

Berrien County Hazards – Tornadoes

May 26, 1859

Deaths – 1 & livestock (20 hens)

Injuries – 3+

A violent tornado touched down along the southern line of section 9 in Pipestone Township causing property damage, loss of livestock, personal injuries and one death. One woman was struck in the head by a falling log, a child suffered a broken arm and a 4-year old child was pulled from a residence unconscious and died four days later from injuries received. It was reported that houses were lifted off the ground, a bed was found ½ mile away lodged in a swamp and a stovepipe was found 3 miles away. One report said that a house was lifted from its foundation, carried over several stumps three to five feet high and then thrown upon three other stumps.ⁱ Large trees were blown down, peach trees were literally stripped of their bark, fences scattered about and 20 hens were killed; many with feathers completely blown off while others were disemboweled.ⁱⁱ

March 24, 1913

Deaths – livestock (4 cows)

Injuries – 0

An Easter Sunday tornado touched down 3 miles southeast of Baroda, wrecking several farm buildings, a windmill and killing three cows and a calf who were in a barn. A granary was carried some 20 to 30 rods and buried in the ground and part of a house was torn off.ⁱⁱⁱ Storm damage was also noted in St. Joseph with chimneys blown off by high winds, plate glass windows shattered and doors ripped off. In Lincoln Township a residence was struck by lightning causing a fire that destroyed the house. The residence was located 2 miles northwest of Stevensville and estimated loss of property valued at \$5000.^{iv}

March 28, 1920

Deaths – 0

Injuries – 0

One of the worst tornado outbreaks in US history struck areas from Georgia to Wisconsin. At least a dozen people in Michigan were killed and hundreds of homes damaged.^v In Berrien County, an F2 tornado touched down carving out a path from Baroda to Sodus.^{vi}

July 9, 1926

Deaths – 3

Injuries – 3

An F2 tornado plowed towards Buchanan as Bachelors' Island in the St. Joseph River was virtually stripped of trees and three women having lunch were killed in a cabin on the island.^{vii} A 22-year old woman, her 5-year old daughter and the woman's 8-year old sister lost their lives while the husband and two other young family members were injured. As the family ate their lunch at noon when the tornado signaled its approach with a loud roar, suddenly swooped over the bluffs that line the river and literally

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pounced on their cabin. When they heard the roar, the woman went to the window and screamed for everyone to get underneath the table. The male holding his son did not move but the woman and two of the girls hid under the table. The tornado hit at that moment and leveled their cabin along with 3 others on the island, which were not occupied. The women under the table were all killed. The male was carried several yards and was found standing on his head besides a tree and unconscious. The son he was holding was found perched high in the tree branches and only slightly injured.^{ix}

May 24, 1946

Deaths – 0

Injuries – 0

An F3 tornado tracked from St. Joseph County in Indiana northwards into Bertrand Township and Buchanan.^x

April 3, 1956

Deaths – 0

Injuries – 0

Berrien County was spared from severe tornado damage when a huge, black tornado spun its way up Lake Michigan then broke up as it hit the shore between Stevensville and Bridgman. The tornado was first reported at 5:22pm by the Michigan State troopers from the New Buffalo Post, who watched it track up the lakefront for approximately 1 hour and 15 minutes. A second “pencil-thin” funnel dropped after the tornado had dissipated. Witnesses describe the tornado as throwing water out of the sides, like a waterfall. Gale winds that accompanied the storm brought 5 electrical poles down along W. Glenlord Road.^{xi}

June 26, 1956

Deaths – 0

Injuries – 0

A small but violent windstorm swept through several localized areas including Sodus Township, Pipestone Township, Berrien Township and Niles about 1:40pm. A barn in Sodus had the roof ripped off carrying it 400 feet into a cherry orchard. Unfortunately the destroyed barn was constructed of material used in the Ukrainian Pavilion at the 1933 Worlds Fair in Chicago. Nearly an inch of rain was measured in Sodus within a timeframe of 30 minutes. Winds strong enough to uproot huge trees were also reported. M-140 north of Niles City and River Road in Sodus Township were completely blocked while road crews removed large trees from the roadway. Funnel clouds were spotted by MSP Niles Troopers who described them as a “baby tornado” and the wind “sounded like a freight train”. One funnel cloud was reported as passing over Niles at an altitude of 2,000 feet but never touched the ground while it moved northeast. There was at least one touch down just southwest of Niles and the tornado was rated at an F2^{xii} with path of .10 mile and width of 17 yards. Lightning also struck a residence in Eau Claire on Pipestone Road which resulted in a television rotor exploding, knocking three people to the floor. They reported that their TV and refrigerator were ruined from the lightning strike.^{xiii}

June 22, 1957

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Deaths – 0

Injuries – 0

An F1 tornado traveled from Eau Claire into Cass County^{xiv} as one of 4 tornados that spun up over Southern Lower Michigan around 5:05pm.^{xv} Reports were made of barns damaged and destroyed in the area.^{xvi} Width of the tornado was reported as 50 yards and path was 10.7 miles long causing \$25,000 in property damage.

May 31, 1958

Deaths – 0

Injuries – 0

As folks were celebrating the Memorial Day weekend, a fierce tornado set down on Sherwood Bay area of Paw Paw Lake sending a group of 25 children into the basement cellar. The 33 yard-wide tornado was only rated as an F0 when it struck at 7:45pm carving out an 8.8 mile path. A porch was blown off and trees were uprooted but no injuries were reported during this brief touch down. A resident in Riverside saw 3 funnel clouds but none of them developed into a tornado. Winds were measured at over 60mph and 1.71 inches of rain dropped over the area. One tree limb fell onto a car along Colfax in Benton Harbor and \$500 in damage was reported.^{xvii} Total damage from the storm was \$25,000.

June 16, 1960

Deaths – 0

Injuries – 0

An F2 tornado carved a small path just north of Niles at 5:58pm.^{xviii} Michigan State Police from the Niles Post described it as a “baby tornado”. Another localized wind storm struck Sodus and Pipestone Township, uprooting trees and damaging barns, dropping nearly an inch of rain in 30 minutes. Thirty cherry trees were blown over on one farm near Sodus.^{xix} Total damage was estimated at \$2,500.

March 4, 1961

Deaths – livestock (10 cows)

Injuries – 0

An F2 tornado^{xx} touched down in the southwest portion of Berrien County at 7:10pm and left a 6.5 mile long, 440 yard wide path of destruction between Grand Beach and Three Oaks. Extensive property damage was reported with numerous downed trees and power lines. In total, over \$250,000 in damage was reported in this tornado’s wake.^{xxi} A dairy farm on Basswood Road received the brunt of the damage, demolishing a giant barn, a newly built milk house and fatally injuring at least 10 milk cows in the fleeing herd. Witnesses said 2 inches of rain fell in a short period of time and when they went outside to check for damage, there was absolute stillness and silence right before the tornado hit.^{xxii}

April 30, 1962

Deaths – 0

Injuries – 0

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As tornado sightings and damage were being reported in surrounding counties, Niles felt the fury of the violent storm that had been traversing the Midwest. The Modineer Company in Niles was the hardest hit. As 40 employees were up near the front of the shop washing up, they experienced cyclone-like winds “peel the roof back like a banana”. No one was injured but one employee was briefly trapped under a heavy bench as a large chunk of roof had fallen on top of him. Clocks throughout the plant all stopped at 3:26pm. Half of the roof had been peeled back and flipped into a yard. The southwest wall was bulging in and much of their machinery was drenched from the rain and covered with debris. Winds were in excess of 80mph^{xxiii} and estimated damage was \$75,000. Some residents reported windows blown out of their homes and power outages in Niles and Buchanan.^{xxiv}

July 5, 1966

Deaths – 0

Injuries – 0

A mild afternoon storm produced winds up to 30mph in the St. Joseph/Benton Harbor area and a brief but intense shower did little more than wet the ground. However, a resident of Berrien Springs reported seeing the tail of a funnel cloud dip down about 100 yards from him and then dissipate.^{xxv}

April 21, 1967

Deaths – 0

Injuries – 0

A small F2 rated tornado^{xxvi} was reported just north of Stevensville at 7:25pm. Although the path of damage was small; 1 mile long and only 27 yards wide, over \$250,000 of property damage.^{xxvii} The tornado inflicted major damage in Lincoln Township at two Lakeshore Schools. The gymnasium being constructed at the Junior High School was completely destroyed, leveling 19 foot walls which had to be rebuilt. The High School gymnasium also suffered damage when the roof curled back making it buckle and panes of glass were broken in the corridors. Pieces of roof were found up to ½ mile away. Custodians in the building at the time reported feeling a “vacuum and a deep stillness” before the storm hit. Bridgman High School also suffered roof damage and residents south of Sodus Township experienced damage to sheds and barns.^{xxviii}

June 11, 1967

Deaths – 0

Injuries – 0

An F0 tornado touched down along the shoreline north of Stevensville at 5:20pm.^{xxix}

August 1, 1970

Deaths – 0

Injuries – 0

Destructive winds and lightning hit southern Berrien County in this early morning storm. Many roads were blocked by trees and residents were left without power. One person reported their house trailer on Range Line Road was moved about 3 feet off its foundation. A tornado warning was issued by the Niles City Police after two patrolmen

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spotted what they believed to be a funnel cloud aloft north of the city. They said the funnel was about 500 feet in the air but did not touch down. A Deputy from Berrien County said his car was turned completely around in the winds while patrolling the Skyline Plaza area on East Front Street. Other parts of Berrien County also experienced the wrath of this storm as well. A lightning strike at the Crystal substation just east of Fair left many in Benton Township without power and a blown fuse line in the Coloma area knocked out power for less than 2 hours.^{xxx}

June 14, 1972

Deaths – livestock (pig)

Injuries – 0

High winds and thunderstorms rolled through the area in a line from Bridgman to Coloma around 5:30pm, damaging houses and barns in its path. The National Weather Service confirmed that an F2 tornado did touch down just north of Baroda with a width of 70 yards and swept over a 1.3 mile path.^{xxxii} An injured pig had to be put down after the barn it was in fell to the ground.^{xxxii} The barn was on the property of Michigan State Representative Harry Gast at the corner of Lincoln and W. Linco.^{xxxiii} Total damage was set at \$2,500.

June 20, 1974

Deaths – 0

Injuries – 0

Thunderstorms with wind gusts estimated at up to 50 to 60mph struck Berrien County about 10:00pm. Power outages ranged from Stevensville to the St. Joseph industrial area, even including the Berrien County Courthouse and Jail. An F2 tornado^{xxxiv} touched down in Pipestone Township leveling a 100 year old barn, 45 cherry trees and various others. Width of the tornado was 100 yards and the path was .8 of a mile. Witnesses were convinced it was a tornado and described the sound as a rush of wind but “a different kind of wind”. A tree was also reported to have fallen on a residence in Pipestone Township directly onto a spare bedroom which luckily no one was in at the time.^{xxxv} Total property damage was \$25,000.

September 21, 1974

Deaths – 0

Injuries – 0

Six waterspouts spotted in Lake Michigan turned into 2 tornados once they made land causing property damage in Stevensville and St. Joseph. One tornado was rated an F0; 33 yards wide with a ½ mile damage path and the other was an F1; 33 yards wide with a 1 ½ mile damage path.^{xxxvi} Most of the damage was reported along W. Glenlord Road and Lakeshore Drive. US Coast Guard personnel had to come to the aid of one boater who was brought back to shore safely while winds were estimated at up to 54mph. The extent of damage included roofs, windows and blown down trees. Fire departments in St. Joseph and Benton Township reported lightning strikes at residences causing minor damage.^{xxxvii} Total damage from both tornados was given as \$50,000.

May 20, 1975

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Deaths – 4

Injuries – 1

An F1 tornado, 33 yards wide touched down on the northwest side of Three Oaks leaving a ½ mile path.^{xxxviii} The storm with 93mph gusts along the lakefront claimed the lives of a Benton Harbor father and his two sons who were out on Lake Michigan fishing. They were believed to have drowned off of Grand Mere State Park in Lincoln Township when Deputies found their boat unoccupied. A 16 year old Three Oaks teen was struck by lightning as he worked in a field southwest of Galien. Homes were also damaged in Bridgman, Three Oaks, and St. Joseph while businesses sustained damage in Benton Township, Hagar Township, Eau Claire and New Buffalo. One Eau Claire student was slightly injured when they were ordered out of the school bus while at a track meet in New Buffalo. Students jumped into a nearby ditch when the tornado siren was sounded. The student received scratches and cuts from being in the ditch.^{xxxix} Total property damage was listed at \$25,000.

March 4, 1976

Deaths – 0

Injuries - 8

Strong thunderstorms across much of Southwestern Michigan spawned a huge F2 tornado^{xl} that injured 9 people, downed trees and power lines, leveled numerous buildings, and left in excess of \$250,000 in damage. This tornado measured 100 yards wide and its 20 mile track started just south of Stevensville and traveled northeast through Berrien County and into Van Buren County.^{xli} The tornado cut through Lincoln Township damaging 15 homes and injuring 8 people. Most of the homes were mobile homes located at Lincoln and West John Beers Road.^{xlii} One pregnant woman was even tossed 50 feet out of her mobile home.^{xliii}

March 12, 1976

Deaths – 0

Injuries – 0

Tornados touched down in Northern Indiana and across Southern Michigan including an F2 which twisted from the state line towards New Troy.^{xliv} This 83 yard wide tornado trekked 10.10 miles casing \$25,000 worth of damage. Deaths and injuries were reported in other states but Michigan was spared as this tornado outbreak reached from Alabama to Michigan.^{xlv} One tornado in the Chicago area narrowly missed President Gerald Ford's motorcade while he was campaigning in the Illinois Primary.^{xlvi}

June 28, 1977

Deaths – 0

Injuries – 0

Thunderstorm spawned an F1 tornado^{xlvii} in northern Berrien County, causing trees to be knocked over in the Coloma and Watervliet area, while hail damage was reported to fruit and trees in Hagar Township. The tornado measured 60 yards across and swept over 4.5 miles. In addition, a house and garage were struck by lightning in Niles with approximately \$1,000 worth of damage.^{xlviii} Total damage was assessed at \$2,500.

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September 1, 1977

Deaths – 0

Injuries – 0

Police spotted a tornado in downtown Berrien Springs where it knocked over a large tree. Officials stated that 2 inches of rain fell in Eau Claire.^{xlix} National Weather Service rated the tornado as an F0 with a 60 yard width and a path of ½ mile.¹

June 17, 1978

Deaths – 0

Injuries – 0

A severe thunderstorm and F1 tornado^{li} near Lakeside and Harbert around 1am ripped through the area causing widespread damage and power outages. The tornado was 40 yards wide and traveled 1 mile. A roof was ripped off a residence in Galien and some of the roof shingles were found ½ mile away. Some areas in Bridgman also received extensive damage while the DC Cook Plant reported winds of 78mph. A portion of roof was ripped from a business in Bridgman and a tree narrowly missed hitting Bridgman High School. At one point during the storm, at least 11 fire departments responded to various calls of downed power lines and lightning strikes.^{lii} Total property damage was set at \$2,500.

June 26, 1978

Deaths – 0

Injuries – 0

The Michigan State Police reported two tornado sightings at 9:45am. The first one was sighted aloft in the vicinity of Freehling Road in Buchanan, headed north towards Berrien Springs. The second sighting was in the vicinity of Ironwood Road heading west towards Niles. Winds had knocked down tree branches along Ironwood Road area.^{liii}

April 12, 1979

Deaths – 0 (2 livestock)

Injuries – 6

An F2 tornado skipped through Buchanan Township around 9:30pm with little warning, injuring 6 people. Overall loss was estimated at about \$250,000^{liv} and two beef cattle perished when the barn they were in collapsed.^{lv} The most extensive damage was found on Broceous School Road where several homes were leveled. Aerial views showed a very visible path. Most injuries were the result of debris falling and included scrapes, cuts and sprains.^{lvi} Officials determined the tornado was rated as an F2^{lvii} and left a 6 mile, 60 yard wide path.^{lviii}

October 6, 1979

Deaths – 0

Injuries – 0

A cold-air F0 tornado^{lix} formed over Lake Michigan and touched down briefly in New Buffalo Township at 11:02am^{lx}. The path was 300 yards long, 60 yards wide and was located near Wilson Road and the State Line causing about \$25,000 in damage. Roofs

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were torn off of several residences in the area. Troopers reported seeing as many as 7 funnel clouds moving in from the lake but only one appeared to touch down.^{lxi}

June 6, 1980

Deaths – 0

Injuries – 0

An F1 tornado^{lxii} striking at 3:20AM^{lxiii} caused major damage to at least 3 residences with other damage and downed power lines. Hardest hit was a subdivision 3 miles north of Niles and in Galien Township where a home was pushed about a foot off its cement blocks. Property damage was assessed at \$25,000. The same storm in the South Bend area claimed the life of a pilot who was trying to land his Piper aircraft at the South Bend Airport during the storm.^{lxiv}

June 20, 1981

Deaths – 0

Injuries – 0

An F2 tornado^{lxv} touched down in Berrien Springs damaging 34 homes, uprooting trees and knocking out electricity. Hardest hit was a path across the north side near Bluff, Kephart and Madison Streets. The width of tornado was 500 yards and traveled 1 ½ miles causing \$250,000 in damage. Businesses also experienced damage to their roofs, even as hundreds of people camped out at the Berrien County Fairgrounds for a dog and horse show. As a second front moved through, several mobile homes were damaged in Baroda.^{lxvi}

September 21, 1987

Deaths – 0

Injuries – 0

A cold air funnel reportedly touched down briefly becoming an F0 tornado^{lxvii} in Lincoln Township and moved in a northeasterly direction. Although no damage was reported, Stewart Elementary personnel noticed their windows squeaking and rattling while businesses in the area reported seeing very dark skies and flooding.^{lxviii} The 10 yard wide tornado was only on the ground for .2 miles.

July 16, 1988

Deaths – 1

Injuries – 4

Described by witnesses as a “circulating huge white cloud”, residents of Sodus Township and Benton Township experienced damage to homes and property while Lake Michigan claimed the life of a man who drowned off Tiscornia Beach. The National Weather Service rated the tornado as an F0 with a width of 33 yards and a path of 2.1 miles.^{lxix} Winds were reported at 70mph and left many scrambling for shelter at the annual Venetian Festival along the bluff in St. Joseph. Three festival attendees reported minor injuries while another man nearly drowned off of Warren Dunes State Park in Lake Township. Lake swells were up to 8 feet and many boats were damaged.^{lxx} Property damage was listed as \$250,000.

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August 16, 1997

Deaths – 0

Injuries – 0

Waterspout tracked from near state line towards Michiana shoreline.^{lxxi}

August 25, 1998

Deaths – 1

Injuries – 0

Over 41,500 people were without power and extensive damage reported when strong thunderstorms produced a 2 mile long, 400 yard wide F1 rated tornado^{lxxii} just southeast of Niles City. Although the tornado was small by comparison, over \$1.1 million dollars in damage was reported. Roofs were ripped off of the French Paper Company and D&D Tire.^{lxxiii} Demond Grocery lost \$20,000 worth of perishable food items due to the extended power outage. Over 60 homes were damaged; up to 15 streets were blocked at one time due to trees down. With winds reported at 60mph and golf ball sized hail, the Michigan Governor declared the city of Niles a State of Emergency. Sadly, an off-duty Michigan State Trooper from the Niles Post tragically lost his life due to this storm when he was electrocuted by a downed power line.^{lxxiv} The Trooper and his wife were surveying damage along Niles-Buchanan Road when he tried to brush aside a live wire in his path.^{lxxv}^{lxxvi}

October 24, 2001

Deaths – 0

Injuries – 0

An F1 tornado 440 yards wide struck 6 miles south of Niles carving out a 3 mile path that ended up 1 mile southeast of Niles. Damage totals were \$750,000.

July 21, 2004

Deaths – 0

Injuries – 0

A weak F0 tornado touched down near the intersection of Walton and Smith Roads, just west of US-31 between Buchanan and Niles.^{lxxvii} The touchdown occurred in a corn field southwest of this intersection and quickly lifted. The path was approximately 50 yards and was roughly 50 feet wide. The majority of the wind damage was caused by straight line winds estimated between 70 and 85mph. Two distinct damage tracks were noted in the area, with several tree limbs broken off, a few large trees uprooted, power poles damaged and some structural damage. Damage was noted along a 14 mile long track starting from just north of Clear Lake extending east to the north side of Buchanan. The damage track continued into the northern part of Niles and then crossing into western Cass County.^{lxxviii}

April 26, 2007

Deaths – 0

Injures - 0

An EF1 tornado touched down just west of Berrien Springs.^{lxxix} Berrien County Emergency Management and the National Weather Service office confirmed the tornado

was on the ground for approximately $\frac{3}{4}$ of a mile from near the intersection of Shawnee and Garr Roads to near the intersection of Lemon Creek Road and Redbud Trail. The width was about 50 yards and traveled about 1 mile. Several softwood trees were snapped and some minor damage to buildings occurred. This damage is consistent with an EF1 rating on the Enhanced Fujita Scale with maximum winds estimated at 90mph.^{lxxx}

Berrien County Hazards – Seiche

April 7, 1893

Deaths – 0

Injuries – 0

Described as a “tremendous tidal wave”, water swept in from Lake Michigan in St. Joseph about 9:00PM. The water extended over the beach 600 to 700 feet. Water in the St. Joseph River rose to a height of four or five feet above normal. The big wave swept away every moving thing before it and receded within a few minutes. Remarkably, there was no rough weather on the lake at the time.

August 3, 1960

Deaths – 0

Injuries – 0

Hundreds of limbs and entire trees were blown down in the 70mph winds of the storm that ripped through the area around 11:00AM. Lake Michigan produced a “seiche” which resulted in a 4-foot surge on the shoreline. No injuries were reported as a result of this occurrence on this side of the lake but as the “seiche” returned towards the west, a Chicago man in a boat lost his life. A newly constructed kitchen building still being worked on at the Berrien County Fairgrounds was brought to the ground in the high winds. Lightning struck a TV antenna in Three Oaks and only the TV was damaged but luckily no fire broke out.^{lxxxi}

Berrien County Hazards – Severe Winds

July 11, 1874

Deaths – 2 children

Injuries – 0

“The Hurricane in Michigan” swept over Bertrand Township, causing considerable damage and loss of property as well as the lives of two children. Nearly every house in Bertrand Village was damaged in some way. The D. C. Higbee barn was unroofed and all of his apple and cherry trees were destroyed; estimated damage was put at \$200. The farms of Charles Herman and V. R. Habs also sustained considerable damage. Fences were laid flat and wheat blown down. Four children were on the bridge when the storm came up. One boy escaped but little Eddie Claffey was picked up and thrown over the railing and into the river. The little girl whose last name was Batson held on with all her might but Eddie slipped from her grips. She was rescued but the bodies of Eddie and the

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other boy were recovered two days later about a mile down river. Total damage in Bertrand was estimated as \$1,000.^{lxxxii}

August 22, 1910

Deaths – livestock (1 cow)

Injuries – 2

A 2:00am storm brought about 50mph winds, hail, rain and lightning, all of which resulting in severe damage to many structures in the Niles area. The Chicago Fan Company located near the Michigan Central Railroad suffered the most damage where as the 2-story brick building was reduced to rubble. Fifty machines in the building were also damaged and big timbers were flung about like they were paper. Loss was placed at \$60,000. The smokestack of the Niles Paper Company was also blown down during the storm and the west wall of the Niles Board and Paper Company was blown inwards. They estimate losses at a couple hundred dollars. A couple sleeping in their bed were temporarily paralyzed as their home was struck by lightning. They remained semi-conscious for several hours. Even Berrien County Undersheriff Starkweather felt the ill-effects of the storm when he lost one of his prized bovines. Three of them were huddled under a tree when one was struck by a bolt of lightning and instantly killed. In addition, many fruit trees were damaged, some being uprooted, foliage twisted and much of the fruit was destroyed.^{lxxxiii}

October 21-22, 1929

Deaths – 0

Injuries – 0

A Nor'wester, "October Hurricane" flanked the area causing catastrophic damage to areas along Lake Michigan. The storm came ashore due north and by the following day had veered to the southwest causing a constant battering of the shoreline. Several homes in the Higman Park area of Benton Harbor literally collapsed into the lake, foundations being swept away. The rip-roaring storm was being hailed as the worst in the last 36 years. Debris littered the shores with large logs and water-soaked timbers. Roads washed out in St. Joseph and Benton Harbor causing water pumping stations to be put out of commission. Early estimates put damage within the county at \$100,000. Michigan City, Indiana reported \$300,000 loss.^{lxxxiv}

September 2, 1952

Deaths – 2

Injuries – 1

High winds and rain dampened Labor Day celebrations in the St. Joseph/Benton Harbor area as a storm swept over Lake Michigan and leaving at least 2 persons dead in its wake. St. Joseph Coastguardsmen said the wind velocity hit 62mph at 9:15am. A cabin cruiser owned by a prominent Benton Harbor laundryman had to be towed in as a squall slammed it up against the South Pier. The man received a compound fracture to his leg and his 4 passenger's barley escaped death.^{lxxxv}

July 9, 1955

Deaths – 1

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Injuries – 1

A gale force storm swept up over Lake Michigan hurling 75mph winds over St. Joseph, Benton Harbor and the Shoreham area knocking down trees, flooding roads, and tragically taking the life of a visitor to the area. As a man and his wife were driving south of St. Joseph, a huge tree fell onto their moving vehicle, causing massive internal injuries to him that would turn fatal while she was treated and released. Many boaters out enjoying the season found themselves struggling in the ferocious winds, many of them beaching their vessels and suffering damage.^{lxxxvi}

August 3, 1960

Deaths – 0

Injuries – 0

Hundreds of limbs and entire trees were blown down in the 70mph winds of the storm that ripped through the area around 11:00AM. Lake Michigan produced a “seiche” which resulted in a 4-foot surge on the shoreline. No injuries were reported as a result of this occurrence on this side of the lake but as the “seiche” returned towards the west, a Chicago man in a boat lost his life. A newly constructed kitchen building still being worked on at the Berrien County Fairgrounds was brought to the ground in the high winds. Lightning struck a TV antenna in Three Oaks and only the TV was damaged but luckily no fire broke out.^{lxxxvii}

July 10, 1966

Deaths – 0

Injuries – 0

A mid-day storm brought fierce winds and lightning to the area. Many trees and limbs were blown across power lines in the St. Joseph, Eau Claire and Bridgman areas interrupting service for several hours. St. Joseph Township had to wait even longer when two feeder lines to the Hickory Creek substation were knocked out. A Niles family barely escaped serious injury when the convertible they were in was toppled by a large tree near Rocky Gap Beach. The fallen tree had dragged live power lines close to the car but not quite close enough to short circuit. Luckily the tree hit the back end of the car as only the rear window and the trunk were damaged. Lightning did strike a barn on Pucker Street Road in Niles Township which quickly consumed the structure. The 40X20 structure was used to store farm machinery and bales of straw.^{lxxxviii}

June 17, 1970

Deaths – 0

Injuries – 0

A wind storm whipped through the area in the late afternoon and left plenty of downed power lines and fallen trees in the aftermath. No injuries were reported as a result of the storm but two Chicago men were rescued from the South Pier in St. Joseph and two South Bend men were rescued from Lake Michigan near New Buffalo after their sailboat capsized. According to the US Coast Guard Station in St. Joseph and Ross Airfield in Benton Harbor, winds gusted up to 65mph and the temperatures went from 90 degrees at 4:00pm to 75 degrees shortly afterward. Waves on the lake were 8-10 feet and were swamping the South Pier. Reports of trees down and blocking roadways were made in

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Royalton Township and in Benton Harbor. Plenty of residents would be without power as I&M estimated about 2,000 customers in Berrien County would be affected.^{lxxxix}

August 1, 1970

Deaths – 0

Injuries – 0

Destructive winds and lightning hit the southern county in an early morning storm. Many roads were blocked by trees and residents were left without power. One person reported their house trailer on Range Line Road was moved about 3 feet off its foundation. A tornado warning was issued by the Niles City Police after two patrolmen spotted what they believed to be a funnel cloud aloft north of the city. They said the funnel was about 500 feet in the air but did not touch down. A Deputy from Berrien County said his car was turned completely around in the winds while patrolling the Skyline Plaza area on East Front Street. A willow tree was split into two by a bolt of lightning and windows were blown out of homes in Bertrand Township. Other parts of Berrien County also experienced the wrath of this storm as well. A lightning strike at the Crystal substation just east of Fair left many in Benton Township without power as well as Coloma.^{xc}

March 17, 1973

Deaths – 0

Injuries – 0

Winds up to 72mph stirred up Lake Michigan, creating 12 foot waves at the St. Joseph Pier. Residents along Lions Park Drive watched garage roofs blow off in the winds.^{xcii}

June 20, 1974

Deaths – 0

Injuries – 0

Thunderstorms with wind gusts estimated at up to 50 or 60mph struck the area about 10:00pm. Power outages ranged from Stevensville to the St. Joseph industrial area, even including the Berrien County Courthouse and Jail. An F2 tornado^{xciii} touched down in Pipestone Township leveling a 100 year old barn, 45 cherry trees and various others. Witnesses were convinced it was a tornado and described the sound as a rush of wind but “a different kind of wind”. A tree was also reported to have fallen on a residence in Pipestone Township directly onto a spare bedroom which luckily no one was in at the time. Power outages were reported in Niles and plenty of lightning strikes kept area fire departments busy in the St. Joseph and Benton Township areas. Road crews worked until 4am clearing fallen trees and branches.^{xciii}

September 21, 1974

Deaths – 0

Injuries – 0

Six water spouts churned the surface of Lake Michigan at 8:45am. Four of these water spouts dissipated but two managed to move inland causing property damage and scaring many boaters on the lake. US Coast Guard personnel in St. Joseph confirmed the sighting at 9:05am. Most of the damage was reported in the area of Glenlord Road in Stevensville and along the bluff in south St. Joseph. Damage included a barn being

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demolished, siding being lifted about 50 feet into the air, windows being broken out of residences, roof damage, trees ripped apart and poles bent. The extent of event was over by 10am and wind velocity was estimated at 54mph.^{xciv}

June 13, 1976

Deaths – 1

Injuries – 0

As the 60mph winds kicked up the dust of tilled farm fields, a 45-year old Sodus woman went out to retrieve a sign that was blowing away in the wind when a large maple tree fell and crushed her beneath it. Power outages were wide spread, many due to tree limbs toppling transmission lines.^{xcv}

June 27, 1978

Deaths – 0

Injuries – 1

A 43-year old Niles woman suffered a laceration to forehead and broken foot after a tree fell on top of the vehicle she had just gotten into during a wind storm. The 5 foot diameter tree fell on top of 4 vehicles, pinning the woman behind the steering wheel for approximately 30 minutes.^{xcvi}

July 16, 1980

Deaths – 0

Injuries – 1

Thunderstorms erupted creating a squall line and subsequent Derecho in the early morning hours. As the storm surged, it blasted on shore with measured winds gusts of 98mph at the St. Joseph US Coast Guard station. An 18-year old Berrien Springs woman suffered a fractured pelvis and chest injuries at a youth camp near Watervliet after a tree fell on top of her. A 9-year old Cass County boy was killed, however, as a tree collapsed onto his house.^{xcvii} Damage from this storm was in the millions across the Chicago-Metro area^{xcviii} and continued with maximum intensity as it traversed Lower Michigan. Washtenaw County estimated their wind speeds at 100mph and 150mph in Wayne County. Extensive documentation was done the following year by Fujita and Wakimoto who indicated that damage was estimated at \$650 Million across the 4-state region of Michigan, Illinois, Wisconsin and Minnesota. Today's dollar figures would put that estimate closer to \$1.3 Billion strictly from the straight-line winds, exceeding many damage tallies from hurricanes and tornados.^{xcix}

July 2, 1997

Deaths – 0

Injuries – 0

A series of intense thunderstorms passed through the area spawning straight-line winds and heavy rainfall. Scottdale in Royalton Township had 2¼ inch diameter hail fall for 20 minutes with 70mph winds. 2¾ inches of rain fell in an hour in Niles. \$1 Million in damage was done in Berrien County.^c

May 17, 1999

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Deaths – 0

Injuries – 0

A strong storm system raced through Berrien County bringing with it high winds, heavy rain and hail. Wind gusts of up to 70mph downed many trees and branches, causing widespread damage and power outages.^{ci}

March 9, 2002

Deaths – 0

Injuries – 0

An unusually strong cold front moved through Berrien County with 70mph average winds that gusted up to 85mph. Wide scale damage was reported in the wake of this event.^{cii}

May 21, 2004

Deaths – 1

Injuries – 0

Thunderstorm winds up to 70mph, large hail and flash flooding occurred as a squall line causing a Derecho moved from Benton Harbor to Ann Arbor. Hundreds of trees were knocked down and thousands of people are without power.^{ciii} One person was killed when a tree fell on a car at 12:15pm in Coloma.^{civ}

December 23, 2007

Deaths – 0

Injuries – 0

Strong gusty winds occurred along a line of showers that developed ahead of a cold front during the early morning hours.^{cv} At 4:35am, the Benton Harbor Airport reported winds gusting at 55mph. Law enforcement in Three Oaks noted numerous trees down due to high winds around 4:22am.^{cvi}

Berrien County Hazards – Dam Failures

Mid 1970's

Deaths – 0

Injuries – 0

The American Electric Power Hydroelectric Dam in Berrien Springs underwent a major renovation when portions of the east embankment collapsed due to erosion. Although the dam was never in danger of failing, the outcome downstream would have been catastrophic. Heavy equipment was brought in by the utility and both sides of the structure were shored up and reinforced.^{cvi}

June 25-26, 1978

Deaths – 0

Injuries – 0

BERRIEN COUNTY HAZARD ANALYSIS 2012

A series of thunderstorms and torrential downpours began devastating areas in Berrien and Niles Townships. Flash flooding on a grand scale caused washouts on roadways and some streets became waterways. A private dam just south of Ullery Road near US 31 collapsed which sent tons of water hurling down Ullery Road and eventually onto US 31. Keill's Pond rose 15 feet in 6 minutes and raced in torrents onto adjoining properties.^{cviii} Parts of US 31 near Daniel Boone Trail actually gave out when the ground underneath became waterlogged. Residents at the Marine Terrace Apartments had to be evacuated because of the rushing water along the St. Joseph River. Even with the deluge of water, predictions were that more rain was coming.^{cix} Final farm damage assessment was put at \$3.6 million.^{cx}

Summer 1981

Deaths – 0

Injuries – 0

Heavy rains throughout the spring and early summer placed major stress on the Dayton Lake Dam in southern Berrien County. The large volumes of water added to the already degrading structural integrity of the dam causing portions of the earthen embankments to wash out. Several surrounding areas were flooded and 1 major road was washed out due to this event. The dam held, however, major renovation was completed to upgrade and improve the dam since this was the second incident in less than 15 years and a catastrophic failure was deemed imminent.^{cxii}

Berrien County Hazards – Lightning

April 18, 1898

Deaths – 0

Injuries – 0

Lightning struck a home 4 miles north of Niles, which broke out all the window panes in the house, shattered 2 doors into splinters and otherwise injured the building. It then set fire to 3 large trees. Of the several inmates of the home, not one was injured and their escape is considered miraculous.^{cxiii}

May 7, 1899

Deaths – 0

Injuries – 3

During an electrical storm, the home of a woman and her 2 young daughters was struck by lightning. All three of them received injuries.^{cxiiii}

May 27, 1899

Deaths – 1 (plus many cows and horses)

Injuries – 0

Hailed as the “worst electric storm ever known in Benton Harbor” most eloquently described as “blinding and contiguous and the sharp peals or low rumblings of thunder was incessant, lasting for longer than usual in thunderstorms.” The rain, hail and

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lightning were present but wind was said to be not very strong. One man was killed as he took refuge with his bicycle underneath a tree when it was struck by lightning.^{cxiv} Damage was very high due to lightning strikes and the fires that ensued. Many livestock were directly struck by lightning bolts and homes, businesses, and barns in Benton Harbor, St. Joseph, Coloma and Baroda were damaged and destroyed. The Twin City Phone Company put their losses at \$150 while the Paw Paw Lake Pavilion was about \$200.^{cxv}

August 22, 1910

Deaths – livestock (1 cow)

Injuries – 2

A 2:00am storm brought about 50mph winds, hail, rain and lightning, all of which resulting in severe damage to many structures in the Niles area. The Chicago Fan Company located near the Michigan Central Railroad suffered the most damage where as the 2-story brick building was reduced to rubble. Fifty machines in the building were also damaged and big timbers were flung about like they were paper. Loss was placed at \$60,000. The smokestack of the Niles Paper Company was also blown down during the storm and the west wall of the Niles Board and Paper Company was blown inwards. They estimate losses at a couple hundred dollars. A couple sleeping in their bed were temporarily paralyzed as their home was struck by lightning. They remained semi-conscious for several hours. Even Berrien County Undersheriff Starkweather felt the ill-effects of the storm when he lost one of his prized bovines. Three of them were huddled under a tree when one was struck by a bolt of lightning and instantly killed. In addition, many fruit trees were damaged, some being uprooted, foliage twisted and much of the fruit was destroyed.^{cxvi}

June 15, 1976

Deaths – 0

Injuries – 0

St. Joseph Township Firefighters were called to four separate house fires involving lightning strikes in less than two hours. Damage was minor but did include interior damage, brick shattering, scorched walls, ceiling damage, stove and television damage.^{cxvii}

June 12, 1978

Deaths – 0

Injuries – 1

A swift moving storm in the morning dropped about 1/3" of rain in about 90 minutes and lightning from the storm struck a TV antenna in Benton Township which started the interior on fire. It was reported that draperies near the outlet caught on fire and as one of the residents tried to extinguish the flames, her hair was singed in the fire. The fire did burn into the living room and caused heavy smoke damage estimated at \$15,000. Downed high power lines hitting the wet grass put on quite a show in St. Joseph but caused no damage but I&M crews were quickly dispatched to repair all downed lines.^{cxviii}

June 13, 1994

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Deaths – 0

Injuries – 1

A swift moving storm in the morning dropped about 1/3 inch of rain in about 90 minutes and lightning from the storm struck a TV antenna in Benton Township which started the interior on fire. It was reported that draperies near the outlet caught on fire and as one of the residents tried to extinguish the flames, her hair was singed in the fire. The fire did burn into the living room and caused heavy smoke damage estimated at \$15,000. Downed high power lines hitting the wet grass put on quite a show in St. Joseph but caused no damage but I&M crews were quickly dispatched to repair all downed lines.^{cxix}

June 12, 2001

Deaths – 0

Injuries – 0

Severe thunderstorm ravaged the area with high winds. Lightning struck Briarwood Apartments in Benton Township, destroying the roof of one building and wrecking two apartments. 35 residents had to be evacuated and many apartments received extensive smoke and water damages. Total damage was \$800,000.^{cxx}

June 30, 2002

Deaths – 0

Injuries – 1

A Berrien Springs Oronoko Township Police Officer received a shock from a jolt of lightning while directing traffic during a thunderstorm. Although the actual impact of the lightning bolt was in open ground over ¼ mile away, the officer received a hit from “trailer bolts” off of the main bolt. He was treated and released from the hospital but never returned to duty from this event.^{cxxi}

Berrien County Hazards – Great Lakes Shoreline Flooding/Erosion

October 21-22, 1929

Deaths – 0

Injuries – 0

A Nor’wester, “October Hurricane” flanked the area causing catastrophic damage to areas along Lake Michigan. The storm came ashore due north and by the following day had veered to the southwest causing a constant battering of the shoreline. Several homes in the Higman Park area of Benton Harbor literally collapsed into the lake, foundations being swept away. The rip-roaring storm was being hailed as the worst in the last 36 years. Debris littered the shores with large logs and water-soaked timbers. Roads washed out in St. Joseph and Benton Harbor causing water pumping stations to be put out of commission. Early estimates put damage within the county at \$100,000. Michigan City, IN reported \$300,000 loss.^{cxxii}

August 3, 1960

Deaths – 0

Injuries – 0

Hundreds of limbs and entire trees were blown down in the 70 mph winds of the storm that ripped through Berrien County around 11:00AM. Lake Michigan produced a “seiche” which resulted in a 4-foot surge on the shoreline of Berrien County. No injuries were reported as a result of this occurrence on this side of the lake but as the “seiche” returned towards the west, a Chicago man in a boat lost his life. A newly constructed kitchen building still being worked on at the Berrien County Fairgrounds was brought to the ground in the high winds. Lightning struck a TV antenna in Three Oaks and only the TV was damaged but luckily no fire broke out.^{cxxiii}

April 6-7, 1997

Deaths – 0

Injuries – 0

An intense low pressure system moving across Lake Michigan brought gale force winds to much of Lower Michigan, including Berrien County. Sustained wind speeds of 50mph with gusts of up to 70mph spawned Lake Michigan waves in height of 10-15 feet, causing widespread wind damage and massive beach erosion. Lake Michigan was nearly 38 inches above average at the time of this storm.^{cxxiv}

Berrien County Hazards – Hail

March 15, 1945

Deaths – 0

Injuries – 0

A hailstorm riddled a two-mile wide swath along Boyer Road in Coloma, causing thousands of dollars in damage. Farmers in the area reported 100% losses to glass and roofs, some even reporting hailstones breaking through roofs and landing in living rooms. Sizes of the hailstones ranged from 4-5 inches, golf ball and hickory nut size.^{cxxv}

July 7, 1955

Deaths – 0

Injuries – 0

A short hailstorm followed by an intense 15 minute rainfall destroyed several farms along Clymer Road in Coloma. One farmer said he lost 15 acres of tomatoes and 6 acres of cucumbers in the ½ mile wide path. The ground was covered with hail, and then ¾ inch of rain fell in a matter of 15 minutes.^{cxxvi}

July 12, 1975

Deaths – 0

Injuries – 0

165 farms constituting 10,000 acres in Hagar, Coloma and Watervliet Townships was battered by hail during a 15-30 minute storm. The severe center of the storm was a “box” bordered by Maple Lane, North Coloma Road, North County Line Road and I-196.

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Many of the farms were literally wiped clean of crops, including blueberries, grapes, tomatoes, melons and corn.^{cxxvii}

June 25, 1978

Deaths – 0

Injuries – 0

Farms in Berrien and Niles Township, as well as Eau Claire and Niles City were badly damaged by hail and torrential rain. Plants were beat down as the storm dropped over 5 inches of rain in 90 minutes. Losses were being estimated at \$3.6 Million.^{cxxviii}

March 27, 1991

Deaths – 0

Injuries – 0

Baseball sized hail was reported in the vicinity of Buchanan, causing massive damage to crops while the rest of Lower Michigan experienced considerable damage as well, included 3 deaths and 27 reported injuries throughout the area.^{cxxix}

July 2, 1997

Deaths – 0

Injuries – 0

A severe thunderstorm during the early morning hours pounded the area with 1 to 2¼ inch hail causing agricultural losses of nearly \$1.2 Million. Hail destroyed 280 acres of fruits and 100 acres of vegetables on one farm alone in a 2 mile swath from Stevensville southeast to the county line. The 20 minute hailstorm had accompanying straight line winds estimated as high as 70mph and left about 22,000 homes without power.^{cxxx}

May 7, 2003

Deaths – 0

Injuries – 0

Berrien Springs reported hail the size of quarters dropping for nearly 20 minutes as one area nursery estimated over \$8,000 in damage received to plants, flowers and the building.^{cxxxi}

August 3, 2003

Deaths – 0

Injuries – 0

A thunderstorm produced dime sized hail in the Three Oaks area.^{cxxxii}

Berrien County Hazards – Riverine Flooding

April 25, 1902

Deaths – 0

Injuries – 0

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“The worst flood ever known in the business part of Benton Harbor” read the news wires. A heavy rainstorm with lightning flooded the streets. The streets resembled swift flowing creeks with bill boards, signs and loose lumber floating over the pavements. The St. Joseph River is out of its banks in places. Much damage was reportedly done by the lightning as well.^{cxxxiii}

March 8, 1908

Deaths – 0

Injuries – 0

“The worst flood in many years” when “creeks became small rivers”. Heavy rains and melting snow turned the St. Joseph and Paw Paw Rivers as well as Hickory and Ox Creeks into powers of destruction and they washed roads and bridges away. The Interurban Train system had 150 feet of Earth washed from underneath the track, leaving the ties exposed in midair. Watervliet experienced heavy damage with the loss of a highway bridge but with the help of many citizens, the dam was saved. Niles also saw many homes flooded along the banks of the St. Joseph River. Residents began piling their belongings in rowboats as all the lowlands became flooded. A coffer dam used in the construction of the Berrien Springs dam was demolished in the flood.^{cxxxiv}

August 17, 1912

Deaths – 2

Injuries – 0

Thunderstorms with extremely heavy rain moved through southern Michigan and northern Indiana. Some residents reported that the downpours were the heaviest they had ever seen. Niles suffered a million dollars in damage and there were two fatalities.^{cxxxv} The rains in Coloma wreaked havoc on the interurban line, buckling the tracks and causing washouts near bridges.^{cxxxvi}

1920

Deaths – 2

Injuries – 0

The Hickory Creek “Mammoth Flood” of 1920 was recalled by one area resident as being the worst he had ever seen. Lasting two weeks, the water was 8 feet deep at Hickory Creek and Cleveland Avenue and the water had backed up to John Beers Road.^{cxxxvii}

April 7, 1947

Deaths – 0

Injuries – 0

Breaking all previous damage records set from previous floods, Berrien County experienced the wrath of Mother Nature and rains soaked the area and left rivers to swell and rise. The heaviest single loss in this disaster was the county highway system, amounting to several hundred thousand dollars alone. At least 5 bridges were washed out and many others were deemed unsafe due to erosion of the structure. Paw Paw Lake flooded and many summer homes found themselves under water.^{cxxxviii} The hardest hit areas of the county were Benton Harbor, Watervliet, Sawyer and New Troy. The Watervliet Paper Mill was completely shut down as water continued to rise around the

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building, only being held out by electric pumps. Farm lands were washed out including valuable crops, hundreds of homes were damaged and early estimates of \$200,000 might have been low.^{cxxxix}

March 19, 1948

Deaths – 0

Injuries – 0

Torrential rains resulted in Paw Paw Lake flooding its banks. Many cottages are completely surrounded by water and residents have evacuated. Others must use planks or boats to reach their homes. The road near Crystal Palace was covered with a foot of water. Damages were estimated in the thousands of dollars.^{cxl}

April 5, 1950

Deaths – 0

Injuries – 0

A 42 year old record was broken when the St. Joseph River reached 9 feet over flood level at the Berrien Springs Dam and flowed northward on its trek. River Road in Sodus Township reported to be under a foot of water in 2 stretches and the edge of the Niles business district had reached a foot of water as well. Water crept very close to 2 settlements of homes near the Sommerlayton Bridge along M-139. Hundreds of acres of farms were already underwater between Berrien Springs and Benton Harbor. Because Lake Michigan levels had been down, the river moved very swiftly, some say faster than they've ever seen it, which helped cut down on some of the flooding.^{cxli}

June 26, 1956

Deaths – 0

Injuries – 0

A small but violent windstorm swept through several localized areas of Berrien County including Sodus Township, Pipestone Township, Berrien Township and Niles. Nearly an inch of rain was measured in Sodus within a timeframe of 30 minutes. Winds strong enough to uproot huge trees were also reported. M-140 and River Road in Sodus Township were completely blocked while road crews removed large trees from the roadway.^{cxlii}

August 6, 1958

Deaths – 0

Injuries – 1

Black clouds turned noon into night as the winds picked up and a downburst of rain at about 1 inch in 30 minutes made for a quick but damaging storm. With the flash flooding from the quick downpour of rain, many roads became flooded and attracted youths. In the one injury attributed to this storm, a 4-year old boy was swimming in one of these flooded streets on South McCord in Benton Harbor, almost completely submerged when he was hit by a passing motorist. The boy was treated and released.^{cxliii}

June 16, 1960

Deaths – 0

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Injuries – 0

A localized wind storm struck Sodus and Pipestone Township, uprooting trees and damaging barns and dropping nearly an inch of rain in 30 minutes. Thirty cherry trees were blown over on one farm near Sodus.^{cxliv}

June 25-26, 1978

Deaths – 0

Injuries – 0

A series of thunderstorms and torrential downpours began devastating areas in Berrien and Niles Townships. Flash flooding on a grand scale caused washouts on roadways and some streets became waterways. A private dam just south of Ullery Road near US 31 collapsed which sent tons of water hurling down Ullery Road and eventually onto US 31. Parts of US 31 near Daniel Boone Trail actually gave out when the ground underneath became waterlogged. At one point, 4.62 inches of rain fell in one hour.^{cxlv} Residents at the Marine Terrace Apartments had to be evacuated because of the rushing water along the St. Joseph River. Even with the deluge of water, predictions were that more rain was coming.^{cxlvi} Final farm damage assessment was put at \$3.6 million.^{cxlvii}

March 12, 1979

Deaths – 0

Injuries – 0

Flooding around Paw Paw Lake affected at least 149 homes and caused an estimated \$400,000 in damage.^{cxlviii}

March 1982

Deaths – 1

Injuries – 0

A combination of heavy rainfall and melting snow resulted in a major flood disaster for Berrien County. Damage from the event was estimated at \$12 Million and resulted in a Presidential Major Disaster Declaration. One death was directly attributed to the flood conditions.^{cxlix}

May 9-10-11, 1996

Deaths – 0

Injuries – 0

Nearly 9 inches of rain fell in a 3 day period, resulting in massive urban flooding in the southern part of the county. Rural roads were washed out and even I-94 was under a foot of water^{cl} between the 7 and 8 mile marker. Sawyer Road and US 12 were submerged under nearly 2 feet of water in places. Over 100 miles of county roadways and approximately 269 homes and 31 businesses reported damage. The St. Joseph River crested nearly a foot above flood stage in Niles. A Governor's Disaster Declaration was granted due to the magnitude of the event.^{cli}

May 16-17-1996

Deaths – 0

Injuries – 0

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Two days of saturating rains dumped nearly 5 inches of precipitation across much of southern Berrien County, flooding low lying areas and washing out many roadways that had just been previously repaired after flooding from earlier. Water reached the top of the Dayton Mill Dam but did not overflow. The St. Joseph River crested at the 11 foot flood stage in Niles but receded the next day.^{cliii}

June 9, 1996

Deaths – 0

Injuries – 0

Three inches of rain fell in New Buffalo within an hour's time as heavy rains pounded much of the county throughout the entire day. The city sewer system was unable to keep up with the massive rainfall and created backup flooding in many homes and businesses. Many roadways were closed due to standing water and the St. Joseph River in Niles crested at 2 ½ feet above flood stage for 3 days before receding.^{cliii}

July 18, 1996

Deaths – 0

Injuries – 0

Between 2 and 4 inches of rain in a 3 hour deluge resulted in massive road flooding and closures. US 12 in Galien was closed to all traffic due to damage from washouts. Many roads in New Buffalo/Three Oaks area were reported to be under water.^{cliv}

February 21, 1997

Deaths – 0

Injuries – 0

Widespread flooding occurred throughout Berrien County with the St. Joseph River cresting to 3 feet above flood stage in some areas.^{clv}

March 1, 1997

Deaths – 0

Injuries – 0

Melting snow from a massive spring like storm system continued to wreck havoc on Berrien County. The snowmelt, along with the earlier addition of saturating rains, caused the St. Joseph River to exceed flood stage for nearly two weeks.^{clvi}

July 2, 1997

Deaths – 0

Injuries – 0

Scottsdale had 2¼ inch diameter hail fell for 20 minutes with 70mph winds. 2¾ inches of rain fell in an hour in Niles. \$1 Million damage was done in Berrien County.^{clvii}

May 21, 2004

Deaths – 1

Injuries – 0

Severe weather caused widespread damage across southern Lower Michigan. Thunderstorm winds up to 70mph, large hail and flash flooding occurred as a squall line

turned Derecho moved from Benton Harbor to Ann Arbor. Hundreds of trees were knocked down and thousands of people are without power.^{clviii} One person was killed when a tree fell on a car at 12:15pm in Coloma.^{clix}

Berrien County Hazards – Severe Winter Weather Events

January 12, 1918

Residents awoke to howling winds of 40mph, snowdrifts up to 9 feet high and temperatures that plunged to 22 below zero.^{clx}

December 21, 1951

A total of 10,000 tons of snow has been removed from St. Joseph city streets by the public works department after Mother Nature left a 30-inch blanket of snow over the area.^{clxi}

December, 1962

Berrien County received nearly 33 inches of snow over most of the area, almost double the monthly average.^{clxii}

January 25, 1965

Deaths: 1

Injuries: 2

The headlines read, “The Decade’s Worst Ice Siege” as 3 days worth of freezing rain made for an ice encrusted area. Observers at the time were calling it the worst storm in 10 years as schools closed and more rain was predicted in the forecast. One man tragically died in an auto accident that injured two others near Bridgman. Benton Harbor Fire Department responded to 4 different calls involving power lines snapping due to the ice and there was even immediate concern for the welfare of fruit trees and buds.^{clxiii}

January 8, 1970

Snowfall of 6-8 inches fanned by 20-25mph winds snarled traffic and closed many schools. Another system was expected to hit from a northerly direction giving another intense lake effect snow band that already was hampering visibilities for motorists.^{clxiv}

February 2, 1976

Blizzard left all but a few schools closed with 3 to 7½ inches of snow. Winds averaged 35-45mph creating difficult driving conditions as the temperatures dropped from 33 degrees to -2 below.^{clxv}

December 21, 1976

St. Joseph/Benton Harbor received 8-10 inches of snow; Buchanan had 11 inches while Galien had snow as “high as the hood of the patrol cars”. Winds were gusting up to 45mph.^{clxvi}

January 28-29, 1977

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Berrien County remained paralyzed by a massive blizzard that dropped temperatures to below zero. Gusting winds reached up to 50mph closed schools in a 4 county area, as well as many factories and businesses. Visibility was zero at many times and although roads weren't technically closed, most ended up being closed because road crews could not keep up with the snow removal.^{clxvii} The severity of the storm resulted in a Governors Disaster Declaration and a Presidential Emergency Declaration for a 15 county area.^{clxviii}

January 31, 1977

January 1977 will go down as the coldest January on record in Berrien County. The mean temperature for the month was 12.5 degrees. Pilots for North Central Airlines informed Ross Field Airport that Lake Michigan was $\frac{3}{4}$ frozen leaving a gap of about 15 miles of open water.^{clxix} The National Weather Service also stated that the winter of 1976/1977 has been the coldest on record in Michigan since 1880. The average temperature for this period was 34.1 degrees.^{clxx}

November 28, 1977

Residents had to deal with another 2-6 inches of snow just after digging out from the 6-12 inches from the day before.^{clxxi}

December 9, 1977

Gale force winds swept over the area causing snow drifts and closing most school systems. Cook Nuclear Plant reported winds at 40mph and temperature^{clxxii} at 3 degrees.

January 9, 1978

Hundreds of motorists were stranded during a severe winter storm. A 55 mile stretch of I-94 was closed for about 15 hours as well as US 31/33. Visibility was described as "to your windshield wipers" as stranded travelers sought shelter at area high schools, fire departments and churches.^{clxxiii}

January 26-27-28, 1978

Deaths: 3

Noted as one of the most severe blizzards of the century, Berrien County was blasted with 20-22 inches of snow, 5 foot drifts and 60mph winds. It was being hailed as the "Big Blizzard of '78". Tragically, 3 people lost their lives during this storm; an infant died of pneumonia in a snowbound Coloma home and 2 men were found dead in the snow in St. Joseph, both victims of apparent heart attacks. I-94 closed down on Thursday wasn't reopened until 2 days later.^{clxxiv} The state received a Governors Disaster Declaration and a Presidential Emergency Declaration.^{clxxv}

February 6, 1978

Watervliet experienced -24 degrees overnight and other below zero temperatures around the area.^{clxxvi}

January 13, 1979

Deaths: 1

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A bitter cold blizzard returned to the area as the mercury as low as 8 degrees with 22 inches of snow. A Benton Township man lost his life while shoveling snow around his car, an apparent heart attack.^{clxxvii}

February 21-22-23-24, 1993

An arctic blast fueled by strong northwest winds produced lake effect snow dumping between 10 and 20 inches of snow on Berrien County. The new snow was on top of what had fallen during the previous two days with a synoptic storm, leaving snow depths of up to 27 inches in parts of the county.^{clxxviii}

January 10-11-12, 1997

Lake effect snow tied up activities for over three days. Many schools and businesses closed as snow blanketed the area with 12 to 28 inches.^{clxxix}

January 15-16, 1997

12 inches of snow piled up within a 23 hour period. Winds measured at 20 to 30mph with gusts up to 40mph creating blizzard conditions that closed many schools and businesses.^{clxxx}

November 16, 1997

18 inches of lake effect snow in the New Buffalo and Sawyer area. The heavy, wet snow downed trees and power lines. Other amounts: 13 inches at Baroda, 12 inches at St. Joseph and Coloma, 11 inches at Buchanan and 10 inches at Stevensville.

December 30-31, 1997

A northwest wind flow around a strong low pressure system brought a surge of arctic air across Lake Michigan. Lake effect snow accumulations between 6 and 12 inches in Berrien County snarled traffic and closed businesses for two days.^{clxxxi}

January 7-8, 1998

A winter storm system produced a wintry mix of snow, sleet and freezing rain across Berrien County. As the cold air moved south, freezing rain and sleet changed over to lake effect snow, resulting in about 6 inches of accumulation. Ice had glazed over power lines and trees, bringing down many of them by the shear weight.^{clxxxii}

January 19, 2000

Strong snow storm swept through Northern Indiana and Southern Michigan dropping about 12 inches of snow in Berrien County.

January 20-21, 2000

Heavy lake effect snow fell, including 15 inches in Baroda. Rates of snow were reported at 2 to 3 inches per hour with whiteout conditions.^{clxxxiii}

January 25, 2000

16 inches fell in Baroda.

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November 21, 2000

10 inches of lake effect snow fell in Niles and 9 inches in Benton Township.

December 11, 2000

Heavy snow, thunder snow, sleet, and near blizzard conditions across the area and a foot of snow fell in Niles and St. Joseph.

December 18, 2000

Lake effect snows of as much as 2 inches per hour. Totals included 13 inches at Bridgman 10 inches at St. Joseph, 9 inches Benton Harbor.

December 23-24, 2000

Heavy lake effect fell during a 24 hour storm with snow totals of about 12 inches.^{clxxxiv}

December 24, 2001

Lake effect snow piled up to 8 inches in Niles.

December 29, 2001

10 inches of lake effect snow at Buchanan and Berrien Springs.

January 31, 2002

An ice storm rolled upon Berrien County leaving ½ inch ice accumulation in some areas. Many trees and power lines were reported down leaving over 250,000 homes without power.^{clxxxv}

February 26, 2002

Berrien County received a foot of snow.

March 2, 2002

6 to 12 inches of lake effect snow fell on Berrien County during a late season storm.^{clxxxvi}

January 23, 2003

7 inches of snow fell in Bridgman.

January 26, 2003

6 inches of snow fell in Berrien Springs and Buchanan.

February 7, 2003

Deaths: 1

A narrow and intense snow band associated with a low pressure center moved over the interstate and helped cause the large chain reaction accident at 1:30pm. A total of 80 vehicles were strewn about the busy Chicago-Detroit link for a mile and a half, and closed down a nearly 12-mile stretch of the expressway for over 10 hours. One person was killed while some 25 others were injured. Some vehicles caught fire during the whiteout conditions, and some were so badly damaged that the cars had to be cut apart to extract the occupants. One woman was trapped in her truck for two hours. Snowfall rates

were as high as two inches per hour within the band, with total accumulations up to a foot. Winds were around 20mph. Skies were generally clear or partly cloudy north and south of the narrow snow band. The National Weather Service issued a Lake Effect Snow Warning for Berrien County at 11:30am, two hours before the crash.^{clxxxvii}

Berrien County Hazards – Transportation Accidents

FATAL AIRCRAFT ACCIDENTS

FOOLKILLER #3

November 29, 1904

Loss of life: 1

A Daredevil created a 38-foot canvas balloon shaped like a giant football and intended to cross Lake Michigan as he piloted from inside. The balloon was launched from the Chicago waterfront and the next afternoon, was spotted floating about 200-yards from Livingston Beach near Bridgman. Two days after launching the body was discovered lying on the beach. The wreckage was found ½ mile farther up the beach and a coroner's jury determined that death was from either exposure or suffocation.^{clxxxviii}

DC-4, NORTHWEST AIRLINES FLIGHT 2501

June 23, 1950

12 Miles Northwest of St. Joseph, Lake Michigan

Loss of life: 58

Taking off at 8:25pm from LaGuardia Airport, NY, the Douglas DC-4 Airliner with 4 propeller engines headed towards Minneapolis, MN. When thunderstorms erupted over Lake Michigan, the plane re-directed from near Saugatuck and flew south along the shoreline looking for a break in the squall line. Berrien County Sheriff Deputies reported seeing a low flying plane clipping trees over Paw Paw Lake while others as far as Bridgman and Saugatuck reported seeing the plane over Lake Michigan. Around 1am, witnesses saw an explosion. US Coast Guard officials believe that the plane was too low and violently broke apart when hitting the water. Only body parts and small pieces of wreckage were found, as well as a few personal items. At the time, it was the worst aviation disaster in United States history.^{clxxxix}

BEECHCRAFT BONANZA

February 15, 1958

Loss of life: 3

A bitterly cold snow storm in the area caused a small plane to crash in Baroda, claiming the lives of 2 executives from the Leonard Oil Company in Alma.^{cx} The company's president and marketing manager were returning on a routine flight from Tulsa, OK when the company plane went down in a blinding snow storm.^{cxci} Witnesses reported hearing the plane circling overhead around 5pm and then suddenly went down on a Snow Road farm. The engine was thrown some 25 feet from the mangled wreckage.^{cxcii}

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CESSNA 172E

November 7, 1965

Loss of life: 1

Injuries: 2

23-year old pilot was a student from Tri-State College in Angola, IN. Pilot and student left the airport in Angola bound for Benton Harbor but crashed into a field on the Reber Farm in Royalton Township.^{cxci} The 2 injured passengers climbed out of the wreckage and walked about ½ mile towards a farmhouse when they were spotted by Berrien County Sheriffs Deputies.^{cxci} Probable Cause(s): Continued VFR flight into adverse weather conditions and inadequate preflight preparation and/or planning. Other factors include: Weather – low ceiling, fog.^{cxci}

YANKEE AA-1

March 16, 1969

Loss of life: 1

29-year old student pilot was practicing take-off and landings at Ross Field when the plane suddenly plummeted to the ground from about 200-300 foot elevation. Probable Cause(s): Mismanagement of fuel, fuel starvation, failed to obtain/maintain flying speed, complete engine failure/flameout.^{cxci}

PIPER Colt PA-22

May 16, 1972

Loss of life: 2

68-year old pilot and passenger departed South Bend enroute to Flint during a normal cruise. Witnesses reported seeing plane flying in a southwesterly direction, then banking to head northeast when it lost control. The plane hit trees and then hit the wall of Twin City Pattern Works located at the corner of Higman Park and Northshore Drive. Workers inside the building reported seeing a glow of fire before plane hit the building.^{cxci} Probable Cause(s): Pilot continued VFR flight into adverse weather conditions: low ceiling and fog, high obstructions. Observed flying low in fog before hitting trees and factory where plane burst into flames.^{cxci}

CESSNA 320D

December 14, 1972

Loss of life: 1

32-year old pilot departed Ross Field enroute to Apache Junction, AZ during normal cruise when it appeared the plane lost power to an engine shortly after take-off. Upon trying to return to the airport, the plane went down into utility poles and high voltage power lines near the Paw Paw River and Riverside Road.^{cxci} Probable Cause(s): Pilot failed to obtain/maintain flying speed, improper in-flight decisions or planning, improper emergency procedures, partial power loss. Witnesses reported seeing engine missing when aircraft attempted to return back to airport. Impacted power lines and burst into flames.^{cc}

CESSNA 150G

BERRIEN COUNTY HAZARD ANALYSIS 2012

January 14, 1973

Loss of life: 2

24-year old flight instructor and 23-year old student conducting last training flight before getting pilot's license. Authorities stated that it appeared the plane nosed into the ground and flipped over into a field on Range Line Road, just south of Long Lake Road.^{ccci}
Probable Cause(s): Uncontrolled descent, Andrews University Airport.^{ccii}

PIPER PA-31

March 31, 1973

Loss of life: 2

51-year old pilot and 63-year old passenger departed Owensboro, KY enroute to Niles Airport during final approach. Plane went down south of US 12, between Weaver and Portage Roads. The gas tanks exploded on impact as the plane belly landed on a fence, bounced up and then landed in the middle of a wheat field. Troopers reported seeing a flash of light and flames shooting in the air as they made the scene but plane was already consumed by flames.^{cciii} Probable Cause(s): Pilot had improper IFR operation, improper in-flight decisions or planning; weather factors included low ceiling, rain, and fog, thunderstorm activity. Aircraft collided with trees and burst into flames during a thunderstorm.^{cciv}

PIPER PA-28

January 8, 1975

Loss of life: 4

26-year old pilot and 3 passengers left the South Bend Airport for a pleasure cruise when pilot began experiencing trouble in the fog. While trying to navigate back to South Bend, the plane came down, nearly missing a house and barn on Meadowbrook Road.^{ccv}
Probable Cause(s): Pilot initiated flight in adverse weather conditions, attempted operation beyond experience/ability level, spatial disorientation; weather factors included low ceiling and fog. Observations at the time of impact were zero visibility. Plane had also been either stolen or was used without authorization.^{ccvi}

BELLANCA 8KCAB

June 19, 1976

Loss of life: 1

48-year old pilot performing a stunt show in front of a crowd of 800 people crashed into a field about ¼ mile northwest of the Galien American Legion. At the time of the crash, the pilot was conducting a snap roll but landing gear struck the ground, putting the plane into a skid and bounce before coming to rest some 100 feet into the field.^{ccvii} Probable Cause(s): Misjudged clearance.^{ccviii}

PIPER PA-18

September 18, 1977

Loss of life: 1

Injuries: 1

62-year old passenger was offered a plane ride during an Air Show at Ross Field when a tight right turn at low altitude caused the plane to lose speed and stall, dropping the plane

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to the runway beneath. Witnesses said the plane hit nose first and then fell onto its back. Pilot sustained serious injuries while passenger perished at the scene.^{ccix} Probable cause(s) were pilot failed to obtain/maintain flying speed, exercised poor judgment, acts unwarranted low flying, disregard of good operating practice.^{ccx}

CESSNA 182G

May 1, 1978

Loss of life: 3

24-year old pilot lost power during initial climb and forced a landing just shy of the airport, hitting trees and impacting the ground. Probable cause(s) include power plant failure for undetermined reasons, failed to obtain/maintain flying speed, attempted operation w/known deficiencies in equipment, complete power loss, complete engine failure/flameout – 1 engine. Aircraft had not been flown in over 5 months.^{ccxi}

PIPER PA-38

June 6, 1982

Loss of life: 2

About 1pm, flight instructor and student set out for a local training flight and by 1:25pm, the plane had crashed into a wooded area about 1 mile northeast of the airport. Witnesses reported that before the accident, the plane was in a slow downward rolling pattern. The plane then leveled out, the wings tipped from side to side 3 times and then the nose dropped to a 45-50 degree angle before crashing. The NTSB determined the probable cause(s) of this accident as follows: airspeed not maintained, dual student stall, inadequate supervision.^{ccxii}

CESSNA 172P

July 4, 1984

Loss of life: 1

Flying over Lake Michigan from Chicago on a routine flight started out clear but conditions quickly deteriorated as fog set in. No radio communications were ever received but pieces of wreckage and the body of the pilot was recovered from Lake Michigan approximately 4 miles southwest of St. Joseph. The NTSB determined the probable cause(s) of this accident as follows: altitude not maintained with lack of total instrument time, obscuration and fog.^{ccxiii}

BILLINGS/WHITE AVID FLYER

May 21, 1989

Loss of life: 2

Two builders of an experimental aircraft were enroute to a fly-in at the Niles Airport when witnesses reported the engine losing power during a turn. The aircraft then maneuvered into a 360 degree turn as if to land in a field but instead went into a steep descent and impacted the ground. The NTSB determined the probable cause(s) of this accident as follows: loose carburetors due to improper maintenance/installation which resulted in fuel starvation and loss of engine power, failure of pilot to maintain adequate airspeed while maneuvering for a forced landing, which resulted in an inadvertent stall and subsequent impact with the ground.^{ccxiv}

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TEMCO D-16A

July 12, 1991

Loss of life: 1

Pilot and owner of plane had replaced the interior for maintenance and upon taking off after the work had been done, the left engine lost power. The plane descended into trees and the terrain. Post-accident inspection showed the fuel selector lever was not properly replaced and the tank did not have sufficient fuel. The NTSB determined the probable cause(s) of this accident as follows: improper replacement of the fuel selector level which resulted in loss of engine power due to fuel starvation.^{ccxv}

PIPER PA-24-250

December 11, 1991

Loss of life: 1

Injuries: 2 serious

On a pleasure cruise about 80 miles out of Berrien Springs, pilot noticed that the engine lost power. Upon switching from right fuel tank to left, the engine restarted but after several minutes, the engine lost power again. Continued attempts to restart the engine failed and the plane impacted trees about 1½ mile short of the runway. Passengers stated that it was a dark night and the plane hit the trees in order to avoid an area with residential lights. The NTSB determined the probable cause(s) of this accident as follows: Pilot in command had poor in-flight planning/decision making and misjudged fuel supply/consumption. Related factor was overconfidence in personal ability.^{ccxvi}

BEECH 95-BE55

February 3, 1992

Loss of life: 2

On approach to Benton Harbor, communication was lost over Lake Michigan. Search operations ensued and a US Coast Guard helicopter spotted an oil slick and 3 aircraft tires with portions of landing gear attached. One month and 11 days later, a body washed up on shore and was positively identified as the passenger. Eight days later, the body of pilot was recovered. Medical Examiner determined death for both was due to drowning. Aircraft was never located and cause of crash has been listed as undetermined.^{ccxvii}

KARR TITAN TORNADO

September 1, 1996

Loss of life: 1

Injuries: 1

Aircraft was observed conducting aerobatics over Lake Michigan near a beach at Union Pier. During the fifth successive 'hammerhead turn' the plane went out of control and impacted the surface of the lake. The NTSB determined the probable cause(s) of this accident as follows: The pilot not obtaining/maintaining altitude/clearance., not maintaining aircraft control and intentional aerobatics.^{ccxviii}

Piper PA-28-140

March 7, 2002

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Loss of life: 1

The airplane impacted a snow covered wooded area approximately 5 minutes after departure. NTSB determined the probable cause(s) of this accident as follows: Flight into known adverse weather conditions by the pilot and the spatial disorientation of pilot. Contributing factors were the lack of certification by the pilot and weather.^{ccxix}

Piper PA-46-350P

August 4, 2002

Loss of life: 3

Plane experienced a loss of engine power during cruise flight at 19,000 feet and impacted the terrain while performing a forced landing. The pilot reported the loss of engine power about 16 minutes prior to the accident. Witnesses to the accident reported seeing the airplane "spiraling down and crashing into the ground." NTSB determined the probable cause(s) of this accident as follows: The pilot's failure to maintain airspeed above stall speed resulting in a stall/spin. A factor to the accident was the engine failure due to the fatigue failure of the crankshaft.^{ccxx}

Cessna 152

September 25, 2003

Loss of life: 1

Plane was destroyed when it impacted trees and terrain after takeoff. A witness stated the pilot took off from the airstrip in the back of his property for a short flight to "buzz" and fly over the house. The plane banked to the right and approximately halfway into the turn the nose of the plane pointed straight down. It fell straight down disappearing into the neighboring cornfield. NTSB determined the probable cause(s) of this accident as follows: The pilot not maintaining adequate airspeed resulting in a stall during takeoff. Contributing factors were the buzzing flight and trees.^{ccxxi}

Beech BE-58

February 4, 2005

Loss of life: 4

Plane was destroyed when it departed from cruise flight at 7,000 feet and impacted the terrain in a wooded area. The radar track data indicated that the airplane's heading and altitude went almost "straight down." Radar track data indicated the airplane impacted the terrain at about 300 knots with about a maximum descent rate of 25,000-feet per minute. NTSB determined the probable cause(s) of this accident as follows: The steep nose down descent from cruise for undetermined reasons and the subsequent collision with terrain in a steep nose down attitude^{ccxxii}

TRAIN DERAILMENTS

January 12, 1914

Deaths: 1

Injuries: 1+

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The Pere-Marquette passenger train Number 1 coming from Chicago was steaming along the Lake Michigan shoreline headed towards St. Joseph. The train had 7 coaches and was managing quite well even though a fierce blizzard raged on. As they neared the St. Joseph Depot, a pounding could be heard underneath the locomotive and it was discovered that a tie-bar had broken loose. Efforts to stop the train were made but not before the bar caught a switch, causing the locomotive to whirl from the track, twisting itself into a jumbled mass of wreckage. The baggage car and the smoking car were both badly damaged but the passenger coaches remained intact. The conductor was pinned in the wreckage and badly scalded; he died later at Mercy Hospital while other crewmen suffered minor injuries.^{ccxxiii}

May 29, 1918

Deaths: 3

The Pere-Marquette freight train headed from Berrien Springs to Buchanan had a light load of 4 boxcars and a passenger coach. An area known as Moccasin Bluff was overgrown with weeds and hidden by a curve in the track. It was a steep grade about 2 miles north of Buchanan and had been prone to washouts the past 40 years. Little did the crew know, but heavy rains had washed out part of the sandy soil compromising about 50 feet of the curve near the foot of the bluff. When the train approached this area at 15mph at 2:40pm, disaster was inevitable and the locomotive, tender and 2 boxcars plunged down a 15 foot embankment. The engine rolled over, pipes burst and 3 crewmen were instantly crushed and scalded to death.^{ccxxiv}

January 24, 1965

Injuries: 13

A New York Central Twilight Limited Passenger Train on the Detroit-Chicago express derailed a mile west of Galien, injuring 13 passengers. Nine of the train's 11 cars left the track and a total of 150 were riding when the accident occurred.^{ccxxv}

December 6, 1970

10 cars derailed out of 65 car freight at the downtown Coloma crossing. Estimated damage costs were \$48,000.^{ccxxvi}

January 18, 1976

16 boxcars derailed out of 70 car freight a mile south of Stevensville.

April 19, 1976

5 cars and caboose derailed out of 58 car freight south of Hawthorne, St. Joseph.

June 10, 1976

7 freight cars derailed at New Buffalo.

June 11, 1976

10 cars carrying 120 new 1976 automobiles derailed in downtown Watervliet.

June 18, 1976

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1 car of 100 car freight derailed at Hilltop Road crossing, St. Joseph.

August 1, 1976

1 car of freight derailed at Stevensville.

November 11, 1976

1 freight car derailed at Upton Drive crossing, St. Joseph.

November 19, 1976

5 cars of 70 car freight derailed near St. Joseph Avenue crossing, Stevensville.

December 24, 1976

2 cars fell into St. Joseph River, 7 cars total derailed of 83 car freight, Water and Vine Street Crossing, St. Joseph.

November 17, 1977

19 cars of 61 car Chessie system freight derailed east of M-140 behind the Watervliet Fire Department.^{ccxxvii} Damage was placed at \$1 Million.^{ccxxviii}

March 14, 1978

18 cars of 54 car Chessie system freight derailed at the Coloma Road “S” curve near Boyer Road.^{ccxxix}

August 7, 1981

Deaths – 1

At 5:07am, a C&O freight train derailed in downtown Bridgman. An overturned tanker spilled a gas determined to be fluorosulfonic acid, an odorless, and fuming liquid that is acidic, poisonous and highly corrosive to metals and tissue. A vapor cloud formed which then forced the evacuation of 1,000 persons in the area. A State Trooper spent his entire shift in close proximity to this gas and died 3 weeks later as a result of breathing the toxic fumes.^{ccxxx}

April 11, 1982

A freight train derailed near St. Joseph, causing the spill of ethylene benzoil and benzene. This accident prompted the evacuation of 500 nearby residents so that the spill could be contained and cleaned up.^{ccxxxi}

ⁱ New Albany News, New Albany, IN, June 3, 1859.

ⁱⁱ History of Berrien and Van Buren Counties, Michigan, Township of Pipestone, Pages 299-300, D. W. Ensign & Co, 1880.

ⁱⁱⁱ Carney, James T, Berrien Bicentennial Baroda Township, Page 57, 1976.

^{iv} St. Joseph Saturday Herald, Page 3, May 25, 1913.

^v <http://www.crh.noaa.gov/grr/history/?m=3&d=28>.

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^{vii} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.

^{viii} http://www.crh.noaa.gov/iwx/program_areas/wxhisttdy/index.php?url=Jul9.

^{ix} The Ironwood Daily Globe, Page 1, July 10, 1926.

- ^x http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
- ^{xi} The Herald-Press, Page 1 & 14, April 4, 1956.
- ^{xii} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
- ^{xiii} The Herald-Press, Page 1, June 27, 1956.
- ^{xiv} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
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- ^{xxiii} The Herald-Press, Page 1, May 1, 1962.
- ^{xxiv} The News-Palladium, Page 1 & 12, May 1, 1962.
- ^{xxv} The Herald-Press, Page 1, July 6, 1966.
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- ^{xxvii} *Berrien County Hazard Analysis*, December, 2003.
- ^{xxviii} The News-Palladium, Page 1 & 12, April 22, 1967.
- ^{xxix} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
- ^{xxx} The Herald-Press, Page 1, August 1, 1970
- ^{xxxi} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
- ^{xxxii} The News-Palladium, Page 1, June 15, 1972.
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- ^{xxxiv} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
- ^{xxxv} The News-Palladium, Page 1, June 21, 1974.
- ^{xxxvi} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
- ^{xxxvii} The Herald-Press, Page 1, September 21, 1974.
- ^{xxxviii} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
- ^{xxxix} The Herald-Palladium, Page 1 & 18, May 21, 1975.
- ^{xl} http://www.crh.noaa.gov/images/iwx/IWX_Tors/countymaps/Berrien.pdf.
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- ^{xlii} The Herald-Palladium, Page 1 & 20, March 5, 1976.
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