

SDF NUMBER 261

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 18 SEPTEMBER 1978

IA. SOLAR ACTIVITY HAS BEEN LOW. REGIONS 1294 (N36E 05) AND 1295 (S28E 05) HAVE PRODUCED ALMOST ALL OF THE ACTIVITY OBSERVED TODAY WHICH CONSISTED OF SUBFLARES AND CLASS C X-RAY BURSTS. REGION 1294 IS GROWING AND STILL CONTAINS A STRONG DELTA CONFIGURATION AND THERE ARE SOME INDICATIONS THAT REGION 1295 MAY ALSO BE DEVELOPING A DELTA IN ITS TRAILER. 1295 IS EXHIBITING MINOR BUT STEADY GROWTH. A NEW SIMPLE REGION HAS BEEN OBSERVED AT S22E 61 AND HAS BEEN NUMBERED 1302.

IB. SOLAR ACTIVITY SHOULD BE AT A MODERATE LEVEL DURING THIS FORECAST PERIOD. RETURNING REGION 1266 WAS MODERATELY ACTIVE LAST ROTATION AND SHOULD BE VISIBLE ON THE NORTHEAST LIMB BEGINNING LATE ON 21 SEPTEMBER.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET. CONDITIONS DURING THE NEXT 72 HOURS SHOULD BE GENERALLY UNSETTLED WITH ACTIVE PERIODS. THE PROBABILITY OF A FLARE INDUCED MAGNETIC STORM REMAINS AT A SIGNIFICANT LEVEL.

III. EVENT PROBABILITIES 19 SEPTEMBER - 21 SEPTEMBER

CLASS M 90/90/90

CLASS X 30/30/30

FROTON 15/15/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 SEPTEMBER 170

PREDICTED 19-21 SEPTEMBER 172/173/173

90-DAY MEAN 18 SEPTEMBER 136

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 17 SEPTEMBER 07

ESTIMATED AFR/AP 18 SEPTEMBER 02/03

PREDICTED AFR/AP 19-21 SEPTEMBER 07/12 - 10/15 - 13/20

SOLTERWARN

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FM WWA SOLTERWARN BOULDER COLO

TO RUADJKA/RRL KOKUBUNJI JAPAN

RAYCHF/IPSO SYDNEY AUSTRALIA

CMSES

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UNCLAS BOUTOK BOUSYD BOUIPSO ----- ARE DELAYED DUE TO COMPUTER
OUTAGE.

SOLTERWARN

HFUS 1 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 261

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 18 SEPTEMBER 1979

IA. SOLAR ACTIVITY TODAY WAS MODERATE. THERE WERE TWO M2 X-RAY CLASS FLARES, A SUB-BRIGHT IN REGION 1982 (N08W72) AND A 2B IN REGION 1994 (N06E45). REGIONS 1982 AND 1994 ARE BOTH MAGNETICALLY COMPLEX BETA-GAMMA-DELTAS, WITH PLAGE FLUCTUATIONS. REGION 1994 IS STILL AN F TYPE SPOT GROUP AND HAS RETAINED ITS ACTIVE DARK FILAMENT. A PROMINENCE AT N15E90 ERUPTED TODAY FROM REGION 2001 (N27E74). THERE WERE NUMEROUS SUB-FLARES OCCURRING PRIMARILY IN REGIONS 1982 AND 1994. THREE NEW REGIONS ROTATED OVER THE EAST LIMB TODAY, 1999 (S12E63), 2000 (S19E71), AND 2001 (N27E74).

IB. SOLAR ACTIVITY IS EXPECTED TO BECOME HIGH FOR THE NEXT 24 HOURS DUE TO THE HIGH FLARE POTENTIAL OF REGIONS 1994 AND 1982. THE POLAR CAP ABSORPTION DROPPED BELOW EVENT CRITERIA DURING THE DAY, BUT IS EXPECTED TO RETURN TO EVENT CRITERIA DURING THE NIGHT. THE PROTON FLUX DROPPED GRADUALLY TO 35, BUT THE EVENT IS EXPECTED TO CONTINUE FOR THE NEXT 18 TO 24 HOURS.

II. THE GEOMAGNETIC FIELD HAS BEEN AT MINOR STORM LEVEL TODAY, AND IS EXPECTED TO GRADUALLY DECLINE TO AN ACTIVE LEVEL ON 19 AND 20 SEPTEMBER, BECOMING UNSETTLED ON 21 SEPTEMBER.

III. EVENT PROBABILITIES 19 SEPTEMBER - 21 SEPTEMBER

CLASS M 90/85/85

CLASS X 60/60/60

PROTON 60/60/40

PCA IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 SEPTEMBER 214

PREDICTED 19-21 SEPTEMBER 216/220/225

90-DAY MEAN 18 SEPTEMBER 172

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 17 SEPTEMBER 45

ESTIMATED AFR/AP 18 SEPTEMBER 42/50

PREDICTED AFR/AP 19-21 SEPTEMBER 27/35 - 20/25 - 13/15

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