123
1998	122	2014	119
1999	122	2018	118
2009	118	1997	117
1984	117	2012	116
1989	116	2009	114
2014	113	2017	114
2001	112	2021	113
1988	107	2001	112
2017	106	1988	110
2018	101	1999	110
1990	100	2005	110
1994	100	1994	105
1996	99	1985	90
2005	98	1991	88
1985	97	1996	88
1995	95	2020	88
1991	93	1990	87
1982	89	2015	81
1986	89	1995	79
2002	86	1986	77
1983	81	2003	73
2006	78	2006	71
2015	78	1987	64
2020	75	2019	63
2003	73	2007	60
1987	69	2002	56
2019	66	2004	27
2007	64	1992	0
2004	34	1993	0
1981	0	2010	0
1992	0	2016	0
1993	0	1981	NA
2010	0	1982	NA
2016	0	1983	NA
2021	NA	1984	NA

TNT07C Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

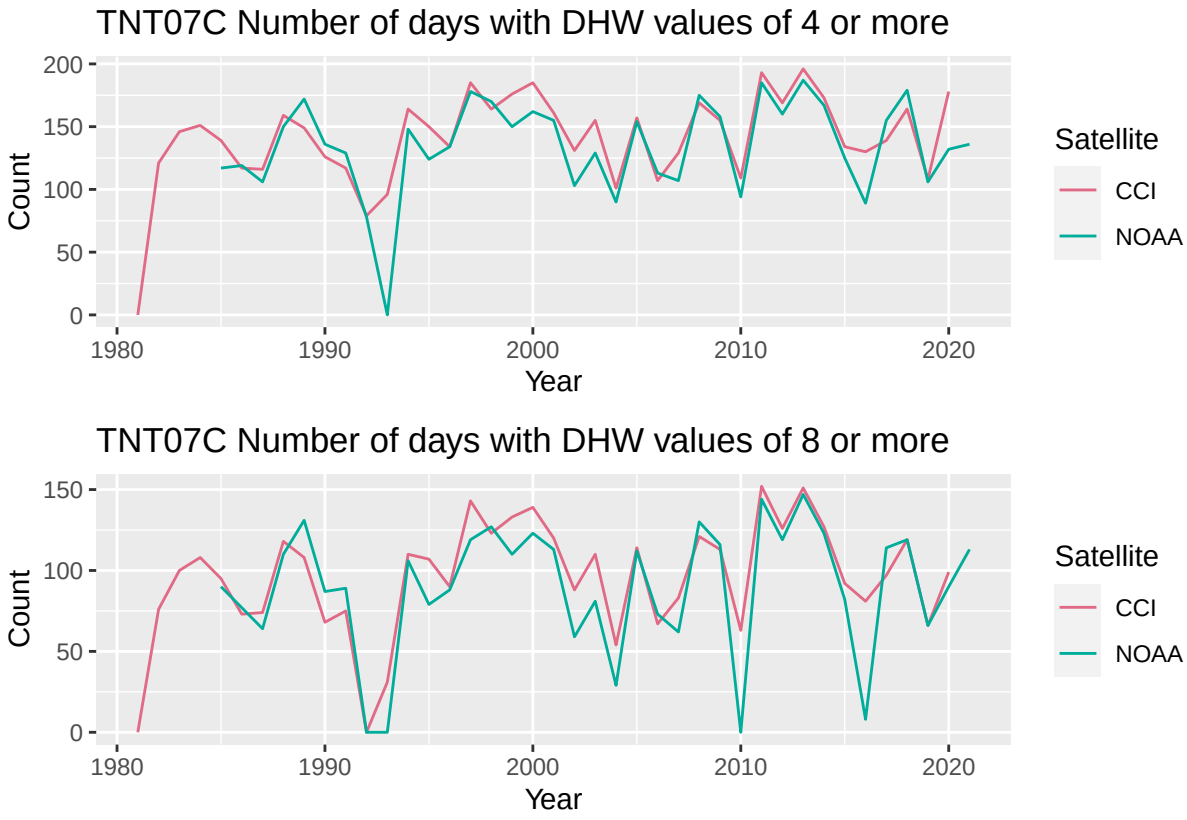


Table 31: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2013	196	2013	187
2011	193	2011	185
1997	185	2018	179
2000	185	1997	178
2020	178	2008	175
1999	176	1989	172
2014	173	1998	170
2008	169	2014	167
2012	169	2000	162
1994	164	2012	160
1998	164	2009	158
2018	164	2001	155
2001	161	2017	155
1988	159	2005	154
2005	157	1988	150
2003	155	1999	150
2009	155	1994	148
1984	151	1990	136
1995	150	2021	136
1989	149	1996	134
1983	146	2020	132
1985	139	1991	129
2017	139	2003	129
1996	134	2015	125
2015	134	1995	124
2002	131	1986	119
2016	130	1985	117
2007	129	2006	113
1990	126	2007	107
1982	121	1987	106
1986	117	2019	106
1991	117	2002	103
1987	116	2010	94
2010	109	2004	90
2019	108	2016	89
2006	107	1992	78
2004	101	1993	0
1993	96	1981	NA
1992	79	1982	NA
1981	0	1983	NA
2021	NA	1984	NA

Table 32: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2011	152	2013	147
2013	151	2011	144
1997	143	1989	131
2000	139	2008	130
1999	133	1998	127
2014	127	2000	123
2012	126	2014	123
1998	123	1997	119
2008	121	2012	119
2001	120	2018	119
2018	119	2009	116
1988	118	2017	114
2005	114	2001	113
2009	113	2021	113
1994	110	2005	112
2003	110	1988	110
1984	108	1999	110
1989	108	1994	106
1995	107	1985	90
1983	100	2020	90
2020	99	1991	89
2017	97	1996	88
1985	95	1990	87
2015	92	2015	82
1996	90	2003	81
2002	88	1995	79
2007	83	1986	77
2016	81	2006	73
1982	76	2019	66
1991	75	1987	64
1987	74	2007	62
1986	73	2002	59
1990	68	2004	29
2006	67	2016	8
2019	66	1992	0
2010	63	1993	0
2004	54	2010	0
1993	31	1981	NA
1981	0	1982	NA
1992	0	1983	NA
2021	NA	1984	NA

Wallabi Island Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

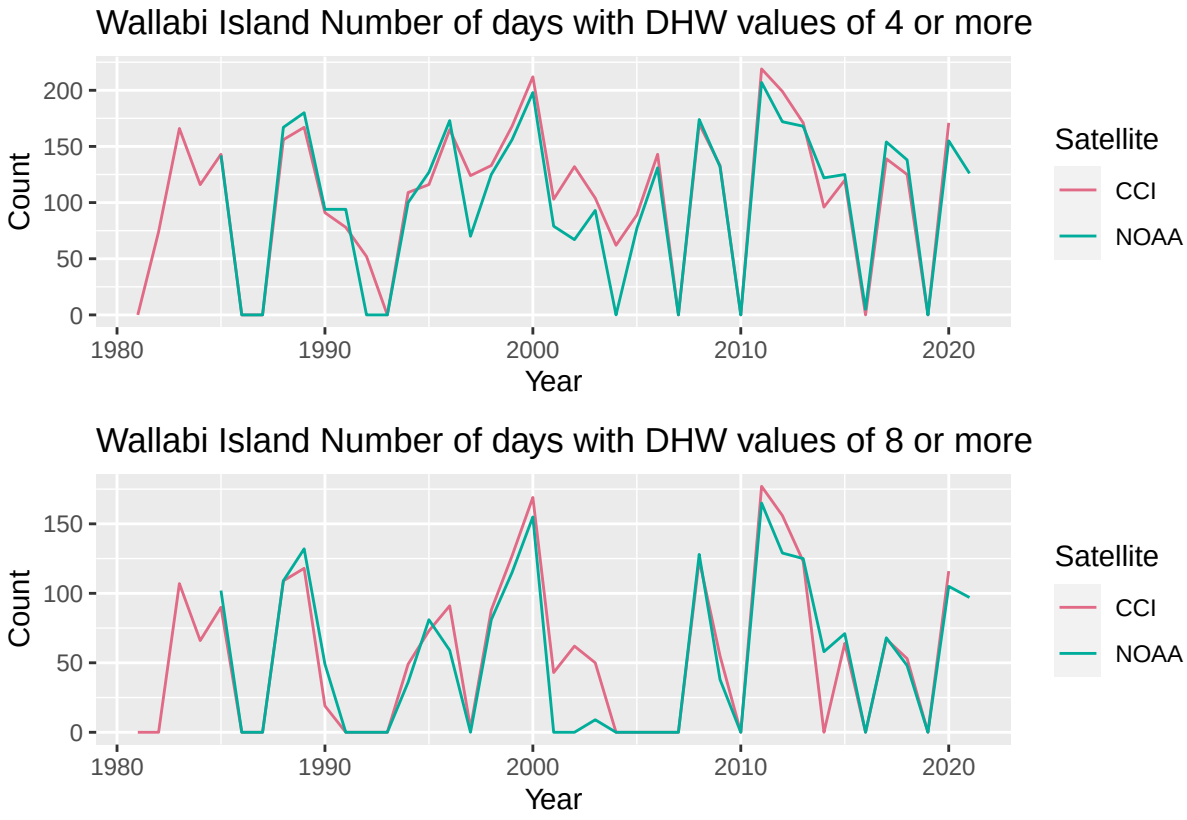


Table 33: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2011	219	2011	207
2000	212	2000	198
2012	199	1989	180
2013	171	2008	174
2020	171	1996	173
2008	170	2012	172
1999	168	2013	168
1989	167	1988	167
1983	166	1999	156
1996	165	2020	155
1988	156	2017	154
1985	143	1985	142
2006	143	2018	138
2017	139	2009	132
1998	133	2006	131
2009	133	1995	127
2002	132	2021	126
2018	125	1998	125
1997	124	2015	125
2015	120	2014	122
1984	116	1994	100
1995	116	1990	94
1994	109	1991	94
2003	104	2003	93
2001	103	2001	79
2014	96	2005	77
1990	91	1997	70
2005	89	2002	67
1991	78	2016	5
1982	74	1986	0
2004	62	1987	0
1992	52	1992	0
1981	0	1993	0
1986	0	2004	0
1987	0	2007	0
1993	0	2010	0
2007	0	2019	0
2010	0	1981	NA
2016	0	1982	NA
2019	0	1983	NA
2021	NA	1984	NA

Table 34: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2011	177	2011	165
2000	169	2000	155
2012	156	1989	132
1999	127	2012	129
2008	124	2008	128
2013	123	2013	125
1989	118	1999	115
2020	116	1988	109
1988	109	2020	105
1983	107	1985	102
1996	91	2021	97
1985	90	1995	81
1998	88	1998	81
1995	73	2015	71
2017	67	2017	68
1984	66	1996	59
2015	64	2014	58
2002	62	1990	49
2009	55	2018	48
2018	53	2009	38
2003	50	1994	36
1994	49	2003	9
2001	43	1986	0
1990	19	1987	0
1997	3	1991	0
1981	0	1992	0
1982	0	1993	0
1986	0	1997	0
1987	0	2001	0
1991	0	2002	0
1992	0	2004	0
1993	0	2005	0
2004	0	2006	0
2005	0	2007	0
2006	0	2010	0
2007	0	2016	0
2010	0	2019	0
2014	0	1981	NA
2016	0	1982	NA
2019	0	1983	NA
2021	NA	1984	NA

HAB05B Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

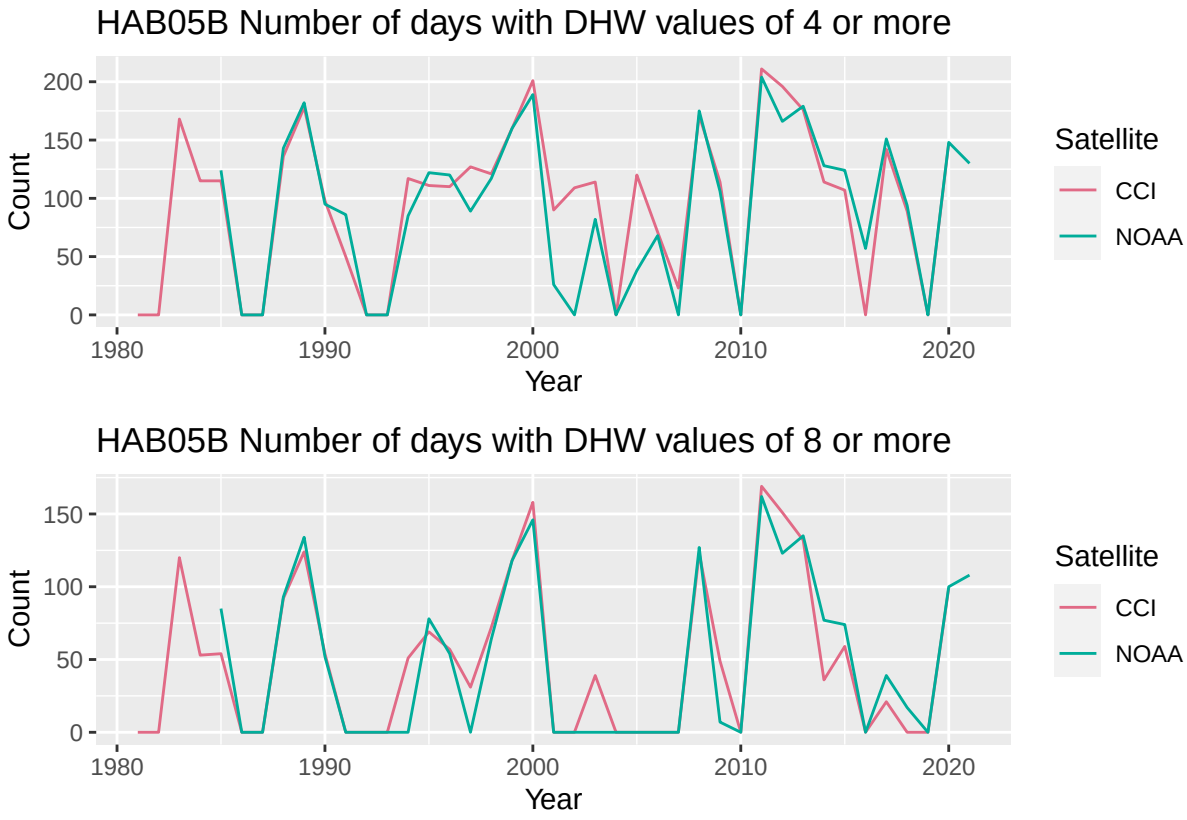


Table 35: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2011	211	2011	204
2000	201	2000	189
2012	196	1989	182
1989	178	2013	179
2013	176	2008	175
2008	171	2012	166
1983	168	1999	160
1999	160	2017	151
2020	147	2020	148
2017	142	1988	143
1988	136	2021	130
1997	127	2014	128
1998	121	1985	124
2005	120	2015	124
1994	117	1995	122
1984	115	1996	120
1985	115	1998	117
2003	114	2009	106
2009	114	1990	95
2014	114	2018	94
1995	111	1997	89
1996	110	1991	86
2002	109	1994	85
2015	107	2003	82
1990	98	2006	68
2001	90	2016	57
2018	89	2005	38
2006	71	2001	26
1991	50	1986	0
2007	23	1987	0
1981	0	1992	0
1982	0	1993	0
1986	0	2002	0
1987	0	2004	0
1992	0	2007	0
1993	0	2010	0
2004	0	2019	0
2010	0	1981	NA
2016	0	1982	NA
2019	0	1983	NA
2021	NA	1984	NA

Table 36: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2011	169	2011	162
2000	158	2000	146
2012	151	2013	135
2013	132	1989	134
1989	124	2008	127
2008	123	2012	123
1983	120	1999	118
1999	118	2021	108
2020	99	2020	100
1988	92	1988	93
1998	72	1985	85
1995	69	1995	78
2015	59	2014	77
1996	57	2015	74
1985	54	1998	64
1990	54	1996	54
1984	53	1990	52
1994	51	2017	39
2009	49	2018	17
2003	39	2009	7
2014	36	1986	0
1997	31	1987	0
2017	21	1991	0
1981	0	1992	0
1982	0	1993	0
1986	0	1994	0
1987	0	1997	0
1991	0	2001	0
1992	0	2002	0
1993	0	2003	0
2001	0	2004	0
2002	0	2005	0
2004	0	2006	0
2005	0	2007	0
2006	0	2010	0
2007	0	2016	0
2010	0	2019	0
2016	0	1981	NA
2018	0	1982	NA
2019	0	1983	NA
2021	NA	1984	NA

HAB10A Yearly Sum of Moderate and High DHW Values in CCI and NOAA data

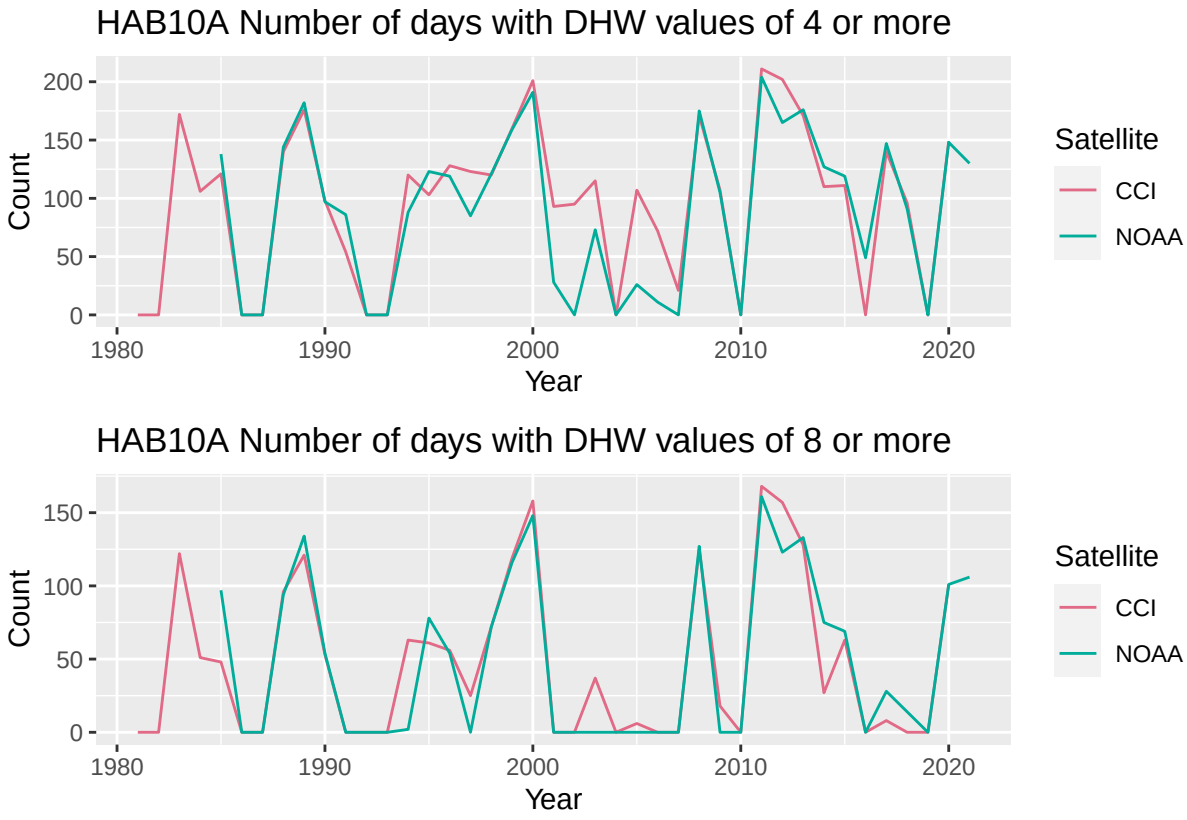


Table 37: Number of Days with Degree Heating Week values of 4 or more

Year	CCI_DHW4	Year	NOAA_DHW4
2011	211	2011	204
2000	201	2000	191
2012	196	1989	182
1989	178	2013	176
2013	176	2008	175
2008	171	2012	165
1983	168	1999	159
1999	160	2020	148
2020	147	2017	147
2017	142	1988	144
1988	136	1985	138
1997	127	2021	130
1998	121	2014	127
2005	120	1995	123
1994	117	1998	121
1984	115	1996	119
1985	115	2015	119
2003	114	2009	105
2009	114	1990	97
2014	114	2018	91
1995	111	1994	88
1996	110	1991	86
2002	109	1997	85
2015	107	2003	73
1990	98	2016	49
2001	90	2001	28
2018	89	2005	26
2006	71	2006	11
1991	50	1986	0
2007	23	1987	0
1981	0	1992	0
1982	0	1993	0
1986	0	2002	0
1987	0	2004	0
1992	0	2007	0
1993	0	2010	0
2004	0	2019	0
2010	0	1981	NA
2016	0	1982	NA
2019	0	1983	NA
2021	NA	1984	NA

Table 38: Number of Days with Degree Heating Week values of 8 or more

Year	CCI_DHW8	Year	NOAA_DHW8
2011	168	2011	161
2000	158	2000	148
2012	157	1989	134
2013	128	2013	133
2008	125	2008	127
1983	122	2012	123
1989	121	1999	116
1999	119	2021	106
2020	101	2020	101
1988	96	1985	97
1998	72	1988	94
1994	63	1995	78
2015	63	2014	75
1995	61	1998	72
1996	56	2015	69
1990	53	1990	54
1984	51	1996	54
1985	48	2017	28
2003	37	2018	14
2014	27	1994	2
1997	25	1986	0
2009	18	1987	0
2017	8	1991	0
2005	6	1992	0
1981	0	1993	0
1982	0	1997	0
1986	0	2001	0
1987	0	2002	0
1991	0	2003	0
1992	0	2004	0
1993	0	2005	0
2001	0	2006	0
2002	0	2007	0
2004	0	2009	0
2006	0	2010	0
2007	0	2016	0
2010	0	2019	0
2016	0	1981	NA
2018	0	1982	NA
2019	0	1983	NA
2021	NA	1984	NA