# HISTORY OF MARYLAND WEATHER including Chesapeake Bay by James Dawson

Note: This article is in two parts. Part One is in narrative form with the high points of various weather phenomena grouped by type. Part Two, which follows, is a much more detailed chronological list.

#### PART ONE

## MARYLAND'S WEATHER (If You Don't Like It, Just Wait a Minute)

#### by James Dawson

Everybody talks about the weather, so let's talk about our weather. Here in Maryland, midway between the equator and the North Pole, we get a Whitman's sampler of almost every kind of weather there is: heat, cold, drought, flood. But we shouldn't complain, weather wise (and otherwise) we've had it pretty lucky here. The extremes seldom last very long, nor are they as bad as in other parts of the country. Our climate is changeable though and it has been said that if you don't like Eastern Shore weather, just wait a minute and we'll get something else.

In 1671, John Ogilby wrote in his *New Description of Mary-Land*:

"The Climate is very healthful, and agreeable with English Constitutions...

In Summer, the heats are equal to those of *Spain*, but qualifi'd daily about Noon, at that time of the Year, either with some gentle Breezes, or small Showres of Rain: In Winter there is Frost and Snow, and sometimes it is extremely cold, insomuch, that the Rivers and the Northerly part of the Bay of *Chesapeach* are Frozen, but it seldom lasts long; and some Winters are so warm, that People have gone in half Shirts and Drawers only at *Christmas*: But in the Spring and Autumn, (*viz*) in *March*, *April*, and *May*, *September*, *October* and *November*, there is generally most pleasant temperate weather: The Winds there are variable, from the South comes Heat, Gusts, and Thunder; from the North or North-West, cold Weather; and in Winter, Frost and Snow; from the East and South-East, Rain."

We've had mild weather around Christmas, too. And if we didn't dress in half Shirts and Drawers, we have worn Short-Sleeve Shirts and Shorts.

But for contrast, Henry Callister writing from Oxford in 1741, painted a somewhat less idealized, but just as accurate, view of things, "we are swarming with Bugs, Musketoes, worms of every sort both Land & water, Spiders, Snakes, hornets, wasps, Sea nettles, Ticks, Gnats, Thunder & Lightening, excessive heat, excessive Cold—irregularities in abundance." We can have all that, too. The recipe for Maryland weather is a temperate stew sprinkled with occasional hot spices and ice cubes.

What follows are highlights of some of our meteorological irregularities. Remember that unusually high tide, or particular snow storm, or the time it rained frogs, but aren't sure of the date? Hopefully you can find it here.

Hurricanes and Major Storms: we've had a few bad ones over the centuries, but there are many more years when we haven't had any. The first one recorded was off Roanoke, Va. in 1586 which certainly hit Maryland also. It was notable in that it produced hail

the size of hen's eggs.

The first bad storm with damage specific to Maryland was noted by Henry Norwood in Jan. 1649 which cut many inlets through along the coast including probably the one at Fenwick, Del. Long before hurricanes were given people's names, we had the Dreadful Hurry Cane of 1667, which flattened an enormous number of trees and houses both in Md. and Va., the Great Gust of 1724, the Great Rain and Horrible Gale of 1727, and the Great Gale of 1729. The storm of Oct. 1743 was tracked up the coast by Ben Franklin who showed how storms move. In Oct. 1749, a huge offshore hurricane flooded the Bay. A hurricane in 1769 caused much damage to Bay areas as did the Independence Hurricane of 1775 and the storm of Sept. 1785 which was called "the most tremendous gale known" in that century.

And proceeding on into the 19th century: in 1812, a violent storm off the coast was thought to have prevented a British attack on Worcester Co. On Sept. 3, 1821, a hurricane passed directly over Norfolk, Va. causing much damage to the lower Bay areas as did the "dreadful storm" of June 1825 which is thought to have created Fishing Bay in Dorchester Co. The Great Hurricane of 1846 caused much destruction and a s.e. wind drove water into the Bay causing much flooding. On Aug. 24-25, 1851 the Appalachicola Storm hit the upper Bay while the Expedition Hurricane of 1861 struck the lower Bay causing havoc there. Storms play no favorites. Oops, almost forgot the Horrible Gale of '54 which was very destructive. The hurricane of Sept 28-29, 1874, which hit the mouth of the Bay, was the first hurricane ever shown on a weather map. The Centennial Storm of Sept. 1876 had such high winds and rain, tides were 7.9 feet above normal in some areas. Sharps Island was cut in two and many vessels were lost in the Bay. Then came The Gale of '78, followed by the Sea Islands Hurricane of Aug. 1893 which pounded and drowned the lower Bay. Our coast has always been vulnerable.

Moving into the 20th century: the Sept. 1903 hurricane was said to have been the worst to hit Ocean City in 40 years and at Old Point Comfort, Va. hundreds of dead birds, stripped of their feathers, fell from the sky. On Aug. 4, 1915, a bad tropical storm hit Maryland causing widespread damage. Trees and crops damaged in Talbot Co. Then in Feb. 1920, a terrific coastal storm battered Ocean City, tides were 6.5 feet above normal and an inlet was cut through at Assateague. The hurricane of Aug. 23, 1933 cut the inlet through at Ocean City and effectively opened it up for tourism. This was likely the most profitable storm damage in state history, but it also left 13 dead. On Deal's Island, it was said that coffins floated out of their graves. In 1954, Maryland was hit by three hurricanes in one year: Carol, Edna and Hazel. These were the days when hurricanes were only given women's names. Hazel was one of the few hurricanes to plow its way inland almost parallel to the Bay. With winds of over 100 m.p.h. it was one of our most intense storms and caused millions of dollars in damage in the county (and that's in 1954 dollars). On Hooper's Island, many houses were damaged or destroyed and it was said that coffins floated out of their graves again.

In 1960 came Donna, but on March 6-7, 1962 the Storm of the Century was probably the most destructive ever to hit our coast, devastating Ocean City and cutting two inlets through at Assateague. "SEA SWEEPS OVER OCEAN CITY; RESIDENTS FLEE; DAMAGE HIGH. Homes Float Away; Chincoteague Isle Homes Break Up." [The Evening Sun, Baltimore, March 7, 1962]. At least three illustrated booklets were published about the disaster. The one by the Eastern Shore Times Press in Berlin, Md. was titled The Tides of March. In 1972, Agnes dealt the Bay such a blow that the submerged aquatic grasses have never recovered. And then into more socially enlightened times when hurricanes were named for men and women we had Bob in 1985, Gloria in 1985 and in 1992 Danielle made landfall at the mouth of the Bay.

When the Super Storm came on March 13, 1993, it was an extremely powerful storm like no other and barometric pressures plunged to the lowest ever recorded for the

Bay: 28.51 in Baltimore and 28.34 at the mouth. Thunder snow was observed in Talbot Co. That is a rare phenomenon when it thunders and snows at the same time (it probably needs a special name, I propose either a snunderstorm or a thizzard.)

On Sept. 16, 1999, Hurricane Floyd nearly swamped us with excessive rain and on Sept. 19, 2003, Hurricane Isabel caused flooding as bad or worse then the storm of 1933.

Cold Weather: In 1756 the Bay froze and certainly not for the first time. The winter of 1779-1780 was so cold that the Bay froze over down to the mouth of the Potomac and ice was so thick that carts and carriages crossed the Bay from Annapolis to Poplar Island. In 1784, Baltimore harbor was closed until March 19 due to ice. In Feb. 1805 Haddaway's ferry was trapped in the ice off Poplar Island and passengers walked to shore. 1816 was the year with no summer. Frost and ice were common and farmers wore overcoats and gloves during the July wheat harvest. In 1852, the Susquehanna River froze so hard that railroad tracks were laid across the ice at Havre de Grace and used for over a month. On Feb. 10, 1881, ice floes sheared Sharps Island lighthouse from its foundations and carried it 5 miles with the terrified keepers trapped inside. They later made it safely to shore. In Feb. 1899, a severe cold wave hit the state. Temperatures ranged from -4° in Ocean City to -26° in Garrett Co. and ice was 10 inches thick in the Bay. The winter of 1918 was so cold that the battleship Ohio was used as an icebreaker to keep the Bay open for wartime shipping. The Bay also froze in 1936 and 1945. In 1972, Talbot Co. had its coldest June temperature on record when it was 47° on June 11. The winter of 1977 was so severe that ice pushed the Sharp's Island light that was replaced in 1882 from the vertical, oysters were tonged from holes cut in the ice and there were ice boat races in St. Michaels on the Miles River. The winter of 2003 was said to be the worst to ever hit the state. That said, there have been many more years when the Bay didn't freeze at all.

Lighthouses were particularly vulnerable and many suffered ice damage in 1872, 1877, 1879, 1881, 1882, 1884, 1893, 1894, 1899, 1904, 1918, 1935, and 1936.

The coldest temperature ever recorded in Maryland was -40° in Oakland (Garrett Co.) on Jan. 13, 1912 and the coldest temperature in Talbot Co. was probably -15° in Feb. 1899.

Ice Storms: Two notable ones: on Jan. 10-11, 1805, St. Michaels was hit by an ice storm that felled many trees. Roads were almost impassible either on foot or by horse-back. And who can forget the ice storm 189 years and one month later on Feb. 11, 1994 which moved across Southern Maryland to slam into the Eastern Shore like a runaway glacier. St. Michaels and all of Talbot Co. were hit particularly hard, roads were treacherous, many trees were downed, and power was out for a week or more in some places, a problem no one had in 1805.

**Tornados**: On Aug 22, 1888, a tornado slashed its way from D.C. to Kent Co. leaving 11 people dead in its path. On Nov. 9, 1926, Maryland's deadliest tornado hit the small town of La Plata in Charles Co. causing 17 deaths. A school house with 60 children inside was carried 50 feet and some children were carried up to 500 feet away. Incredibly, La Plata was devastated by another F4 tornado on April 28, 2002 which caused 4 deaths. Debris was carried across the Bay and dropped in Talbot and Dorchester Counties. Another F4 tornado hit Frostburg (Allegheny Co.) on June 2, 1998. Locally, a "terrible cyclone" hit Easton in Sept. 1876. On July 17, 1944 what was said to be a tornado hit Talbot Co. knocking many trees down in Easton and seriously damaging two buildings in Trappe where hail was seen 3 inches in diameter. In Oct. 1995, Hurricane Opal spawned tornadoes in central and southern Maryland.

**Wind**: the highest recorded wind in Talbot Co. was on Oct. 15, 1954 during Hurricane Hazel which saw 108 m.p.h. at Oxford and 104 m.p.h. in Easton.

**Pollution**: on July 6, 2002 smoke from huge forest fires in Quebec was seen and smelt in Talbot Co. and as far south as Virginia.

**Weird Precipitation**: it was said to have rained frogs (or rather tadpoles) in Trappe

on Sept. 2, 1928.

**Infestations**: in 1805, army worms decimated wheat fields across the state. 1930 was the year of the Japanese beetle.

**Unusual Atmospheric Phenomena**: The meteor storm of Nov. 12-13, 1833 was one of the most spectacular ever seen. It was estimated that hundreds of thousands were seen over a period of a few hours. Harriet Tubman in Dorchester Co. remembered it as the night the stars fell; slaves, and many white folks, too thought the world was ending. On Oct. 5, 1907 one or more fireballs appeared in the sky over Baltimore surprising residents there. And on Sept. 17, 1966 at about 8:47 p.m., a huge fireball was seen in n.w. sky due to a meteor burning up hundreds of miles away.

**Snow**: The famous Blizzard of 1888 paralyzed the east coast including Maryland, which was hit by about 10 inches of snow and high winds. The *Easton Star Democrat* for March 20, 1888 reported: "Last Sunday week in the evening, it burst upon us, and waked things up generally, raining, hailing, blowing, snowing, keeping up the racket, tearing down fences, upsetting telegraph poles, piling up snow banks, destroying life and property, stopping all kinds of travel through Monday, Tuesday, and Wednesday... Here the trains that started on the rail road Monday morning failed to reach Clayton [Del.] until Wednesday afternoon..." It was the worst blizzard in memory, but the north east U.S. got it far worse than we did.

Much worse here was the Blizzard of 1899 which, after a severe cold wave, dumped up to 21.4 inches of snow on the state. This was said to be the worst snowstorm to hit Easton in the 19th century, and one of the worst snow storms we ever had. Snow fell uninterruptedly for sixty hours straight and Talbot Co. was snowbound for days. *The Easton Gazette* for Feb. 18, 1899 headlined, "THEY HAD NO FOOD, NO FIRE AND NO MONEY. Distressing Condition of the Poor, Caused by the Cold and Snow Storm, Most Probably Without A Parallel For Intense Severity... Such is the condition of a number of suffering families right here in our midst. If you have an ounce of charitable blood in your veins attend a meeting at 2 o'clock to-day at John Mason's Furniture Store, to help devise some efficient plan for relief." The monthly snowfall for Easton that Feb. was 50.3 inches, and for the winter was 65.5 inches. It wasn't easy to find firewood under all that snow.

The all time record was the winter of 1901-1902 when a total of 174.9 inches of snow fell in Deer Park in Garrett Co. That's 14.5 *feet* of snow. Other significant snows occurred in 1906 when Easton had a winter total for snow of 43.3 inches and Jan. 27, 1922 when the Knickerbocker Storm dumped up to 26.5 inches in parts of the state. The total snow for Easton that winter was 38.7 inches. 1940 was snowy, but on March 29, 1942 the Palm Sunday Snowstorm dumped 31 inches of snow in Clear Spring in Washington Co.-a state record for a 24 hour period. Other significant snows fell in 1947 and 1954, while Feb. 21, 1958 saw the worst snow since 1942. Talbot county schools were closed for so long that students had to go half days on Saturdays in June to make up the time (this writer has never forgiven the Board of Education for that). More big snows on Jan. 30-31, 1966 which was said to have dumped up to 25 inches in Talbot Co., then Feb. 6-7, 1978 and Feb. 11, 1983. Jan. 6-7, 1996 was said to be the worst since 1899, but it wasn't as bad as 2003.

2003 broke many records for snowfall. On Feb. 15-17, 49 inches of snow fell in Keyser's Ridge (Garrett Co.) the most snowfall in the state for a single storm. Feb. 19 saw the most snow ever to fall in Baltimore city and the month of Feb. was the snowiest month in state history when 81.5 inches fell on Eagle Rock (Garrett Co.).

**Drought**: 1930 was the worst drought in state history. The statewide average for rainfall is 44 inches, in 1930 it was 23.8 inches and Picardy in Allegheny Co. registered only 17.76 inches of rain. 1869 and 1965 were also dry, but the drought of 2002 was nearly as bad as that of 1930.

**Rain**: Maryland holds some impressive records for rainfall. On July 4, 1956, 1.23 inches of rain fell *in one minute* in Unionville in Frederick Co. which remains the *world's record* 

for one minute of rainfall. On July 26, 1897, 14.75 inches of rain fell In Jewell (Anne Arundel Co.)- still the state record for one day. During the "Labor Day Hurricane of Sept. 4-6, 1935, 16.63" of rain fell in Easton, 2,000 people displaced by flooding in Federalsburg (Caroline Co.). In July 1945, 20.35 inches of rain fell in Leonardtown (St. Mary's Co.) the state record for one month. In 1948, 72.59 inches of rain fell in Salisbury (Wicomico Co.), the state record for yearly rainfall. On Aug. 12-13, 1955, 8.35 inches of rain fell in Baltimore city, the city record for a 24 hour period. In Sept. 1999, Hurricane Floyd dumped 10 to 14 inches of rain on Talbot Co. which may be the record for one storm here. 2003 broke many records, the statewide average for yearly rain was 62.79 inches. That's 19 inches above normal.

In June 1862, a "celebrated downpour" swept away mill dams in Caroline Co. Months of heavy rain in 1919, caused much damage in the Denton-Federalsburg area and a locomotive fell through a flood damaged trestle.

Storm surge and tides: A huge offshore hurricane on Oct. 19, 1749 caused tides 15 feet above normal in the Bay. 1876 was also bad. In 1893 the Chester River flooded and a coastal storm in 1896 inundated the Bay and did much damage. 1909 saw a high tide, and there was flooding in 1920. The Aug. 23, 1933 hurricane inundated Bay areas with tides 8 feet above normal, however the storm surge from the March 1936 storm was said to have brought worse flooding to the upper Bay then the hurricane of 1933. Nov. 1950 saw the highest tides in the middle and upper Bay since 1933. Oct. 1975 and 1985 also saw flooding. In 1996, Hurricane Fran caused tides 4-6 feet above normal in the Bay. 2003's Hurricane Isabel caused a storm surge with tides that equaled that of the 1933 hurricane and the 1936 storm surge, "BAY BRIDGE CLOSED; OFFICIALS ADVISING EVACUATION OF KENT ISLAND..." [Star Democrat Sept. 19, 2003]. Parts of Tilghman Island and Oxford were under 6 feet of water. There was much property damage and anyone living a few feet of sea level suddenly had more waterfront than they bargained for. Yes, we can have flooding, but due to the flat terrain and good drainage, there is far less flooding here than one might expect.

Heat: On July 9, 1805, it was 96° in Easton. This is the earliest temperature known for Easton and it was thought to have been the hottest in anyone's memory. 1880 was the hottest year on record to date, but serious record keeping had only recently begun. The first time on record the temperature at Easton hit 100° was in July 1898, followed by Aug. 1900, Aug. 1918, August 1924, but the record of 104° on July 21, 1930 still stands. In 1936, the Great Heat Wave of June-July seared the country, the Western Shore had it worse than the Eastern Shore when on July 10, 1936 it was 109° in Frederick and Cumberland counties, while it was 107.4° in Baltimore city, both remain state and city records. July 1952 was a scorcher, but not as bad as Aug. 1954 when was 101°. It also hit 101° here in July 1999, and again on Aug. 8, 2007, when meteorologist John Swaine Jr. reported 101° in Royal Oak. Unofficially, it may have been as high as 103° in other parts of the County. The overnight "low" of 82° at Royal Oak for that day was a county record. The last several decades have seen records for hot weather almost routinely broken.

**Thunderstorms**: are a normal summertime occurrence and usually not much of a problem, but strong ones can also produce hail. Trappe experienced a bad hailstorm in 1918. On July 29, 1936 a severe wind storm hit the Easton and Trappe area causing much damage and blew a car crossing the new Choptank river bridge into the railing. The driver had such a difficult crossing, that when he finally reached the Talbot side, he stopped his car, got out, and offered up a prayer of thanksgiving for his safe delivery. A storm on Aug. 1, 1976 knocked down many large trees. Hail the size of silver dollars broke windows, shredded corn and killed hundreds of birds, which were found dead on the ground. But thunderstorms need not be intense to do damage, on June 6, 2002, a mild thunderstorm felled the 450 year old Wye Oak, the largest white oak known and the state tree of Maryland. You can still see what's left of the stump at Wye Oak State Park in Wye Mills.

Curious Weather Facts: During the March '62 Storm of the Century, the famous

pony Misty of Chincoteague gave birth to a foal who was appropriately named Stormy.

On average Maryland is hit by a severe freeze about once a century: 1780, 1899 and 1977. In the last century or so, the Eastern Shore has been hit by a major snowstorm about once a decade.

Maryland weather can change dramatically from year to year and extremes often go hand in hand here. In 1635, it was reported that "this last winter was the coldest that has been knowne in many yeeres: but the yeere before, there was scarce any signe of Winter, onely that the leaves fell from the trees, in all other things it appeared to be Summer." And three hundred years later, the winters of 1934 and '35 were very cold, the summer of 1936 saw record breaking heat, while the winter of 1936 was severely cold. In 1918, the Bay froze in Jan. yet that Aug. it was 105° in Baltimore city, then the record. Easton saw 100° in July 1898 and -15° seven months later in Feb. 1899. 2002 nearly matched the driest year on record while 2003 was the wettest.

To sum this all up, if it is not literally true that if you don't like our weather all you have to do is wait a minute, if you can hang on for a little bit, it will change. We have no shortage of interesting weather to talk about around here.

irregularies, missed any of our please I have contact me unicornbookshop@verizon.net.

Part One originally appeared in the June 2008 issue of the *Tidewater Times* as "Our Capricious Weather", but has been revised and updated besides having a new title. Thanks to publisher David Pulzone and editor Anne B. Farwell for letting me use it here.

### PART TWO A Detailed Chronological History of Maryland's Weather

- c. 13,000- 11,000 B.C.E., at the end of the last Ice Age, the Younger Dryas climate change rendered Delmarva uninhabitable for nearly 2,000 years due to severe dust storms, much sediment laid down. No evidence of human habitation found during this period. Chesapeake Bay created.
- Native Americans said that Sharps and Tilghman Islands were once very close ?, together, probably they were once both part of Bay Hundred peninsula in Talbot Co. and were later cut off by storms and erosion
- 1586, hurricane moves up coast, hail stones the size of hens eggs off Roanoke, Va.
- 1634, very mild winter
- 1635, extremely cold winter
- 1635, Aug. huge hurricane moves up coast, no specific reports from Maryland
- 1649, Jan. 3, Maryland's first recorded coastal storm noted by Henry Norwood, many inlets cut through along coast including probably the one at Fenwick, Del.
- 1667, Sept. 6, "The Dreadful Hurry Cane of 1667", hits Virginia and Maryland, many trees down. "A mighty wind destroyed four-fifths of our tobacco and corn and blew down in two hours fifteen thousand houses in Virginia and Maryland."
- 1683, Aug. 23, hurricane
- 1693, Oct. 29, violent storm moves up coast
- 1703, Oct. 18, hurricane moves up coast, much damage, vessels lost
- 1706, Nov. 6, severe storm
- 1724, Aug. 23, "Great Gust of 1724" hits Bay
- 1727, "Great Rain and Horrible Gale of 1727" 1729, "Great Gale of 1729"
- 1743, Sept., coastal storm tracked by Ben Franklin showing storms can move in a direction different from their winds

- 1749, Oct. 19, huge offshore hurricane, tides 15 feet above normal in Bay
- 1752, Oct. 22, hurricane hits mouth of Bay
- 1756, winter, Bay freezes
- 1769, Sept. 7-8, hurricane causes much damage to Bay areas
- 1775, Sept. 2-3, "Independence Hurricane" heavy rains and much damage along coast, dome blown off of State House in Annapolis.
- 1779-1780, one of the coldest winters ever, Bay freezes over down to mouth of Potomac, ice 6 inches thick, carts and carriages cross Bay from Annapolis to Poplar Island
- 1784, Bay freezes, Baltimore harbor closed until March 19
- 1785, Sept. 22- 24, "most tremendous gale known in this century" hits lower Bay, very high tides
- 1787, hurricane
- 1788, July 23- 24, violent hurricane hits lower Bay
- 1795, Aug., hurricane, heavy rains
- 1804, bad storn
- 1805, Jan. 11, bad ice storm in St. Michaels (Talbot Co.)
- 1805, cold winter, Bay frozen Feb. 3, vessels trapped in ice, people walk to shore
- 1805, July 9, 96° in Easton (Talbot Co.) the highest temp. in memory
- 1806, May and early June, army worms devastate wheat fields
- 1806, Aug., great coastal hurricane
- 1812, violent storm off coast thought to have prevented British attack of Worcester Co.
- 1813, bad storm
- 1814, very hot summer
- 1815, bad tropical storm
- 1816, "Year With No Summer" due to atmospheric dust from volcanic eruptions, coldest summer in Maryland history, frost and ice common, farmers wore overcoats and gloves during the July wheat harvest.
- 1817, weather back to normal
- 1821, Sept. 3, hurricane- eye passed directly over Norfolk, Va., much damage to coast, heavy rain inland to Baltimore
- 1825, June, dreadful storm, a geologist taking core samples stated that this storm created Fishing Bay and eroded much of Phillips Creek in Dorchester Co.
- 1828, bad storm
- 1830, bad storm
- 1833, Nov. 12-13, one of the most spectacular meteor storms ever seen. It was estimated that hundreds of thousands were seen over a period of a few hours. Harriet Tubman in Dorchester Co. remembered it as the night the stars fell, slaves, and many white folks,too, thought the world was ending.
- 1834, bad storm
- 1839, bad storm
- 1841, bad storm
- 1846, "Great Hurricane of 1846", much destruction, s.e. winds drive water into Bay, flooding
- 1850, bad storm
- 1851, Aug. 24-25, "Appalachicola Storm" hits northern Chesapeake Bay
- 1852, very cold winter, railroad tracks laid on ice across Susquehanna River at Havre de Grace (Harford Co.) and used for over a month
- 1854, Sept. 9, destructive hurricane "Horrible Gale of '54", much damage
- 1856, Aug. 19, "Charter Oak Storm", heavy rains
- 1856, Sept. 1, hurricane
- 1861, Oct. 28, hurricane
- 1861, Nov. 2, "Expedition Hurricane" batters lower Bay
- 1862, June, a "celebrated down pour" swept away mill dams in Caroline Co., Md.

- 1869, driest year on record to date statewide, Ellicott City (Howard Co.) flooded
- 1870, June 2, "Blackberry Storm" hits Talbot Co., cold, high winds asnd rain.
- 1872, winter, ice damages Love Point Light
- 1872, Oct. 25, heavy rains
- 1874, Sept. 28-29, first hurricane ever shown on a weather map hits mouth of Bay
- 1876, April 1, violent storm strikes Tilghman's Island (Talbot Co.)
- 1876, Sept. 16-17, hurricane "Centennial Storm" heavy winds and rain, tides 7.9 feet above normal at D. C., Sharps Island cut in two, terrible cyclone hits Easton (Talbot Co.)
- 1877, Oct. 3-4, severe hurricane wrecks ships
- 1877, Jan., Hoopers Straight Light damaged by ice
- 1878, Oct. 22-23, severe hurricane "Gale of '78" moves up coast, big storm surge in Bay, much damage, barometric pressure 28.78, steamer *Express* sank near Pt. Lookout, 16 dead, one of Bay's worst disasters.
- 1879, winter, ice damages several lighthouses
- 1879, bad storm
- 1880, hottest year on record to date
- 1881, Feb. 11, ice floe sheared Sharps Island lighthouse from foundation and carried it 5 miles with keepers inside
- 1881, bad storm
- 1882, Sept. 22-23, bad storm, heavy rains
- 1882, Bloody Point Light damaged by ice
- 1884, winter, ice damages Seven Foot Knoll Light
- 1885, Feb. 25, Choptank River frozen over and probably other rivers as well
- 1885, Aug. 25, heavy rains and flooding
- 1886, rare June-July hurricane
- 1887, bad storm
- 1888, March 11-12, "Blizzard of 1888" or "The Great White Hurricane" paralyzes east coast, Maryland 10 inches of snow or less
- 1888, Aug. 21 22, hurricane, flooding and several deaths, tornado tracked from D.C. To Kent Co. where it killed 11 people, 4 waterspouts seen in Bay.
- 1888, Sept. 10, bad tropical storm passes over Bay, flooding
- 1889, April 6- 7, storm moves up coast
- 1889, Sept. 8-12, hurricane stalled off the coast causing severe flooding esp. in Federalsburg (Caroline Co.) and Ocean City (Worcester Co.) which was evacuated.
- 1893, Jan. 1, rain and a s.e. gale breakes up ice and drives it up the Bay
- 1893, Aug. 28, "Sea Islands Hurricane", heavy winds and rain in Bay area, tide in Chester River surged 9 feet above mean low tide, higher then in 1876.
- 1893, Oct. 13, severe winds and much damage, story surge at Chestertown (Kent. Co. 8 inches higher than in Aug., bridges washed out in Tilghman's Island (Talbot Co.)
- 1893, winter, ice damages several lighthouses, temperature in Easton (Talbot Co.) -9°
- 1894, winter, ice damages Seven Foot Knoll Light
- 1894, Sept. hurricane hits mid Atlantic, much damage and flooding.
- 1894, Oct., intense hurricane, much flooding and damage to Worcester Co. and coastal areas
- 1896, Jan. 7, up to 22.5 inches of snow
- 1896, Aug. 21, bad storm, 17 dead
- 1896, Sept. 28- Oct. 3, hurricane, one of Western Md's most destructive storms.
- 1896, Oct. 11 -13, bad tropical storm
- 1897, bad storm
- 1897, July 26, 14.75 inches of rain fell in Jewell (Anne Arundel Co.), a state record
- 1898, July, first time the temp. reaches 100° in Easton (Talbot Co.) since official record

keeping began in 1892.

- 1899, Feb. 9- 13, cold wave, below zero temperatures across the state from -4° in Ocean City (Worcester Co.), and -15° in Easton (Talbot Co.) to -26° in Garrett Co.,10 inch thick ice on Bay
- 1899, Feb. 13, up to 21.4 inches of snow, and unofficial depths of over 3 feet common, entire state snowbound, said to be most snow in Easton (Talbot Co.) in 19th century, total snow for Easton 50.3 inches, month total for Easton 65.5 inches

1899, bad storm

- 1900, Aug. 100° in Easton (Talbot Co.)
- 1901, Sept. 16-18, northeaster sinks vessels in Bay
- 1901 -1902 winter, total 174.9 inches of snow for season in Deer Park (Garrett Co.), a state record
- 1902, two tropical storms brush by coast, but little damage
- 1903, Sept. 15- 17, hurricane, said to be worst storm to hit Ocean City (Worcester Co.) in 40 years, hundreds of dead birds stripped of their feathers fall from sky in Old Point Comfort, Va. [or was this the hurricane of Oct. 8-10?]
- 1903, Oct. 8- 10, bad hurricane causes much damage.
- 1904, winter, ice damages Point No Point Light
- 1904, Sept., intense tropical storm with hurricane force winds passes over Delmarva, much damage at Cambridge (Dorchester Co.)
- 1907, Oct. 5, one or more fireballs in sky surprise Baltimore city residents
- 1908, Jan. 18, unusual and severe thunderstorm with hail hits Talbot Co.
- 1909, high tide in St. Michaels (Talbot Co.)
- 1911, tropocal storm, high tides
- 1912, Jan. 13, -40° in Oakland (Garrett Co.), lowest temperature ever recorded in Maryland
- 1912, tropical storm, high tides
- 1915, Aug. 4., bad tropical storm hits central Maryland and Annapolis causing widespread damage, trees down and crops ruined in Easton (Talbot Co.).
- 1918, Jan., Bay freezes, several lighthouses damaged by ice, oysters tonged through holes chopped in ice, battleship Ohio used as icebreaker in Bay for wartime shipping
- 1918, Aug. 6, 105.4° in Baltimore city, and 101° in Easton (Talbot Co.)
- 1918, big hailstorm hits Trappe (Talbot Co.)
- 1919, months of heavy rainfall cause much damage in in the Denton-Federalsburg area of Caroline Co.; a locomotive fell through a flood damaged trestle.
- 1920, Feb. terrific coastal storm batters Ocean City (Worcester Co.) and coast-tides 6.5 feet above normal, inlet cut through at Assateague
- 1922, Jan 27, "Knickerbocker Storm" up to 26.5 inches of snow in state
- 1923, bad storm
- 1924, Aug. 100° in Easton (Talbot Co.)
- 1925, bad storm
- 1925 Oct. 20, unusual early snow, 1" in Talbot Co., snow seen on baskets full of tomatoes
- 1926, Nov. 9, F4 tornado hits La Plata (Charles Co.), Maryland's deadliest tornado, schoolhouse with 60 children inside carried 50 feet,14 children killed, barms demolished, total deaths 17
- 1928, Aug, 11-12, and 16-17, bad storm batters coast, much rain.
- 1928, Sept 2, said to have rained frogs in Trappe (Talbot Co.)
- 1930, July 18- Aug. 10, heat wave- some of the highest temperatures on record. July 21 saw the record temp. for Easton (Talbot Co.) of 104°
- 1930, drought, yearly average 23.8 inches of rain statewide,17.76 inches of rain fell in Picardy (Allegheny Co.) record for driest place in state, driest year since 1869,

- Japanese beetle infestation
- 1931, one of the warmest years on record to date
- 1932, warmest Jan. on record to date, mild winter
- 1933, Aug. 23,"Chesapeake and Potomac" hurricane cuts inlet through at Ocean City (Worcester Co.), tides 8 feet above normal, said to be worst coastal storm since 1896. The water completely washes over Deal's Island and many coffins floated out of their graves, Bay islands submerged, much damage in Salisbury (Wicomico Co.)
- 1933, Sept. another hurricane hits mid-Atlantic
- 1934, Feb. record cold month in many areas
- 1934, March 4, Bay freezes
- 1934, one of the hottest years on record nationally
- 1935, severe winter, ice damages Janes Island Light, oyster tonging through holes chopped in ice
- 1935 Sept. 4-6, "Labor Day Hurricane" floods Eastern Shore, 16.63" of rain in Easton (Talbot County) in three days, severe flood in Federalsburg (Caroline Co.) displaces 2,000 residents, Marshyhope Creek crested at 17.8 feet, highest ever
- 1936, March, "Great Flood of 1936" or "Morro Castle Storm" inundates many Chesapeake Bay areas, flooding in St. Michaels (Talbot Co.) said to be higher than in storm of 1933
- 1936, Great Heat Wave of June-July said to be the greatest natural disaster in the US with as many as 5,000 dead, mostly in the midwest; July 10, 109° in Frederick and Cumberland counties, highest temperature ever recorded in Maryland, also record for Baltimore city 107.4°
- 1936, July 29, severe wind and hail storm hits Easton and Trappe (Talbot Co.) damaging several barns and blowing a car crossing the Choptank bridge into the railing.
- 1936, Sept., coastal hurricane hits lower Bay.
- 1936, winter, Bay frozen over, possibly the worst freeze ever
- 1937, Federalsburg (Caroline Co.) flooded
- 1938, wettest June on record to date
- 1938, Sept. 17-22, "Long Island Express" hurricane moves quickly up coast
- 1940, Jan. 24, big snow
- 1940, Oct. 20, unusual early snow, 2" in Talbot Co.
- 1941, April, warmest April on record to date
- 1941, Oct., warmest Oct. on record to date
- 1942, March 29, "Palm Sunday Snowstorm", 31 inches fell in Clear Spring (Washington Co.) in a 24 hour period a state record, up to 22 inches in other places
- 1942, Federalsburg (Caroline Co.) flooded.
- 1943, Feb., cold wave
- 1943, bad storm
- 1944, July 17, tornado hits Talbot Co. many trees down Easton, two buildings in Trappe seriously damaged, hailstone observed in Trappe 3 inches thick
- 1944, Sept. 14, Great Atlantic Hurricane
- 1944, Oct. hurricane, some damage in Bay area
- 1945, winter, Bay freezes, people walk across Bay from Love Pt. to Poplar Island
- 1945, July, 20.35 inches of rain fell in Leonardtown (St. Mary's Co.), state record for one month period
- 1947, Feb. 19, big snow
- 1947, Oct., warmest Oct. on record to date
- 1948, Feb., ice in Bay
- 1948, 72.59 inches of rain fell in Salisbury (Wicomico Co.), state record for one year period
- 1949, near record warm year

- 1949, Feb. warmest Feb. on record to date
- 1950, Jan., record warm Jan., 80° in Riverdale (Prince George's Co.)
- 1950, Nov. tides in middle and upper Bay highest since 1933
- 1951, Jan. 1 -10 warmest on record to date
- 1952, July, heat wave
- 1952, Aug. 31, Ellicott City (Howard Co.) flooded.
- 1953, Sept, 28, Hurricane Ida dumps excessive rain on lower Bay areas,1954, Jan. 11 12, big snow
- 1954, Aug. 101° in Royal Oak (Talbot Co.)
- 1954, three hurricanes in one year, Carol, Edna and Hazel
- 1954, Oct. 15, Hurricane Hazel, winds over 100 mph, 108 m.p.h in Oxford (Talbot Co.) much damage statewide. Helen Chappell adds" I remember Hazel very well. I also remember going with my father to Hooper's Island a couple of days later, and how the water was still lying on the road, and sheds and houses were blown down, cof fins floated up from the graves in Fishing Creek. It was scary. The water came right up to the back porch, filled the fields and blew the tractor shed roof about 500 yards into a field. We lived in a brick house, but we were afraid the roof would blow off. I was about 9 or 10."
- 1955, Jan., driest Jan. on record to date
- 1955, July- Aug., warmest on record to date
- 1955, Aug. 12-13, 8.35 inches of rain fell in Baltimore, the city record for 24 hour period
- 1955, Aug., wettest Aug. on record to date in many areas,18.35 inches in Baltimore, a city record for monthly rainfall
- 1955, Aug. 12 and 18, two hurricanes in one month Connie and Diane, Connie sank schooner *Levin J. Marvel* south of Annapolis with loss of 14 passengers. Both hurricanes caused major flooding in Central Md. and Potomac.
- 1955, Dec., driest Dec. on record to date
- 1955 or 1956, winter, hard freeze
- 1956, July 4, 1.23 inches of rain fell in Unionville (Frederick Co.) in 1 minute- the world's record
- 1958, Feb. 21, big snow said to be worst since 1942
- 1958, hurricane
- 1960, Sept, 10-11, Hurricane Donna "Storm of '60", serious damage in Bay area.
- 1962, March 6-7, "Storm of the Century" or "Good Friday Storm" or "Ash Wednesday Storm" devastates Ocean City (Worcester Co.) and coast, tides at O.C. were 9.4 feet above normal, two inlets cut through at Assateague, during the storm the famous Chincoteague pony Misty gave birth to a foal who was appropriately named Stormy
- 1964, Jan. 12. 8 inches of snow in Talbot Co.
- 1965, drought
- 1966, Jan 30-31, big snow, said to be up to 25 inches in Talbot County
- 1966, Sept. 17, 8:47 p.m. huge fireball seen in n.w. sky due to a meteor burning up hundreds of miles away
- 1967, Sept., Hurricane Doria.
- 1972, June 21, Hurricane Agnes, 14.68 inches of rain in Western Md., aquatic grasses in Bay dealt a serious blow from runoff and silt
- 1972, June 23, flooding esp. in Federalsburg (Caroline Co.)
- 1972, June 11, 47° coldest June in Talbot Co. history
- 1975, April, very low tide
- 1975, Sept. 23-26, remnants of Hurricane Eloise causes flooding.
- 1976, Aug. 1., devastating hailstorm near Trappe (Talbot Co.), hail the size of silver dollars, window panes broken, trees down, corn shredded, hundreds of dead birds found

on ground

1977, cold winter, Bay freezes, ice boat races on Miles River (Talbot Co.), ice floes push Sharps Island lighthouse from vertical, oyster tonging through holes chopped in ice

1978, Feb. 6-7, big snow

1979, Sept. 5-6, Hurricane David spawns tornadoes, Baltimore area sees flash floods.

1983, Feb. 11, up to 22.8 inches of snow

- 1985, July 25, Hurricane Bob
- 1985, Sept. Hurricane Gloria, heavy rains
- 1988, Nov., hurricane Juan, flooding in Southern Maryland
- 1991, Oct. 31 Nov. 1., "Perfect Storm" batters coast, also called "Halloween Storm"
- 1992, Jan. worst northeaster since 1961 damages Ocean City (Worcester Co.) and coast
- 1992, Hurricane Danielle makes landfall at mouth of Bay
- 1992. Aug. hurricane Andrew floods central Maryland
- 1993, March 13, "Super Storm" moves up coast, lowest barometric pressures ever recorded for mid-Atlantic coast: 28.51 in Baltimore city and 28.34 at mouth of Bay, thunder snow observed in Talbot Co.
- 1993, Nov. 28 very high tide
- 1994, Jan., very cold with freezing rains in Talbot Co. on the 17th and 27th
- 1994, Jan. 19, temperatures near zero Talbot County
- 1994, Feb. 11, severe ice storm moves across southern Maryland and central Eastern Shore, many trees and power lines down
- 1995, Oct. hurricane Opal spawns tornadoes in Central and Southern Maryland
- 1996, Jan. 6-7, up to 17 inches of snow, said to be most snow since Blizzard of 1899
- 1996, Sept. 5, Hurricane Fran, heavy rain and flooding, storm surge 4-6 feet above normal in Bay
- 1998, June 2, F4 tornado hits Frostburg (Allegheny Co.)
- 1998, first 11 months warmest on record to date for Md., globally the hottest year on record
- 1999, July [23?], 101° in Royal Oak (Talbot Co.)
- 1999, Sept. 16 Hurricane Floyd, the eye passes over Ocean City (Worcester Co.), baro metric pressure 28.88, 10- 14 inches of rain in Talbot Co. and Chestertown (Kent Co.), flood in Federalsburg (Caroline Co.)
- 2002, April 28, F4 tornado again devastates La Plata, (Charles Co.) strongest tornado ever recorded in Md., 4 dead, debris carried across Bay and dropped in Talbot and Dorchester Counties, La Plata had also been hit by a F4 tornado in 1926
- 2002, June 6, thunderstorm fells Wye Oak in Wye Mills (Talbot Co.), the state tree was 450 years old
- 2002, July 6, smoke from huge forest fires in Quebec seen and smelt through Md. and as far south as Va.,
- 2002, drought, worst on record to date
- 2002- 2003, winter, said to be worst winter in state's history
- 2003, Feb. 15-17, 49 inches of snow fell in Keysers Ridge (Garrett Co.), state record for most snow in a single storm,
- 2003, Feb. 19, worst storm in Baltimore city's history, 40 inches of snow in Western Maryland
- 2003, Feb. 81.5 inches of snow fell in Eagle Rock (Garrett Co.), state record for most snow in one month
- 2003, Sept. 11, Hurricane Henri, rain and flooding
- 2003, Sept. 18, Hurricane Isabel, bad storm surge flooding probably equaling that of 1933
- 2003, wettest year on record 62.79 inches state average, normal is 44"
- 2004, Sept. 8, Hurricane Francis
- 2004, Sept. 17, Hurricane Ivan

2004, Sept. 28, Hurricane Jeannie, tornadoes and flooding in central and western Md.

2005, hottest year on record globally

2006, another warm year

2007, first half of year hottest on record globally

2007, Aug. 8, hot spell, John Swaine Jr. weather observer since 1948 said high of 101° in Royal Oak (Talbot Co.) matched that of July [23?] 1999 and Aug. 1954, over night low of 82° broke record,103° in American Corner (Caroline Co.).

2008, June 4, National Weather Service confirms that a tornado touched down briefly near Preston (Caroline Co.), storm damage for county estimated at \$500,000

Noteworthy facts: a severe freeze has hit the Bay about once a century: 1780, 1899 and 1977.

Extreme contrasts: The winter of 1634 was unusually mild while the winter of 1635 was severely cold. 1898 saw record heat, while 1899 brought record cold. In Jan. 1918, the Bay froze yet that Aug. it was 105° in Baltimore city, then the record. 1935 was very cold, the summer of 1936 had record breaking heat, while the winter of 1936 was severely cold. 2002 was the worst drought on record, yet 2003 was the wettest year on record.

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