# **<u>Timeline Highlights:</u>**

## **Communications Dependency**

In the decade prior to the Great Solar Storm of 2020 most of society had become solely dependent on one form of communication in everyday life; the smart phone. Smart phones had been developed from the most basic cell phones that could simply dial out phone numbers and send short text messages to pocket sized computers on which pictures and video can be taken, questions can be answered instantly and a phone call across the continent can be placed. Smart phones had given us the ability to communicate with anyone anywhere at any given point in time and has subsequently made the world smaller and bigger at the same time. This ever changing technology has become a sign of social status as users are strongly encouraged to upgrade to the newest models in just a year or two, creating a society borne on instant gratification. As a society we became so used to having the answer to anything at the touch of a finger that we forgot how to do things for ourselves. We no longer had to remember how to do simple tasks or look at a map for directions when a smartphone could do the job for us. The continuous innovations in smartphones led people to move away from their land line telephones since smartphones were more mobile and not restricted by power outages. This switchover led to a complete dependency on cell phones for communications which wasn't sustainable seeing as the loss of satellites so easily destroyed the existing infrastructure.

## **Regional Efforts to Restore Communications**

In the months after the storm, the government deemed that returning satellites back to orbit in space could potentially be dangerous without the proper precautions. The fact that the solar flare just added thousands of uncontrollable, and essentially unaccounted for, satellites as space debris increased the risk of space missions tenfold. Working around this risk could take years to prepare, leaving a majority of people in the dark with regards to communications. In response local people banded together and devised various forms of regional communications methods. These methods only really work within a certain radius so long term communications became heavily reliant on the United States Postal Service which had become almost non-existent in the years before the storm. The main focus of these regional efforts was to create a system for communications that was resilient to damage from future storms to prevent a repeat of what happened in 2020. Instead of having one main form of communication, a bunch of different forms were devised depending on the locale and its available resources. In order for these systems to be sustainable the resources required had to be in abundance and not in danger of being exploited uncontrollably. Some of these regional methods of communications include messenger owls in Vermont, pneumatic tubes in Bethlehem and Allentown as well as a centralized trading post in downtown Easton, Pa.

## Flying Our Way Into the Future

In the years prior to the solar storm the government had been experimenting with the use of drones as a method of transporting small items. In the years after the storm it has been suggested that these drones be used to deliver mail and packages as a way of communicating at longer distances. Drones that can manually be flown long distances without GPS are still being developed but the government has been working diligently at producing this technology.

# **Solar Flare**

The Great Solar Flare of 2020 hit the world by surprise. A massive solar flare knocked out all power and communication across the world. Satellites were hit hard which dropped all communication signals. This event was crippling across the world initially because the earth was in darkness and needed to revert back to simpler times without constant use of cell phones. This drastic change happened in mere moments giving people no time to adjust to this massive life change.

## **Trading Post**

As a means of regional communication, the Lehigh Valley enabled trading posts to be set up through a series of pneumatic tubes which interconnected towns in the area. These tubes functioned off of a system of air pressure, which is a resource that is available in abundance. After the storm people really want to focus their efforts in developing sustainable methods of communications that were resilient to damage from future storms. By creating localized methods of communications people could get in touch with each other fairly quickly without relying on one source; satellites.

#### **Messenger Owls**

Up in Burlington, Vermont birders began training owls to deliver messages from home to home. The highly intelligent birds are easily trainable and are another form of localized communications developed after the storm. Residents of Vermont wanted a quicker method of communicating than sending mail through the United States Post Office and the owls became the perfect alternative. These birds are abundant in Vermont and as long as populations are maintained they should be available as a resource for a very long time.

## **Container Communities**

Shipping containers exist all over the world, and can be made very easily using recycled metals. In the early 2000s, people started making personal, off-the-grid sustainable homes using shipping containers, solar panels, and rain-catchers These would eventually become cheap and efficient to make, and would be very energy efficient, as well as self-sustaining to some degree. Buildings and complexes would be assembled using these containers within less than a few weeks, so they would serve the United States well through the Container Act, when refugee communities needed to be created to house people leaving the violence that overwhelmed many cities across the country. This became the most sustainable and efficient way to overcome the problem of providing energy, and also brought people closer together, overcoming the need to have long-distance communications. People lived closely with their friends and families, and would want to remain this way several years past the restoration of energy across the nation.

## **Biofuels**

Small farming communities and energy companies began to invest more time and money in the development of biofuels so that they could farm sustainably, and use their waste to provide energy for both small communities and large populations as well. Biofuels would take away the dependency on diesel and gasoline that were produced by big corporations, and allowed farmers and people living in

communities to provide for themselves. Other technologies would outshine this one, but would eventually become a contributor to creating a nationally sustainable lifestyle.

# **Fiber Optics**

Fiber optics became the most researched technology for repairing the electric grid, as it is a technology that not only would be unaffected by solar flares, but could also transmit information beyond that which electric wires could transfer. It required a great deal of investment, but was one of the best ways to reestablish global communications. It would take a couple of decades following the events of the 2020 solar storm in order to manufacture and implement this technology globally, but it seemed to be the best option for resolving the lack of intercontinental communications.

# **21st Century Pony Express**

In the year 2023, Elon Musk offered the use of the technology used to construct Tesla's electric cars to boost the productivity of the US Post Office. These cars would mimic the old-fashioned pony express in which horseback riders were used to deliver messages across the country. In similar fashion, Tesla's electric cars will be used as a sustainable source of long-distance communication that is much quicker than standard mail delivery. These electric cars offer a cheaper way to deliver mail long distance as they are powered by electricity rather than fuels like gasoline.