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HFUS 3 BOU 1400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 319A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 14 NOV 1980

IA. SOLAR ACTIVITY WAS AT A HIGH LEVEL THE PAST 24 HOURS. MOST (3) OF THE CLASS M FLARE ACTIVITY WERE FROM REGION 2779 (S12W38), HOWEVER, THE LARGEST EVENT, A GRADUAL RISE FALL (GRF) M8 MAX AT 14/0808Z, APPEARS TO HAVE COME FROM DEPARTED REGION 2776. A PROMINENCE AT N05 WEST LIMB ERUPTED AFTER 0635Z AND MATERIAL WAS SEEN AT 0.24 R BY 0706Z. CLASSICAL POST FLARE LOOPS, CALLED "GREAT" BY ONE OBSERVATORY ARE STILL VISIBLE. A 200 FU 10CM BURST ACCOMPANIED THE EVENT, NO TYPE II OR IV WERE REPORTED. DURING THE GRADUAL RISE OF THIS EVENT, REGION 2779 PRODUCED AN M2/1N FLARE WITH MINOR RADIO EMISSION. REGION 2779 MAY HAVE REACHED A PLATEAU IN ITS DEVELOPMENT. GRADIENTS ARE DOWN SOMEWHAT AND SPOT FRAGMENTATION HAS BEEN REPORTED, BUT MAGNETICALLY IT REMAINS A BETA-GAMMA-DELTA. REGION 2788 (N19E27) HAS SHOWN SOME INDICATIONS OF REJUVENATION, AN INCREASE IN MAGNETIC COMPLEXITY AND POSSIBLE EMERGENCE OF NEW FLUX AT THE EXTREME WESTERN PORTION OF THE REGION. THE OTHER THREE SPOTTED REGIONS REMAIN QUIET AND STABLE. A PROMINENCE ON THE EAST LIMB NEAR N15 HAS BEEN ACTIVE.

IB. SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO OCCASSIONALLY HIGH THRU THE FORECAST PERIOD. CLASS M FLARES SHOULD CONTINUE FROM 2779 THRU ITS WEST LIMB TRANSIT. THE CURRENT LULL IN LARGE EVENTS FROM THIS REGION IS NOT EXPECTED TO CONTINUE, AND MAJOR ENERGETIC FLARES REMAIN A GOOD POSSIBILITY. ADDITIONAL EVENTS FROM THE WEST LIMB THO POSSIBLE ARE BECOMING LESS OF A THREAT DUE TO THESE REGIONS ROTATING FURTHER BEHIND THE LIMB.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET TO MILDLY UNSETTLED THE PAST 24 HOURS. THE INTERPLANETARY FIELD AS MEASURED ON ISEE-3, TURNED SOUTHWARD AT 14/1130Z AND THE GEOMAGNETIC FIELD IS EXPECTED TO BECOME MORE UNSETTLED IN THE NEXT FEW HOURS. A SLIGHT CHANCE EXISTS FOR A MINOR PROTON ENHANCEMENT AS A RESULT OF THE 14/0808Z EVENT FROM THE WEST LIMB.

III. EVENT PROBABILITIES: 15 NOV - 17 NOV

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 30/30/30

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 13 NOV 232

ESTIMATED 14 NOV 220

PREDICTED 15-17 NOV 215/207/200

V. GEOMAGNETIC A INDICES

OBSERVED AFR 12 NOV 15 AP 13 NOV 06

ESTIMATED AFR 13 NOV 07 AFR/AP 14 NOV 10/12

PREDICTED AFR/AP 15 NOV - 17 NOV 08/12 14/18 10/14

SOLTERWARN

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HFUS 1 BOUL 142200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SD F NUMBER 319B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200UT 14 NOVEMBER 1980

IA. SOLAR ACTIVITY WAS AT A HIGH LEVEL THE PAST 24 HOURS.
MOST (5) OF THE CLASS M FLARE ACTIVITY WERE FROM REGION 2779
(S12W38), HOWEVER, THE LARGEST EVENT, A GRADUAL RISE FALL (GRF)
MR MAX AT 14/0808Z, APPEARS TO HAVE COME FROM DEPARTED REGION
2776. A PROMINENCE AT N05 WEST LIMB ERUPTED AFTER 0635Z AND
MATERIAL WAS SEEN AT 0.24 R BY 0706Z. CLASSICAL POST FLARE LOOPS,
CALLED "GREAT" BY ONE OBSERVATORY ARE STILL VISIBLE. A 200 FU
10CM BURST ACCOMPANIED THE EVENT, NO TYPE II OR IV WERE REPORTED.
DURING THE GRADUAL RISE OF THIS EVENT, REGION 2779 PRODUCED AN
M2/IN FLARE AT 0645Z WITH MINOR RADIO EMISSION, AN M2/2B AT 1544Z
MAXIMUM, AND AN M2/1B AT 1850Z MAXIMUM WITH A 160 FLUX UNIT
BURST AT 2695 MHZ. REGION 2779 MAY HAVE REACHED A PLATEAU IN ITS
DEVELOPMENT. GRADIENTS ARE DOWN SOMEWHAT AND SPOT FRAGMENTATION
HAS BEEN REPORTED, BUT MAGNETICALLY IT REMAINS A BETA-GAMMA-DELTA.
REGION 2788 (N19E27) HAS SHOWN SOME INDICATIONS OF REJUVENATION.
AN INCREASE IN MAGNETIC COMPLEXITY AND POSSIBLE EMERGENCE OF NEW
FLUX AT THE EXTREME WESTERN PORTION OF THE REGION. THE OTHER
THREE SPOTTED REGIONS REMAIN QUIET AND STABLE. A PROMINENCE ON
THE EAST LIMB NEAR N15 HAS BEEN ACTIVE.

IB. SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO OCCASIONALLY
HIGH THRU THE FORECAST PERIOD. CLASS M FLARES SHOULD CONTINUE
FROM 2779 THRU ITS WEST LIMB TRANSIT. THE CURRENT LULL IN LARGE
EVENTS FROM THIS REGION IS NOT EXPECTED TO CONTINUE, AND MAJOR
ENERGETIC FLARES REMAIN A GOOD POSSIBILITY. ADDITIONAL EVENTS
FROM THE WEST LIMB WHO POSSIBLE ARE BECOMING LESS OF A THREAT
DUE TO THESE REGIONS ROTATING FURTHER BEHIND THE LIMB.

II. THE GEOMAGNETIC FIELD WAS QUIET UNTIL 1153Z WHEN A SMALL
SUDDEN COMMENCEMENT WAS REPORTED BY PARIS AND OBSERVED AT MID-
LATITUDE IMS STATIONS. UNSETTLED CONDITIONS HAVE BEEN OBSERVED
SINCE THIS TIME WITH NO CHANGE EXPECTED THROUGH THE NEXT 24
HOURS.

IIIB. EVENT PROBABILITIES: 15 NOVEMBER - 17 NOVEMBER

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 30/30/30

RCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 14 NOV 227

PREDICTED 15-17 NOV 215/207/200

90 DAY MEAN 14 NOV 202

V. GEOMAGNETIC INDICES

OBSERVED AFR/AP 13 NOV 05/06

ESTIMATED AFR/AP 14 NOV 09/12

PREDICTED AFR/AP 15-17 NOV 10/12 14/18 10/14

SOLIERWARN

BT