



**JULY 14, 2015**

Tumultuous thunderstorms in the early morning hours gave way to cloudiness, followed by the warm heat of the summer sun. Diverse weather elements were befitting for the speaker of the day, David Harker, meteorologist for WNDU-TV South Bend. Enjoy the weather novella below!

David Harker, meteorologist for WNDU-TV was our speaker of the day at the July 14, 2015 meeting of the Rotary Club of Saint Joseph-Benton Harbor.



David was there to speak to us about the weather elements and conditions. In short, he asked us if we knew what severe weather was? Severe weather is any kind of weather that threatens life and/or property. Those conditions could be:

- Severe thunderstorms
  - Hail
  - Tornadoes
  - Wind
  - Flooding
  - Lightning
- Winter Weather

In times of severe weather, it is important to know and understand the difference between

warnings and watches.

Watches are conditions that are favorable for severe thunderstorm development, or tornado development. Warnings are much more dangerous, as they report that a severe thunderstorm or tornado are occurring or is eminent.

A thunderstorm warning occurs when there is hail that is at least 1" in diameter, and/or when winds are 58 mph (kts) or greater.

A tornado warning is given when Doppler radar or a spotter indicates a tornado.



After spending several minutes expressing the dangers of severe weather, Harker then told us how beautiful thunderstorms and tornados can be..... something that maybe only a weatherman could appreciate!



But then again, after looking at these pictures ... they are indeed, beautiful.

The next picture is a wall cloud. A wall cloud is an area of updraft under a rain-free base of the storm.



The wall cloud doesn't not guarantee a tornado, but it should be watched carefully.

Did you know that each year, there are an average of 1,000 tornadoes? Tornadoes can occur at any time of the day or year. They can



also occur at any time of the year. There are three classifications of tornadoes: Weak, Strong and Violent.

69% of all tornadoes are weak, with winds less than 110 mph. Their normal lifetime is only one to 10 minutes; they have little to moderate change and less than 5% of deaths are the result of a tornado.



### ***WEAK TORNADO***

A strong tornado on the otherhand is the cause of death for nearly 30% of all tornado deaths. 29% of all tornadoes are considered "strong".

They have a duration of up to 20 minutes or longer and the winds are 110 to 200 mph. They cause considerable to severe amounts of damage.



***STRONG TORNADO***

70% of tornado deaths are caused by violent tornadoes, although only 2% of tornadoes are violent. They reach speeds of 200 mph, and greater and they cause devastating to incredible damage.



***VIOLENT TORNADO***



As you can see in these pictures, tornadoes are explosive.



This is how tornadoes are classified:

| ORIGINAL FUJITA SCALE |             | ENHANCED FUJITA SCALE |             |
|-----------------------|-------------|-----------------------|-------------|
| F5                    | 261-318 mph | EF5                   | +200 mph    |
| F4                    | 207-260 mph | EF4                   | 166-200 mph |
| F3                    | 158-206 mph | EF3                   | 136-165 mph |
| F2                    | 113-157 mph | EF2                   | 111-135 mph |
| F1                    | 73-112 mph  | EF1                   | 86-110 mph  |
| F0                    | <73 mph     | EF0                   | 65-85 mph   |

**SHELF CLOUDS**



If you see a shelf cloud, you are looking at a squall line. This indicates that damaging straight line winds in excess of 50 mph may occur. (continued on page 6)

## WEATHER JOKES OF THE WEEK

*It'd been raining so much that the Chia Pet I threw in the garbage is now blocking my entire driveway..... Jay Leno*

*Don't knock the weather. If it didn't change once in a while, nine-tenths of people couldn't start a conversation..... Kin Hubbard*

*What did one lightning bolt say to the other? "You're shocking!"*

*How do hurricanes see? With one eye, silly!*

*Alright ... enough is enough!*

## Board Meeting

Don't forget, the next Board Meeting is on Thursday, July 23, 2015 at the Area Agency on Aging in the conference room to the left as you enter the building. Meeting starts promptly at 7:30 a.m

What about a contest to see who can get four new members this year?

## VISITING ROTARIANS

**Dick Rooth** from the Rotary Club  
of Brown County

And

**Marlene Kramer** from the  
Harbor Country Rotary

*Marlene invited each of us to attend the  
12<sup>th</sup> Annual Rib and Salad Cookoff  
Saturday, July 18, 2015 at 6 pm  
215 Ash St. E., Three Oaks, MI*

**\$10.00 at the door**

**Children 2-11 \$5.00**

**Under 6 Free**

**Voting is at 8:30 pm**

## ROTARIANS WITH GUESTS

Maria Kibler brought **Jennifer Kirsch**

Matt Hanley brought **Ricky Plangger**

Tanya Urias brought **Patrick Swem**

Jackie Huie brought **"Our Son Matt"**



Maria Kibler got to sit at a regular table  
AND she won the 50/50!

### 2015-16 Board of Directors

Mike McKinney, President  
 Clay McCausland, President-Elect  
 Steve Smith, President Nominee  
 Bob Peirce, Secretary  
 Steve Ross, Treasurer  
 Maria Kibler, Past President  
 Gyl Kasewurm, Director, Membership Chair  
 Mary Spiegel, Director, Int'l Service Chair  
 J.C. Anderson, Director  
 Dwight Bowman, Director  
 Gary Bruce, Director  
 Wendy Edwards, Director  
 Charles Jespersen, Director  
 Lori Marciniak, Director  
 Debra Trapikas, Director

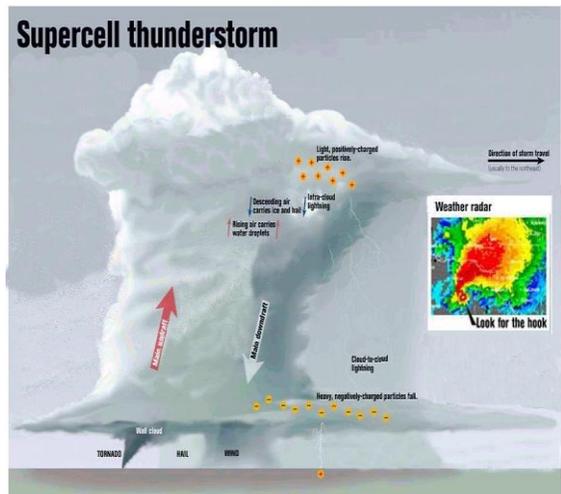
### 2015-16 Committees

Club Service, Patti Kutz  
 Sgt. At Arms, Mike Ahern  
 Invocation, Dave Kirshenbaum  
 Programs, Steve Smith  
 50/50 Raffle, Rick Villa  
 Music, Dennis Bowen/Allen Westmaas  
 Community Service,  
 SJBH Rotary Foundation, Jackie Huie  
 Foundation Investments, Mike Cook  
 Bell Ringing, Sean Ebbert  
 Park Cleanup, Rick Villa  
 Rural Ag Day, Art Cotter  
 Law Day, Steve Smith  
 Rotary Showcase, Emily Hosinski  
 Vocational Service  
 Track Meet, Randy Bettich  
 Track Scholarship, Dennis Bowen  
 Student Program, Jackie Huie  
 RYLA, Lori Marciniak  
 Youth Exchange,  
 Essay Contest, Patti Kutz  
 International Service, Mary Spiegel  
 Bio-Sand Water Filter, Charles Jespersen  
 RI Foundation, Tom Chapman  
 Polio Plus  
 Membership, Gyl Kasewurm  
 Orientation, Lynn Kellogg/Christine  
 Vanlandingham

Squall lines produce straight line winds in excess of 58 mph and which can bring hail, flooding and weak tornadoes.



Supercells are strong and long-lasting and can cause tornadoes, damaging downbursts, large



hail and a rotating updraft mesocyclone. Supercells can appear as kidney bean shaped cells on a radar and they sometimes exhibit a hook echo.

For safety information on tornadoes, flooding and lightning, see the final page.

New Member Mentoring,  
 Diversity, Dwight Bowman  
 Communications, Debra Trapikas  
 Photographer, Aaron Bradford  
 Website, Debra Trapikas  
 Social Media, Aaron Bradford  
 E-Wheel, Debra Trapikas/Emily Hosinski  
 Public Relations, Debra Trapikas  
 Membership Directory

## Tornado Safety (At Home)

- Go at once to the basement
- If there is no basement, go to an inner hallway or a small inner room without windows
- Go to the center of the room
- If you have time, get a mattress or blankets to protect your head.
- If you live in a mobile home, get out and find shelter elsewhere in a permanent building.
- Use arms to protect head and neck

## Tornado Safety (If In A Vehicle)

- Never try to outride a tornado in a car or truck
- Get out of the car immediately and take shelter in a nearby building
- If there is no time to get indoors, get out of the car and lie in a ditch or low-lying area away from the vehicle

## Tornado Safety (If Outdoors)

- If possible, get inside a sturdy building
- If shelter is not available or there is not time to get indoors, lie in a ditch or low-lying area or crouch near a strong building
- Use arms to protect head and neck.



Lightning is very beautiful.  
It is also  
DEADLY!

## Lightning Safety

On the average, lightning kills more people each year than tornadoes. Lightning can strike, even if it is not raining and always remember, if you can hear thunder, then you are close enough to be struck by lightning.

- Find shelter in a building.
- Stay low. Keep away from trees, tall objects, metal objects and water.
- Boaters and swimmers should get to land as quickly as possible.

## Flood Safety

- Don't get too close to a flooded ditch or stream.
- 6 inches of fast moving water can sweep you off your feet
- If caught in a flooded stream, don't try to swim against the current.
- Move to higher ground!

