HFUS 1 BOU 111345
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO
SDF NUMBER 284A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z 11 OCTOBER 1981
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 10/1200Z TO 11/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE PAST 24 HOURS. REGION 3388 (S09W43), WHICH HAD BEEN MOSTLY STABLE, HAS PRODUCED TWO M-CLASS AND MUPTIPLE C-CLASS FLARES. THE LARGEST EVENT WAS AN M2/2B MAXING AT 0337Z. MINOR RADIO BURSTS HAVE ACCOMPANIED THE FLARES FROM 3388. THE COMPLEX REGION COMPOSED OF 3390 (S18E53) AND 3397 (S21E45) HAS ALSO BEEN ACTIVE. M1 X-RAY CLASS FLARES MAXING AT 1251Z AND 1426Z WERE ASSOCIATED WITH 3390. A LIGHT BRIDGE WHICH HAD BEGUN TO DEVEOP IN THE LARGE SPOT OF 3390 HAS SINCE DISSIPATED. REGION 3397 IS RESTRUCTURING AND MAY BE LOSING ITS DELTA MAGNETIC CONFIGURATION. NEVERTHELESS, THESE TWO INTERACTING REGIONS PRESENT A SERIOUS THREAT FOR MAJOR ACTIVITY.
IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH REGIONS 3388 AND 3390 PRODUCING PERSISTENT M-CLASS ACTIVITY. A MAJOR (X-CLASS) PROTON FLARE IS POSSIBLE FROM 3390/3397 DURING THE NEXT FEW DAYS.
II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVELS. A GRADUAL COMMENCEMENT BEGAN NEAR 0500Z AND HAS RESULTED IN K-INDICES AT BOULDER OF 7 (06-09Z) AND 5 (09-12Z). THIS ACTIVITY IS ASSOCIATED WITH THE ARRIVAL OF SOLAR WIND PLASMA OF ENHANCED MAGNETIC FIELD STRENGTH, DENSITY, AND VELOCITY. GEOMAGNETIC CONDITIONS ARE EXPECTED TO REMAIN AT OR NEAR STORM LEVELS FOR THE NEXT 24 TO 36 HOURS, DECREASING THEREAFTER. THE SATELLITE PROTON EVENT WHICH HAS BEEN IN PROGRESS SINCE OCTOBER 08/1235Z INTENSIFIED NEAR 0100Z AND PEAKED AT 83 PROTONS/CM2-SEC-STER AT 0610Z. PROTON FLUXES ARE NOW EXPECTED TO GRADUALLY DIMINISH. AN ASSOCIATED POLAR CAP ABSORPTION EVENT REMAINS IN PROGRESS.
III. EVENT PROBABILITIES 12 OCTOBER - 14 OCTOBER

CLASS M	80/80/80
CLASS X	20/20/20
PROTON	10/15/20
PCA	IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED	10 OCTOBER 214
ESTIMATED	11 OCTOBER 220
PREDICTED	12-14 OCTOBER 220/220/220
90-DAY MEAN	10 OCTOBER 216

V. GEOMAGNETIC A INDICES

OBSERVED AFR	09 OCTOBER 19 AP 10 OCTOBER 25
ESTIMATED AFR	10 OCTOBER 18 AFR/AP 11 OCTOBER 45/40
PREDICTED AFR/AP	12-14 OCTOBER 25/25 - 15/15 - 10/10

SOLTERWARN
BT

HFUS 3 BOU 112200
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO
SDF NUMBER 284B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 11 OCTOBER 1981
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 11/1200Z
TO 11/2100Z: SOLAR ACTIVITY HAS BEEN LOW THIS PERIOD. SEVERAL
C-CLASS EVENTS HAVE BEEN RECORDED, THE LARGEST A C5/SB FROM
REGION 3397 (S21E26) AT 11/1601Z. REGIONS 3390 (S18E37) AND
3397 HAVE BEEN INTERACTING WITH SEVERAL SMALL DUAL FLARES
BEING OBSERVED, BOTH REGIONS CONTAIN DELTA MAGNETIC CONFIGURATIONS.
A NEW REGION 3402 (S20E50) HAS DEVELOPED TO THE EAST OF 3390
AND MAY ENHANCE THE MAGNETIC GRADIENTS OF THE AREA.
IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE WITH REGIONS 3390, 3397 AND 3388 (S10W49) ALL CAPABLE
OF M-CLASS ACTIVITY. REGIONS 3390 AND 3397 APPEAR CAPABLE OF
A MAJOR (X-CLASS) PROTON FLARE EVENT IN THE NEXT FEW DAYS.
II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS
AT MINOR STORM LEVELS AT THE BEGINNING OF THIS PERIOD AND
AT ACTIVE CONDITIONS THE LAST PORTION. THE GEOMAGNETIC FIELD IS
EXPECTED TO BE AT ACTIVE, WITH BRIEF PERIODS AT MINOR STORM,
LEVELS DURING THE NEXT 24 HOURS THEN ACTIVE TO UNSETTLED THE
REST OF THE PERIOD. THE PROTON EVENT CONTINUES IN PROGRESS
HOWEVER, A STEADY DECLINE IS EXPECTED.
III. EVENT PROBABILITIES 12 OCTOBER - 14 OCTOBER

CLASS M	80/80/80
CLASS X	20/20/20
PROTON	15/15/20
PCAF	YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED	11 OCTOBER 221
PREDICTED	12-14 OCTOBER 220/220/220
90-DAY MEAN	11 OCTOBER 217

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP	10 OCTOBER 22/25
ESTIMATED AFR/AP	11 OCTOBER 31/40
PREDICTED AFR/AP	12-14 OCTOBER 25/25 - 15/15 - 10/10

SOLTERWARN
BT