

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 074

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 15 MAR 1989

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/2100Z
TO 15/2100Z: SOLAR ACTIVITY WAS HIGH. REGION 5395 (N34W42) HAS
STARTED A VERY SLOW DECAY IN H-A PENUMBRA. IT WAS NOT GREATLY
CHANGED IN MOST OTHER ASPECTS. IT PRODUCED ONE MAJOR FLARE OF
M8/2B CATAGORY WITH MAJOR RADIO BURSTS BUT AGAIN, AS HAS NOW
COME TO BE THE RULE WITH THIS REGION, NO SIGNIFICANT RADIO
SWEEPS. IT RETAINS ITS FKC AND OVER 3000 MILS CHARACTERISTICS.
NEWLY NUMBERED REGION 5409 (N21E74) IS RETURNING NEAR WHERE OLD
REGION 5378 WAS LOCATED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
HIGH. REGION 5395 PROVIDES A GOOD CHANCE OF A PROTON PRODUCING
FLARE AND A VERY GOOD CHANCE OF CONTINUED MAJOR FLARE ACTIVITY.
ITS PENUMBRA DECAY MAY BE PRECURSOR TO INCREASED PRODUCTION.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 14/2100Z TO 15/2100Z:
THE GEOMAGNETIC FIELD WAS AT MAJOR STORM TO ACTIVE LEVELS.
THE STORM THAT STARTED MONDAY HAS ALMOST ENDED. THE FORBUSH
DECREASE MAY ALSO HAVE ENDED, BUT DATA LOSS PREVENTS OFFICIAL
DECLARATION. NO FURTHER 10 MEV PROTON ENHANCEMENTS, NOR PCA
EVENTS HAVE RECURRED SINCE THEIR TERMINATION YESTERDAY.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS
EXPECTED TO BE AT ACTIVE TO MINOR STORM LEVELS. THE ALMOST CON-
-TINUAL MAJOR FLARE ACTIVITY DURING THE PAST FIVE DAYS SUPPORTS
ENHANCED GEOMAGNETIC LEVELS ABOVE RECURRENCE. THE PROJECTED
DISTURBANCE OF 17-18 MAR IS EXPECTED IN RESPONSE TO THE X1/2B
FLARE OF 14 MAR. THE FORBUSH DECREASE IS EXPECTED TO END SOON.

III. EVENT PROBABILITIES 16 MAR-18 MAR

CLASS M 99/99/99

CLASS X 80/80/80

PROTON 50/50/50

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 MAR 252

PREDICTED 16 MAR-18 MAR 248/235/220

90 DAY MEAN 15 MAR 228

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 MAR 125/119

ESTIMATED AFR/AP 15 MAR 029/052

PREDICTED AFR/AP 16 MAR-18 MAR 019/027-020/035-019/030