

HFUS 1 BOU 272200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 271

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 27 SEPTEMBER 1980

IA. SOLAR ACTIVITY HAS REMAINED AT A LOW LEVEL DURING THE PAST 24 HOURS EVEN THROUGH CERTAIN SOLAR INDICES (SOLAR FLUX AND SPOT NUMBER) HAVE INCREASED. THE LARGEST EVENT WAS A C6/SB FROM REGION 2684 (N18W77) AT 0121Z MAXIMUM. THIS EVENT PRODUCED DISCRETE FREQUENCY RADIO BURSTS THROUGH THE SPECTRUM WITH THE LARGEST RECORDED ON THE 415 MHZ FREQUENCY WITH 3100 FLUX UNITS. REGION 2697 (S17E27) ALSO PRODUCED SEVERAL FLARES. A C2/SB AT 1353Z AND A 2F AT 0646Z. THIS REGION CONTINUES TO DEVELOP SLOWLY IN SPOTS AND MAGNETIC COMPLEXITY. NEW REGION 2703 (S18E36) HAS EMERGED RAPIDLY JUST EAST OF 2697. NEW REGION 2701 (N15E77) APPEARS TO BE AN IMPRESSIVE E-TYPE SPOT GROUP WITH BRIGHT FLARE, BUT HAS PRODUCED ONLY ONE SUBFLARE THUS FAR. NEW REGIONS 2702 (N09W22) AND 2704 (N18W18) HAVE EMERGED IN THE NORTHWEST QUADRANT OF AN AREA OF WEAK DIFFUSE FLARE. A PROMINENCE LOCATED S10W90 ERUPTED APPROXIMATELY 1500Z TODAY WHILE ANOTHER LOCATED AT N15W90 ERUPTED EARLY IN THE ZULU DAY.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW DURING THE FORECAST PERIOD. REGION 2684 COULD PRODUCE AN ISOLATED M-CLASS EVENT PRIOR TO WEST LIMB TRANSIT, BUT ITS FLARE HISTORY IS DISAPPOINTING. REGION 2697 AND NOW 2701 HAVE INCREASING POTENTIAL FOR M-CLASS EVENTS. THE REPLACEMENT OF 2684 BY 2701 IS EXPECTED TO KEEP THE 10.7 CM FLUX AT APPROXIMATELY THE SAME LEVEL.

II. THE GEOMAGNETIC FIELD WAS QUIET DURING THE PAST 24 HOURS. UNSETTLED CONDITIONS ARE EXPECTED TO GRADUALLY INCREASE THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES 28 SEPTEMBER - 30 SEPTEMBER

CLASS M 40/40/40

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 27 SEPTEMBER 188

PREDICTED 28-30 SEPTEMBER 190/188/185

90-DAY MEAN 27 SEPTEMBER 179

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 26 SEPTEMBER 05

ESTIMATED AFR/AP 27 SEPTEMBER 06/08

PREDICTED AFR/AP 28-30 SEPTEMBER 07/08 - 08/10 - 10/12

SOLTERWARN

BT