HOW TO READ RADAR SUMMARY CHARTS

ABBREVIATIONS:

NE : No Echoes
NA : Not Available
ROBEPS : Radar Operating Below Performance Specifications
BWER : Bounded Weak Echo Region (area of a strong updraft associated with a severe storm)
OM : Out for Maintenance
LEWP : Line Echo Wave Pattern
RHINO: Range Height Indicator Not Operating
SLD : solid line of strong/severe storms
HOOK : hook echo (severe thunderstorm, tornado soon)
VAULT: updraft of the severe thunderstorm
MALF : precip. mostly aloft
PALF : precip. partly aloft
MLTLVL: melting aloft
R : moderate rain (**R-** : light rain, **R+** : heavy rain)
S : moderate snow (**S-** : light snow, **S+** : heavy snow)
ZR- : light freezing rain
IP- : light ice pellets
TRW : moderate thundershower
SW : moderate snow shower
HAIL : hail
FNLN : fine line of nonprecipitating echoes

ex: **SR-IP-** **T+RW+A**

TIMES:

To convert from Z time (GMT,UTC) to local time

STANDARD

EST	= **Z - 5 HRS**	**1635 - 5 = 1135**	**LOCAL**
CST	= **Z - 6 HRS**	**1635 - 6 = 1035**	
MST	= **Z - 7 HRS**	**1635 - 7 = 0935**	
PST	= **Z - 8 HRS**	**1635 - 8 = 0835**	

DAYLIGHT

EDT	= **Z - 4 HRS**	**1635 - 4 = 1235**	**LOCAL**
CDT	= **Z - 5 HRS**	**1635 - 5 = 1135**	
MDT	= **Z - 6 HRS**	**1635 - 6 = 1035**	
PDT	= **Z - 7 HRS**	**1635 - 7 = 0935**	

-----> : arrow shows direction precip. is moving speed is shown at the point of the arrow (ie. ------> 20)

sometimes showers and storms are embedded in larger area of rain shower movement and speed are depicted by the arrow and number as described above.

\------> : short barb is 5 knots

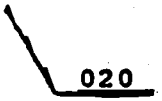
\------> : long barb is 10 knots

 : 50 knots

example:

 : **25 knots**

Height of cloud top:



: with the three digit number, add two (2) zeroes to find the height in feet (example: 020 = 2000 feet top)

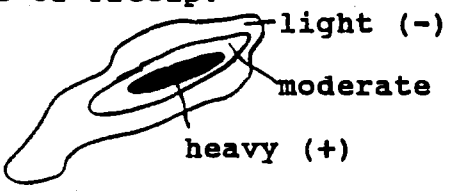
As a rule: higher the top, the heavier the precip.

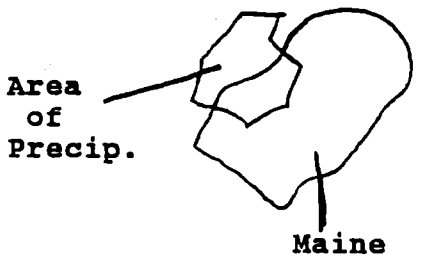
Height of cloud base:

: with the three digit number add two (2) zeroes to find height in feet (example: 020 = 2000 feet base)

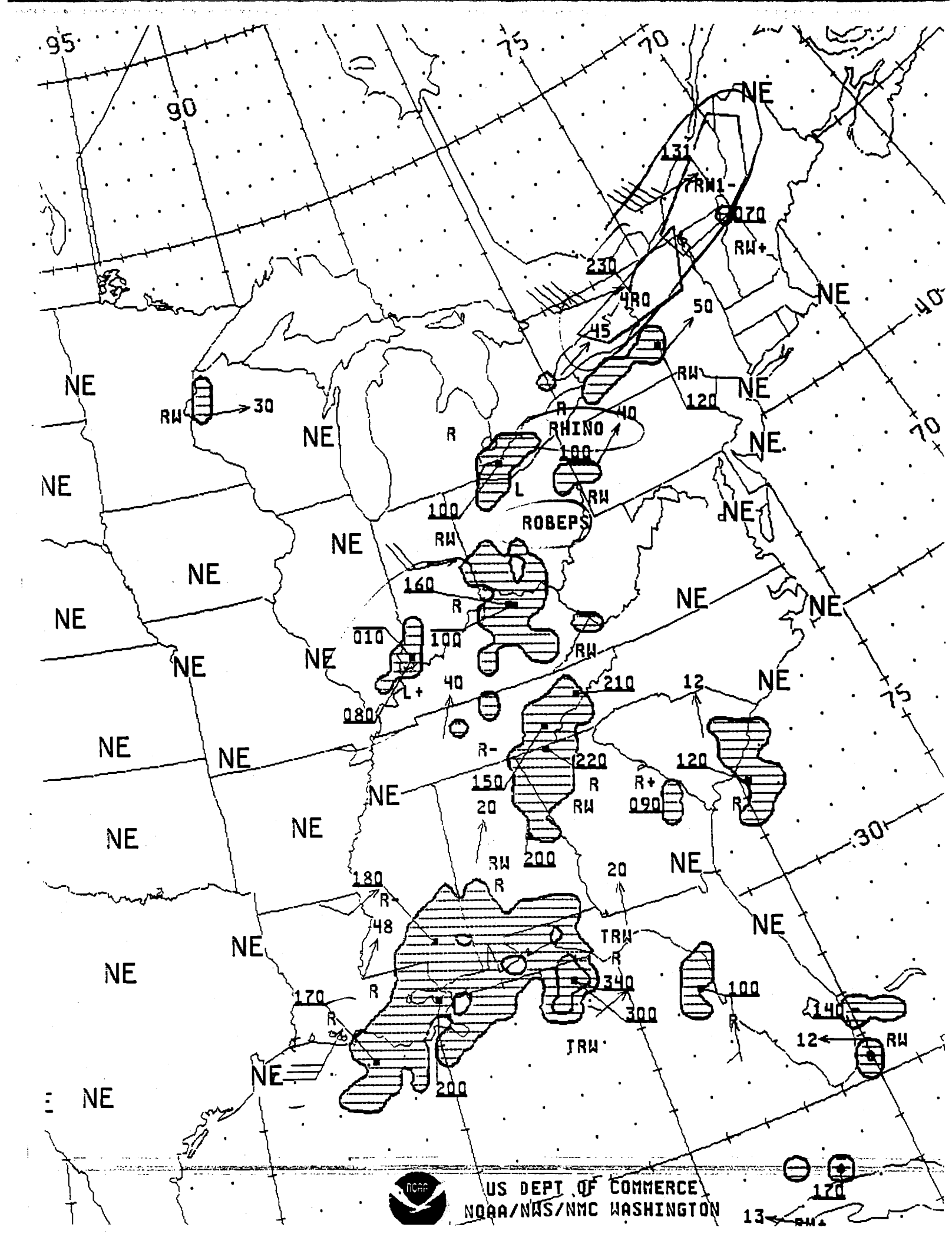
Areas of precip. occurring in both the U.S. and Canada will sometimes be shown as geometric shapes

Levels of Precip.





Severe weather watch box are drawn on the radar sheet with their issue number (numbered consequently)


95
90
75
70
NE
131
TRW1-
070
RW+
230
4RO
50
45
40
RW
120
RW
30
R
40
RHINO
100
L
RW
100
ROBEPS
RW
160
R
010
100
RW
L+
40
080
210
12
R-
220
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150
20
R+
090
120
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200
180
R
48
TRW
R
340
300
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170
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12
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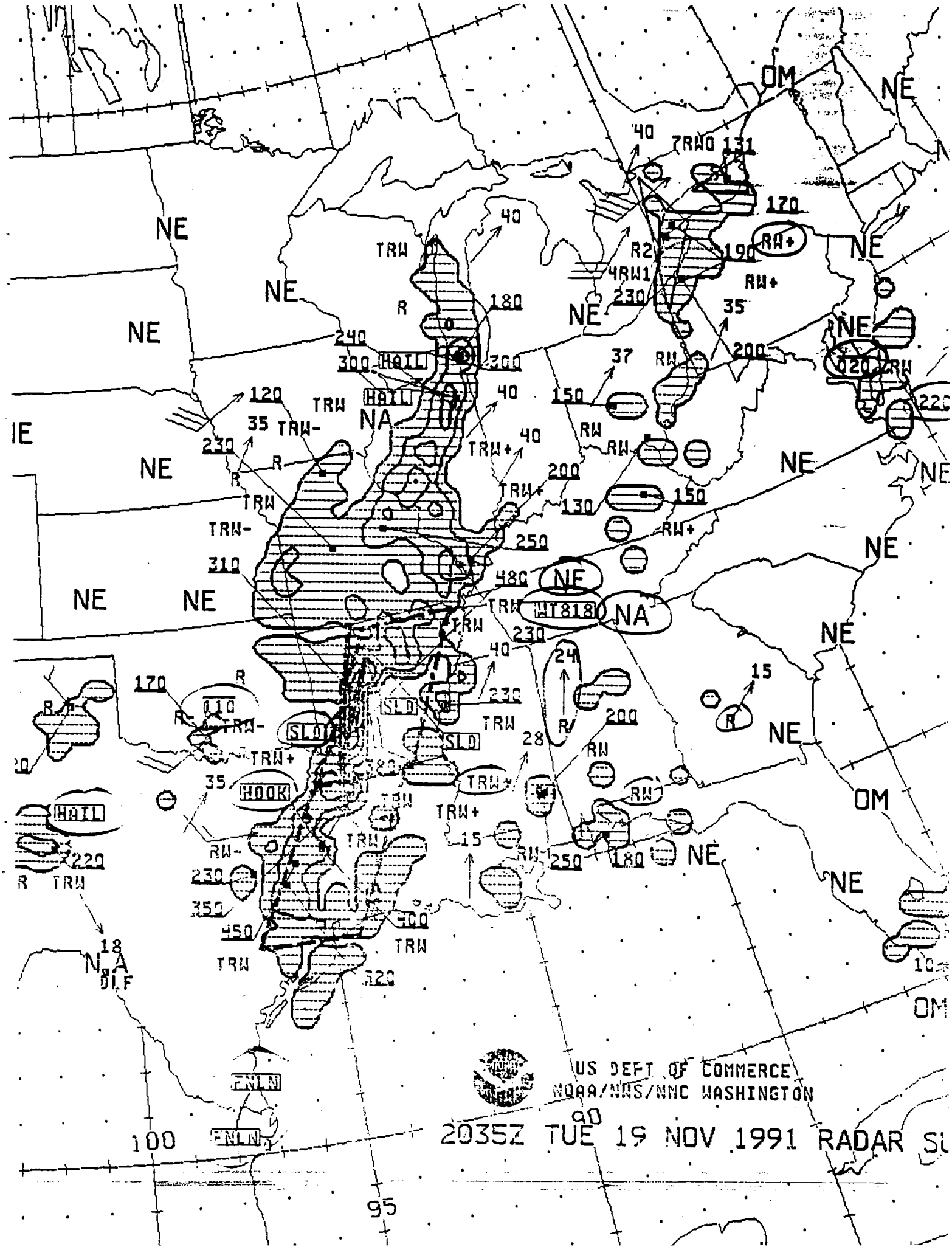
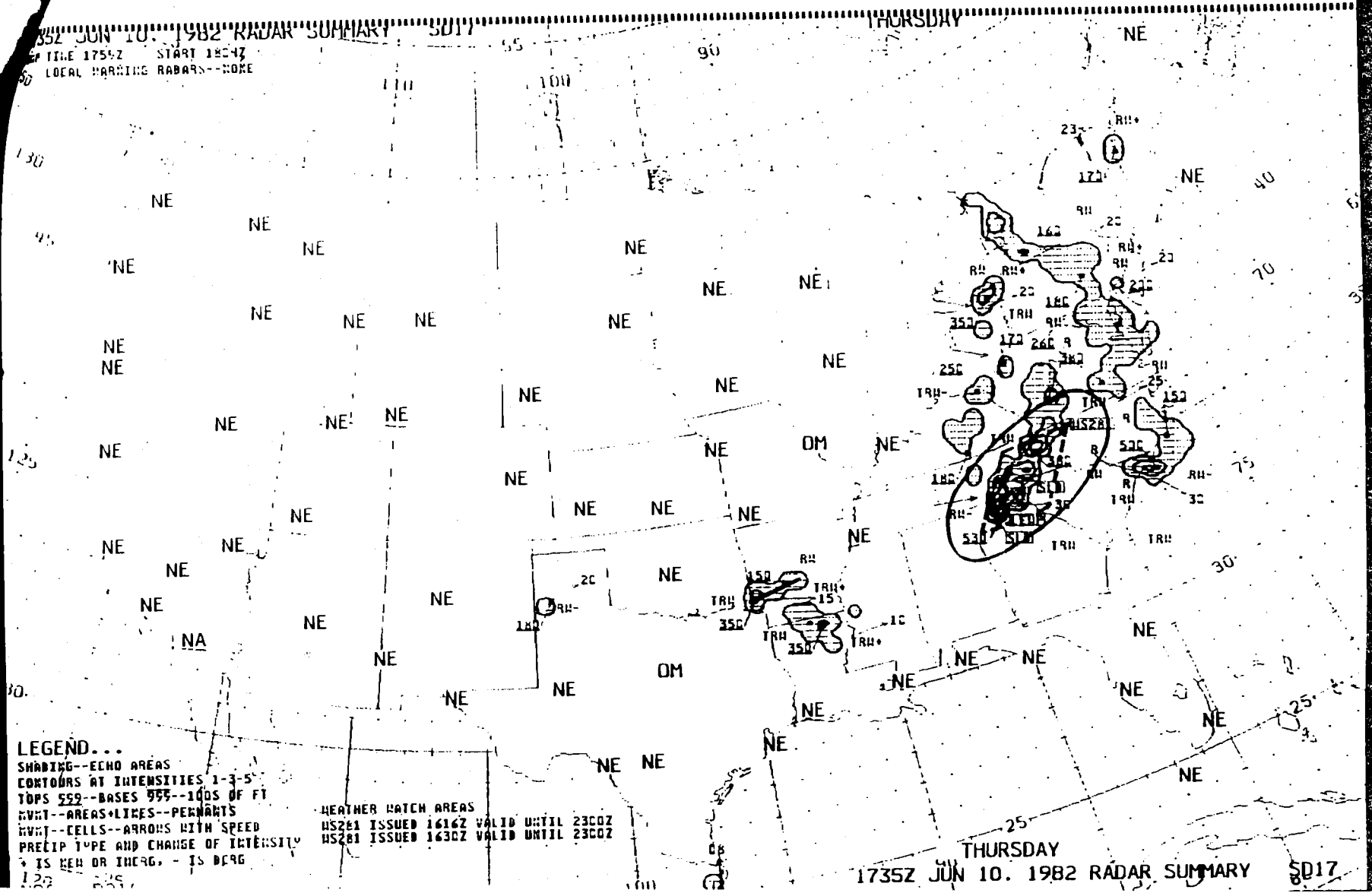
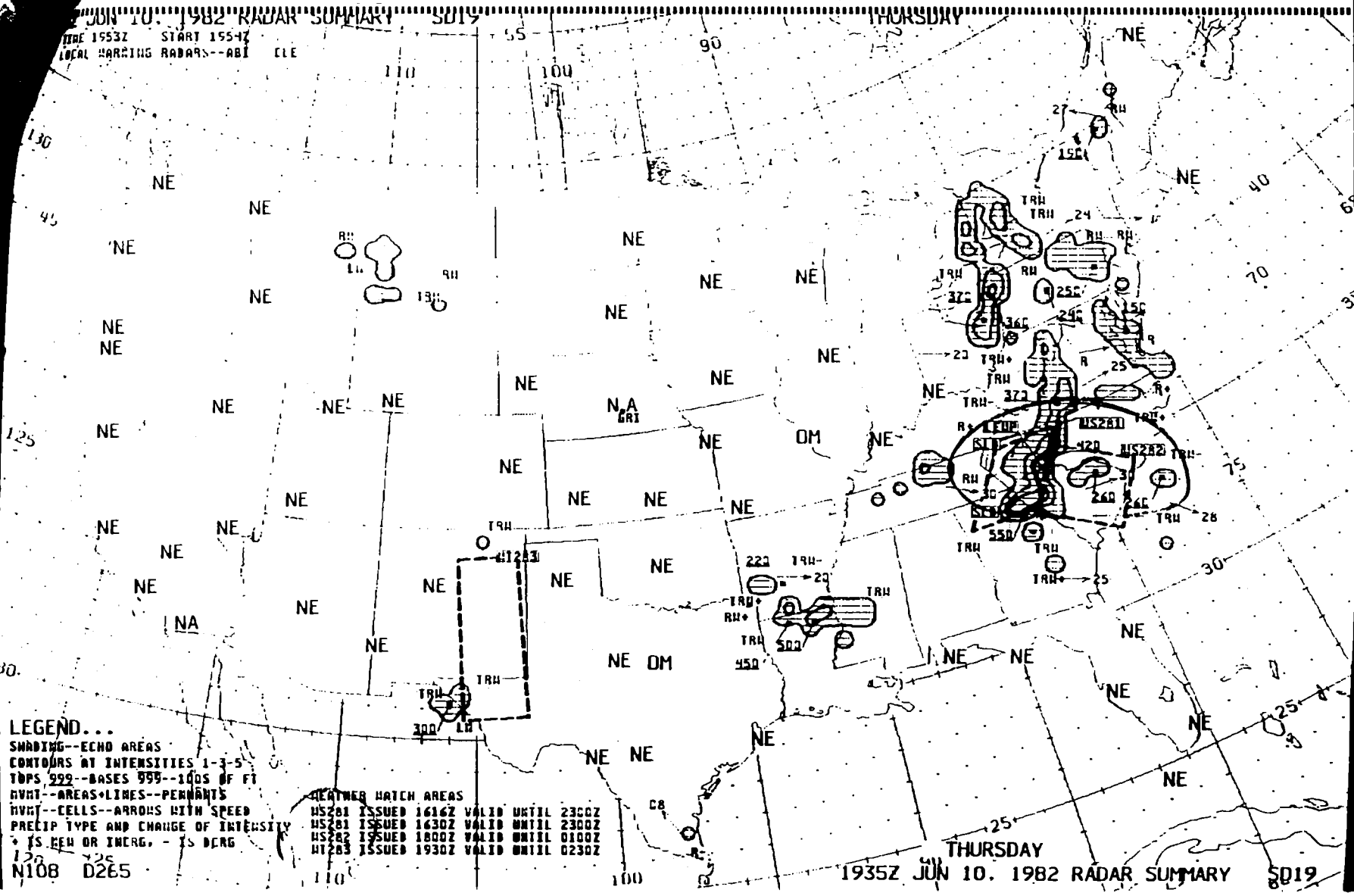
13
US DEPT OF COMMERCE
NOAA/NWS/NMC WASHINGTON


US DEPT OF COMMERCE
NOAA/NWS/NMC WASHINGTON
2035Z TUE 19 NOV 1991 RADAR SU
HAIL
HOOK
SLD
TRW
TRW+
TRW-
RW
RW+
RW-
R
R2
4RW1
WT818
NA
NE
OM
ENLN
100
95
90


1735Z JUN 10. 1982 RADAR SUMMARY SD17
THURSDAY
TIME 1755Z START 1804Z
LOCAL WARNING RADARS--NONE
NE
NA
OM
LEGEND...
SHADING--ECHO AREAS
CONTOURS AT INTENSITIES 1-3-5
TOPS 559--BASES 999--100S OF FT
MVMT--AREAS+LINES--PENNANTS
MVMT--CELLS--ARROWS WITH SPEED
PRECIP TYPE AND CHANGE OF INTENSITY
+ IS INCR OR INCRG, - IS DECR
WEATHER WATCH AREAS
WS281 ISSUED 1616Z VALID UNTIL 2300Z
WS281 ISSUED 1630Z VALID UNTIL 2300Z
THURSDAY
1735Z JUN 10. 1982 RADAR SUMMARY SD17


JUN 10. 1982 RADAR SUMMARY SD19
THURSDAY
TIME 1953Z START 1954Z
LOCAL WARNING RADARS--ABI CLE
LEGEND...
SHADING--ECHO AREAS
CONTOURS AT INTENSITIES 1-3-5
TOPS 999--BASES 999--100S OF FT
AVNT--AREAS+LINES--PENNANTS
AVNT--CELLS--ARROWS WITH SPEED
PRECIP TYPE AND CHANGE OF INTENSITY
+ IS INCR OR INTNS, - IS DECR
WEATHER WATCH AREAS
WS281 ISSUED 1616Z VALID UNTIL 2300Z
WS281 ISSUED 1630Z VALID UNTIL 2300Z
WS282 ISSUED 1800Z VALID UNTIL 0100Z
WT283 ISSUED 1930Z VALID UNTIL 0230Z
N108 D265
1935Z JUN 10. 1982 RADAR SUMMARY SD19
THURSDAY