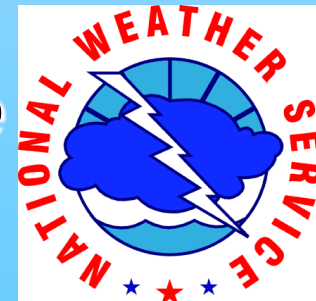


The Blizzard of '78... Revisited



***NOAA's National Weather Service
Taunton, Massachusetts***



Historic Nor'easters of the 20th Century

- Christmas Night Storm - 1909
 - Severe coastal flooding
- Valentine's Day Storm - 1940
- March 1956 Blizzard
 - *Etrusco* freighter washed ashore at Scituate
- February 1969
 - Record snowfall
- **Blizzard of '78** ←
- October 1991
- December 1992
- October 1996
 - Stream flooding
- April 1997



The Patriot Ledger

Two-Foot Snowfall Predicted For Area

Too Much! Even For New England

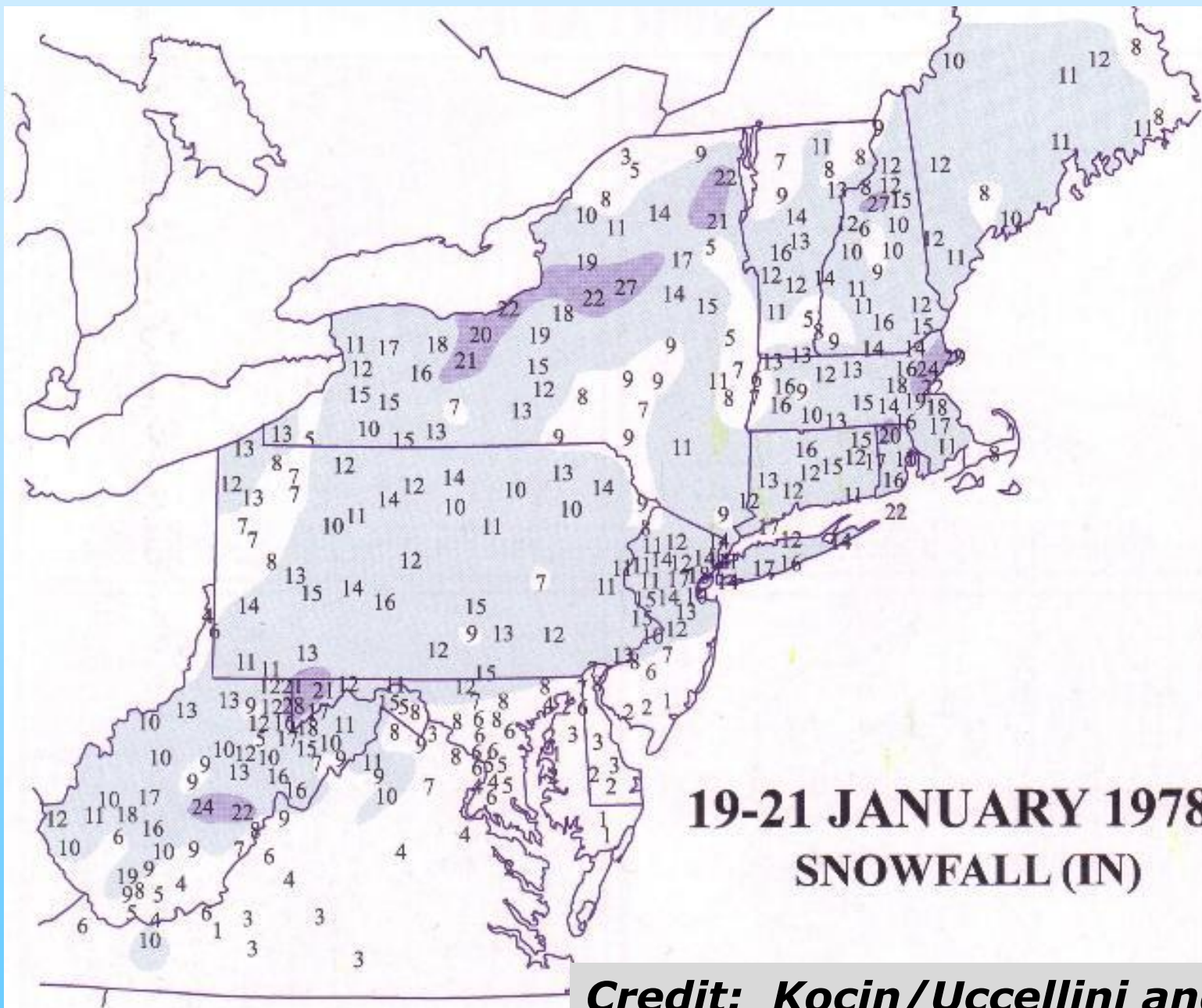
'T' Clogs, Closes; Captures 1000s

Saga Of The Snowbound 'T'

Are these headlines about the ***Blizzard of '78??***

NO!!!!!!!!!!

Friday, January 20, 1978



19-21 JANUARY 1978
SNOWFALL (IN)

Credit: Kocin/Uccellini and AMS

SNOWBOUND!

***Front page of the Boston Globe
Saturday, January 21, 1978...***



**...this poorly forecast storm set the stage
for the ensuing disaster that
followed two weeks later...**



GLOBE FILE PHOTO/DAVID L. RYAN

ROUTE 128, DEDHAM - FEBRUARY 1978

The blizzard of 1978

Credit: Boston Globe

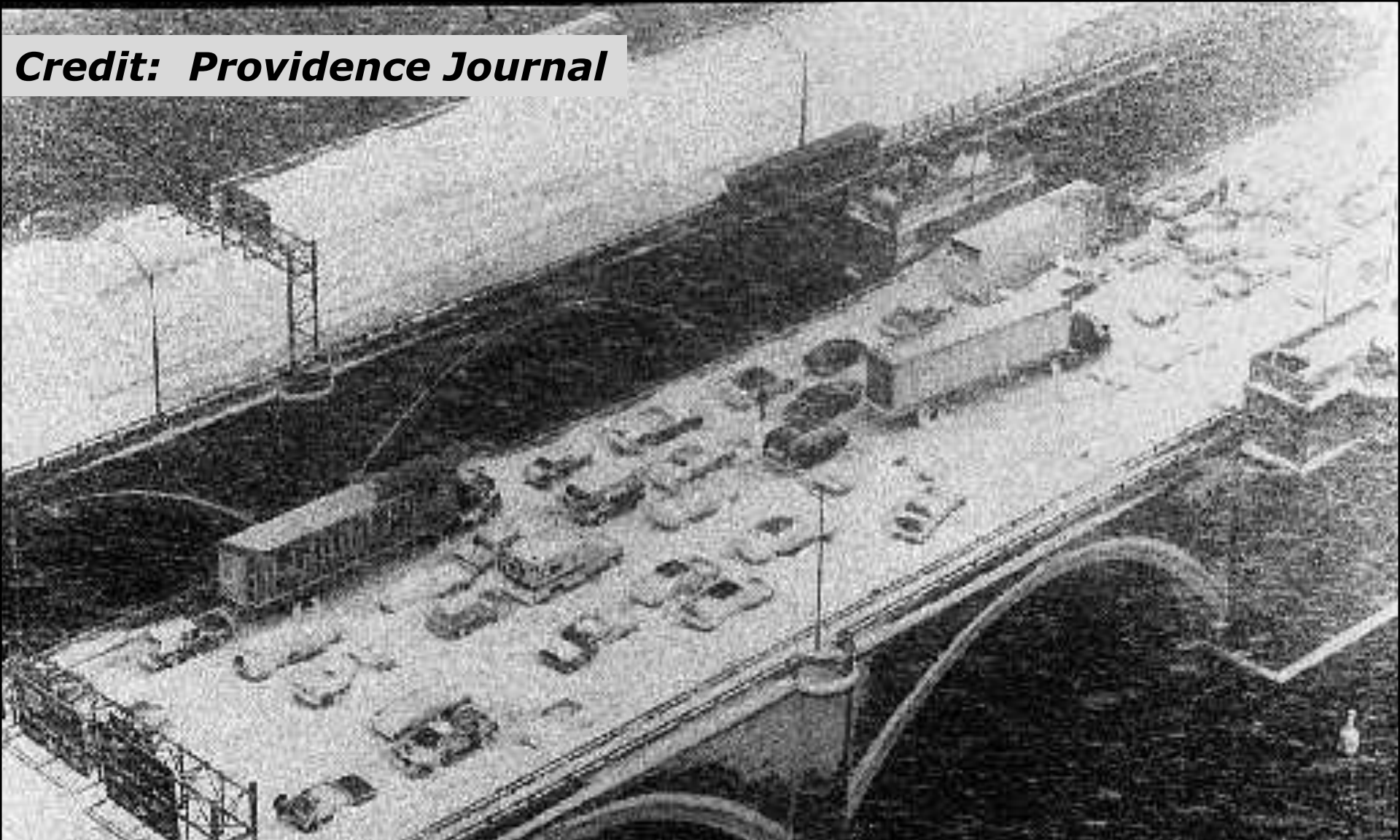
Ingredients "in the mix" to create the Blizzard of '78

- Unusually strong high pressure over central Canada with very cold air, and nearly stationary high pressure over Greenland
- Astronomical high tides in early February 1978
 - New moon, moon in “perigee”, NE “fetch”
- Low pressure at the surface and aloft moved out of the Great Lakes to the mid Atlantic coast
- Cold Canadian air to the north, low pressure to the south and relatively warm ocean air mixed together to form “*The Blizzard*”, which stalled off southern New England for nearly 36 hours



People line up for a bus ride in Providence, as the Blizzard of '78 starts to paralyze traffic

Credit: Providence Journal



STOPPED IN THEIR TRACKS: Cars, trucks and rescue vehicles are stopped dead in their tracks on Route 195 East along the Washington Bridge in Providence



Stranded cars on Route 128



***Route 128 near
Great Blue Hill
in Canton***

***Credit: Kocin/Uccellini &
American Meteorological
Society***

NO EXIT: The scene on Route 95 near RI exits 21 and 22 shows the total obstruction of the interstate



Credit: Providence Journal

Credit: Providence Journal



THIS
STREET
NEEDS
PLOWING

***FOOTPRINTS WITH A MESSAGE:
A street in Cranston, RI needs plowing***

Metro | Region *Credit: Boston Globe*

Blizzard of '78 | STORM OF THE CENTURY

"I'll never forget

it. I was sitting in my living room when the waves and the wind were rocking the house. Then, this one wave hit. It was a sound like no other. It roared and whined like a siren. The house groaned and I knew it was time to get out."



- Ginny Deveau, whose home in the Beachmont section of Revere was destroyed by the storm. Homes in Scituate (above) took a similar beating.

Sea-ravaged houses along Peggoty Beach in Scituate



Sea-ravaged houses along Peggoty Beach in Scituate.

Credit: Boston Globe

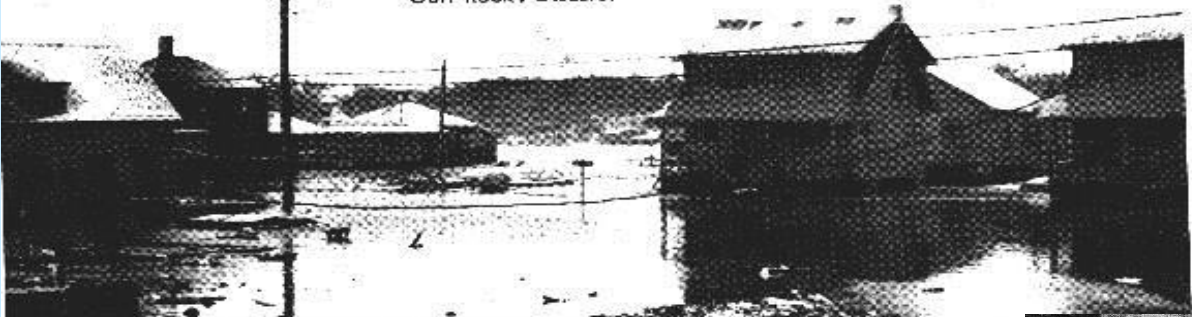
(Globe aerial photo by Bill Brett)

Credit: Boston Globe



*A home lost in Revere due to
Blizzard's storm tide*

Gun Rock, Disaster



***Hull takes the brunt of the storm...
through 4 successive tide cycles***

Kenberma St. Ocean side

Police Photos

1998, 2001, by J. B. Page
Providence, Rhode Island, Tuesday, January 11, 1998
\$6.00 per week in advance

Worst snow storm in R.I. history halts transit, strands thousands



Governor is told U.S. will send storm aid

By William J. Bennett
Providence, R.I. (AP) — Gov. Lincoln D. Chafee Tuesday said he had received word from the U.S. Department of Justice that the federal government would provide financial aid to help Rhode Island recover from the worst snowstorm in its history.

Chafee said the aid would cover the cost of snow removal and other emergency services. He said the aid would also cover the cost of providing food and shelter for the thousands of people who were stranded by the storm.

Chafee said he was pleased to hear that the federal government would provide aid to Rhode Island. He said the aid would help the state recover from the storm and get back on its feet.

Witnessed death count in R.I. is eight

Providence, R.I. (AP) — Rhode Island officials Tuesday said they had confirmed the deaths of eight people during the worst snowstorm in the state's history.

The deaths were confirmed by the state's medical examiner. The deaths were caused by heart attacks, strokes, and other medical conditions. The deaths were the result of the extreme cold and the isolation of many people during the storm.

Officials said they were still investigating the deaths. They said they would release the names of the victims as soon as they were confirmed.

Garrahy declares state of disaster

Providence, R.I. (AP) — Gov. Lincoln D. Chafee Tuesday declared a state of disaster in Rhode Island because of the worst snowstorm in the state's history.

Chafee said the state of disaster was declared because of the extreme cold and the isolation of many people during the storm. He said the state of disaster would allow the state to use state funds to help with the recovery.

Chafee said he would be working with the federal government to get more aid for the state. He said he would be working with the state's emergency management agency to help with the recovery.

Innkeepers by chance, not choice

Providence, R.I. (AP) — Many Rhode Island innkeepers Tuesday said they were not prepared for the worst snowstorm in the state's history.

The innkeepers said they were not equipped with enough snow removal equipment. They said they were not prepared for the extreme cold and the isolation of many people during the storm.

The innkeepers said they were not prepared for the storm because they were not expecting it. They said they were not prepared for the extreme cold and the isolation of many people during the storm.

Megalopolis staggers under emergency status

Providence, R.I. (AP) — The New York City area Tuesday was under a state of emergency because of the worst snowstorm in the state's history.

The state of emergency was declared because of the extreme cold and the isolation of many people during the storm. The state of emergency would allow the state to use state funds to help with the recovery.

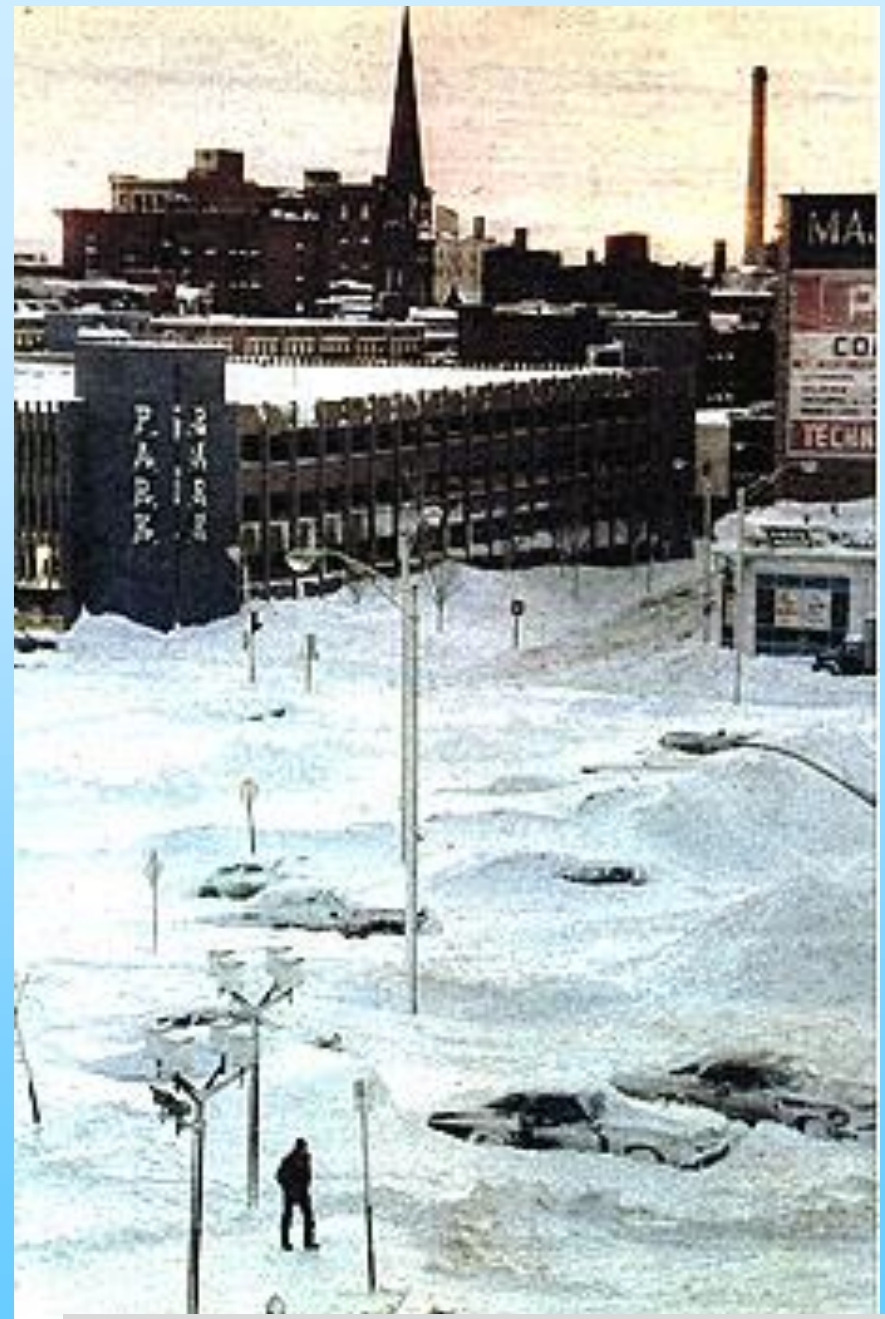
The state of emergency was declared because of the extreme cold and the isolation of many people during the storm. The state of emergency would allow the state to use state funds to help with the recovery.



BY AP/WIDEWORLD A LONG LINE OF PEOPLE WAITED FOR FOOD AT A MCDONALD'S RESTAURANT IN PROVIDENCE, R.I., TUESDAY.

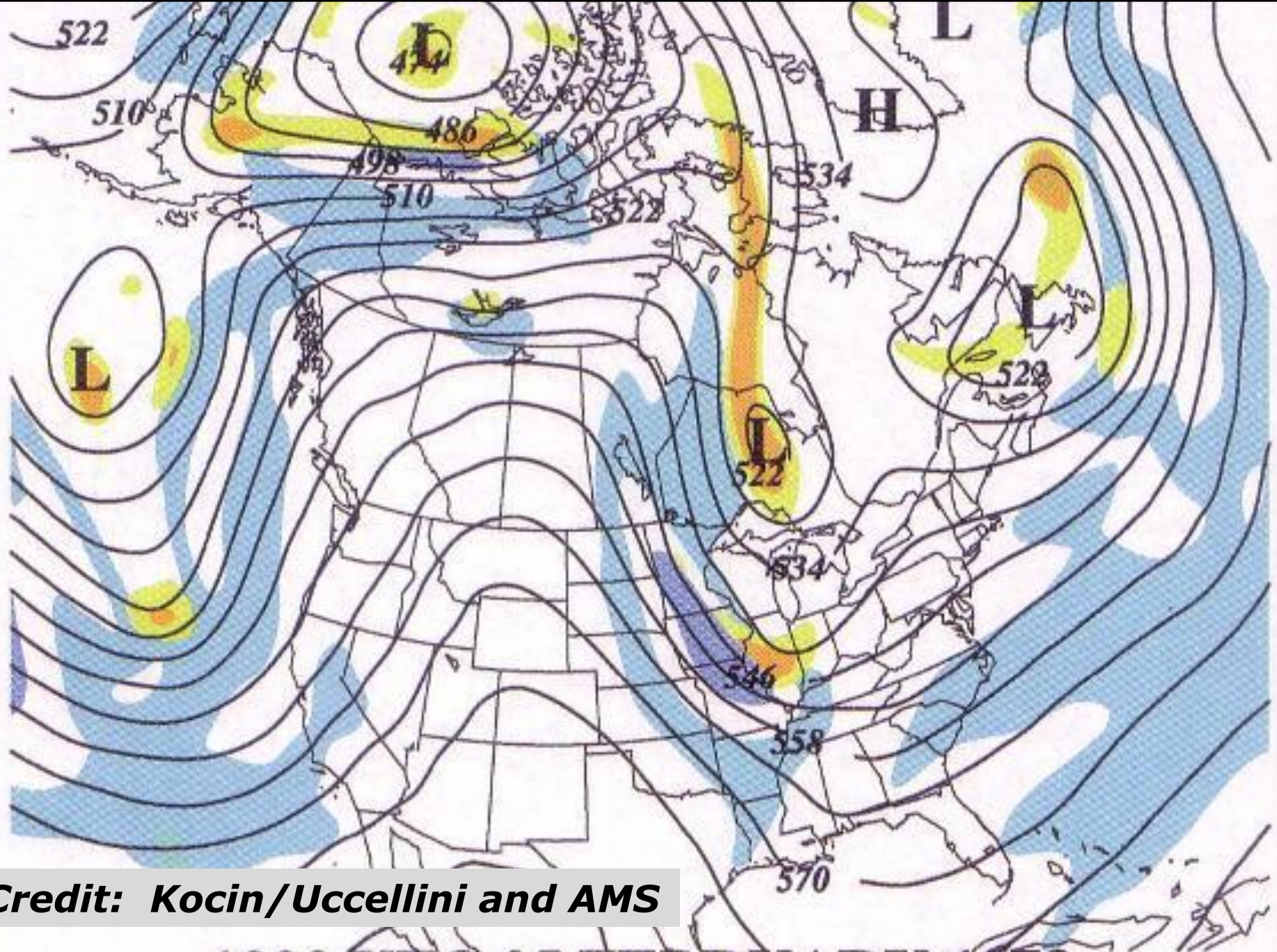
Good Evening!
Index

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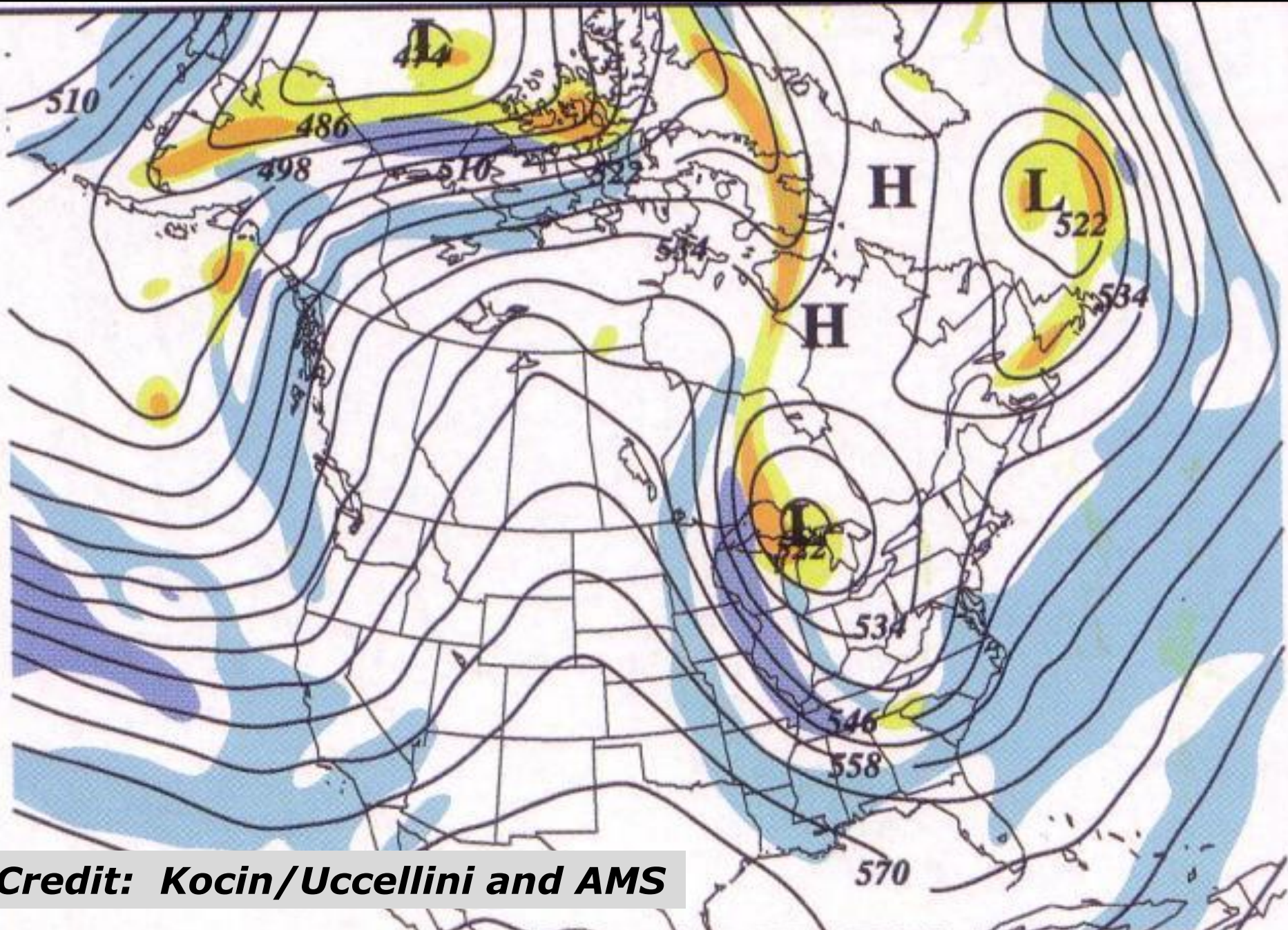
Credit: Providence Journal

**500 MB Heights and
Upper-Level Winds
7 AM Feb 5 to 7 AM Feb 7**



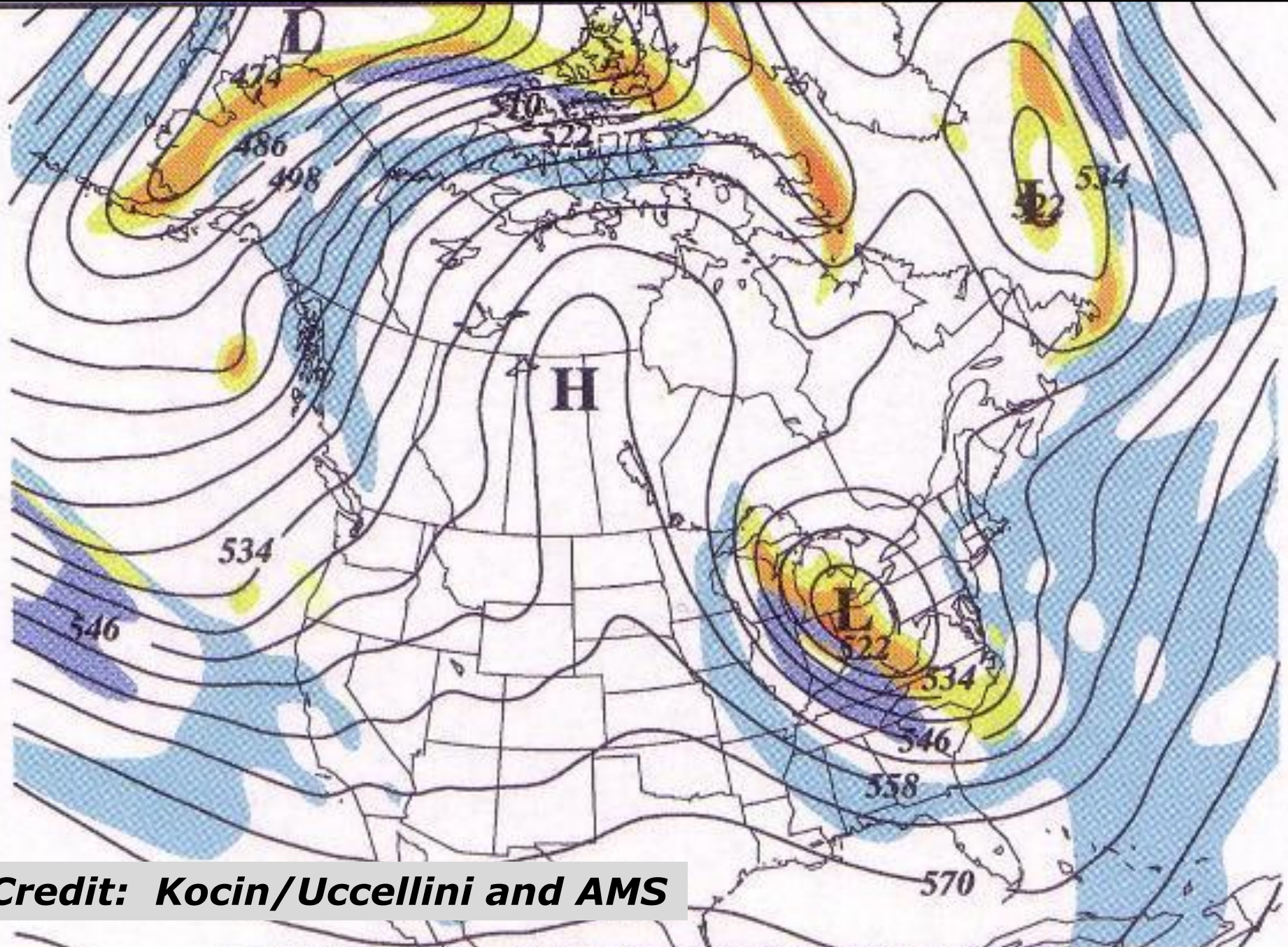
Credit: Kocin/Uccellini and AMS

1200 UTC 05 FEBRUARY 1978



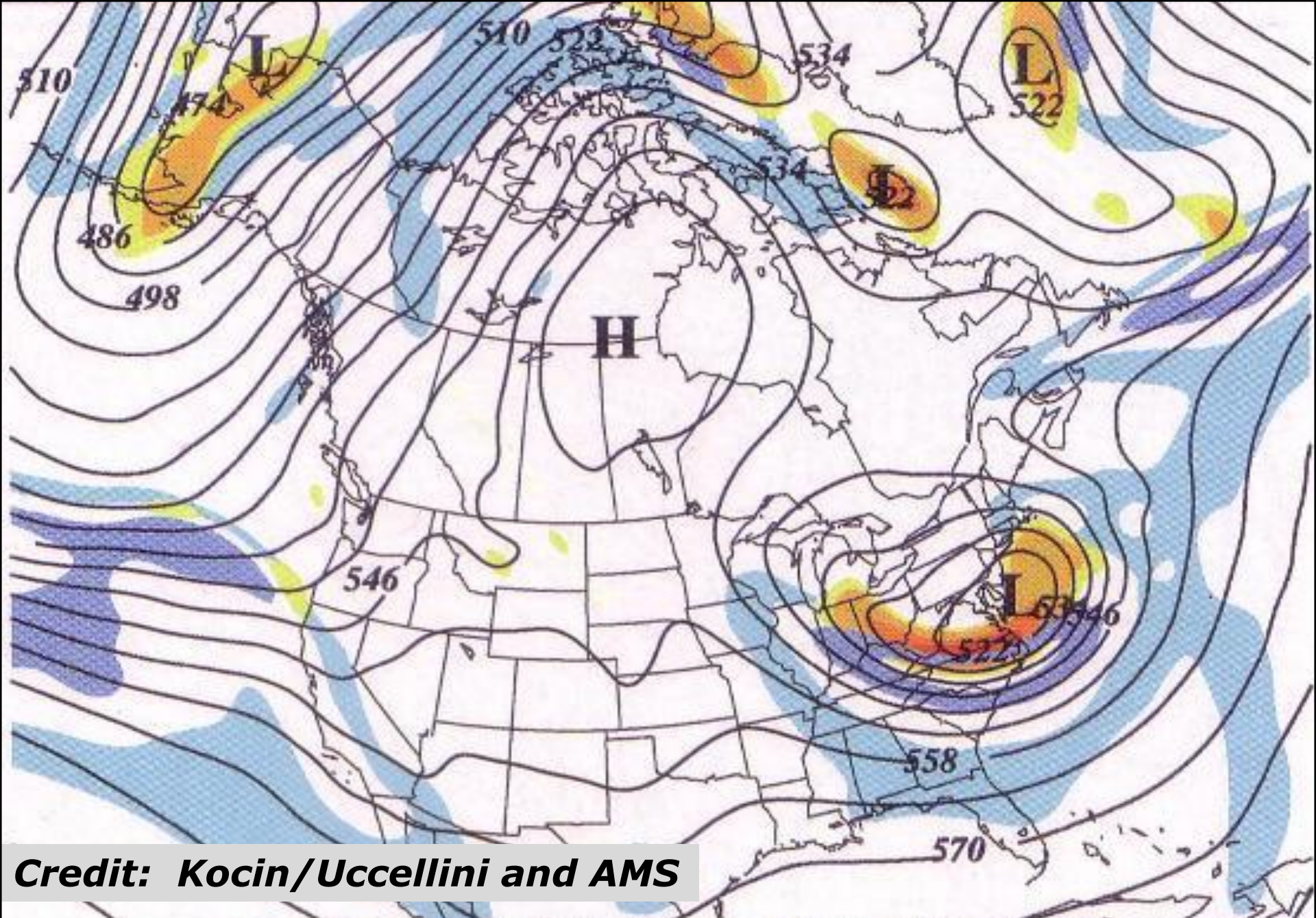
Credit: Kocin/Uccellini and AMS

0000 UTC 06 FEBRUARY 1978



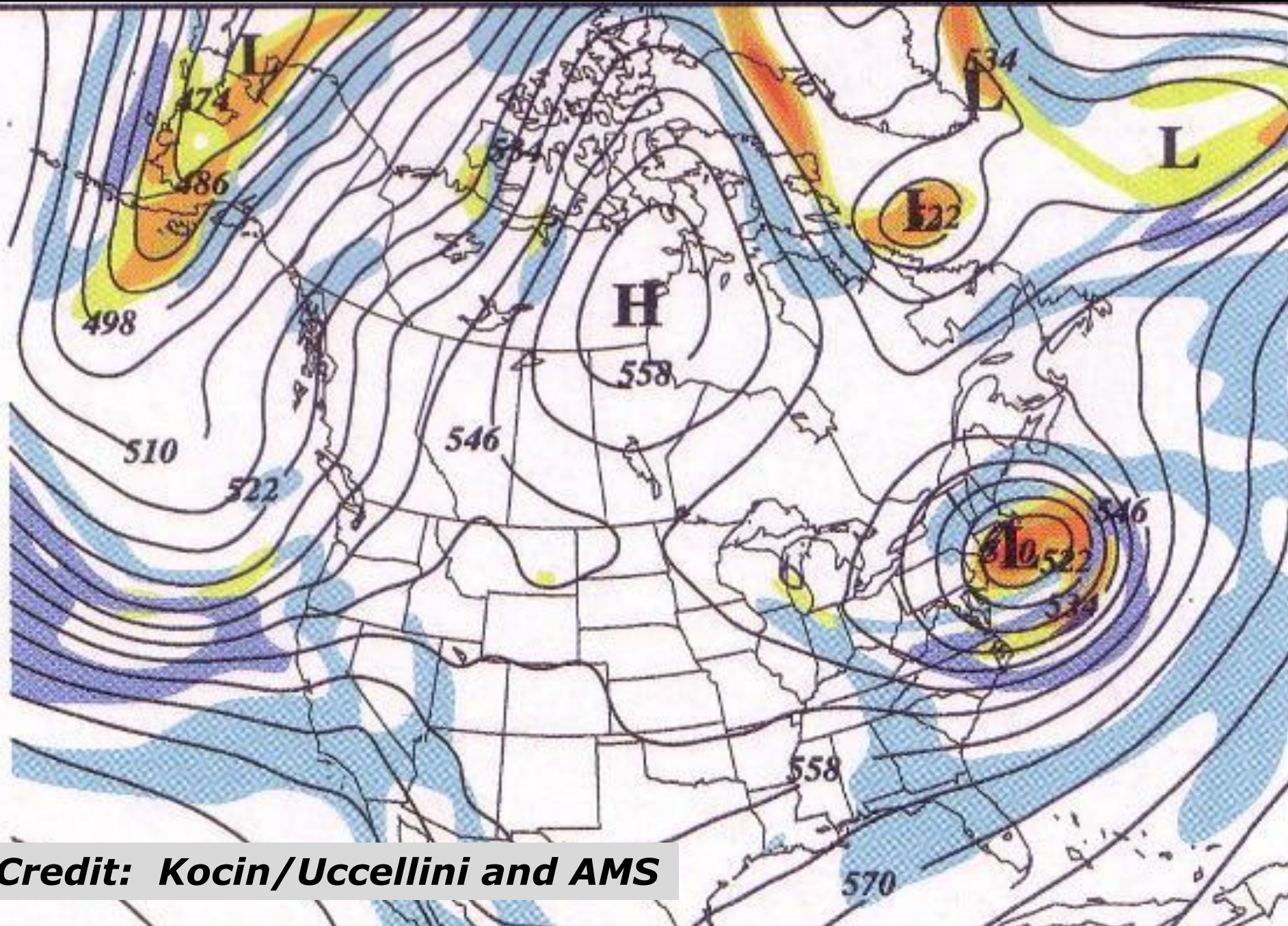
Credit: Kocin/Uccellini and AMS

1200 UTC 06 FEBRUARY 1978



Credit: Kocin/Uccellini and AMS

0000 UTC 07 FEBRUARY 1978

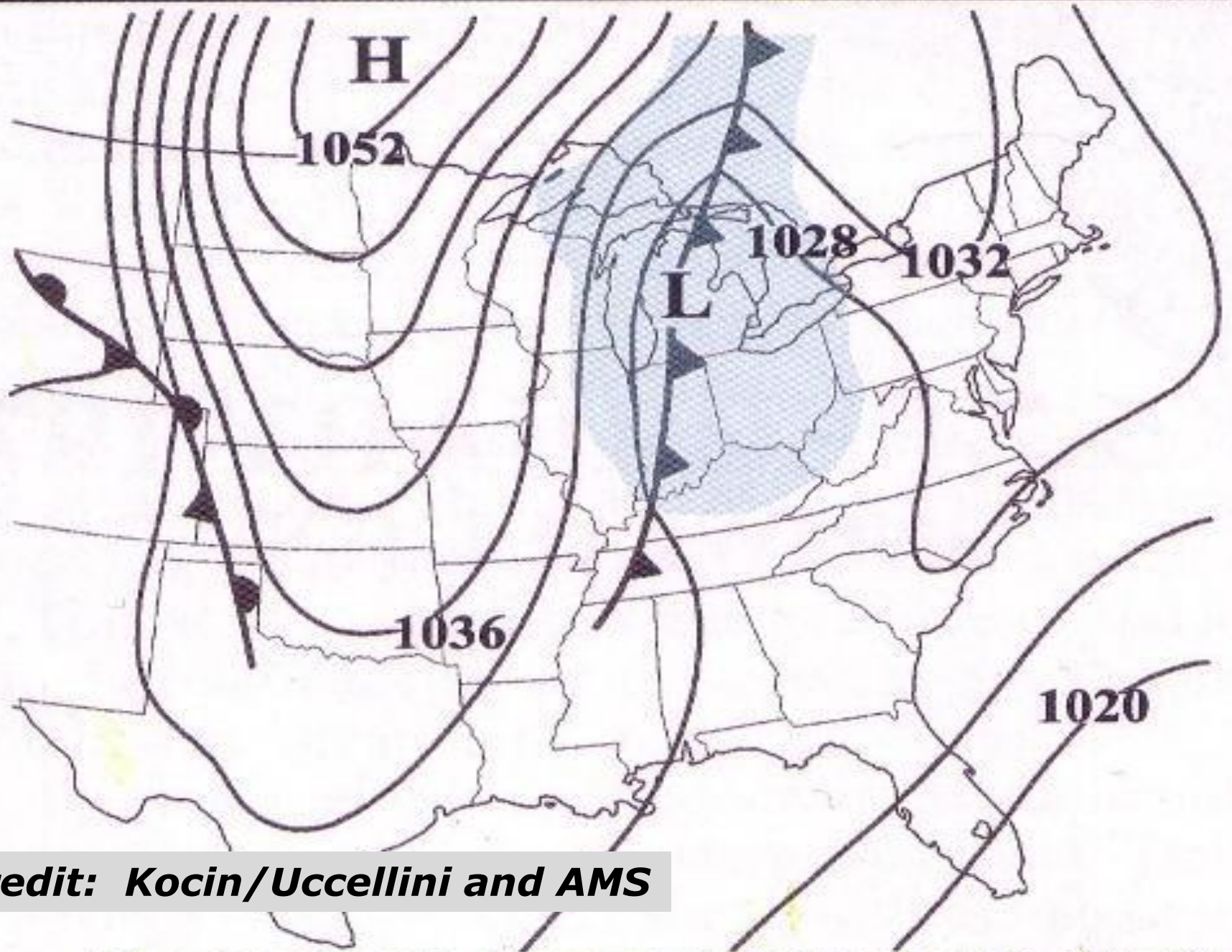


Credit: Kocin/Uccellini and AMS

1200 UTC 07 FEBRUARY 1978

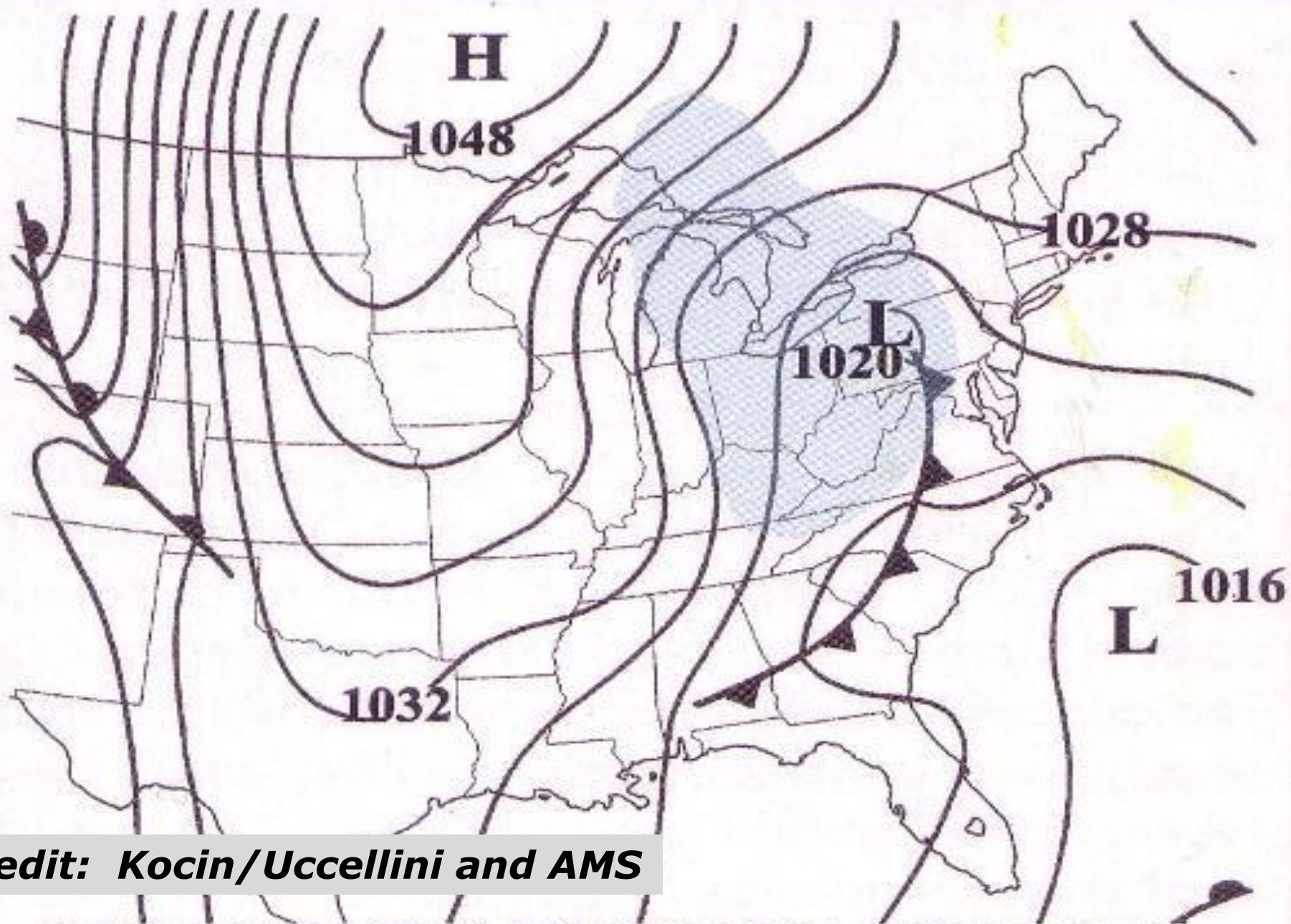
Surface Weather Analysis

7 AM Feb 5 to 7 AM Feb 7



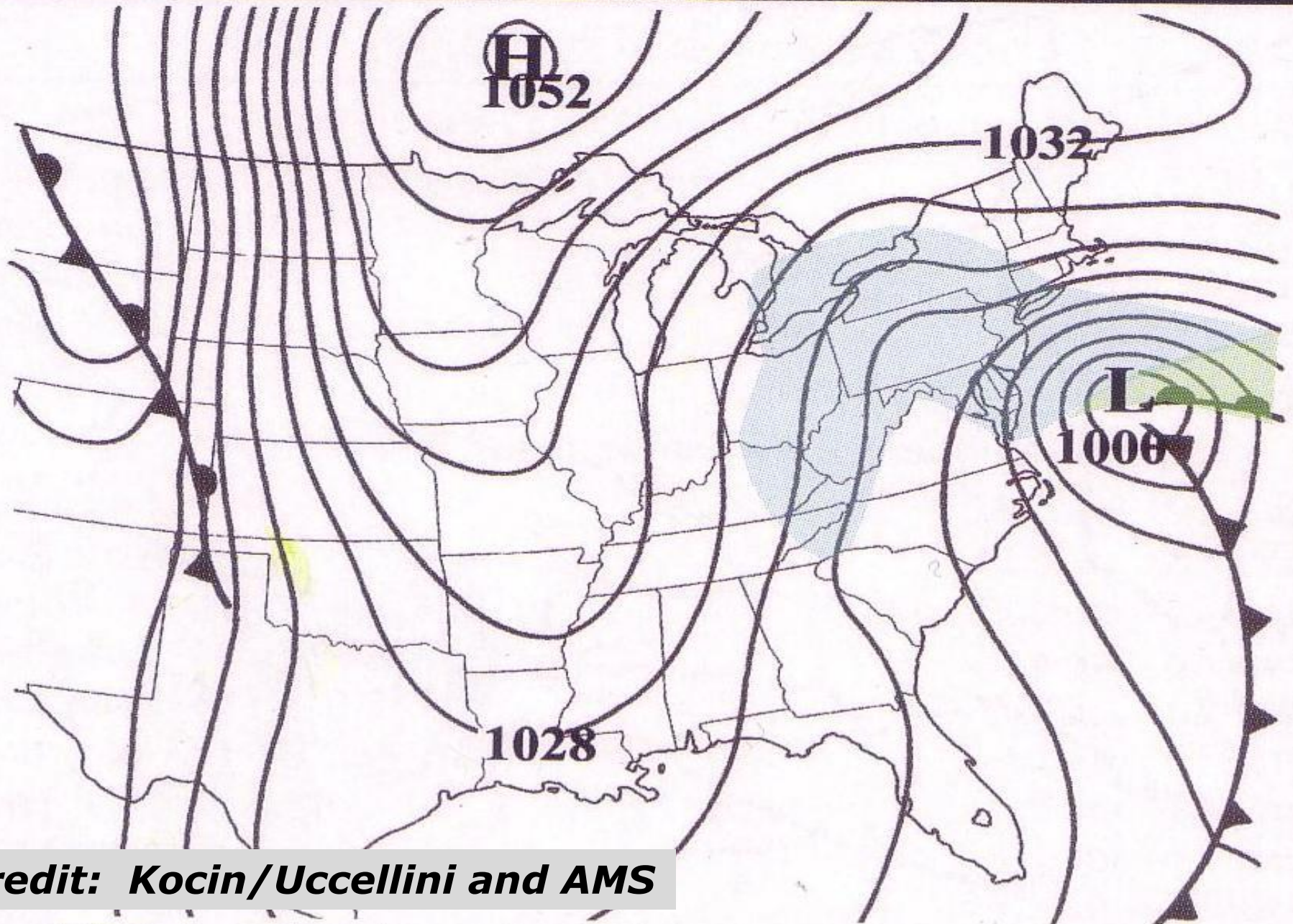
Credit: Kocin/Uccellini and AMS

1200 UTC 5 FEBRUARY 1978



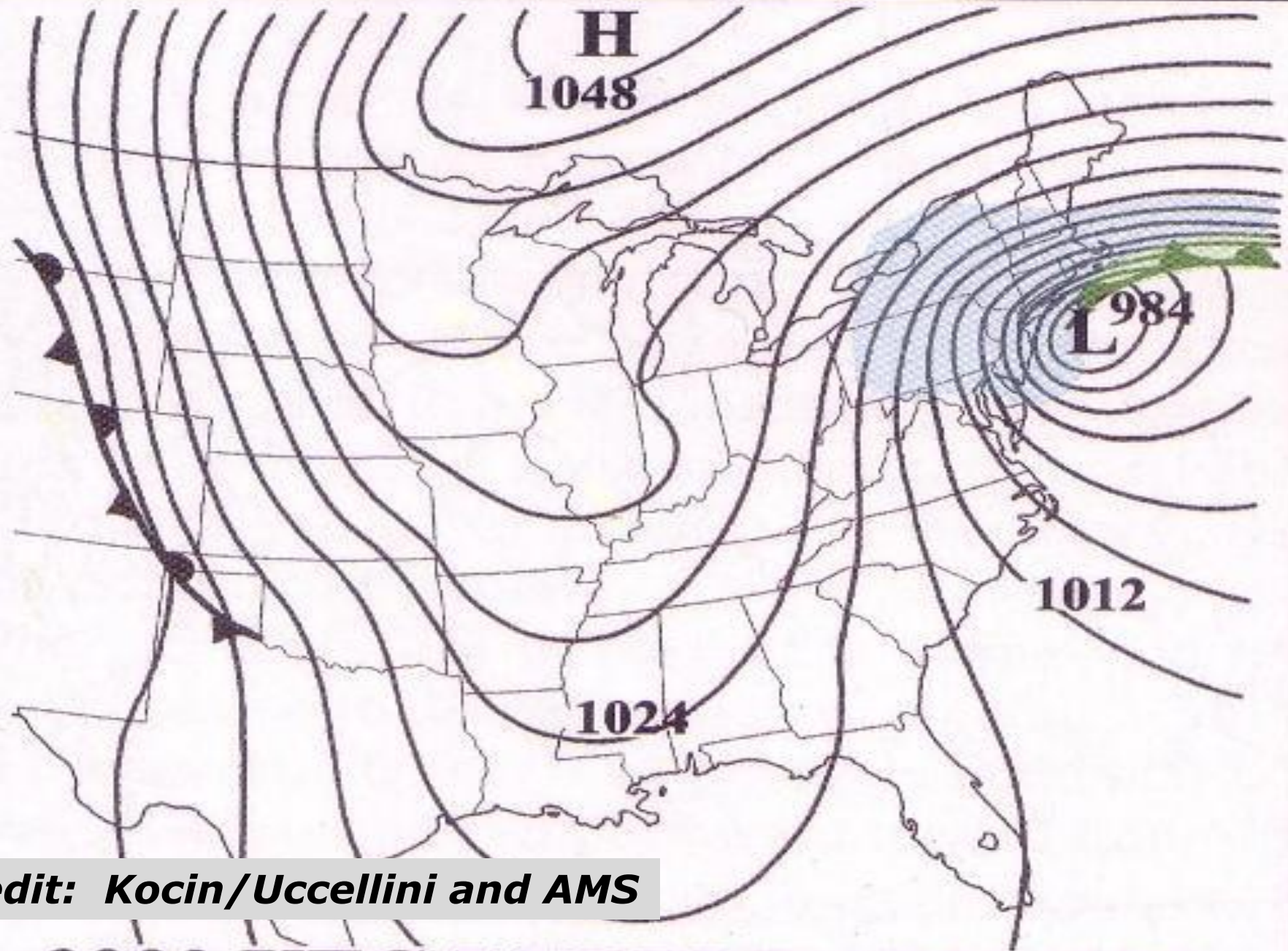
Credit: Kocin/Uccellini and AMS

0000 UTC 6 FEBRUARY 1978



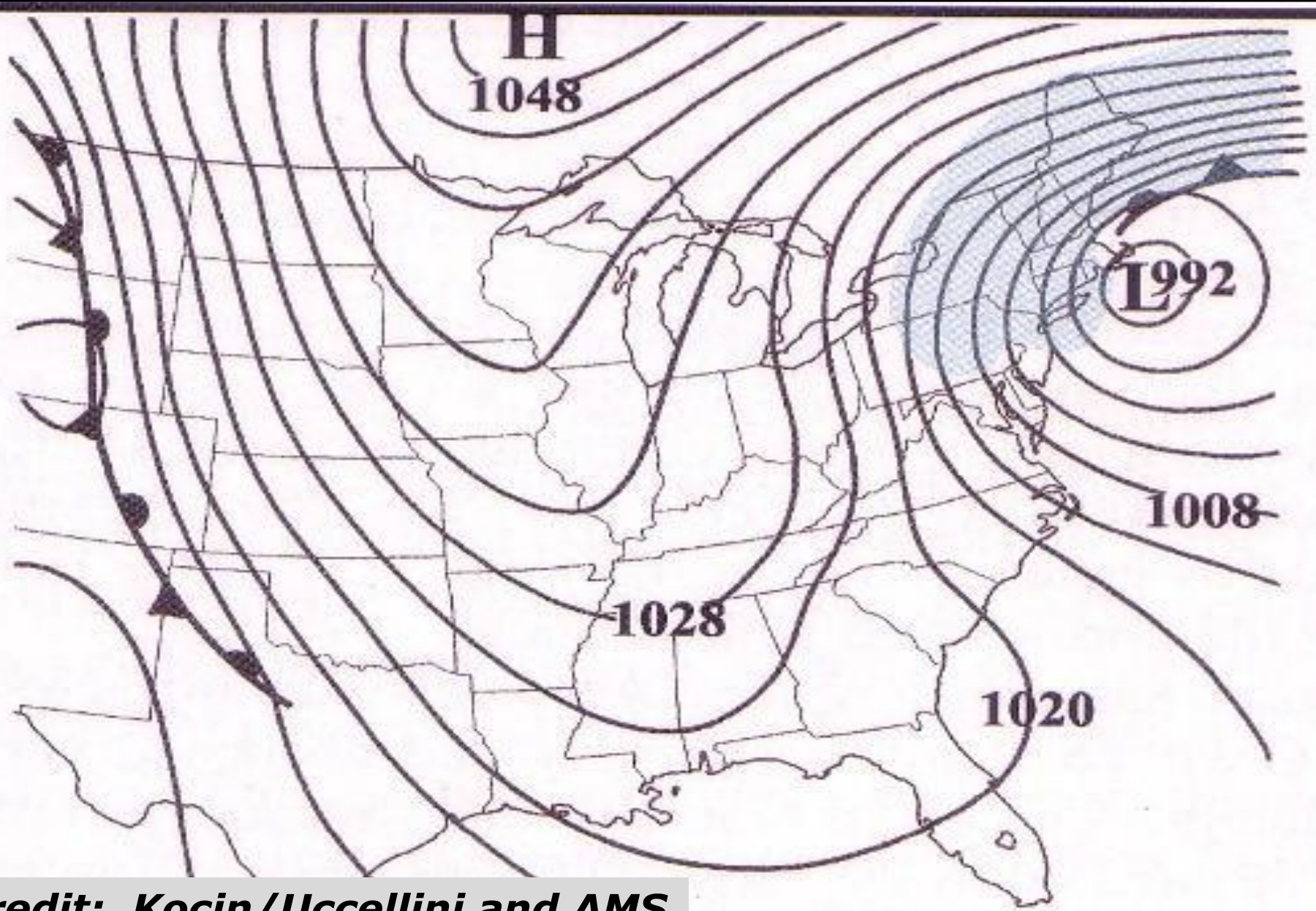
Credit: Kocin/Uccellini and AMS

1200 UTC 6 FEBRUARY 1978



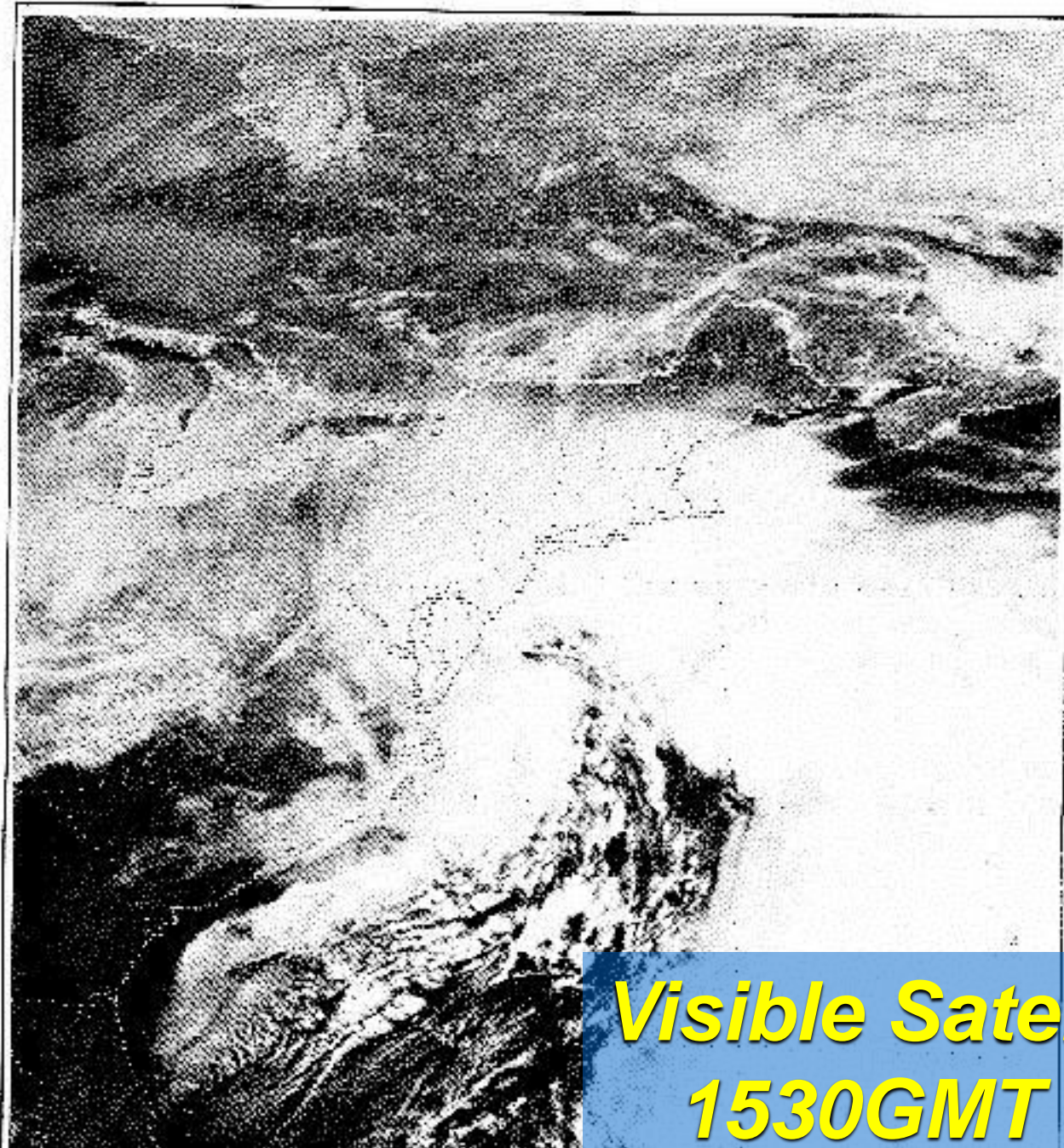
Credit: Kocin/Uccellini and AMS

0000 UTC 7 FEBRUARY 1978



Credit: Kocin/Uccellini and AMS

1200 UTC 7 FEBRUARY 1978



***Visible Satellite 6FEB78
1530GMT (1030 AM)***



***Visible Satellite 7FEB78
1530GMT (1030 AM)***

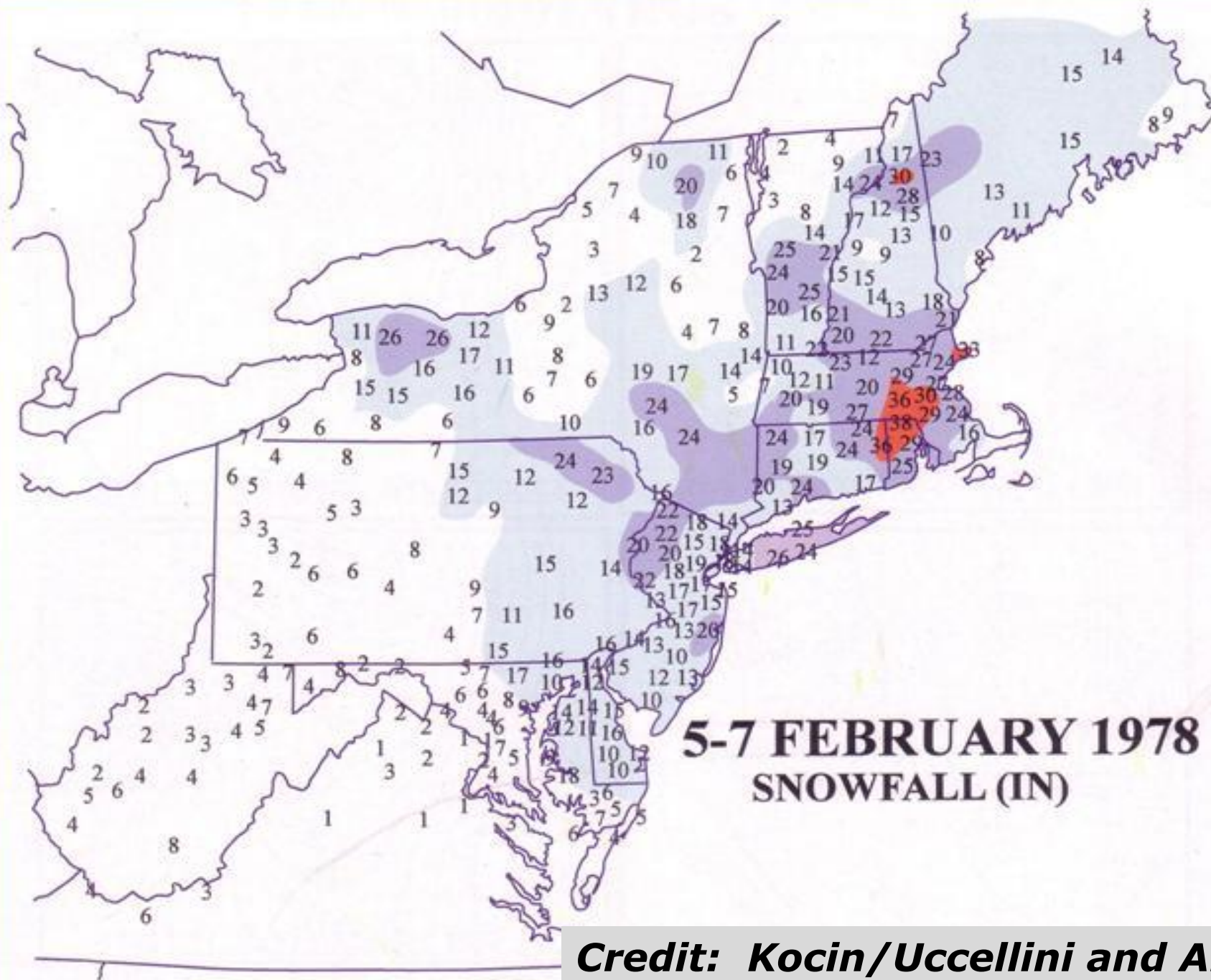


Snowfall Amounts



- Woonsocket, RI - 38.0" (official)
- Rockport, MA - 32.5"
- Providence, RI - 27.6"
 - **24 hour snow record 27.3" 10AM Mon-Tue**
- Boston, MA - 27.1"
 - **24 hour snow record 23.6" 7 PM Mon-Tue**
- Worcester, MA - 20.2"
- Hartford, CT - 16.9"
- Snowfall rates -- up to ***3 inches per hour***

The month's only measurable snowfall!!!



Credit: Kocin/Uccellini and AMS



Blizzard Bits



- The Blizzard was forecast remarkably well **several days in advance**
 - Winter Storm Watch issued early Sunday morning (30 hrs in advance)
 - Heavy Snow Watch issued Sunday afternoon
 - Warnings issued early Monday morning
 - “Near blizzard conditions” forecast 15 hours in advance
- Many people stranded on roads because the onset of heavy snow occurred **slightly later than predicted**
- People were **skeptical of the warnings** issued, following a series of inaccurate forecasts the preceding month



Blizzard Bits



- The only Blizzard in Boston (since 1961) to verify on a “sustained” wind of 35 mph for 3 hours or more: 2/6/78 2 PM - 6 PM EST
- Storm lasted nearly 36 hours and paralyzed the entire region for a week
- Deepest Weather Service listed unofficial snowfall: 55 inches (Lincoln, RI) -- Snow drifts as high as ***27 feet***
- Strongest wind gusts
 - Boston -- 79 mph and Chatham -- 93 mph



Blizzard Bits



- Cars abandoned on Routes 95, 195, 146 in greater Providence: 1,950
- Cars stranded along Route 128: 3,500
- Homes destroyed in New England: 2,000
- People in storm shelters (N.E.): 10,000 +
- Total lives claimed by the storm (N.E.): 99
(73 in MA, 26 in RI from American Red Cross)
- Tides about ***4 feet above normal***, then waves driven onshore ***up to 12 feet*** on top of that!
- Total cost of damage (N.E.) \$1 billion

FALL RIVER: An aerial view of downtown Fall River on the morning after the snow stopped

**Courtesy: Andrew Dickerman
Providence Journal**

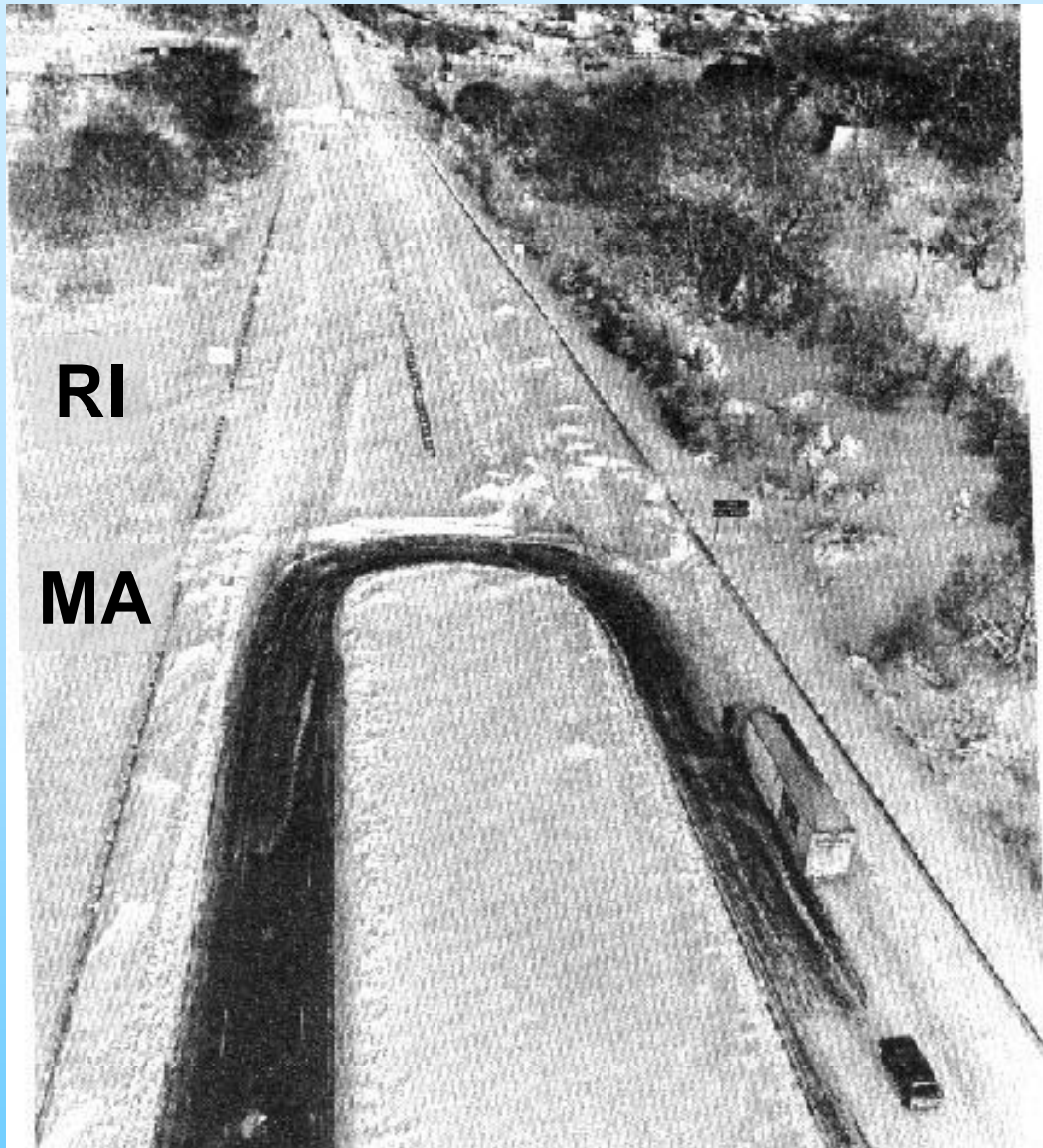




LONG DISTANCE: There are long distance phone calls, and there are long distance phone calls. This woman reached into a phone booth on Broad Street, Providence, and made it the hard way. Of course, there was a reason for it ... the booth was filled with snow.

**- Bob Emerson Copyright
© 1998 The Providence
Journal Company**





RI

MA

***Seems to be a problem at the Rhode Island border...
Route 195 Westbound, after the Blizzard***

Quincy Bay and Wollaston Beach



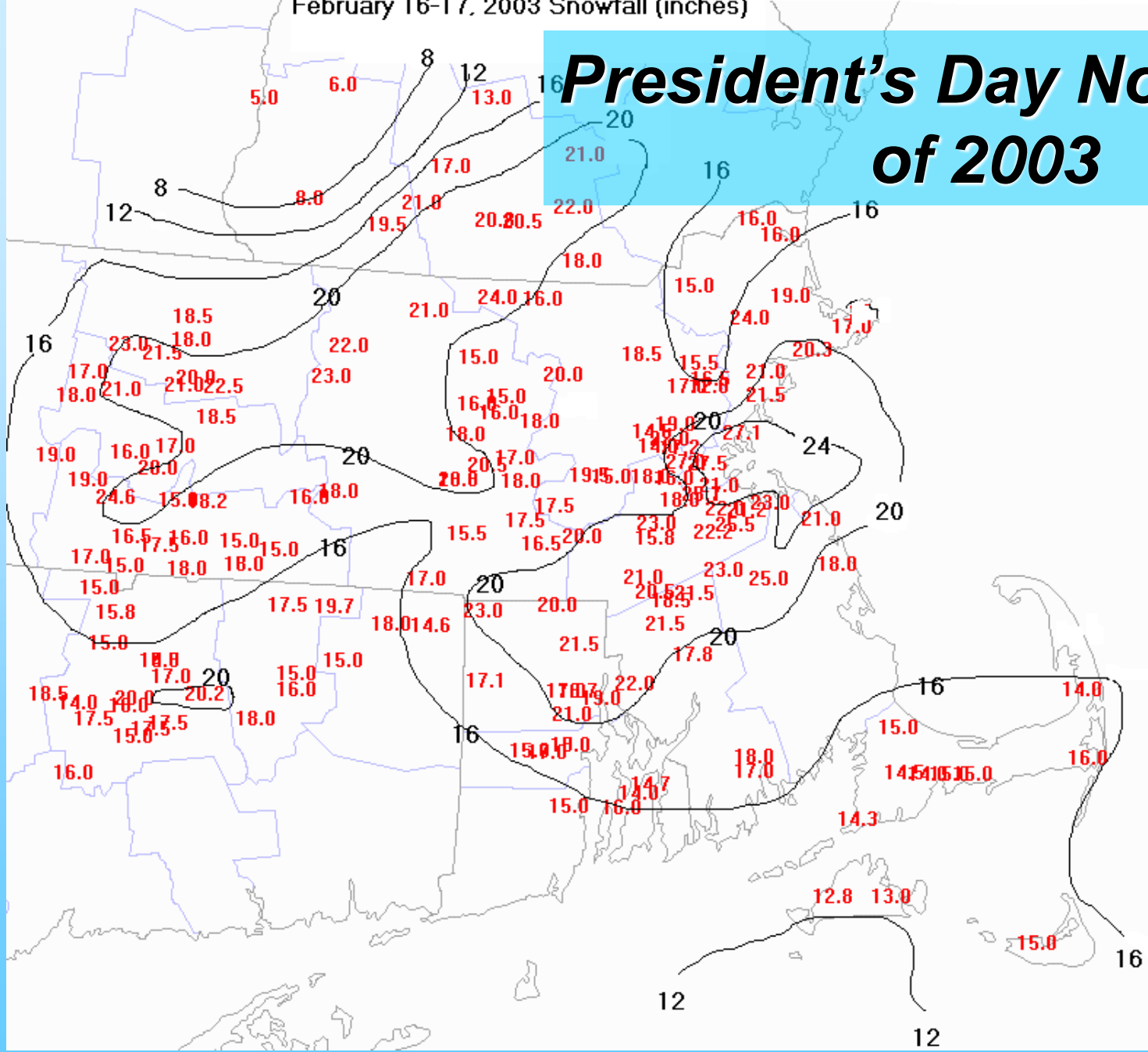
Scenes from Quincy...

**A dog...
looking for his *favorite*
fire hydrant!**

***Comparisons to other
Historic Storms since
1978***

February 16-17, 2003 Snowfall (inches)

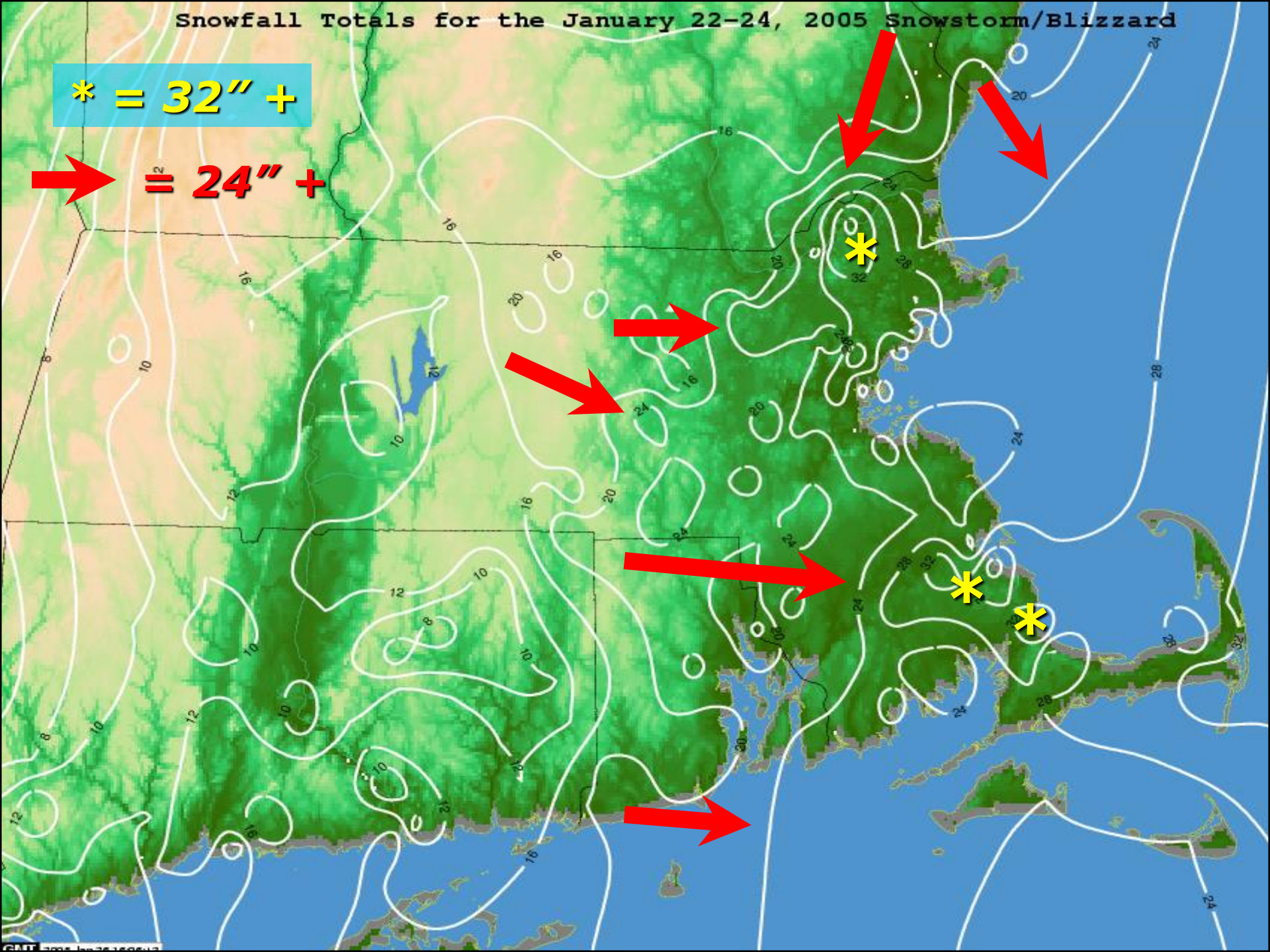
President's Day Nor'easter of 2003



Snowfall Totals for the January 22-24, 2005 Snowstorm/Blizzard

*** = 32" +**

➔ = 24" +



A Comparison of Storms

- **The Blizzard of '78**

- Record snows for several locations (BOS, PVD)
- Officially 38" snowfall with large area of 30+"
- Devastating high tides for FOUR tide cycles (2 days) with continual onshore flow
- MAJOR coastal flooding
- Storm stalled off coast and developed into strong storm, 30+ hour snow duration
- Hurricane force wind gusts

- **President's Day Nor'easter of '03**

- Top 10 historic snowfalls for BOS, PVD, ORH and Blue Hill
- Large area of 20+” snow fall across eastern and north central MA (28” Rockport)
- Astronomical high tide, but only one cycle (12 hours)
- Minor coastal flooding
- Fast moving “weak” storm, ended within 24 hours
- 47 mph peak wind gust

Blizzard of '05

- Fast moving intensifying storm
 - Steadily moved eastward well south of New England
- Snowfall
 - Top 10 historic snowfall – BOS, PVD, ORH, Blue Hill
 - Snowfall ended in about *20-24 hours*
 - Comparable amounts as opposed to Blizzard of '78 and President's Day, but *in a shorter time*
- Coastal Flooding
 - Not as devastating as the '78 Blizzard due to fast movement, though most east coastal locations reported minor flooding
 - Only ***one tide cycle*** affected on astronomical high tide
- Wind
 - Hurricane force wind gusts across several areas of eastern MA and RI



***Stormy Conditions
in Back Bay***

*Credit: Hayden Frank
WFO BOX*

***Scenes from the
Blizzard of '05***



***Tops of Park Benches
in Boston Common!!***



***Greater Boston Area
Photos received by WFO Taunton
from local citizens***

***Plymouth, MA
Credit: Bob Ferioli***



Cape Cod Aftermath
Credit: Barry Donahue
Cape Cod Voice



Credits

- *Northeast Snowstorms*, by Paul J. Kocin and Louis W. Uccellini; American Meteorological Society (AMS), Meteorological Monograph Volume 32 Number 54 in two volumes, 2004
- DOC Natural Disaster Survey Report 78-1, Northeast Blizzard of '78, DOC/NOAA publication
- Boston Globe and Boston Herald American
- Providence Journal
- Worcester Sunday Telegram
- Warwick Beacon (RI)
- Patriot Ledger, Quincy, MA
- Archival records at NWS Taunton
- Cape Cod Times & Cape Cod Voice

