

HFUS 1 BOU 041300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 124A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 04 MAY 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z TO 04/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE DUE TO A M1/SN EVENT FROM REGION 3717 (S06E43) AT 04/0000UT. THIS EVENT PRODUCED ONLY MINOR CENTIMETRIC RADIO BURSTS. REGION 3717 GREW RAPIDLY THIS PERIOD AND IS NOW A E-TYPE GROUP WITH A DELTA CONFIGURATION IN THE LEADER SPOT GROUP, ONLY MINOR GROWTH HAS BEEN OBSERVED DURING THE PAST SIX HOURS. REGION 3714 (S13W27) HAS PRODUCED ONLY MINOR EVENTS THIS PERIOD AND NO EVENTS HAVE BEEN OBSERVED SINCE 03/1614UT. REGION 3719 (S21E69) HAS PRODUCED SEVERAL SMALL C-CLASS EVENTS AND IS NOW A C-TYPE GROUP. THE REST OF THE REGIONS HAVE BEEN REPORTED AS GENERALLY STABLE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH ISOLATED M-CLASS EVENTS FROM REGIONS 3717 AND/OR 3714. REGION 3717 IS NOW STABLE AND MAY NOT PRODUCE LARGE EVENTS UNTIL CHANGE BEGINS ANEW. REGION 3714 CONTAINS A COMPLEX MAGNETIC FIELD WITH A DELTA CONFIGURATION IN ITS CENTRAL PORTION AS NO FLARES HAVE BEEN OBSERVED FOR SEVERAL HOURS THIS GROUP MAY RELEASE A LARGE M-CLASS EVENT IN THE NEXT 48 HOURS, UNLESS SMALL FLARES RESUME SOON. REGION 3719 SHOULD PRODUCE ONLY SMALL C-CLASS EVENTS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS AT MINOR STORM LEVELS DURING MOST OF THIS PERIOD. THE STORM IS BELIEVED TO BE CAUSED BY THE EFFECTS OF A SMALL CORONAL HOLE LOCATED NEAR W58. THE EFFECTS ARE EXPECTED TO DIMINISH BY LATE ON 4 MAY WITH UNSETTLED CONDITIONS FORECAST FOR THE NEXT 48 HOURS. ACTIVE CONDITIONS ARE AGAIN EXPECTED TO RETURN ON 7 MAY WHEN A NEW CORONAL HOLE SHOULD MAKE ITS EFFECTS KNOWN.

III. EVENT PROBABILITIES 05 MAY-07 MAY

CLASS M 40/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 MAY 145

ESTIMATED 04 MAY 147

PREDICTED 05 MAY-07 MAY 150/153/160

90 DAY MEAN 03 MAY 193

V. GEOMAGNETIC A INDICES

OBSERVED AFR 02 MAY 024 AP 03 MAY 044

ESTIMATED AFR 03 MAY 034 AFR/AP 04 MAY 018/018

PREDICTED AFR/AP 05 MAY-07 MAY 012/015-012/010-017/020

SOLTERWARN

BT

HFXUS 3 BOU 042200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 124B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 04 MAY 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
04/1200Z TO 04/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW THIS  
PERIOD WITH NO OPTICAL FLARES REPORTED NOR ANY X-RAY BURSTS  
HAVING OCCURRED. COINCIDENT WITH THIS RAPID DROP-OFF IN  
ACTIVITY IS A MARKED LOWERING IN THE X-RAY BACKGROUND LEVEL.  
MAGNETIC SIMPLIFICATION HAS OCCURRED IN BOTH REGIONS 3714  
(S18W32) AND 3717 (S06E37). RAPID DECAY HAS OCCURRED IN THE  
CENTRAL SUNSPOT STRUCTURE OF REGION 3714.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE  
LOW WITH ONLY A SLIGHT CHANCE OF A CLASS M EVENT AS THE REGIONS  
RELAX AND CONTINUE TO SIMPLIFY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN ACTIVE BUT INTERSPERSED WITH UNSETTLED PERIODS. THE ISEE-3  
SATELLITE, HOWEVER, IS STILL IN A HIGH SPEED, LOW DENSITY  
(CORONAL HOLE) ENVIRONMENT. THE FIELD IS EXPECTED TO BE  
VARIABLE UNTIL 07 MAY WHEN ACTIVE CONDITIONS ARE AGAIN  
EXPECTED.

III. EVENT PROBABILITIES 05 MAY-07 MAY

CLASS M 40/30/30

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 MAY 142

PREDICTED 05 MAY-07 MAY 140/140/140

90 DAY MEAN 04 MAY 191

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 MAY 038/044

ESTIMATED AFR/AP 04 MAY 019/022

PREDICTED AFR/AP 05 MAY-07 MAY 012/015-012/010-017/020

SOLTERWARN

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HFXUS BOU 042200

PREDM 04005 03006 03007

PREDX 00105 00106 00107

PREDP 00105 00106 00107

PCAFPT 00105

TENCM 14005 14006 14007

AFRED 01205 01206 01707

AFAPF 01505 01006 02007

RT