

Gibberish Means 'Thunderstorms With Moderate to Strong Winds'

By Doug McCartney

AREA WDLY SCTD MDT TO STG 20 WIDE 60 NW GRI 60 SSE LINK.

Gibberish? To the ordinary Lincolnite, yes.

But to the trained eyes of the meteorologist it reads: Widely scattered thunderstorms with moderate to strong winds are possible in an area 20 miles on either side of a line from 60 miles northwest of Grand Island to 60 miles southeast of Lincoln.

Mr. Lincolnite can hear the translations of the weather forecast for the area any time they may occur on the radio or TV and he can read about them in his newspapers. It is his protection against a rained out picnic . . . or a dreaded tornado.

March through September are the months for severe weather but June is the time for sudden thundershowers, according to the U.S. Weather Bureau. During this time an "eagle eye" is kept on the constantly changing weather by an elaborate warning system.

Tornado Weather

The first indications of possible tornado weather are found by meteorologists plotting the warm and cold air masses as they move through Nebraska, said Richard E. Myers, head meteorologist at the Lincoln Weather Bureau.

Weather balloons report the temperature, moisture, and wind in the air masses, he said. They watch for the special "breeding conditions" for severe weather and tornadoes.

A mass of light, warm, moist air is blown underneath a mass of cold, dry air. The light air tries to rise. Turbulence begins. Storm clouds form.

Miles away, in Omaha and Kansas City, radar notes the formation of the storm. The weather charts are consulted, and the danger area is determined by the size of the air masses.

We pick out as small an area as we can, Myers said. It usually averages a couple of hundred miles long and about 120 miles wide. We usually determine it "from point to point," he added.

"Severe" Forecast

The "severe weather forecast" is given to newspapers, radio and TV. The Bureau then notifies rural observers, police and state patrol in the danger area to watch for and report funnels or dangerous looking clouds.

The Lincoln area is well organized, said Myers. The Weather Bureau can also keep tabs on possible tornadoes by radar at the Lincoln Air Force Base, he said.

If a tornado is located in the area, the Bureau notifies the communications media for public warnings and contacts local civil defense. If the funnel is approaching Lincoln, the fire siren will sound to warn local residents.

The chance of being hit by a tornado is very small the head meteorologist commented. But the destructiveness of the storms led the Weather Bureau to establish the forecasting and warning systems about five years ago.

The tornado is a "freak" of violent weather, very localized but destructive, Myers stated. Tornado weather is usually hot and sticky with southerly winds and ominous sky. Between 3 and 7 p.m. is the most common breeding time for tornadoes, but they can occur anytime, he said.

Thunderstorm

The bigger, less destructive brother of the tornado is the thunderstorm. The beauty of the towering thunderheads conceals internal violence including heavy downpours, hail, lightning and thunder. They are common during the summer months throughout the mid-west, Myers said.

There are actually two types of thunderstorms, he said. The first is called the "air mass." It is a single storm caused by superheated air near the earth rising into the cooler upper regions.

The second is a series of rainstorms in a "squall line." This kind is the most dangerous, as it is "self generating" added Myers. The line may travel as fast as 60 miles per hour by creating new storms ahead of it.

This spring and early summer have been more quiet and cool than usual for Nebraska, however, the meteorologist pointed out. The reasons lie partly in the great bands of winds that flow over the United States. While the path is constantly changing, sometimes these winds will follow a favorite path for weeks on end, he said. These winds create "highs" and "lows"—areas of different air pressure.

This spring a ridge of high pressure air formed just to the west of Nebraska and a low, to the southeast, according to Myers. Thus the prevailing winds sweep cool Canadian air over the state. The warm air from the Gulf of Mexico, which usually accounts for the higher temperatures, is bent east and little has reached the area.

The collision of the air masses, causing severe weather, is occurring over the east coast this year, said Myers. This accounts for the heavy winter snow, and the spring flooding, he stated.

"Last year the low was over us" he added, "and we got the snow and rain."

Unfortunately, we don't know why the winds follow the patterns they do—or when they are going to change, Myers said. A complete shift can come in a matter of two or three days.

The forecast for Nebraska, as far as we can tell now, is for a cool summer with more moisture than usual, he stated. But this doesn't mean there will be no tornadoes or severe weather, he explained. It only means that the chance is less, he said.

Finally, it is always wise to remember tornado safety rules, the head meteorologist stated.

When a tornado is approaching:

Go to a tornado cellar, cave or underground excavation if you have one.

Move at right angles to the storm's path if you are in open country. (Tornadoes usually come from the southwest, at 25 to 40 miles per hour.)

In town, seek shelter inside a strong well built structure, and stay away from windows.

In homes, go to the south-west corner in the basement. If you don't have one, take shelter under heavy furniture against the inside walls of the house. Open doors and windows on the sides of your home away from the tornado to reduce damage.

In schools, stay inside if the building is of strongly reinforced construction. Avoid auditoriums and gymnasiums with large, poorly supported roofs.

Stay calm, your chance of the tornado striking your location is very slight.

Finally, keep tuned to a local radio or television station to receive the latest information. Do not call the weather bureau, except to report a tornado.

Seventh Grade Math

Probability Replaces Apples, Pears

The old story problems about buying apples or pears or peaches at the grocery store have disappeared from seventh grade math at University High school. To these seventh graders math is factoring, probability, divisibility patterns and number bases.

They learned algebra and geometry as well as seeing for themselves what reasoning mathematicians used in setting up rules for division or multiplication.

This past school year was the first time the experimental math class has been taught in Nebraska.

The new method, taught by Dr. Milton W. Beckmann with the help of a graduate student from the University, was developed by the School Mathematics Study Group (SMSG) at Yale University and used for the first time two years ago in 12 teaching centers throughout the United States.

The SMSG plan is being started in Omaha schools on an experimental basis this summer.

Experimental Project

It is only one of several experimental mathematics projects being tried in junior and senior high schools in the United States. Grand Island High School is trying a plan developed by the University of Illinois.

The University of Maryland is also experimenting with different methods of teaching math as part of a four million-dollar teaching improvement program for mathematics. Another \$700,000 has been advanced for improvement in the elementary math program.

The students in Dr. Beckmann's class were encouraged to think for themselves

in seeing the pattern in mathematics which lead to unbreakable rules. Dr. Beckmann calls it a "discovery method."

Students look at parallelograms, squares and rhombuses to see the differences in length of sides and width of angles. Instead of memorizing rules, they "discover" the rules.

Four Over Zero

Four over zero is an impossible fraction, according to mathematical rules, but at University High the seventh graders find out why.

The fraction 15-5 can be checked by reducing it to three, then multiplying three by the bottom number of the fraction, five. If the two numbers when multiplied together equal the top number of the fraction, 15, the fraction is possible.

The students tried this check on other fractions, along with the fraction 4-0. All checked out except 4-0 in which neither zero times four or four times zero would equal four.

Often the students actually saw more than Dr. Beckmann himself expected, he said. One day he listed the numbers 2, 4, 6, 8, 10, 12, 14, asking the students "What do you see?"

They saw that all were even numbers, all were divisible by two and each number had an interval of two between it and the following number, which is what he wanted them to see. But they also saw the recurring pattern of 0, 2, 4, 6 and 8.

An attempt to find a pattern among numbers divisible by three puzzled the students, at first. Three, six and nine

didn't seem to recur in 12, 15, and 18.

Finally, one thoughtful boy raised his hand and said in his slow drawl, "Well, Mr. Beckmann, I don't know how reliable this is, but if you add one and two, you get three, one and five make six and one and eight are nine."

Even in such large numbers as 276, the students applied their system, adding the three numbers to get 15 and then re-adding one and five to get six.

Number Bases

Part of their study was centered around number bases, learning how our number system is built on the decimal or base ten system. This means that a number such as 125 is built by adding five, two times ten, or twenty and one times ten, or 100.

The students learned that the decimal number base is only one of many systems by working with a binary or number base system used in IBM machines, a ternary (three) system or a system built on a base of five, eight, 12, etc.

One hundred twenty-five in a binary system would be five plus two times two or four, plus one times two times two or four to make, in our system, 13. Such a study helped the students to understand our mathematical system, Beckmann said.

Algebra was another area of math taught in the experimental class. The students talked with an authority about the commutative, associative and distributive properties of numbers, for example. What are they? Ask a seventh grader and he will tell you it's simple:

A "commutative" property is the ability of groups of numbers to be changed in order, the ability of a number to travel from place to place, as long as it doesn't cross the equal sign. $A + b = b + a$. It's that simple, according to the seventh graders.

"Associative" is the property which allows a person to add, multiply or divide two numbers of a group at one time. In $a + b + c$, one can add $a + b$ first or $a + c$ first, then add the third number.

"The 'distributive' property means that 'a' in $a(b+c)$ is the same as 'a' times 'b' plus a times c.

Here to Stay

This is only part of what

WATCH & CLOCK REPAIR

2 day service! Student Prices! DICK'S WATCH SERVICE IN CAMPUS BOOKSTORE

SUMMER JOBS

IN

EUROPE

Earn your trip and expenses FOR FREE INFORMATION WRITE TO American Student Information Service c. V. Jahnstrasse 56 A, Frankfurt/Main, Germany



RUN FOR COVER—Dark thunderclouds, typical of those seen during the summer months, come rolling in unexpectedly to cover the countryside with a sudden downpour and then move on as quickly as they appeared.

Experimental Course

seventh graders, and maybe even younger students, will be learning, according to Dr. Beckmann, who says that the new method of teaching math is here to stay. "I'm completely sold on it," he said. "I have taught for 25 years in high school and college and I have never done anything so thrilling in my life." This summer Dr. Beckmann and Dr. Monte Norton, coordinator of the Lincoln junior

high schools, are conducting an enrichment class for students at the 7th grade level by the discovery method. Dr. Beckmann said the class meets from 7:30 to 9 a.m. each weekday morning and anyone wishing to see the class in action is welcome to observe it. What's ahead in experimental math for the 1961-1962 school year? Plans now are to extend the experimental procedures and content to eighth grade math, along with another seventh grade class.

RUSS' SNACK BAR

• WELCOMES YOU •

Homemade Rolls
Pies

Soft Drinks
Cakes

1227 R St.

How's your average?

We're talking about your batting average. Want to find out?

Come out to . . .

Smitty's

LITTLE AMERICA

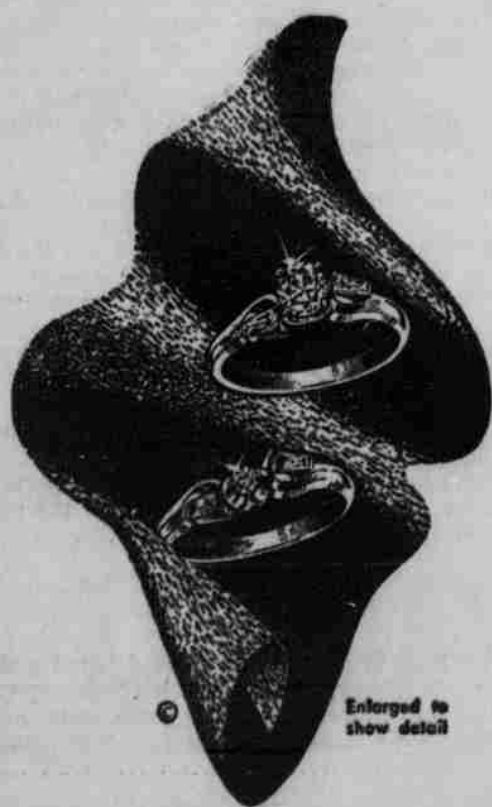
BASEBALL
BATTING
RANGE

NORTH 27TH ST.

• Golf Driving
Range

• Shuffleboard
Courts

• Snack Bar
Ice Cream



Enlarged to show detail

New Concepts of Design

The contrast of baguettes with the round center stone is an inspired design to increase the brilliance of the gems. We have many new designs. Let us help you in the selection of a diamond.

Above \$200.00

Below \$120.00

SARTOR JEWELRY

1200 'O' Street

GOING HOME?

Is your car ready?

Have our mechanics look over your car and make adjustments that mean smooth motoring ahead.

GEORGE KNAUB MOBIL SERVICE

701 N. 10th

HE 2-7960

FAST • DEPENDABLE

ONE DAY

Laundry and Cleaning

MODEL

LAUNDRY AND CLEANERS

239 No. 14th

HE 2-5262



GANT
SHIRTMAKERS

BURLAP OXFORD PULLOVER

Softest cotton oxford takes on a burlap weave that is bold and brave. Immediate impact is the result. Exciting is the word for this new lightweight fabric that has an affinity for short sleeves, an authentically flared button-down collar and the sun.



The Captain's
Walk

UNIVERSITY OF NEBRASKA • LINCOLN

1127 "R" Street Phone HE 2-2042