

13th November

Memory Verse:

Nevertheless **we**,
according to his promise,
look for new heavens and a new earth,
wherein dwelleth righteousness.

2 Peter 3:13

Younger children can learn the words in bold. More information about this text in the lesson for 15th November.

There are plenty of topics to choose from in today's lesson. I have highlighted some words in purple too for you to research using your own books. Two lessons today are about aircraft history, and there is a good excuse to make your favourite sandwich, but first: the end of the world on 13th November 1899 – and again on 13th November 2026!



Rudolph Falb (1838-1903) from Germany claimed to have a method of predicting earthquakes and other disasters through calculating "Critical Days" by means of the phases of the moon and other factors which he thought created tides below the surface of the earth. He predicted an earthquake and a volcanic eruption successfully, considered his method scientific and extended it to weather forecasting. He had some successes with weather – but not always. He then predicted the end of the world would take place on 13th November 1899, due to a comet collision. This created a great deal of news interest all over the world as the day approached. "THE EARTH WILL COME TO AN END [ON] MONDAY" headlined the *Daily Inter-Mountain* of Montana a few days before, continuing:

Professor Rudolph Falb the great scientist of Vienna, the man who predicted the big earthquakes and storms says, the comet of 1866 will strike us [on] Monday. Professor Rudolph Falb one of the staff of instructors at the Vienna University and an astronomer whose name is known from one end of the scientific world to the other, has settled upon November 13th as the day that the world shall end. If his prediction is true this is not only the last year of the existence of our globe, but the last day of the world has actually arrived.

Early in 1898, Professor Falb commenced to predict all manner of unpleasant things for the world, and when it was found that he had accurately predicted the weather conditions of January and February, attention was drawn to his warning. That the other dire occurrences have failed to occur will probably have a tendency to give timid persons confidence that the Vienna professional is nothing more than a false prophet.

Do you remember the lesson we had on 2nd October about another similar prediction? Christians know that no one knows when the world will end: read Matthew 24:36 to hear what Jesus says about this subject. Christians would not have been taken in by Rudolph Falb.

"Professor" Falb was not the last person to predict an end of the world situation for 13th November. The most recent scientific prediction of this doomsday is for Friday, 13 November, 2026. (Not long to wait!) According to a 1960 article by scientists, Heinz von Foerster, Patricia M. Mora, and Lawrence W. Amiot in *Science* magazine, "At this date [the] human population will approach

infinity if it grows as it has grown in the last two millennia.”¹ This word to home in on here is “if”. This has *not* happened since 1960 and the prediction is wide of the mark; in fact, many nations are now worrying that the falling birth rate will leave them *without enough* people! Isaiah 45:6-7 tells us that God is in control. Only He will end the world!

Stories from aviation history²

Brazilian aviator Santos Dumont (1873-1932) knew all about “Professor” Falb's predictions for 13th November. He did not believe a word of it. He deliberately chose 13 November 1899 for a daring demonstration flight.

Dumont had a happy childhood, growing up in a large Brazilian family and educated at home until he was ten by his oldest sister. His father was an engineer and owned coffee plantations in Brazil where Dumont enjoyed freedom to roam and develop a love of adventure. He was a reader too, devouring the works of Jules Verne whose heroes he longed to copy. Fascinated by technology he began building kites and rubber band powered aircraft, experimenting with mechanical devices to the great delight of his family. His father's plantations included a railway and by the time he was twelve Dumont was driving the engines and looking after his father's mechanical equipment.



When Dumont went to study at college he was not considered a very bright student because he only studied the things that interested him; he preferred to spend his time learning about things that were not on the college syllabus using his father's large library. I think that, after such a life, he must have found college very dull.

At the age of 18 he went to Europe and here he climbed Mont Blanc finding that he had a love of heights. Later, in France, he became involved in motor racing and cycling. All kinds of mechanical transport fascinated him, especially if they included going up in the air.

Dumont had completely independent means and was heir to a great fortune. Unlike many young men in this position he did not waste his huge fortune on gambling. Instead, Dumont was able to develop engineering projects that interested him without the need for investors to back him. He decided to become a balloon aviator and hired professionals to coach him in the art of lighter than air or balloon flying.



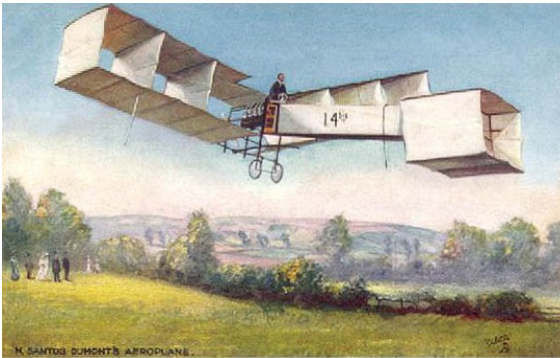
He began to construct gas-filled balloons and, after two unsuccessful attempts he made the first successful flight from Vaugirard Aerostation Park to the Eiffel Tower, which he circled and then onward to Parc des Princes then to the Bagatelle Recreation Field in the Bois de Boulogne, landing under perfect control at the same spot where his first airship flight had ended with a crash. He chose 13th November 1899 for the attempt deliberately in light of Falb's prediction.

¹Heinz von Foerster, Patricia M. Mora, and Lawrence W. Amiot Authors Info & Affiliations Science 4 Nov 1960 Vol 132, Issue 3436 pp. 1291-1295 DOI: 10.1126/science.132.3436.1291

² Information from <http://www.ejection-site.com/stapp.htm> and other sources.

By now Dumont was absolutely captivated by the idea of flight. He wrote:

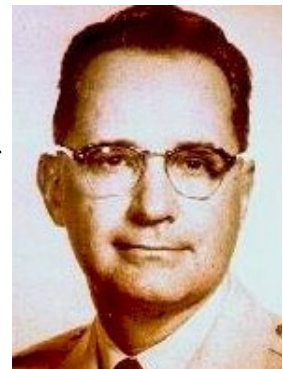
From that day on, I no longer had the slightest doubt about the success of my invention. I recognized that I would, for life, be dedicated to aircraft construction.



The advances in internal combustion engines began to make heavier than air flight also a possibility. Dumont went on to make early heavier than air flights at the Bagatelle Recreation Field and became a celebrity pioneer of aeroplane flight. Sadly, he died at 59 sick and devastated that the machines he had hoped would so benefit mankind were being put to horrific use as weapons of war.

Today is also the anniversary of the death, one hundred years after Dumont's November 13th flight, of a very different kind of air pioneer, Col John Paul Stapp (1910-1999), known as “the fastest man alive”.

Col. Stapp was a remarkable genius and every bit as brave a pioneer as Dumont. He too grew up in Brazil, the son of American missionary parents, and like Dumont he was also home-educated until he was twelve. His contribution to the history of aviation was all to do with safety – the safety of others that is, for he took some astounding risks himself in the course of his career.



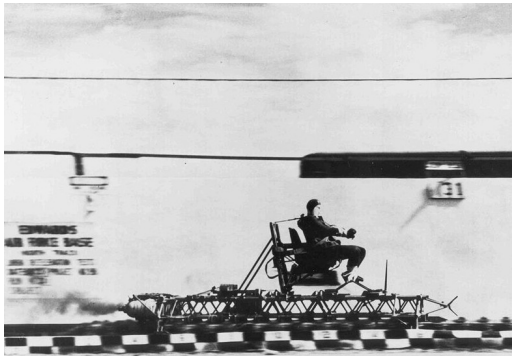
Col. Stapp initially trained in biology and medicine. He joined the American military during the Second World War and worked in a laboratory testing oxygen systems for air force pilots flying at high altitudes. When a volunteer was needed to test something, it was often Dr. Stapp (he was not a Colonel yet) himself who volunteered. This was a habit he did not give up.

His next assignment was to do with depressurisation. What kind of G-forces could the human body stand during depressurisation? The question was important. It had been assumed that the answer was 18G. Therefore, since any plane accident or hit from an enemy missile that caused the pilot to experience more than 18G would result in the pilot's death, air force planes were designed to withstand 18G but not more. There was no point in making a plane able to withstand higher G forces.

Dr Stapp had already solved a number of problems related to stratospheric flight, allowing himself to be taken up to great heights in air force planes in order to perform experiments on himself. How well could he concentrate, and for how long and also how could the deadly illness, the bends, be avoided during depressurisation? This last difficulty he discovered could be completely avoided if the pilot breathed pure oxygen for half an hour before the flight. He also solved issues of freezing and dehydration before he went on to tackle the question of G-force.

The problem was that evidence had been building up during the war that pilots could actually survive far higher G forces than 18G. Lives were being needlessly lost if the planes themselves could not withstand higher G forces also. It was vital to find out what was the limit of the human frame in terms of G force so that aircraft could be brought up to that standard.

A test track had been constructed that simulated air crash conditions using a sledge known as the “G Wizz.” This could be propelled at enormous speed and stopped with staggering abruptness, simulating the G forces experienced by a pilot in a crash. A dummy known affectionately as “Oscar Eight-Ball” was to be strapped in and used in the tests. After a few runs with Oscar to sort out teething problems. Dr. Stapp had him removed. He would be carrying out the tests on himself.



Test after test was made. At first Dr Stapp would get out of the G Wizz, smiling. He felt fine he said. Then things became more painful as the G forces exerted were increased. There were minor injuries but he reached a staggering 46G and lived to tell the tale.

Major Stapp (he was promoted but not yet a colonel) had proved that 18G was not the limit. Air craft designers took the information on board and designs were improved. He also discovered that the bad effects were considerably less if the seat faced backwards. America troop carrying planes had their seats reversed at once.

But the limit had not been reached and now there was another problem. No one knew exactly what the effect would be of wind blast as well as acceleration if a pilot **ejected** from his plane at very high altitude. Once again Lt. Col. Stapp took up the challenge. A new test site was found and provided with a new sledge, called Sonic Wind, that could go even faster and had a door that could open during the test to simulate the wind blast. “I feel fine,” he said after the first (closed door) run.

When the door was open, despite his flying suit, it was found that grains of sand had penetrated the volunteer's skin, causing bruising. He was still alive and well, however and ready for the next test.

The final run did serious damage though. Reaching 46.2G with the sledge open and only his helmet to protect him Col. Stapp thought he'd lost his sight. Thankfully he had not, and in hospital his sight recovered the next day. No more human testing took place though. Now it was known just what might happen when an air force pilot was force to eject from his plane at around 12190 metres.



Col. Stapp devoted the rest of his life to providing safety data for motor car design and campaigning for safer cars. He was responsible for seat belt introduction and many features we now think of as normal in cars that prevent damage to drivers and passengers in a crash.

Col. Stapp had wanted to be a writer before he decided to study medicine. He had a very witty turn of phrase. “The universal aptitude for ineptitude makes any human accomplishment an incredible miracle,” he said. Do you agree with him and if so why?

Some history to read³

Were you on holiday on August 10th? If so you will have missed the lesson that included the story of the Battle of Malden. Go back to that lesson today if you missed it and read the story of that battle, a terrible defeat for the English, as today we take up the story of Ethelred the Unready again. For it was on **13th November** 1002AD that the English were goaded into taking a horrible revenge. It was

³ Information from *The Story of God's Dealings with our Nation* Volume 1 which is available here: <https://www.creationresearchstore.com/s/search?q=Dealings> and other sources.

this event in particular that earned Ethelred the name “unready” which does not mean “ill-prepared”, as it does in modern English, but “ill-advised”.

After the Danes had defeated the English at Malden, Ethelred tried once more to pay the Danes to go away. The sums of money involved were colossal. In 991 it was 10,000 pounds of silver (which we calculated in the lesson for August 10th to be £2,145,000 in modern money) and it carried on rising until it reached 48,000 pounds!

The strain of raising such a sum was too great for the country to bear. The Vikings were not to be trusted. They returned again and again for more money, cheerfully breaking any undertakings they had made to stay away. Those Vikings who were being paid to serve in the English army were liable to turn traitor. What should Ethelred do? He asked for advice and his counsellors suggested that

...all Danish men be slain who were in England... as the King had been told that they would treacherously take his life and the lives of his counsellors and take possession of the kingdom after that...

It was desperate advice but the king took it. The massacre was planned for 13th November, St Brice's Day. You can read H E Marshall's account of the event in the Optional Resources files for August 10th. There are no records surviving of how many were killed but the atrocity did not have the desired effect. The Danes kept coming and demanding more money. The Danish warlord Swein Forkbeard was very successful; he was enriched with booty and with his reputation as a warrior was enhanced as a result in his native land. In 1013 he was recognised by the Danes living in Mercia and Northumberland as their king and he marched on London, determined to be ruler of all England. Oxford, Winchester and Bath submitted to him and then London itself. But early in the following year Swein died and the English forces rallied.

It was only a short respite. Swein's son Cnut came back the following year. He reconquered the Danish lands, or Danelaw, and carried on conquering southwards to the Thames. Only Wessex remained to Ethelred's son and when he died in 1016, Cnut or Canute became king of all England. In this picture of him you can see the word *Rex* by his head. Do you know what it means?⁴ There is a very famous story about this king. Can you find it in your own history books?



Do you know a centenarian?



Not many people live to 100 years old, do they? But perhaps you know someone who has. When he died on 13th November 1640 Laurence Chaderton was about 104 years old and his mind was as clear as ever! Chaderton was born into a Roman Catholic family around 1536. They disowned him when at Cambridge in 1566 he adopted Reformed teaching. In 1584 he was chosen as the first master of Emmanuel College, Cambridge. He was a member of the Hampton Court Conference⁵ where he was the leader of the Puritan party and was one of the members of the committee that translated the Authorised Version of the Bible from 1607-1611.

Can you make a list of the all the rulers under whom Laurence Chaderton lived? Use your own encyclopaedias and reference books to find out the information.

4 King

5 See the lesson for 17th January.

Something to make

What is your favourite sandwich? Cheese and pickle? Lettuce and tomato? Salmon? When did people first start putting food between two pieces of bread in order to eat it conveniently?

Of course people probably did this sometimes in one way or other since very early times but the first person to systematically think out the idea of the useful sandwich was the 4th Earl of Sandwich (1718-1792), First Lord of the Admiralty, who was born on 13th November. Some people say he invented it in order to carry on playing cards until late without stopping for a meal but I prefer

his biographer's explanation that his unceasing work for the navy and in politics, meant that he had to find a way of eating at his desk that did not interfere with his papers. He asked a servant to put some sliced beef between two pieces of bread and the sandwich was born!



The great thing about sandwiches is their usefulness for eating outdoors. I know that November is not the best month for a picnic but if it is not actually pouring with rain, you could wrap up, go for a walk and take some sandwiches with you to munch in a sheltered spot. If it *is* pouring, little ones will enjoy an indoor picnic and everyone likes sandwiches!