Key finding: Largest differences (or ratios) occur at year rollovers, for 2 decades, 1980’s through 1990’s.

Largest deviation occurs on 1989-01-01, where LASP results for sunspot blocking are ~ 55x greater than NRL’s. (LASP = 384.979, NRL = 7.18)

# The records (60 in total; 48 from the 1988 USAF report and 12 from the 1989 USAF report).

## Records from usaf\_solar-region-reports\_1988.txt (48 records for ‘19890101’)

11890101 0230 S17W05 B 5303 DSI 10 6 40 881231.7 881231.8 530 1CULG

11890101 0617 S18W07 B 5303 DAI 12 7 120 881231.7 881231.8 599 3LEAR

11890101 0855 S18W09 B 5303 DKO 17 7 120 881231.7 881231.8 365 3SVTO

11890101 1400 S17W13 B 5303 DAO 19 8 100 881231.6 881231.8 411 3RAMY

11890101 1615 S18W13(B )D5 24972 5303 881231.7 881231.8 MWIL

11890101 1647 S17W13 B 5303 DSO 4 6 40 881231.7 881231.8 929 1BOUL

11890101 1730 S18W14 B 5303 DAI 21 8 120 881231.7 881231.8 611 3HOLL

11890101 1935 S19W15 B 5303 DAI 21 7 130 881231.7 881231.8 373 3PALE

11890101 0230 S18W51 B 5292 EAI 12 12 210 881228.3 881228.2 520 1CULG

11890101 0617 S18W52 BG 5292 EKI 22 14 390 881228.4 881228.2 585 3LEAR

11890101 0855 S18W54 B 5292 EHO 23 13 280 881228.3 881228.2 352 3SVTO

11890101 1400 S15W58 BG 5292 EAI 29 13 360 881228.3 881228.2 398 3RAMY

11890101 1615 S19W59(B ) 5 24958 5292 881228.3 881228.2 MWIL

11890101 1647 S17W58 B 5292 ESO 7 16 130 881228.4 881228.2 920 1BOUL

11890101 1730 S20W59 BG 5292 EAI 24 12 310 881228.3 881228.2 597 3HOLL

11890101 1935 S18W59 B 5292 EAI 21 12 300 881228.4 881228.2 360 3PALE

11890101 0230 N21W61 B 5290 DAI 11 9 220 881227.5 881227.6 518 1CULG

11890101 0617 N21W62 BG 5290 EAI 17 14 330 881227.6 881227.6 584 3LEAR

11890101 0855 N21W62 BG 5290 EKO 15 11 420 881227.7 881227.6 345 3SVTO

11890101 1400 N24W67 BG 5290 ESI 26 11 380 881227.5 881227.6 395 3RAMY

11890101 1615 N21W66(B ) 4 24954 5290 881227.7 881227.6 MWIL

11890101 1647 N22W68 B 5290 ESI 6 12 170 881227.6 881227.6 919 1BOUL

11890101 1730 N22W70 BG 5290 DAI 15 10 390 881227.4 881227.6 593 3HOLL

11890101 1935 N22W70 B 5290 EAI 14 13 420 881227.5 881227.6 356 3PALE

11890101 0230 S41W52 B 5300 CRO 3 3 20 881227.9 881228.2 527 1CULG

11890101 0617 S41W51 B 5300 CRO 4 5 70 881228.2 881228.2 598 3LEAR

11890101 0855 S42W53 B 5300 CRO 4 5 30 881228.1 881228.2 361 3SVTO

11890101 1400 S38W57 B 5300 BXO 3 4 10 881228.1 881228.2 407 3RAMY

11890101 1615 S41W55(B )(3 24967 5300 881228.3 881228.2 MWIL

11890101 1730 S42W57 B 5300 BXO 2 4 10 881228.1 881228.2 607 3HOLL

11890101 1935 S42W58 B 5300 BXO 4 3 20 881228.1 881228.2 369 3PALE

11890101 1615 S14W53(AP) 4 24959 5296A 881228.8 881228.5 MWIL

11890101 0230 N16W45 B 5296 DAO 7 6 30 881228.8 881228.8 524 1CULG

11890101 0617 N17W47 B 5296 DAO 9 9 170 881228.8 881228.8 590 3LEAR

11890101 0855 N16W48 B 5296 CRO 9 6 20 881228.8 881228.8 355 3SVTO

11890101 1400 N17W52 B 5296 DAO 17 7 120 881228.7 881228.8 404 3RAMY

11890101 1615 N16W52(B ) 4 24963 5296 881228.8 881228.8 MWIL

11890101 1647 N17W51 B 5296 CAO 6 8 30 881228.9 881228.8 924 1BOUL

11890101 1730 N17W56 B 5296 DAO 17 9 140 881228.6 881228.8 601 3HOLL

11890101 1935 N16W55 B 5296 DAO 9 6 160 881228.7 881228.8 362 3PALE

11890101 0230 S15W22 B 5297 DAI 19 10 110 881230.5 881230.4 525 1CULG

11890101 0617 S15W24 B 5297 EAI 24 12 250 881230.5 881230.4 592 3LEAR

11890101 0855 S16W26 B 5297 EKI 30 11 360 881230.5 881230.4 358 3SVTO

11890101 1400 S13W28 B 5297 EKI 46 12 300 881230.6 881230.4 403 3RAMY

11890101 1615 S15W28(B ) 5 24964 5297 881230.6 881230.4 MWIL

11890101 1647 S15W28 B 5297 ESI 8 11 130 881230.7 881230.4 923 1BOUL

11890101 1730 S16W31 B 5297 DAI 35 9 370 881230.5 881230.4 603 3HOLL

11890101 1935 S15W31 B 5297 EAI 23 11 400 881230.6 881230.4 365 3PALE

## Records from usaf\_solar-region-reports\_1989.txt (12 records for ‘19890101’)

11890101 0230 S17E12 A 5301 AX 1 8901 2.0 8901 2.0 528 1CULG

11890101 0617 S18E08 A 5301 AX 1 1 10 8901 1.9 8901 2.0 600 3LEAR

11890101 1400 S14E05 B 5301 BXO 6 6 10 8901 2.0 8901 2.0 410 3RAMY

11890101 1615 S17E03(AP) 3 24968 5301 8901 1.9 8901 2.0 MWIL

11890101 1730 S18E03 B 5301 BXO 3 3 10 8901 1.9 8901 2.0 610 3HOLL

11890101 1935 S18E02 B 5301 BXO 3 2 10 8901 2.0 8901 2.0 372 3PALE

11890101 0617 N27E23 A 5302 AX 2 1 10 8901 3.0 8901 3.0 595 3LEAR

11890101 0855 N22E75 A 5304 AX 1 8901 7.1 8901 7.0 366 3SVTO

11890101 1400 N22E74 A 5304 AX 1 1 8901 7.3 8901 7.0 001 3RAMY

11890101 1615 N22E75(AP) 3 24988 5304 8901 7.4 8901 7.0 MWIL

11890101 1730 N23E74 A 5304 AX 1 8901 7.4 8901 7.0 001 3HOLL

11890101 1935 N25E72 A 5304 AX 1 1 10 8901 7.4 8901 7.0 001 3PALE

# A summary of the 60 areas per reporting station (not in any particular order, and ‘--' refers to missing area):

‘CULG’: 20.0000 30.0000 210.000 110.000 40.0000 220.000 --

‘BOUL’: 130.000 30.0000 130.000 40.0000 170.000

‘SVTO’: 420.000 280.000 360.000 20.0000 120.000 30.0000 --

‘HOLL’: 120.000 390.000 10.0000 310.000 10.0000 370.000 140.000 --

‘RAMY’: -- 360.000 100.000 300.000 10.0000 380.000 120.000 10.0000

‘PALE’: 300.000 160.000 400.000 130.000 10.0000 420.000 10.0000 20.0000

‘LEAR’: 250.000 120.000 170.000 70.0000 330.000 390.000 10.0000 10.0000

‘MWIL’: (9 missing areas)

# Here are the sunspot blocking we compute from the above areas, reported per station, and then mean value is obtained:

CULG: 217.507

BOUL: 160.140

SVTO: 465.151

HOLL: 442.903

PALE: 478.749

RAMY: 428.212

LEAR: 501.494

LASP Mean Sunspot Blocking = 384.979