

HEUS 1 POU 171300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDE NUMBER 137A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1200UT 17 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
16/1200UT TO 17/1200UT:

SOLAR ACTIVITY HAS BEEN GENERALLY LOW THE PAST 24 HOURS. REGION
3106 (N12W03) IS DECAYING SLOWLY BUT IS STILL EXHIBITING DYNAMIC
TENDENCIES. THE DELTA CONFIGURATION PROBABLY STILL EXISTS AND
THE COMPACT, WELL ORGANIZED PLAGE MAINTAINS THIS REGION AS THE
DOMINANT DISK FEATURE. REGION 3113 (S25E36) IS SHOWING SLOW GROWTH
WITH EMERGING FLUX. THE NEUTRAL LINE SUGGEST INCREASED COMPLEXITY
WHILE CONTINUED DEVELOPMENT SHOULD MAKE THIS REGION CAPABLE OF
ENERGETIC ACTIVITY IN 18 TO 24 HOURS.

IP. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE DURING THE COMING 24
HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS SHOWN SUSTAINED DECAY FROM MINOR STORM
CONDITIONS 24 HOURS AGO TO QUIET CONDITIONS AT PRESENT. THE X1/3B
FLARE ON 16 MAY IS EXPECTED TO BRING STORM CONDITIONS COMMENCING ON
18 MAY. THE PROTON EVENT IS STILL IN PROGRESS WITH THE FLUX HOVER-
ING AROUND 15/P/CM2/SEC/STER. THE PCA EVENT ENDED AFTER 17/0115Z.

III. EVENT PROBABILITIES: 18 - 20 MAY

CLASS M 90/90/90

CLASS X 25/25/25

PROTON 25/25/25

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 16 MAY 214

ESTIMATED 17 MAY 205

PREDICTED 18-20 MAY 200/195/190

90 DAY MEAN 16 MAY 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR 15 MAY 39 AP 16 MAY 58

ESTIMATED AFR 16 MAY 32 AFR/AP 17 MAY 10/15

PREDICTED AFR/AP 18-20 MAY 80/80 50/50 20/35

SOLTERWARN

BT

WFUS 3 BOU 172200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 137E

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200 UT 17 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/1200 UT
TO 17/2200 UT. SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 10
HOURS. THE LARGEST EVENT WAS A C8/SN FLARE AT N17W03 WHICH LIES
IN THE INTERACTING REGION BETWEEN 3106 (N12W09) AND 3112 (N17E09)
MAX TIME WAS 2132 UT. REGIONS 3106 AND 3112 ARE STILL IMPRESSIVE,
MAGNETICALLY COMPLEX, AND CAPABLE OF MAJOR PROTON-PRODUCING
FLARES. REGION 3113 (S24E30) IS NOW OBSERVED TO CONTAIN A DELTA
MAGNETIC CONFIGURATION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE WITH 3106/3112 AND 3113 CAPABLE OF SIGNIFICANT FLARES

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD
HAS BEEN QUIET. A PROTON EVENT IN PROGRESS DECREASED TO NEAR
THRESHOLD LEVELS AT 1300 UT, BUT HAS REINTENSIFIED AND IS
FLUCTUATING NEAR 70 PROTONS/CM²/SEC/STER AT FORECAST TIME. A
POLAR CAP ABSORPTION EVENT RESUMED AT 1700 UT AND CONTINUES
IN PROGRESS. THE GEOMAGNETIC FIELD IS EXPECTED TO REACH MAJOR
STORM LEVELS FOR THE NEXT 2 DAYS IN RESPONSE TO AN X1/3B FLARE
ON 16 MAY. THE PROTON EVENT AND PCA ARE EXPECTED TO END WITHIN
THE NEXT 24 HOURS.

III. EVENT PROBABILITIES 18 MAY - 20 MAY

CLASS M 90/90/90

CLASS X 25/25/20

PROTON 25/25/20

PCAF IN PROGRESS

IV. OTTAWA 40.7 CM FLUX

OBSERVED 17 MAY 203

PREDICTED 18-20 MAY 200/195/190

90-DAY MEAN 17 MAY 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 16 MAY 40/58

ESTIMATED AFR/AP 17 MAY 10/15

PREDICTED AFR/AP 18-20 MAY 80/80 - 50/50 - 20/35

SOLTERWARN

BT