

# THE GEO-SAMPLER

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Welcome to a Star-Spangled edition of the GeoSampler. The Fourth of July is just around the corner, so we go back 231 years and look at some of the events surrounding the signing of the Declaration of Independence, and the birth of a nation. We also suggest a few destinations for those who are seeking a unique Independence Day celebration. And of course, we would like to wish everyone a safe and relaxing Summer.

## WE HOLD THESE TRUTHS

“When in the course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another...” With those words Thomas Jefferson, the members of the Second Continental Congress, and the 2.5 million people living in the 13 Colonies, formally declared their independence from the British Crown on July 4, 1776.

Just over a year earlier, the American Revolution had essentially begun with the “Shot heard ‘round the World” in Lexington and Concord. Around the same time George Washington took command of the rag-tag Continental Army. And just a few months before the Declaration was signed, Thomas Paine’s widely read “Common Sense” pushed the colonies ever-so-closer to formal war.

But it wasn’t until John Hancock famously put his enlarged signature on the Declaration of Independence that there was officially an entity called “the thirteen United States of America.” In it, Congress listed 27 grievances against King George III, from taxation without representation to sending “swarms of Officers to harass our people and eat out their substance.”

More importantly, they had laid the foundation of American Democracy.

On July 8, 1776, in Philadelphia’s Independence Square, the Declaration was read publicly for the first time, sparking spontaneous celebrations, a pattern that was repeated across the country. The following year, citizens of the city marked the anniversary with bonfires and fireworks, beginning one of America’s most enduring and beloved traditions.

Independence Day is our nation’s birthday, but it is more a celebration of the ideals first put forth in the

Declaration, ideals which have helped to guide the United States for 231 years. One of the world’s most famous and influential documents, it is as relevant and vital today as it was in 1776.

At that time, the Declaration of Independence served a crucial role in the revolution by creating a sense of unity and brotherhood among citizens from colonies as different as Massachusetts and South Carolina.

By laying out a basic premise, “that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.” the founding fathers pulled 13 distinctly different colonies into one nation, united under the most noble of causes.

This mentality helped the young nation to pool its resources in an effort to defeat the world’s reigning superpower. It also sent a strong signal to another global power, France, that the colonists were organized, fiercely determined, and willing to risk everything for freedom.

France had been defeated by Britain, and essentially removed from North America, in the French and Indian War, which ended in 1763. Fortunately, the opportunity for revenge against its centuries-long rival would prove impossible to pass up when Benjamin Franklin arrived in Paris in December 1776 offering to forge an alliance.

It would be more than five years of brutal warfare and near-defeats

before a convergence of American and French forces would trap the British at Yorktown and end the war.

This Independence Day, like every other, people around the country will gather to watch spectacular fireworks displays, enjoy the company of friends and family, and revel in the freedom that we all enjoy. At the center of this celebration is a piece of paper, signed by 57 people, from 13 colonies, 231 year ago.



### A few myths surround the Declaration of Independence:

Perhaps the biggest misconception about the document is the lack of recognition that the Lee Resolution had already declared independence on July 2nd. Because it is dated July 4, 1776 (the date of its approval and adoption by the Continental Congress), many people believe it was signed on that date—in fact, most of the delegates signed the Declaration on August 2, 1776.

While the July 4th Declaration differed from the Lee Resolution in that it asserted unanimity, the abstaining colony of New York did not pass its own vote for independence until July 9th.

The Liberty Bell was not rung to celebrate independence, as the tower had fallen into disrepair. The Bell was earlier used to call the local inhabitants to public gatherings. Therefore, it certainly did not acquire its crack upon the reading of the document on July 8; that story comes from a children’s book of fiction, *Legends of the American Revolution*, by George Lippard. The Liberty Bell was actually named in the early nineteenth century when it became a symbol of the anti-slavery movement.

—from the Wikipedia

**“Remember, if you smoke after sex you're doing it too fast.”**

**—Woody Allen**



## Speak English

The bandage was wound around the wound.

The farm was used to produce produce.

The full dump had to refuse additional refuse.

We must polish the Polish furniture.

He could lead if he would get the lead out.

The soldier decided to desert his dessert in the desert.

Since there is no time like the present, he thought it was time to present the present.

A bass was painted on the head of the bass drum.

When shot at, the dove dove into the bushes.

There was a row among the oarsmen about how to row.

They were too close to the door to close it.

The buck does funny things when the does are present.

A seamstress and a sewer fell into a sewer line.

To help with planting, the farmer taught his sow to sow.

The wind was too strong to wind the sail.

After a number of injections my jaw got number.

Upon seeing the tear in the painting I shed a tear.

I had to subject the subject to a series of tests.

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# THE ROCKETS RED GLARE

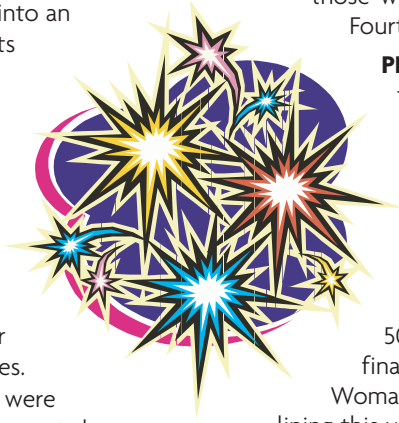
The earliest unequivocal documentation of fireworks dates back to 12th century China, where they were first used to frighten away evil spirits with their loud sound ("bian pao") and also to pray for happiness and prosperity.

Eventually, the art and science of firework making developed into an independent profession of its own. In ancient China, pyrotechnicians (firework-masters) were well-respected for their knowledge and skill to mount dazzling displays of light and sound.

America's earliest settlers brought their enthusiasm for fireworks to the United States. Fireworks and black powder were used to celebrate important events long before the American Revolutionary War. The very first celebration of Independence Day was in 1777, six years before Americans knew whether the new nation would survive the war; fireworks were a part of those festivities. In 1789, George Washington's inauguration was also accompanied by a fireworks display. This early fascination with their noise and color continues today.

The largest manufacturer and exporter of fireworks in the world is China. China is estimated to have exported over six million cases or 120,000 tons of fireworks to the United States in 2005.

While many towns and cities across the country now hold large Independence Day parties, complete with impressive displays of pyrotechnics, there are still a few options out there if you prefer a more unique experience this year. Here are a couple of suggestions for those with a sense of adventure this Fourth of July.



**PROVO, UT** Provo is home to the largest Fourth of July Celebration, America's Freedom Festival, which features more than 30 events over 21 days, culminating in a concert known as "The Stadium of Fire." Last year approximately 50,000 people attended the finale, which featured Lee Ann Womack and Taylor Hicks. Headlining this year's event are Brooks & Dunn and the concert will also showcase the "Daring Aerial Stunts" of Rocketman.

**LITITZ, PA** The first recorded Independence Day celebration in the borough of Lititz Spring Park took place in 1811 but according to the park's website, "the Moravian Board Overseers (Collegium) disapproved of 'making merry' at the Springs and 'greatly disturbing the village late into the night.'"

But seven years later, the first community-wide celebration was held in the park, as it has been every year since. Then, in 1843 a tradition was started that has made Fourth of July in Lititz unique. Four hundred candles were lit, creating a "general illumination of the grounds."

## BOTTLE ROCKETS



are an interesting simplification of rocketry; their construction involves assembly of three major parts namely:

**The cracker-based engine.** This type of engine uses solid fuel in powdered form for propulsion. The fuel is generally a phosphorus based black-gun powder and is placed in a small 2-3 inch long cylindrical chamber with a 2-3 mm outlet. Because the site of ignition and the site of propulsion are the same (both at the lower end of the cylinder) compression of gases does not require a separate conical structure (to direct and accelerate exit gases). The usage of the fuel is also in a logical progression.

**The nose cone.** In addition to serving rudimentary aerodynamic properties, also in most cases, the nose cone houses the exploding cracker or the coloring substance of the rocket. It is also sometimes used to carry a parachute or confetti.

**The guiding stick.** By biasing the weight of the rocket such that its center of gravity is located towards the end, and in most cases a short distance after the nozzle, its extended length gives the rocket an extra stability against air currents and provides handling ease for the user.



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