AM/FM Radio Reveals the True Shape of the Earth

By William Babishoff

In 1942, a newly constructed FM radio station located atop the Field building in downtown Chicago, Il, W31C, achieved the impossible.

“Long Distance: Zenith Radio Corporation, operating W31C, has received a letter from a listener in Monterey, Mexico, telling of daily reception of this station between 3:00 PM and 6:00 PM. This is the greatest distance, 1,100 airline miles, from which consistent reception of the 50 kw. transmitter has been reported.” FM magazine February, 1942. p.34.

At a height on 535 feet above the streets of Chicago, this 50,000 watt signal traveled approximately 1,100 miles on a daily basis. Now we could chalk this up to radio station propaganda, however this was never used for advertising purposes, and is only found in a small paragraph in the trade publication, FM Magazine in 1942. Furthermore, other articles have stated FM signals could be heard from a distance of 1200 miles or more, which caused interference in other radio stations up and down the east coast of America.

In May 1940, the Federal Communications Commission (FCC), a U.S. government agency, formally allocated the 42 – 50 MHz band for FM radio broadcasting. It was soon apparent that distant FM signals from up to 1,400 miles (2,300 km) distance would often interfere with local stations during the summer months.
https://en.wikipedia.org/wiki/TV_and_FM_DX

Long Distance: Zenith Radio Corporation, operating W51C, has received a letter from a listener in Monterey, Mexico, telling of daily reception of this station between 3:00 P.M. and 6:00 P.M. This is the greatest distance, 1,100 airline miles, from which consistent reception of the 50 kw. transmitter has been reported.

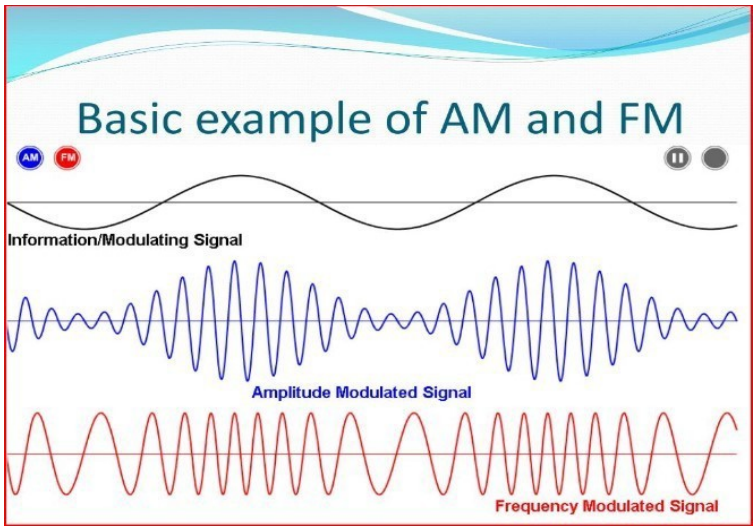
At the time, AM radio ruled the airwaves as people from around the world huddled up next to their receivers to hear the latest news of the world and other entertainment shows. Television was in its infancy, while FM radio was still being developed and yet to be fully understood from a technical standpoint.

America had recently entered WWII, and new radio constructions were delayed by law as various parts were needed for military use. Radio communication was essential to the war effort. There were no regulations yet as to the power of individual stations, just the frequencies allotted to various radio corporations for their operation and geographic locations. In addition, only a handful of companies produced FM receivers, and the war effort put that on hold as well. So few people had FM radio receivers. It was a budding industry stuck in wartime purgatory.

A similar story can be found today from radio station XTERA-FM in San Diego, Ca. 91X, as it is known to its listeners, has its transmitter across the border in Mexico which allows the station a much further reach. It has a transmitting power of 100,000 watts. In America, FM stations are now limited to50,000 watts of broadcasting power limiting their reach to keep them from interfering with each other. Stations like XTERA-FM are known as border blasters. Their broadcast antenna is located atop Mount San Antonio in Tijuana, Mexico, at a height of 587 feet. This station regularly broadcasts up to

Riverside county, CA, a distance of about 142 miles. However, it can be heard along California's coast as far north as the Monterey peninsula in California, a distance of 395 miles. Even further if you're out on the ocean. There are several border blaster stations along the Mexico/ US border, the US/Canadian border, and also in many other countries around the world.

This is a real problem for the currently accepted earth shape, as the signal should have shot off into space over a hundred miles prior. To further illustrate the issue, here is a brief description on how AM and FM radio works.



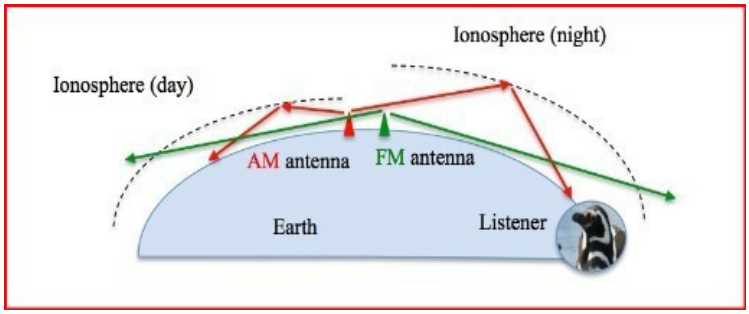
FM stands for frequency modulation, as opposed to AM which means Amplitude modulation. FM is a ground wave, often called "line of sight," as it travels parallel to the earth surface until the signal loses strength to continue further.

The power of the signal limits how far it can travel, as stations in different areas share the same frequencies and will interfere with each other when they meet. You may have heard this when driving long distances, the station you are listening to begins to fade, then breaks up while another signal appears atop. It may take a mile or so before the interference stops, and then you are listening to an entirely different radio station.

AM, is often called a sky wave. It bounces its signal high above off of the ionosphere and back down to earth until the signal becomes too weak to be heard. In certain weather conditions, AM radio can literally bounce up and down and around the world.

One station located in Reno, Nevada USA, sends it's signal westward to listeners in the greater San Francisco area. In the evening, when there is less interference and the ionosphere is at its highest, this signal regularly bounces across the ocean all the way to Japan!

As you can see from the illustration, if the earth is convex, the FM signal will fly off into space just after a short distance. The AM station's signal will bounce off of the ionosphere and back, which is parallel to the surface of the earth.



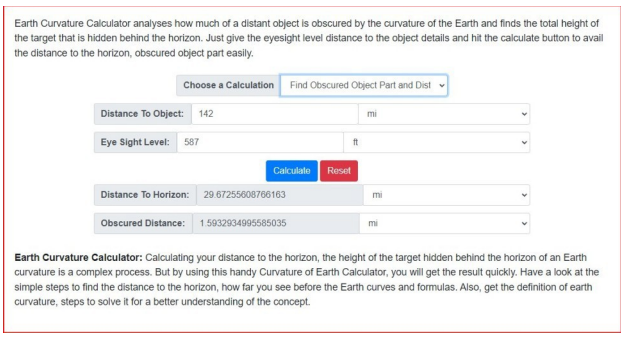
*NOT TO SCALE

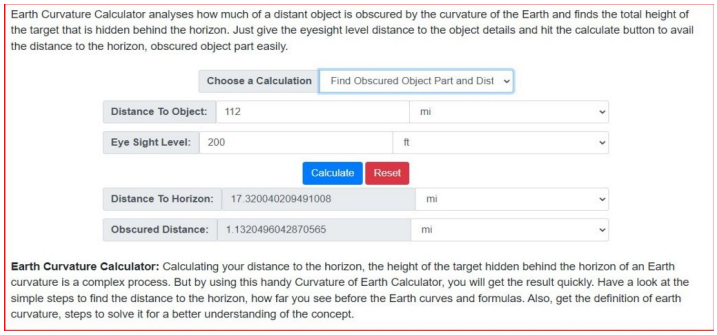
This should limit the FM signal to about 75–100 miles or so, depending on the height of the antenna and the contour of the ground. But that doesn't happen as described in the instance above, and is also why the transmitting power was later limited to 50,000 watts in America.

According to mainstream science the FM signal, under certain atmospheric conditions, can bounce off of a layer of the ionosphere and return to earth. The primary ones affecting FM radio are F2 propagation (F2-skip) and Sporadic E propagation (E-skip). Sporadic- E is exactly that, sporadic, and a somewhat rare atmospheric condition. Normally, radio signals do not bounce off of the E layer of the ionosphere, which is lower than the F layer.

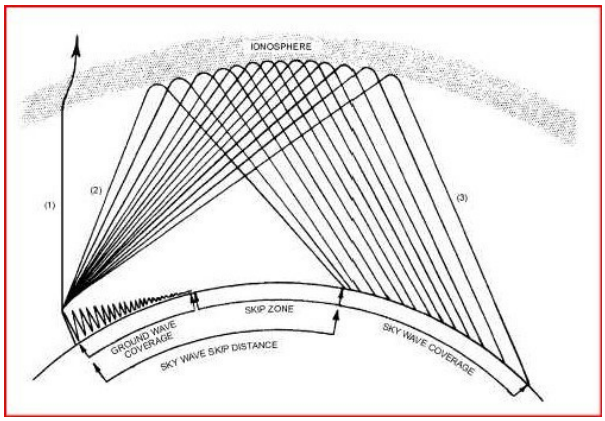
F-2-skip, bounces off of an atmospheric layer between 125-250 miles above the surface of the earth, depending on the season. It is said to have the greatest affect when solar flares are present. So there is a variance due to atmospheric conditions. Neither of these skip phenomenons can explain the regularity in the daily broadcast signals.

So, back to the current radio station in Tijuana. Based on the altitude of the transmitting antenna, the distance calculated to the horizon is about thirty miles. So, at this point, the signal should be now rising away from earth. Yet, there is still 112 miles to Riverside, and another 365 miles to the Monterey peninsula.





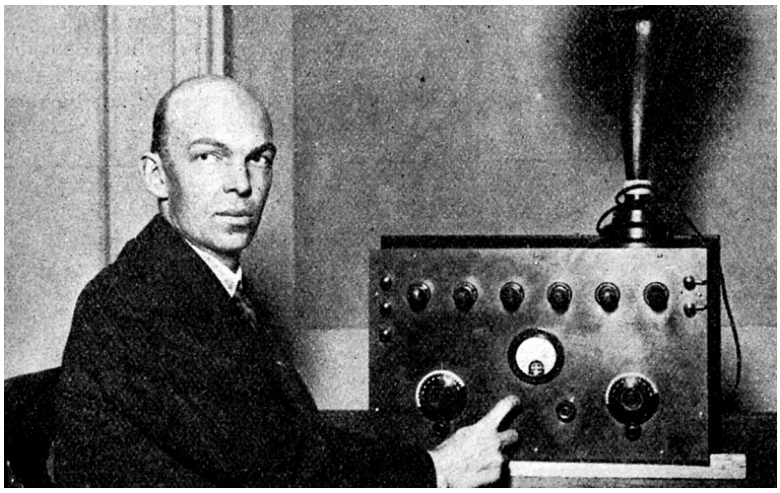
For the radio wave to skip back to earth it will need to pass the horizon a little over 17 miles before they begin to skip back, and then the same distance to return. This leaves a large gap in between where the signal should weaken and eventually be too far above for the car antenna to be able to receive the signal. This is called a skip zone. Yet, in this scenario there is no such gap. The station blasts it's signal daily and listeners all over southern California enjoy their music shows.



And there is another problem. An even larger one. FM radio doesn't work on an airplane! Once you rise from takeoff the signal begins to break up, and can rarely be heard at all after a few miles. You can only hear it when flying at very low altitudes and near city areas. AM does work in an airplane, but signals cross frequently and don't last very long, primarily due to the aircraft's speed and the limits of the power of the station.

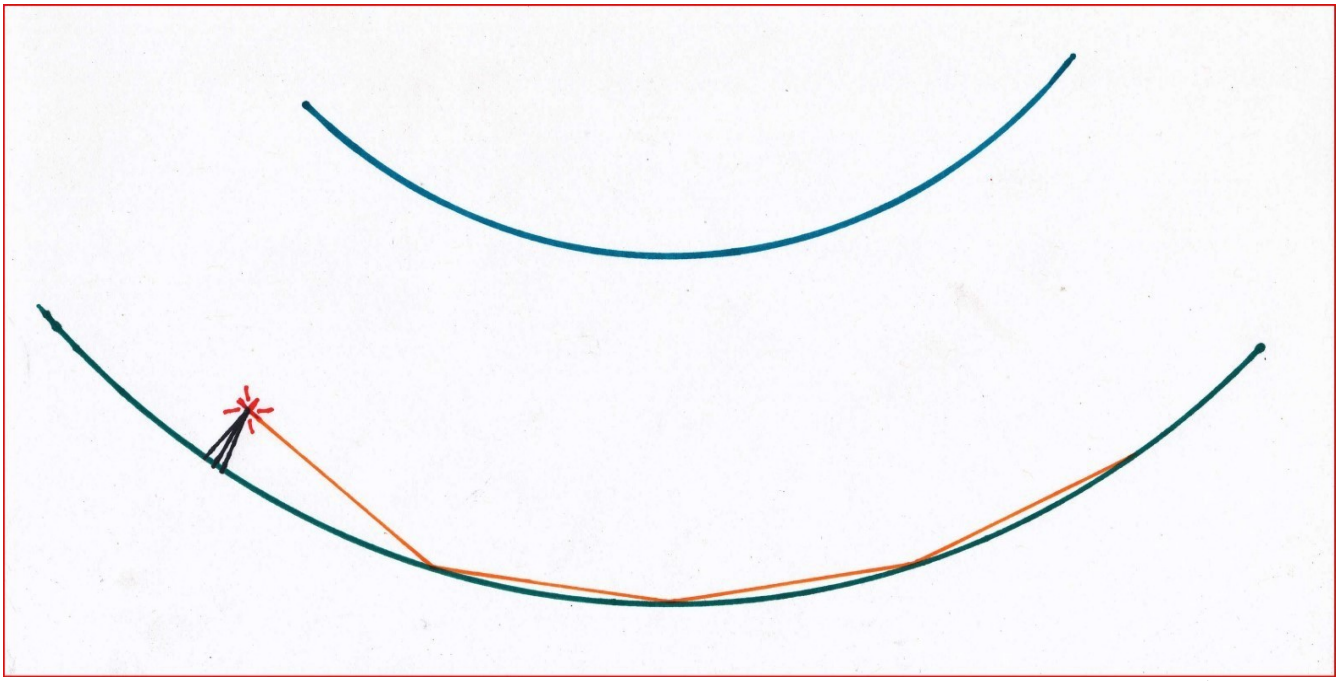
If the FM signal were to rise up into the sky, it should actually improve in an airplane, as there would be no obstructions such as tall buildings, hills, and mountains and should fill the sky from all directions. Obstructions are major problems with FM radio and why it is so difficult to receive in downtown areas. You turn the corner and suddenly the signal disappears entirely. Then it reappears around the next corner. This could never happen up in the air with the exception of very high mountains.

All of these issues would make radio technically impossible, yet thanks to innovators like Edwin Armstrong, we have been enjoying radio broadcasts for over 100 years now. Something has to give.



Edwin Armstrong

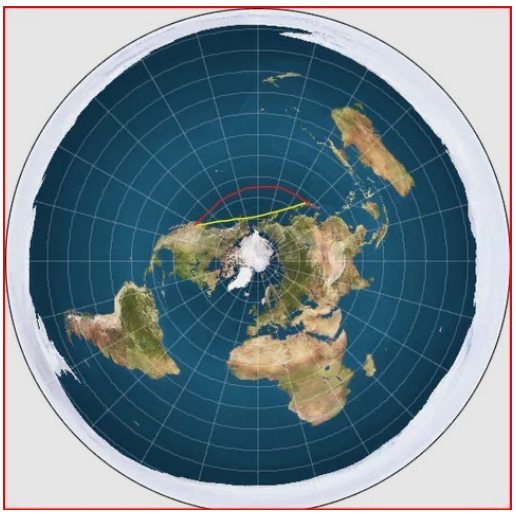
In the concave earth model, it is just the opposite. There is no need for an FM signal to skip off of the atmosphere as the signal will simply skip off the ground continuously until it runs out of power, similar to how a rock skips off of water. Since radio waves, unlike a rock, have no mass they could theoretically skip forever. This is the reason for needing to minimize the power, or the skip would continue on until it gets blocked by a mountain or other obstacle. The FM signal would easily skip over the ocean, which they can do in good weather. And since the ionosphere is parallel to the surface curvature of the earth, an AM signal will bounce back as expected. And so it does.



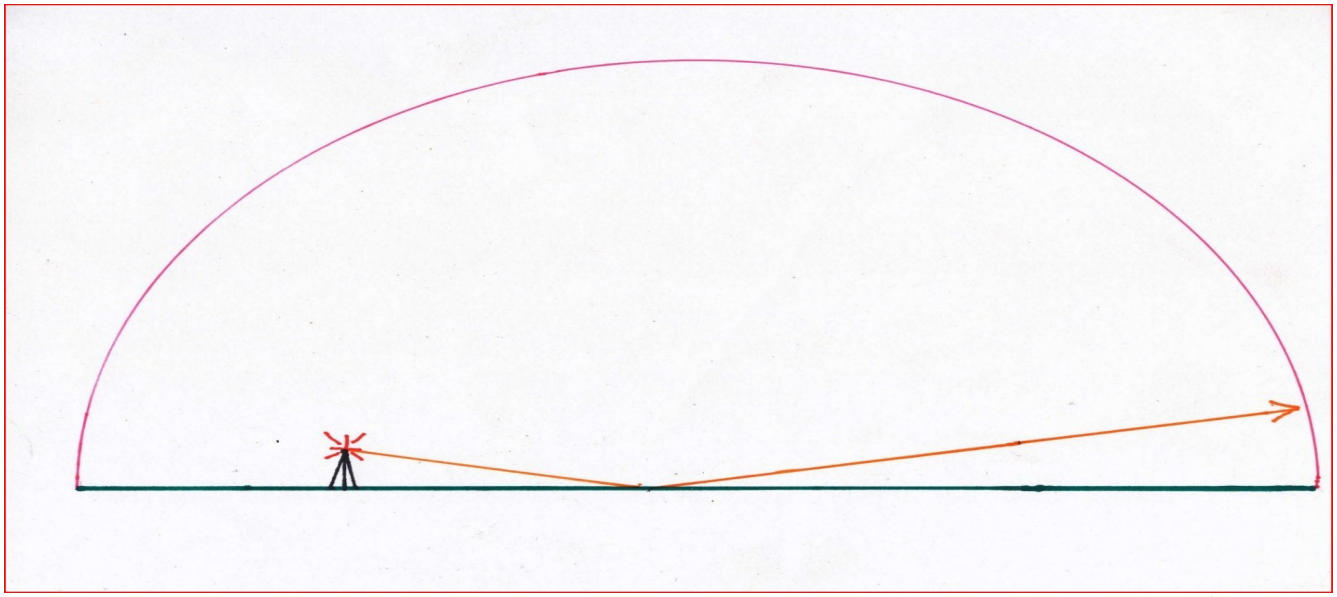
BLUE-IONOSPERE
ORANGE-FM SIGNAL
GREEN-EARTH SURFACE

*NOT TO SCALE

On the flat earth model, neither AM or FM could function as they do. The AM wave would bounce off of the dome and would send the signal back to earth at the wrong angles. That AM station in Reno could never reach Japan. A parallel layer is needed for the angles of skip to repeat on to it's destinations, and there is no such thing in the flat earth model. Not only that, but the signal would have to arc it's way about 1/3 the way around the earth to reach the Pacific Island in the path it travels. A straight line on their map would travel across Alaska and Korea before reaching Japan, and that simply doesn't happen.



With FM, they would need another special layer of atmosphere for the signal to bounce off because the angle of incidence is much less. I seriously doubt mainstream science will ever invent this magical atmospheric layer just for the flat earth model.



GREEN-EARTH
ORANGE- FM SIGNAL

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AM and FM radio, can only function as they do inside of a concave earth.