science because what they say is often proved right or wrong in fairly short order whereas other disciplines are so confusing or difficult the average person turns away. One modern science leader, cited in subchapter 2.5, went so far as to say:

"People in general find science **grim** and seem to fear it." Note 9.1b

Try as it may, modern science has yet to reverse this attitude. Countless modern science societies lament the dearth of upcoming new scientists, wondering what to do to encourage more young people to pursue science. How can science ever expect to reverse the trend and restore confidence without accountability? There is no Universal Scientific Method to test and gauge new scientific discoveries by, and scientists themselves cannot agree on some of the most basic scientific issues in the public's view—like global warming, an issue fraught with tales of deception and intrigue.

One of the purposes of the UM is to bring accountability and leadership to a failing science and to restore the public trust. This will be accomplished by restoring truth in science, where the purpose is the discovery of new natural laws instead of endless theory. This chapter introduces several new weather laws and planetary energy-field laws that are easily understood; laws that can be researched and tested by the general public. Lyons noted in *The Handy Weather Answer Book,* "There is a *huge world of discovery awaiting the curious.*" By explaining the origin of weather, the Weather Model opens up a new world of meteorological discovery for all who are curious.

9.2 The Origin of Weather

The mystery surrounding the origin of weather would remain had we not discovered the origin of earthquakes. Having established the true source of earthquakes in the Magma Pseudotheory chapter, new meteorological possibilities open up. This subchapter will explore earthquake weather and critical new information about heat from earthquakes and its effect on the water in the Earth's crust. This subchapter also introduces a new Water Cycle as part of the new Weather Model, and three new Weather Laws. These are confirmed through several new weather observations and experiments.

The Missing Factor of Weather

Richard A. Keen, a popular weather book author and meteorologist, wrote:

"**Five basic factors** combine to make it inevitable that the Earth has the kind of weather that we have grown accustomed to. The first, and most obvious factor, is that Earth has an **atmosphere**. Second, Earth is **sunlit**. The third factor is **Earth's rotation**. The next factor—and one unique to Earth—is our planet's vast supply of liquid **water**. And finally, there is **geography**—the variety of surfaces, from oceans to continents to ice sheets, that cover Earth." Note 9.2a

Which of these "five basic factors" is the ***cause*** of weather changes? Can we say that any one of them, or a combination thereof is the ***cause*** of the rainstorms, snowstorms, hurricanes, and tornadoes? We cannot.

In fact, everyone knows the weather can *completely change* from day-to-day, however...

The geography did *not* change…

The supply of liquid water did *not* change…

The Earth's rotation rate did *not* change…

The sunlit area of the Earth did *not* change…

The nitrogen, oxygen and argon that make up the majority of the Earth's atmosphere did *not* change. These "five basic factors" of weather are constant on a day-to-day basis.

FQ: What is causing the day-to-day changes in the weather?

This is the million-dollar meteorology question, and the answer to this question follows the Simple Truth Principle—in Nature the simple truth is—that truth is simple.

The five factors of weather are not the **cause** of day-to-day changes in the weather, but they are **affected** by **other** weather factors.

These missing factors affect both day-to-day and long-term weather patterns.

Earthquake Weather

On a USGS website, one of the Frequently Asked Questions concerns Earthquake Weather. Know that as you read the mod-

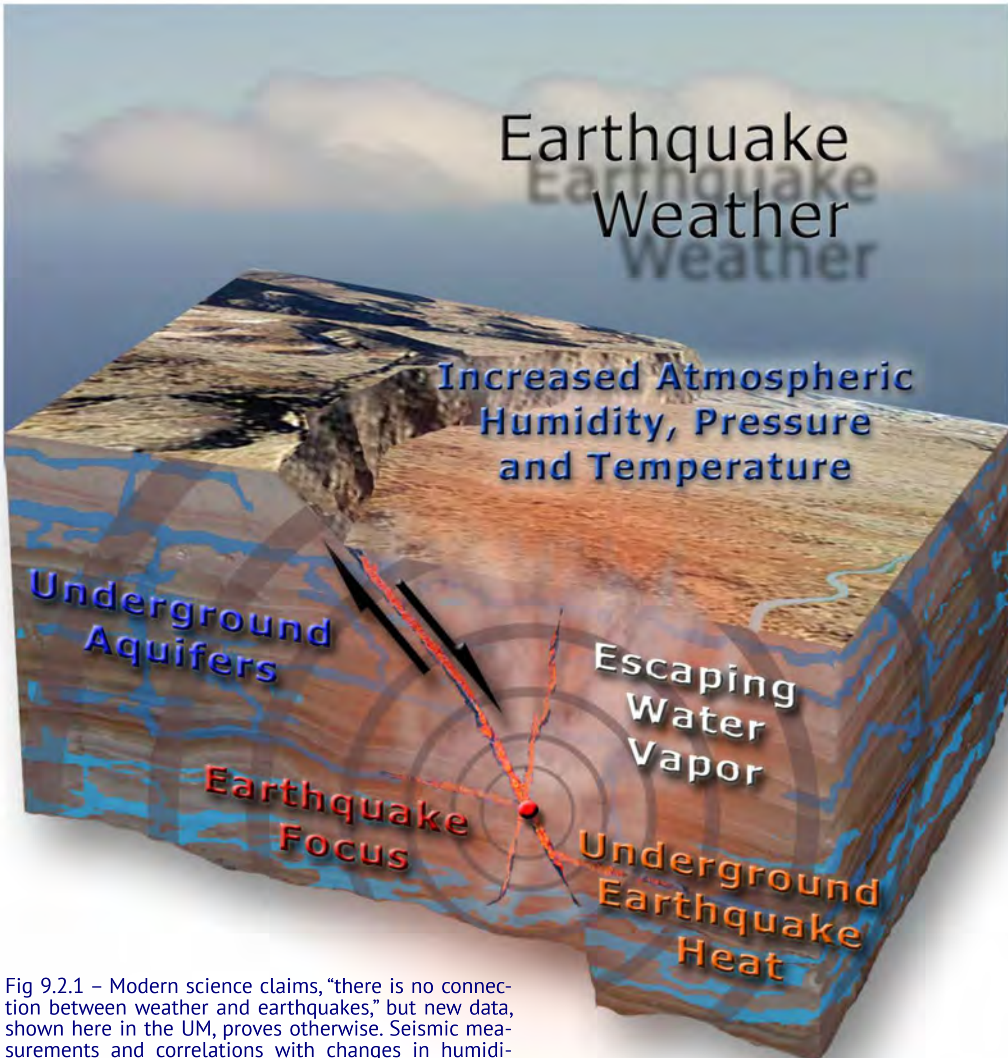

Fig 9.2.1 – Modern science claims, "there is no connection between weather and earthquakes," but new data, shown here in the UM, proves otherwise. Seismic measurements and correlations with changes in humidity, temperature, and pressure, both above and below ground, confirm the reality of Earthquake Weather.

ern USGS geologist's answer, this chapter will demonstrate that their answer is *incorrect*, and that the Aristotelian explanation the USGS dismisses as being outdated—is actually not too far from the truth:

"**Question**: Is there **earthquake weather**?

"**Answer**: In the 4th Century B.C., Aristotle proposed that earthquakes were caused by winds trapped in subterranean caves. Small tremors were thought to have been caused by air pushing up on the cavern ceilings, and large ones by the air breaking the surface. This theory lead to a belief in **earthquake weather**, that because a large amount of air was trapped underground, the **weather would be hot and calm before an earthquake**.

"Nowadays, **thanks to the advent of science**, **it has been shown there is no connection between weather and earthquakes**. **Earthquakes are the result of geologic processes within the earth** and can happen in any weather and **at any time during the year**." Note 9.2b

In subchapter 5.3, we discovered that although the USGS believes earthquakes are "the result of geological processes *within* the earth," they are, in reality, caused by gravitational processes *outside* the Earth. Instead of the idea that earthquakes do not follow cycles or have no predictability, we discovered 12 and 24-hour cycles, and an "earthquake season" related to the *Earthtide*, which is the daily vertical movement of the crust. This was a relatively new concept, even for many scientists.

How can modern geology state that, "there is **no** connection between **weather** and **earthquakes**" if geologists do not understand the origin of either weather **or** earthquakes?

Throughout this chapter, we will show that there is a direct connection between weather and earthquakes and more importantly, earthquake activity is *the* ***cause*** *of the Earth's weather patterns!*

The vast collection of data through constant observation coupled with first-hand weather experience makes the weather-earthquake connection easy to understand. In the *Handy Weather Answer Book,* we read that West Coast observers relate fair skies and high-pressure with major earthquakes, an observation not necessarily shared by meteorologists:

"Is there such a thing as **earthquake weather**? Some residents of the West Coast think that fair skies associated with a mild **high-pressure system that is stalled over the western United States are typical of conditions during major quakes** (as in the 1989 Loma Prieta quake). While some have theorized that the increased mass of the atmosphere over the region due to the higher atmospheric pressure might play some role in a quake, this is a question that **will require many years of research in order to be resolved**." Bib 66 p256

Perhaps the "years of research" will be shortened to minutes after reading the earthquake weather connection in this chapter!

"Nowadays, thanks to the advent of science, it has been shown **there is no connection between weather and earthquakes**."

The Origin of Weather

This subchapter will identify a new Weather Model to include the effects of tectonic forces within the Earth. A model where the origin of weather can be tested and confirmed using empirical evidence. Development and verification of the Weather Model was made possible because of processes identified elsewhere in this book. In fact, understanding the contributions of three important UM weather factors and their associated models was essential. They are:

1. Earthquake Heating – Lava-Friction Model
2. Abundant underground water – Hydroplanet Model
3. Earth's Energy Field – Geofield Model

The first two models were presented in earlier chapters, and the Geofield Model will be introduced later in this chapter. The Lava-Friction Model established the true origin of lava and explained where *all of the heat in the crust* originates—from earthquakes and earthtide. Knowing the origin of the heat in the crust and that it manifests itself in cycles is the first key to comprehending weather's origins and its cycles. The second key comes from the Hydroplanet Model, which documented the abundance of underground water. With these two keys, we can begin to unlock the mystery of weather by asking a simple FQ:

What happens to the vast expanses of water in the crust when it is subjected to cycles of heating?

When water is sufficiently heated, it becomes water vapor, and on a planet-sized scale, that creates ***high-pressure areas*** and ***humidity***.

Fig 9.2.1 illustrates the process of underground water heated by earthquake friction. When liquid water is heated past its boiling point, it *expands **1,700 times** its liquid volume* at sea level. Beneath the surface of the Earth, pressure from overlying rock and other crustal material allows water to absorb an enormous amount of heat, without boiling, or becoming water vapor. However, as the water migrates toward the surface, the reduction in pressure allows the transition from liquid to gas (water vapor) to occur. If this happens rapidly, as it did during the Flood, and as it does during volcanic eruptions, a violent phreatic explosion is the result. Most of the time however, the event is benign. Heated water rises passively, vaporizing as it rises to the surface and into the atmosphere. As we will see in a moment, the addition of this new gas into the atmosphere can completely change weather conditions on the surface.

Water vapor rising from beneath the Earth's surface is invisible to the naked eye and has apparently been hidden from the eyes of researchers looking for answers about the weather and its origins. While it is true that meteorologists are aware of humidity and water vapor gains through evaporation, there is a significant difference between the formation of earthquake-water vapor and water vapor coming from ordinary surface evaporation. That difference is ***time***.

The evaporation of a good-sized puddle of water may take all day, or even longer, but toss the same amount of water onto rocks heated by a campfire and it would instantly be turned into steam. What this shows in terms of the Earth's surface is that in a very short period of time, large areas of the Earth can produce an outpouring of water vapor heated from earthquake friction from seemingly quiet seismic activity. This newly added gas can *create, or at the very least, alter high-pressure systems.* High-pressure systems are represented by a capital "H" on weather maps.

To our knowledge, this is the first time anyone has proposed this natural weather controlling mechanism, and with this new paradigm, many unexplained weather phenomena can be explained. For example, the cause of 'cold snaps' (cold bodies of air moving quickly from northern latitudes) has no clear explanation in meteorology, but with high-pressure creation from within the Earth, a large amount of new water vapor can be generated quickly, forcing blocks of cold air away, toward lower latitudes.

Because these high-pressure systems control weather patterns, an understanding of their origin is critical to atmospheric science. The current modern science explanation for the origin of high-pressure systems does not hold up under scrutiny, but we will get into that shortly. For now, we'll explore the new concept of Earthquake Heat—and find out just how real this missing weather factor is.

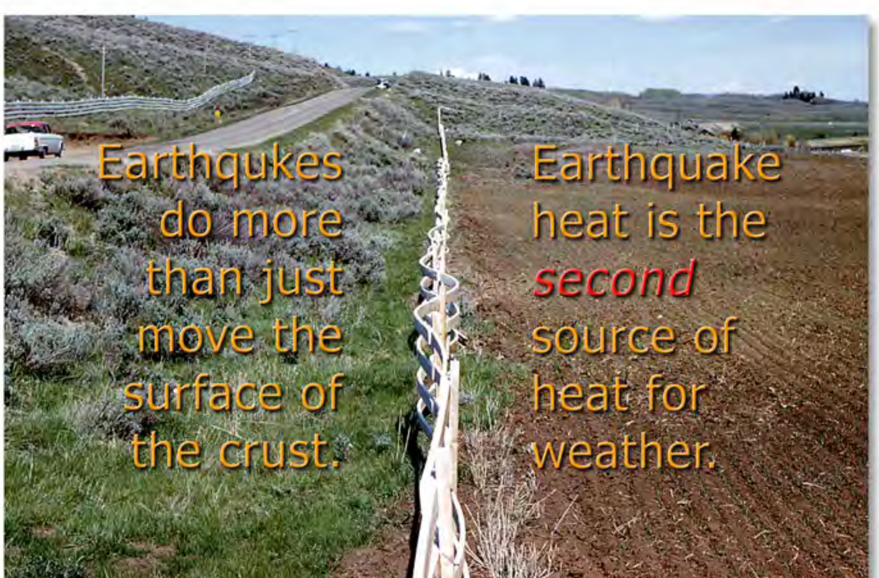

Fig 9.2.2 –The fence in this photo warped because of surface movement during an earthquake. We are accustomed to ground movement and the destruction of surface structures during earthquakes, but few realize the impact earthquakes have on weather. All earthquakes produce heat in the crust. The release of that heat and the accompanying water vapor is a completely new phenomenon in modern science.

Earthquake Heat—The Missing Factor of Weather

The ***only*** heat source *atmospheric science* is concerned with today is the heat the Earth receives from the Sun. The big mistake is that it is *not* the *only* heat source on the planet—and every *geologist* intuitively knows this. Unfortunately, this is another excellent example of *scientific specialization* gone awry.

The key to understanding weather lies in the knowledge of Earth's ***secondary*** *source* of heat. In the modern science world of weather, meteorologists do not think that heat from under the crust has any effect on the weather. They suppose that all sub-crustal heat comes from magma deep in the Earth and that it therefore plays an insignificant role in weather formation. An apparent confirmation of this belief is that weather has distinct cycles, whereas magma has no observed cycles, which causes atmospheric scientists to dismiss the *heat* in the crust from their weather models.

Yet there is a surprising amount of heat in the Earth's crust. One wonders why atmospheric scientists have not considered the "inexhaustible supply of heat" from the Earth's interior. In the *Letters* section of the January 2007 edition of *Scientific American*, one reader expressed a very good question relating to the previous month's article, *Energy's Future: Beyond Carbon*:

"I was very disappointed that you did not mention **geothermal energy**. The earth has an **inexhaustible supply of heat**; one merely has to dig a well deep enough and pump the water to a heat exchanger or reticulate water from the surface. Why omit this perfectly clean source of energy that is abundant everywhere?" Note 9.2c

Although the reader probably assumed the inexhaustible supply of heat was magma from the Earth's interior, he was not too far afield of the truth! The Earth does have a geotherm where frictional heat is produced in certain areas at certain times throughout the astronomical cycle of the solar system. This concept was detailed somewhat in the Magma Pseudotheory chapter. The cyclical nature of earthquakes, moonquakes, rockbursts, and geysers are all a testament to a cyclical heat source that must be understood before weather patterns can be predicted.

Right now, atmospheric science is unable to predict weather much beyond what images the satellites can provide because heat in the Earth's atmosphere, the driving force behind the weather, is thought to come only from the Sun. This is rather ironic when one considers the heat that magma *should* be producing, but is not. Without the knowledge of the true source of underground heat—gravitational-friction—advances in atmospheric science will be stifled.

Earthquake Heating Detected by Satellites

This new weather factor—earthquake heat—was just waiting to be discovered with advances in technology. For several decades now, weather satellites have been gathering and transmitting data on a host of weather factors, including temperatures of the Earth's surface. Only recently have scientific investigators noticed a *correlation between earthquakes and an increase in surface temperatures of the area surrounding the earthquake*. Most of this research comes from several Asian countries including China, Japan, India, and in particular—Russia. Overall, the United States, who is by far the world's leader in scientific research and weather satellite technology, has failed to recognize the importance of earthquake heat. Only one small private firm, dedicated to finding a way to predict big earthquakes, seems to see any value in exploring this connection. The firm, Quakefinder, has been primarily involved in identifying the correlation between earthquakes and the Earth's energy field, but they also noted a relationship between infrared radiation (heat) and earthquake activity:

"**Infrared radiation detected by satellites** may also **prove to be a warning sign of earthquakes to come**. Researchers in China reported several instances during the past two decades of satellite-based instruments registering an infrared signature consistent with a **jump of 4 to 5°C before some earthquakes**. Sensors in NASA's Terra Earth Observing System satellite registered what NASA called a '**thermal anomaly**' on 21 January 2001 in Gujarat, India, just **five days before a 7.7-magnitude quake there; the anomaly was gone a few days after the quake**." Note 9.2d

The American scientists began to realize that earthquakes were significantly affecting the heating of the Earth's crust, seeing the heat as an "anomaly" associated directly with seismic activity. We will soon demonstrate that such thermal anomalies are a fact of earthtide, and are far more meaningful than being just a "warning sign" of large earthquakes—the anomalies signify ***the missing factor*** of weather.

Atmospheric weather begins with earthquake heating in the crust.

This is an *extraordinary claim*, and there is *extraordinary evidence* to back up the UM theory that earthquakes are significantly heating *the rock and water in the crust to a level that will increase the temperature and humidity of the surrounding area*.

1996 Russian Research Evidence

Fortunately for our research on earthquake heating, A.A. Tronin of the Russian Academy of Sciences, began to observe earthquakes from both space (via satellites) and the ground, back in the 1980s. Today, Tronin is not recognized as a leader among global atmospheric scientists and his work on the effects earthquake heat has on the weather remains vastly underappreciated. The odds are—this will soon change.

It was difficult at first for Tronin to understand how mechanical energy could be driving the heat engine, and after years of observation, he wrote in a 1996 article:

"**It is hard to assume that the observed increase of surface temperature is a result of the direct conversion of mechanical energy into heat**." Note 9.2e

It was "hard" because his observations seemed *so contrary* to the prevailing view. Tronin was trying to understand where the heat he was observing was coming from, and the magmaplanet paradigm provided for no such heat source. Tronin, a great example of real investigative science, focused on observations of natural phenomena, and over a 10-year period, he analyzed over 10,000 images from the American NOAA weather satellites. He was able to document a "statistically significant correlation" between temperature increases and seismic activity in the region he studied:

"The National Oceanic and Atmospheric Administration (NOAA) series satellite thermal images (STI) study showed the presence of **positive anomalies** of the outgoing Earth radiation flux recorded at night time and **associated with largest linear structures and fault systems of the crust**. The analysis of a continuous series (100-250 days) of nightly STI data for a period of **10 years** allowed identification of a set of IR radiation anomalies in the Central Asian seismoactive region, Iran, Egypt, etc. About **10,000 NOAA images were analyzed**. It was **actually discovered that there was a statistically significant correlation between the activity of IR** [near-infrared temperature] **anomalies** (mean value of area per year or month) **and the seismic activation of the Central Asian seismoactive region**. At present the nature of stable and non-stable IR anomalies **is not clear**." Note 9.2e p1439

At the end of this statement, we see that Tronin was "not clear" about the nature of surface temperature changes, and was not sure how those changes were related to regional faulting.

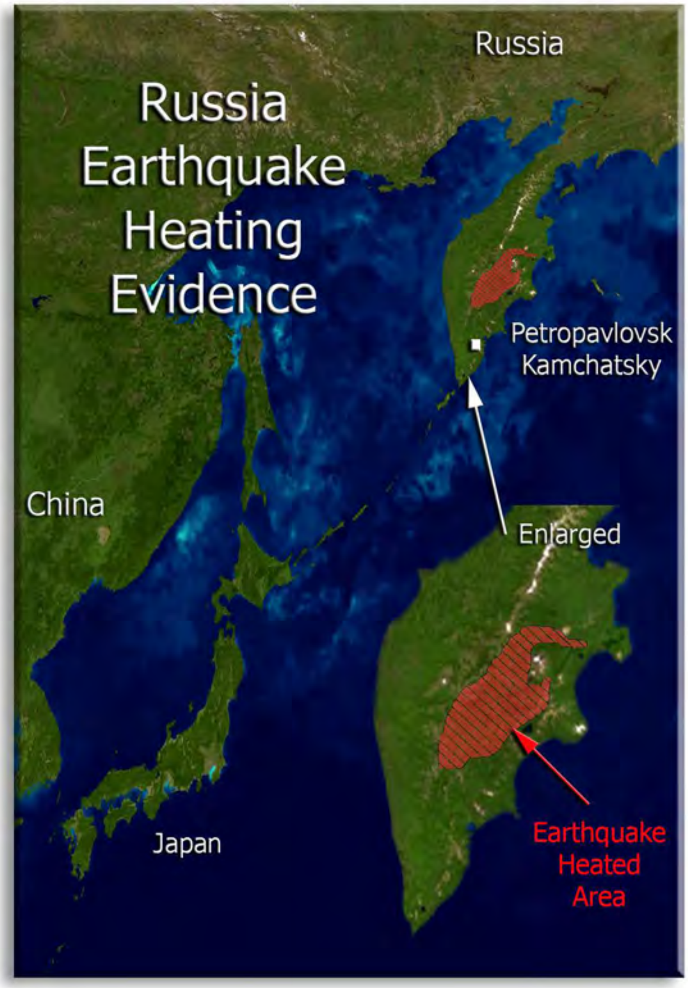

Fig 9.2.3 – The image above shows the size of the area heated by the 8 June 1993 Kamchatsky earthquake. A Russian research team was among the first to establish a direct link between earthquakes, crustal heating, and atmospheric temperature increase. They observed a rise in temperature of **10º C** (**18º F**) that changed weather over the earthquake-heated area. Historically, the scientific connection between earthquakes and a change in weather parameters noted by A.A. Tronin is of great significance, although he was not yet aware of the effect earthquakes and earthtide have on global weather cycles.
Image adapted from the journal *Physics and Chemistry of the Earth*, 29, (2004) p502.

Even after the culmination of ten years of research, without the wisdom of the Frictional Heat law, the observations and data proved difficult to comprehend. One of the elements Tronin was puzzled about was the ***time*** involved. In the magmaplanet paradigm, heat changes via migration from the seismic focus should take 'millions' of years—yet observed heat changes took *only* "*several* ***days***":

"**The fast development of the anomaly in the order of several days excludes the consideration of thermoconductivity or convective transfer as possible mechanisms of surface temperature change prior to an earthquake**. First of all, surface temperature alteration **cannot be explained by direct thermoconductivity because of the very large time period of thermal propagation**, from seismic source to the surface, which is several orders of magnitude more than characteristic periodicity of seismic events of 13-14K energy class in the Central Asian seismically active region. Characteristic propagation time of a thermal impulse from a depth of about 10km, may be estimated to be in the order of magnitude of **10^7-10^8 years**." Note 9.2e p1449

As he noted, increased temperature changes during the ***short*** *time frame* of several days "excludes the consideration of thermoconductivity or convective transfer"—in other words, the heat could *not* have come from magma deep inside the Earth. It simply happened too fast. Instead of 100,000,000 years, Tronin observed evidence of the transfer of several degrees of thermal radiation heat on the peninsula just northeast of Japan (see Fig 9.2.3) in only a few short days.

Where did the heat come from? The "shape" of the thousands-square-kilometers heated area was "linear," coinciding with the faults in the area:

"The positive anomaly of **several degrees Celsius** at the foot of Kopetdag has a **linear shape of 25-30km in width and about 500km in length**. This anomaly is related to the **Kopetdag Fault**—the boundary structure of the first order, separating Alpine Kopetdag formations from the Turan Plate. Besides, the anomaly **coincides with the 'thermal line' of the Kopetdag hot water basin**—a unique hydrogeological structure, described in detail by Nikshich (1925).

"The second anomaly about **50km in width and 300km in length** occurs at the foot of the Karatau Range. Spatially it coincides with the **Karatau Fault**—the first order structure separating the Turan Plate from the Central Asian folded zone. The Karatau Fault proves to be the extension of the deep Talas-Fergana Fault, which controls in many respects the geodynamics of the region. The **permanent relation of these anomalies to the large tectonic structures defines them as stable IR anomalies**." Note 9.2e p1441

A heated area that "coincides with the Karatau *Fault*" was clearly *not* from a global heat source as broad as the Sun. Despite this, Tronin did not propose how mechanical friction energy in the crust could produce the heat, nor did he suggest any other heat source capable of raising the surface temperatures an ***incredible*** **10º C** (**18º F**, from 32º to 50º F) over a very short period. Thus, Tronin and colleagues were left to conclude, "solar heating" was "the most probable source" responsible for the massive increases in temperature:

"Therefore, **the most probable source**, which provides sufficient energy for **surface temperature alteration is non-uniform solar heating** or heat loss." Note 9.2e p1450

Eventually, the solar heat source *theory* died. The area under study was heated by earthquake friction, but heating was not the only change observed; there was also an increase in *soil moisture and water vapor*:

"It has been reported that **pre-seismic activity alters the characteristics of soils**, including **soil moisture** (Sugisaki et al. 1980), **gas content and composition** (Rikitake 1976, Sugusaki et al. 1980). There are also **numerous** observations of surface and near surface temperature changes prior to the Earth's crust earthquakes. For example, **soil temperature anomalies of 2.5º C were measured** in the zone of preparation of the **Tangshan earthquake** (China, 1976—magnitude more than 7.0)." Note 9.2e p1439

We will discuss the variety of gases released during earthquake heating activities shortly, but for now, consider how the introduction of a large quantity of water vapor into the air can ***completely*** *change the weather*. Moreover, such changes can produce several types of new weather, depending on the initial humidity, temperature, and barometric pressure.

During Tronin's 1996 research, it is doubtful that he or any other earthquake researchers knew of earthtide; the GPS technology that established the diurnal crustal flexure was still in its infancy. Thus, the ramifications of frictional heat from *earthtide* was a thought far removed from investigators' minds. However, it was common knowledge that humidity and increased moisture content in the soil were "very important factors" affecting weather:

"**Moisture content in soil and humidity in air remain very important factors controlling surface temperature**. These parameters affect the run of such processes as evaporation and condensation of moisture—q_{ev}. Evaporation is most intensive in the daytime, when solar heating takes place, and it leads to a decrease of surface temperature. Moisture content in soil also alters its thermophysical properties and **affects the process of dew-fall**, which is **known to be associated with the release of heat**." Note 9.2e p1449

Tronin's research included the observation that CO_2 gas was released along with the moisture from the earthquakes. Surprisingly, we found little research addressing this particular source of CO_2 gas. Previously, the Universal Flood Model documented how heating of underground water enabled massive microbial growth, which created enormous calcium *carbonate* deposits. Decaying microbes also release carbon dioxide gas as a byproduct of decomposition, a process that is still happening today, when the crust is heated by earthquake friction. Regardless of its origin, astute individuals will realize that this one new observation has profound implications on the concept of increased 'global warming' due to carbon dioxide increases. Instead of being produced by humans, this source of natural carbon dioxide, essentially unknown to modern science, changes completely the global warming debate:

"Field measurements of the concentration of CO_2 in the near-surface atmosphere and soil across the Kopetdag fault are shown in figure 16 [not shown]. There is an **increase of CO_2 concentration by up to 0.3 per cent in soil and up to 0.1 per cent in the near-surface atmosphere with background values of the latter of about 0.03 per cent**. There was a correspondence between the zone of high CO_2 concentration, that of radon emanation and with the subsurface temperature at a depth of 1.5m. The region of **high surface temperature taken at 06:00am follows a zone of high subsurface temperature and gas concentration**." Note 9.2e p1451

The change of .03 to .1 percent is a noteworthy increase in atmospheric carbon dioxide across large regions; an increase from earthquakes and microbes below the surface—*not* from human activity, grazing animals, or fires! Tronin reports that both the increase in soil moisture and gas (CO_2) are coming from the same source and concludes "ground water motion" may be the source:

"In our opinion, mechanisms leading to the **increase of soil moisture and gas concentration are pretty much similar**. **Ground water motion** may be the single reason for **all effects**." Note 9.2e p1453

So far as is known, all natural terrestrial waters, both subterranean and on the surface, contain microbes; a fact of great significance left unnoticed for too long. In the Universal Model, microbes are one of the golden threads running through and influencing almost every field of science in ways never imagined.

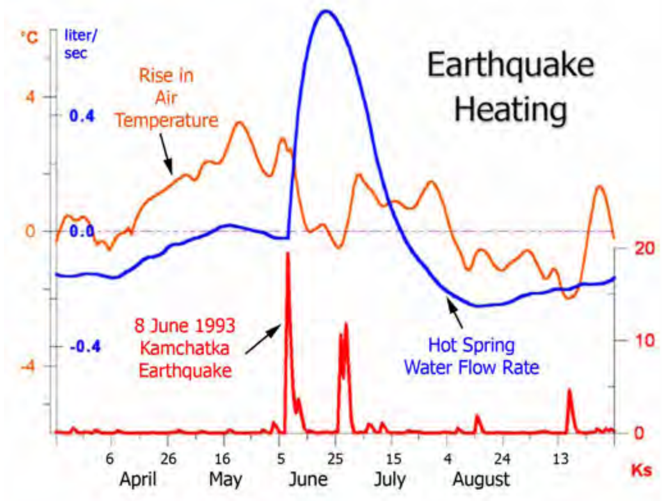

Fig 9.2.4 – The relationship between the 8 June 1993 Kamchatka (Russia) Earthquake (red), the hot-spring water flow rate (blue), and the rise and fall of air temperatures (orange) over the earthquake heated area shown in Fig 9.2.3 is depicted in the above graph. Only during the last decade have researchers had the luxury of simultaneously acquiring both satellite and ground based data, making it possible to establish the connection between earthquakes, changes in the soil temperature and moisture, changes in wells and hot-spring water, atmosphere temperature and humidity, and the discharge of CO_2 gas. Unfortunately, the research from this obscure group of physical science investigators failed to catch the eye of the atmospheric science community.

Graph and data adapted from the journal, *Physics and Chemistry of the Earth* 29 (2004) p503.

In a newer report from 2004, Tronin collaborated with four researchers, three Russian and one Italian, documenting further connections between Russian earthquakes and ground surface and atmosphere changes (see Fig 9.2.4).

2004 Russian Research Evidence

Tronin and his colleagues from Russia and Italy reported new findings that are important for several reasons. Ground and satellite observations were taken simultaneously, including data from wells, giving a much clearer picture of what was happening. The earthquake-heat seismic correlation became more significant and clearer after observing changes to pH levels in the well water, analogous to the changes observed at black and white smokers at the bottom of the ocean. Water wells emit acidic or alkaline waters according to the variety of microbial communities from which their subsurface water is drawn:

"**Air temperature, surface temperature**, retrieved from satellite data, **and well observations** on the Kamchatka peninsula, Far East, Russia were **jointly analyzed**. **Air temperature indicates correlation with seismic activity**. Satellite observations showed the presence of thermal anomalies on the earth surface in the basin of the Kamchatka River. Thermal anomalies' reactions on three strong earthquakes were recorded. **Water temperature**, **outflow and hydrogen ion exponent (pH) changes were observed as a response to seismic events**. Joint analysis indicates similarity [in] both satellite and ground observations related to earthquakes." Note 9.2f

As shown in Fig 9.2.4, many days before the 1993 Kamchatka earthquake, both air temperatures and water well temperatures began rising. Had the seismograph been more sensitive, we expect there would have been an increase in "silent earthquake" activity, discussed in subchapter 5.3. A surge in frictional heating on the Kamchatka peninsula increased the water temperature in the ground and the atmospheric temperature above the ground, but the greatest effect on the weather was the increased water vapor, which raised the humidity and barometric pressure of the area.

The researchers reported a "clear increase in air temperature" and "water flow" 40 days prior to the quake:

"**A clear increase of the air temperature was observed for these cases**. T_a [air temperature] variations at w1 and w2 show practically the same pattern, **demonstrating a large-scale temperature increase by +3–4 °C about 5–20 days before the earthquake**. Taking into account other cases we can extend the period—**up to 40 days**. In both cases we also see a **coseismic outburst of water in the hot springs and a insignificant increase of water flow about 20 days before the shock for 8 June 1993**. **A clear anomaly in the water flow was observed 10–40 days before the shock** in case of the 21 June 1996 earthquake." Note 9.2f p503

It was no small area affected; the earthquake-heated area measured thousands of square kilometers. Nor was the temperature change minuscule. The rise in air temperature from the earthquake swarm preceding the 'big slip' on June 8th was a whopping **10 °C (18 °F)**:

"The earthquake of 8 June 1993 had the **largest** magnitude of the shocks considered here. **The thermal anomaly recorded at 2 June 1993 covered large part of peninsula, had an unusual shape and intensity—up to 10 °C**. **Water temperatures also started to increase on this day and continued to grow up to the day of the earthquake**—8 June 1993. In this case we can also compare simultaneous satellite and ground observations in this case. **Both ground and satellite observations indicate an increase of air, water and surface temperature before the shock**." Note 9.2f p505

Another important factor Tronin and others observed was that the heat at the surface during the 8 June 1993 earthquake occurred because the magnitude 7.5 quake was only 70 km below the surface. An earlier (24 June 1983), 6.3-magnitude earthquake was *deeper*, at 180 km; it produced *no* thermal anomaly at the surface:

"We did **not find any thermal anomaly prior to and during the event of 24 June 1983 with a hypocenter depth 180 km**, regardless of the fact that this earthquake was located **closer** to Kamchatka river artesian basin then other shocks. We interpreted it by **big depth of epicentre**." Note 9.2f p505

The seismic tomographic evidence in the Magma Pseudotheory chapter showed the highest temperatures in a variety of deep-section scans were near the surface, near active faults, as opposed to being near the center where magma supposedly exists.

The investigators actually noted that rising fluid separated into water and gas. Besides water vapor, seven other gases were being released into the atmosphere from the earthquake heating activity. Additionally, pH levels in the wells were monitored and showed changes corresponding with the earthquake heating process:

"In any case **fluid rises to the earth surface**. Depending on geological and tectonic situations, **near the surface, at a depth of a few kilometres, the fluid is separated into water and gas**. The water causes change of debit, temperature and chemical composition in wells and springs. **Gas** (H_2, He, CH_4, **CO_2**, O_3, H_2S, Rn) **moves to the atmosphere** (Wakita, et al., 1978). Depth and magnitude of the shock and geological conditions **determinate the mosaic character of these phenomena on the earth's surface**. This statement is **confirmed** by the **observations of water temperature, debit, pH in wells and thermal anomalies in Kamchatka**." Note 9.2f p505

The most important aspect of Tronin's research as it relates to this chapter is how earthquakes affect the atmosphere, which in turn, affects the weather. The release of a large quantity of hot water vapor from earthquake activity can *increase* the temperature of the air. The *greenhouse effect* of several of the gases released during that activity contributed to air temperature and humidity increases, as the researchers explain:

"We examined a few mechanisms of interaction. First—convection heat flux (**hot water and gas) changes the temperature** of the **earth surface and air**. Second—**change of the water levels** with usual temperature leads to **changes in soil moisture**, and consequently the physical properties of the soil. The difference in physical properties **means a different temperature on the surface**. Third—greenhouse **effect, when the optically active gases (CO_2, CH_4, water vapour) escape from the surface**. These gases absorb IR radiation, warm up and heat the surface. As a result of **gas and water appearing at the surface we expect to find changes in temperature, humidity and atmospheric pressure in surface air**." Note 9.2f p505-6

We will shortly examine how escaping gases (mostly water vapor) affect high and low pressure areas commonly denoted on meteorological weather maps, and how this affects weather patterns and their movement. Because the UM has established that the Earth's crust is in constant earthtide motion, and that large earthquakes release considerable heat and water vapor, we can begin to visualize the *invisible earthquake weather* in constant motion around us. As future observations record seismic occurrences, water pressure, temperature increases, and gas releases in greater detail, previously unknown weather patterns will begin to emerge.

India Studies Confirm Earthquake-Temperature Connection

Some critics of earthquake weather may suppose this phenomenon is limited only to Russia, but there was a case study of earthquake weather in India. In 2005, Indian scientists, utilizing US satellite data, 'confirmed' surface temperature spikes that preceded earthquakes:

"Indian scientists studying archived satellite data **have confirmed that earthquakes tend to be preceded by surface-temperature spikes in the immediate area**, suggesting that seismic events could one day be predicted from space.

"'Our study **was successful in detecting thermal anomalies prior to all these earthquakes**,' Arun K. Saraf and Swapnamita Choudhury of the Department of Earth Sciences at the Indian Institute of Technology in Roorkee, reported in the July issue of the *Journal of the Indian Geophysical Union*.

"Surface temperatures above the quake epicenters **increased between 4 and 10 degrees Celsius immediately before the events and returned to normal soon afterwards**, the scientists reported. The thermal record was compiled using data collected by U.S. environmental satellites." Note 9.2g

Documentation of surface temperature spikes of up to **10 °C (18 °F)** are direct confirmation of the Gravitational-Friction Law presented in subchapter 5.4 of the Magma Pseudotheory.

They establish the heating mechanism that drives the weather, according to the UM Weather Model. Without knowledge of the additional heat from earthtide, a Weather Model capable of predicting past and future weather events would be nearly impossible. Global subterranean heat created by friction is the key to understanding all major weather events on the Earth.

There are several new weather terms necessary to envision and understand new, upcoming weather concepts.

New Weather Terminology

With the new discovery that large earthquakes significantly heat the crust and atmosphere, we can expand that view to include smaller earthquake swarms and silent earthquakes. They too, heat the crust and impact the weather—just on a smaller scale, but over larger distances. Everyone knows that ocean waves never stop—but they do change, depending on the gravitational tidal forces of the Moon, Sun and other factors. Wind has a great effect on ocean waves, but the wind comes from high-pressure systems that are earthquake centered, which will be discussed shortly.

Tidal forces of Moon and Sun also cause **Earthtide Heating**, which is defined thus:

Earthtide Heating - The constant frictional heating of the crust by gravitational tidal forces.

The great volume of subsurface water documented in the Hydroplanet Model is obviously impacted by earthtide heating in ways never before imagined—both physically and biologically. We've only recently learned about the environment that exists beneath the Earth's crust, an environment that will surely spawn a whole new field of yet unnamed scientific study. The heating of the Earth's subterranean water through seismic, or earthtide activity, is a new concept. By combining the three forces into one word, we have a term that will be used often throughout the remainder of this chapter—**Hyquatherm**.

Hyquatherm: An earthquake-heated water system in the crust that generates pressure systems in the atmosphere that change the weather.

A Hyquatherm system takes place in the area of the upper crust that contains significant amounts of water and experiences a number of earthquakes (see Fig 9.2.5). The **Hyquathermal Process** produces gases that rise into the atmosphere and change the weather. In the *upper continental crust*, this earthquake-heated water vapor system produces high and low-pressure events that control weather cycles. In the *oceanic crust*, earthquake-heated ocean water affects global weather patterns and storms (like El Niño and La Niña).

A *hyquatherm* is very similar to the natural *hypretherm* described in the Hydroplanet Model; both are water environments within the crust that experience elevated temperatures and pressures. In the hyquatherm, gases, primarily water vapor in the continental crust, and warmed ocean water in the oceanic crust, escape and rise to the surface. These water systems are driven by astronomical cycles, and they in turn, drive many short and long-term weather cycles observed by mankind.

When water changes from a liquid state to a gas state, it is vaporized. The reason vaporized water is so important to atmospheric weather is that liquid water increases its volume *1,700 times* as it becomes gaseous at sea level. Understanding the origin of gaseous water vapor is the key to understanding the Earth's changing weather.

Evaporation is one type of vaporization, and in modern meteorology, there are two types of evaporation: evaporation from

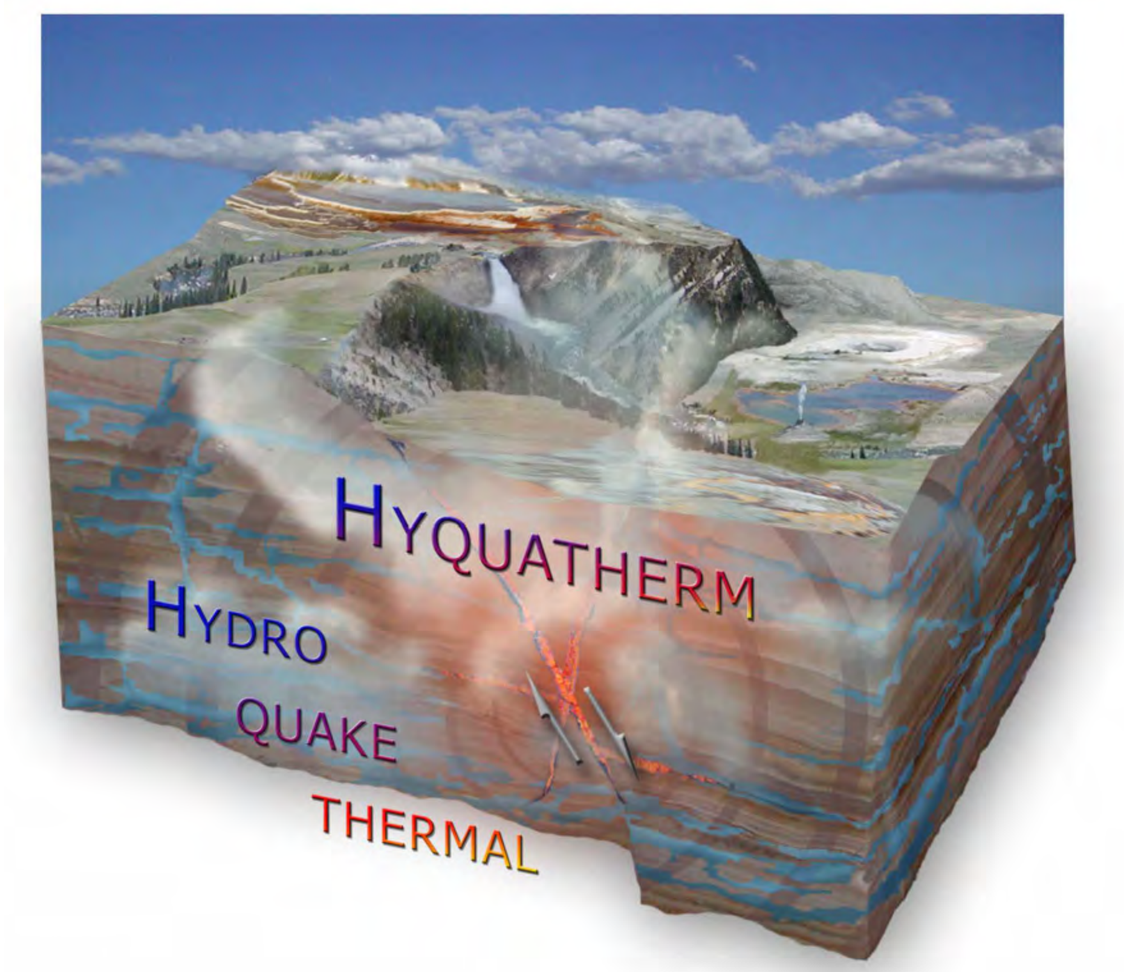

Fig 9.2.5 – The discovery of earthquake heating necessitates new terminology to describe the underground earthquake-heating water vaporization process. Drawing from the root words, hydro, quake, and thermal we derive the term **Hyquatherm** or **Hyquathermal Process**. In the upper continental crust, earthquake-heated water is vaporized and expelled, producing areas of high-pressure. In the oceanic crust, earthquake-heated ocean waters affect global weather patterns and storms.

standing water and transpiration from plants. **Transpiration** occurs when a plant's leaves, stems, flowers, or roots release water vapor into the atmosphere. **Evapotranspiration** is a term that includes both evaporation and transpiration, the two ways in which most water vapor is thought to enter the atmosphere. When water is in a solid form, such as ice or snow, it can also become water vapor through a process called **sublimation**. However, this is a very slow process and is not known to affect weather cycles significantly.

Evapotranspiration or sublimation does not account for the water vapor introduced into the atmosphere through the hyquathermal process just outlined. Therefore, a new term to describe the hyquathermal water vapor from beneath the crustal surface was devised—**endovaporization**. This newly discovered process is defined as:

Endovaporization - The rapid vaporization and release of sub-crustal liquid water into the atmosphere.

Although evaporation, transpiration, and endovaporization directly affect the water cycle (see Fig 9.2.6), *only* endovaporization has the ability to change a significant quantity of liquid water into water vapor ***quickly***, with an expansion rate of 1700 times at sea level. When a large volume of this gas is released through the hyquatherm process, we have the making of new weather patterns.

Endovaporization is a major component of meteorology, but atmospheric science needs a term to describe *all* of the natural water vaporization processes that occur on the Earth, a term that encompasses evaporation, transpiration, endovaporization, sublimation, and any other water vaporization process that affects the atmosphere, including the addition of water vapor from space. These can be included in the term: **omnivaporization**.

Water Vapor—the Key to Changing Weather

Having read that scientists documented earthquake weather and the formation and release of water vapor from hyquatherms, we can explore the role water vapor plays in weather systems. Meteorologists know just how important water vapor really is:

"**Water vapor** constitutes only a small fraction of the atmosphere, varying from as little as one-tenth of 1 percent up to about 4 percent by volume. But the **importance of water in the air is far greater than these small percentages would indicate. Indeed, scientists agree that *water vapor* is the most important gas in the atmosphere when it comes to understanding atmospheric processes**." Bib 180 p103

Water vapor is by far "the most important gas in the atmosphere when it comes to understanding atmospheric processes" and how the weather works. This is ***why*** the new discovery of earthtide heating and the hyquatherm is so crucial when it comes to comprehending how weather is produced. Atmospheric scientists have said that:

"The **hydrologic cycle** is a gigantic system **powered by energy from the Sun** in which the atmosphere provides the vital link between the oceans and continents. Water from the oceans and, to a much lesser extent, from the continents, evaporates into the atmosphere. Winds transport this moisture-laden air, often over great distances." Bib 180 p98

Fig 9.2.6 illustrates two Water Cycle diagrams, one by the USGS, powered only by the Sun, the other by the UM, powered by both the Sun and the hyquathermal process. Heat from the Sun is very constant, and predictable, leaving meteorologists mystified and unable to identify cycles in the Sun's heat to account for all the weather cycles. Only through the hyquathermal process can we account for large, earthquake-heated areas that can change weather patterns.

As earlier cited earthquake researchers demonstrated, large quantities of water vapor are generated rapidly, (in minutes) by earthquakes across vast areas. The slow evaporation process cannot appreciably affect large storm systems or cause high and low pressure systems to appear suddenly—but the endovaporization process can.

Previously, the great volume of water vapor in the air from hyquatherms was unnoticed because background water vapor (or humidity) is invisible to the naked eye. There is actually *six times more water in the air* than is transported by all of the continent's rivers! From 2007 college textbook, *The Atmosphere*:

"Although the **amount of water vapor in the air** is just a tiny fraction of Earth's total water supply, the absolute quantities that are cycled through the atmosphere in a year are **immense**, some 380,000 cubic kilometers (91,000 cubic miles). This is enough to cover the Earth's surface uniformly to a depth of about 1 meter (3.3 feet). Estimates show that over North America almost **six times more water is carried within the moving currents of air than is transported by all the continent's rivers**." Bib 180 p99

Although atmospheric scientists know that water vapor is the single most important gas in the atmosphere affecting the weather, they are unable to account for the water vapor generated by hyquatherms because they are ignorant of its existence. How then, can atmospheric science hope to comprehend global warming or the forces that drive it?

The truth is, they can't.

Further details about this problem will be dealt with in the upcoming Global Warming Pseudotheory subchapter.

"Indeed, scientists agree that **water vapor** is the **most** important gas in the atmosphere when it comes to understanding atmospheric processes."

Frederick K. Lutgens

The Weather Model

Having identified direct scientific evidence connecting astronomical cycles with earthquakes, frictional heating in the crust, and the presence of vast sub-crustal oceans, we have the groundwork to establish the first four principles of the **Weather Model**. There are four new weather principles and three new natural weather laws, each of which will be supported by empirical evidence presented throughout this chapter. These are the new principles and laws:

1. Hyquatherms change the Earth's weather systems; they are driven by Earthtide Heating, which is the constant frictional heating of the crust caused by gravitational tidal forces.

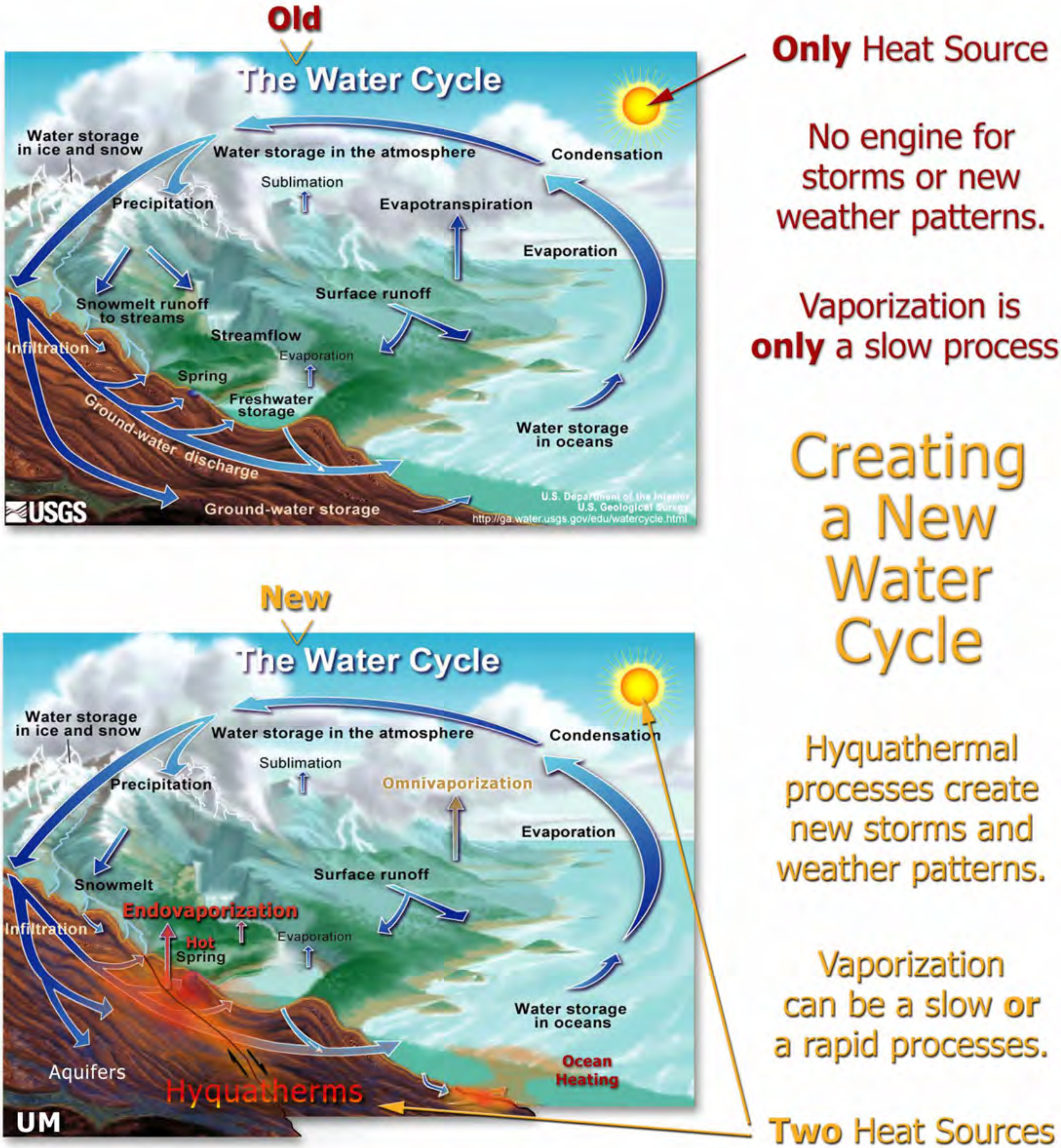

Fig 9.2.6 - The modern science Water Cycle is illustrated in the top diagram. The bottom diagram is the ***new*** modified UM Water Cycle, which includes hyquatherms, the driving force behind weather because of its impact on pressure and humidity. Two new terms are included in the New Water Cycle: endovaporization and omnivaporization. **Endovaporization** describes a newly discovered water vaporization process going on beneath the crust. It is caused by earthquakes and is defined as the ***rapid*** conversion of liquid water in the crust to water vapor in the air. This occurs when the crust is heated by tidal friction, vaporizing the surrounding water, which is expelled into the atmosphere. **Omnivaporization** is a new term describing all the processes that introduce water vapor into the atmosphere. The New Water Cycle replaces the Old Water Cycle by including a new mechanism of storm and weather pattern creation—the hyquatherm. The "**inexact science**" of weather forecasting and the mysterious unsolved origins of weather are the result of not knowing about the ***second*** source of heat that drives weather; the hyquatherms.

2. Hyquathermal heating of the seas and underground water beneath the continents causes high pressure and temperature zones in the atmosphere, which changes the Earth's weather.

3. The Earth's weather follows patterns and earthtide cycles that originate from the astronomical positions of the Earth, Moon, and Sun.

4. The Earth's weather and the Earth's Geofield are interrelated, connected by Earthtide Heating and the piezoelectric field, which are both created by the constant gravitational tidal movement of the Earth's crust.

The fourth principle of the Weather Model includes the Earth's energy field, or **Geofield**, which will be discussed later in this chapter. This principle ties together important geophysical phenomena and weather phenomenon heretofore *not* a part of meteorological science. The Weather Model will show that the Earth has a piezoelectric field and that this field is connected to hyquathermal activity and earthtide.

The Three Laws of Weather

In the Weather Model, there are **Three Laws of Weather**, which are defined as follows:

The First Law of Weather
The Earth's weather is
changed by hyquatherms.

The Second Law of Weather
Hyquatherms are changed by
gravitational-astronomical cycles.

The Third Law of Weather
Earthtide-atmospheric pressure
and the Geofield are directly connected
through gravitational-astronomical cycles.

One exciting aspect of these new models and accompanying natural laws is that they can be tested repeatedly in situations never before considered. If the Weather Model and the Three Laws of Weather are in fact correct, we should be able to find confirmation of the laws by examining various aspects of everyday weather and in long-term weather patterns.

The reality that **Earthquake Weather** exists is one key aspect of the new Weather Model. The effects of earthtide, which are comprised of both silent earthquakes and large, identifiable earthquakes, and the central role the *hyquatherm* plays in developing weather patterns and pressure systems, are also important features of the new Weather Model.

The Atmospheric-Pressure Error

The "importance of atmospheric pressure" is expressed by the authors of the 2007 weather textbook, *The Atmosphere*:

"**The importance of atmospheric pressure to Earth's weather cannot be overemphasized**. As you shall see shortly, differences in air pressure **create global winds** that become organized into the **systems that 'bring us weather'**." [Bib 180 p175]

Atmospheric pressure cannot be overemphasized because this is where the Earth's weather comes from! In fact, if the following FQ can be answered correctly, it will reveal the true origin of weather:

What is the source of the Earth's
high and low-pressure systems?

Before we move on, remember the meteorological statement at the beginning of this chapter, that "forecasting is still an *inexact science.*" *If* meteorologists ***really*** understood the source of barometric pressure systems, which they know "bring us weather," forecasting would ***not*** be such an inexact science. Therefore, we should question modern science's current atmospheric-pressure system origin:

"**Atmospheric pressure** at any point on the Earth is **caused by the weight of the column of air above that point**, as is measured with an instrument called a barometer." [Bib 183 p30]

According to this definition, the *cause* of atmospheric pressure is the result of *gravitational* force, which requires "sink-

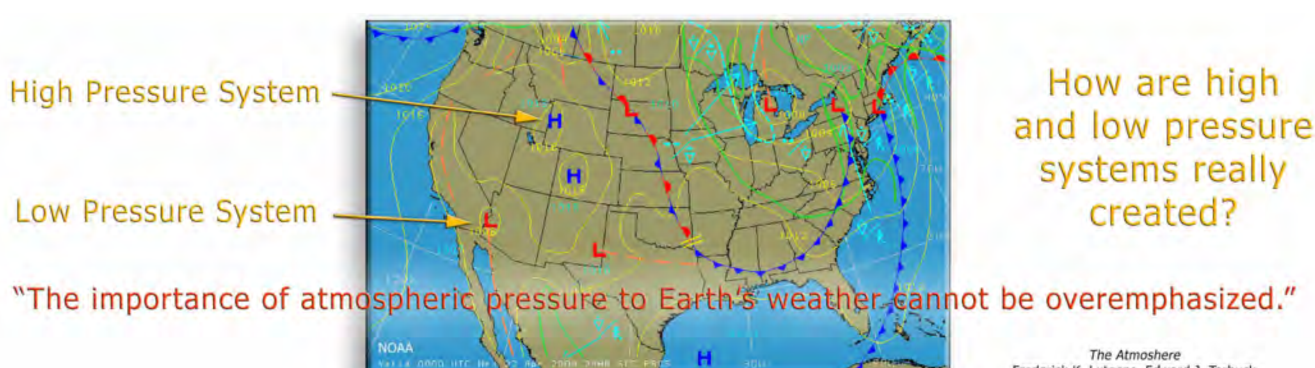

Fig 9.2.7 – On weather maps, H and L represent respectively, high and low atmospheric pressure systems. The barometric pressure difference is slight enough that humans rarely feel the change, however many animals can feel atmospheric pressure changes and react instinctively when low-pressure systems are forming, because storms are drawn toward low-pressure systems. High-pressure systems usually exhibit fair weather and are responsible for moving large bodies of air around the world, helping create the weather here on Earth. How are the high and low-pressure systems really created? Meteorology attempts to explain the mechanism behind the air movement by explaining that air is ***sinking*** over high-pressure systems, but cannot demonstrate the process. The UM Weather Model shows that air is ***rising*** over high-pressure systems, due to hyquatherms. The UM Weather Model and modern meteorological science share one important common point: both acknowledge, "The importance of atmospheric pressure to Earth's weather ***cannot be overemphasized***." Atmospheric pressure changes create weather! Modern science missed the real origin of atmospheric pressure changes because it sees the Sun as the *only* heat source driving the weather systems, overlooking entirely the gravitational-friction heating of the crust and its importance.

ing air" over a high-pressure system and "rising air" over a low-pressure system. The National Oceanic and Atmospheric Administration's (NOAA) website includes an illustration and a good description of air ***sinking*** *over a "high"* pressure system*:*

"What about the **diverging air near a high**? **As the air spreads away from the high, air from above must sink to replace it**." Note 9.2h

The NOAA site continues by describing air ***rising*** *over* *low*-pressure areas:

"What happens to the converging winds near a **low**? A property called mass continuity states that mass cannot be created or destroyed in a given area. So **air cannot 'pile up' at a given spot**. **It has to go somewhere so it is forced to rise**." Note 9.2h

Such definitions of air movement between high and low-pressure systems are firmly entrenched throughout meteorology, but has this been observed?

FQ: Have observations shown air "sinking" over highs and "rising" under low-pressure systems?

Our research revealed a surprising result—it seems no one had observed this. In fact, those familiar enough with weather systems know the idea of air *sinking* over area highs or rising under areas of low-pressure makes no sense, because:

Air moves **away** from areas of **high** pressure **toward** areas of **low** pressure.

Moreover, air movement from high-pressure systems to low pressure systems happens in ***all*** directions. What mechanism would cause air to come from all directions and *move over* a high-pressure body of air? We have found none, nor have we ever seen an explanation for such atmospheric behavior. It is curious why meteorologists think air moves ***away*** from areas of high-pressure ("H" on their weather maps), yet think somehow, *at the same time*, air is supposedly moving *toward* the high-pressure where it can somehow "pile up." After all, they just said "air cannot pile up at a given spot." In other words, meteorologists cannot explain atmospheric pressure systems because the real origin of the pressure systems remains unknown (see Fig 9.2.8).

One way to visualize the interaction between high-pressure and low-pressure systems is shown in Fig 9.2.9. A container is filled with blue and red balloons. The larger red balloons represent areas of high-pressure; they are expanding and pressure is increasing because they are being heated. The smaller blue balloons are shrinking; pressure is decreasing because they are cooling. The heated balloons expand outward in all directions; the cooling balloons contract in the same manner. As heating and cooling occurs, the balloons expand or contract, interacting with each other in a predictable manner; the expanding balloons fill the space of the contracting balloons. The high and low-pressure systems in our atmosphere are doing the same thing. The process is based on the simple physics of heating and cooling gases.

The general gas law presented in the Air-Water Model (Chapter 23), states that PV ~ T (pressure times volume is proportional to the temperature of the gas) and is a general mathematical formula that describes the hyquathermal pressure changes in

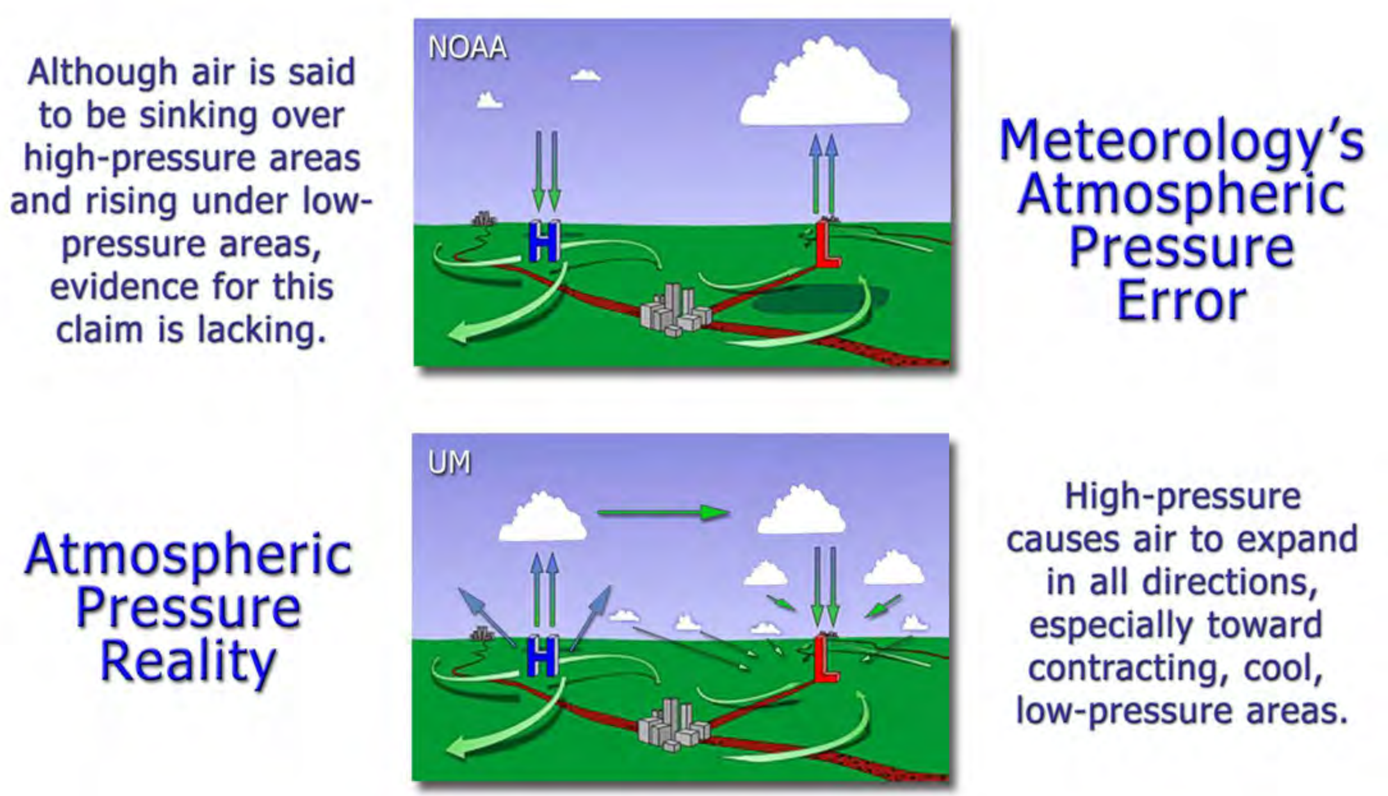

Fig 9.2.8 – The top diagram comes from NOAA. It illustrates the decades-old error still taught today in the classroom. This erroneous model is based on the faulty assumption that the Sun is the only heat source. No evidence has been shown that air is converging over high-pressure systems after spilling off the top of low-pressure systems. In fact, just the opposite is true, as seen in the lower UM diagram. High-pressure air ***expands*** in all directions—away from the heated high-pressure area. It moves toward cooler, ***contracting*** areas of low-pressure. This is illustrated with a simple experiment, seen in Fig 9.2.10. (NOAA diagram at http://www.srh.noaa.gov/jetstream//synoptic/wind.htm - Accessed 6.15.09)

our atmosphere. If we raise the temperature of a gas, pressure and volume increase. If the temperature is lowered, the pressure and volume of the gas is decreased. This will be demonstrated in the Air-Water Model chapter by heating a balloon with a small amount of water in it using a microwave oven. The balloon experienced an increase in volume and pressure (the same in all directions), based on the increased temperature.

Meteorology was forced to turn to illogical processes to describe the high and low-pressure systems simply because they saw only ***one*** *source of atmospheric heat*. Seeing the Sun as the only heat source meant ignoring or downplaying obvious problems. The Sun is not a discriminating source of heat; shining on half the Earth at all times, it ***could not be*** the primary source of energy behind the high and low-pressure systems.

Clouds provide the only possibility of reducing temperatures from the Sun, but cloud systems do not necessarily correlate with cold, low-pressure systems. In fact, as we will see shortly, some clouds form in high-pressure systems! Clouds and storms tend to flow toward areas of low-pressure because the air is contracting. Furthermore, low pressure facilitates condensation and cloud formation, but the changes in air pressure do ***not*** show a direct relationship to sunlight.

Creating a Simple Weather-Pressure System Experiment

One reason the comprehension of weather has been so fleeting is that we cannot *see* with our naked eye, the great abundance of water vapor in the air. In the early days of medical science, after the microscope allowed doctors to ***see*** microbes, the comprehension that illness was caused by unhealthy microorganisms was made possible. In the same way, ***seeing*** weather patterns in a simple experiment will help illustrate how natural weather patterns form.

Earthtide heating and cooling (the Missing Factor of Weather discussed at the beginning of this subchapter) is illustrated in Fig 9.2.10. A 10-gallon aquarium is divided into two sections and the top is covered with a sheet of clear plastic. Two two-inch squares are cut out of the top and bottom of the divider to allow for airflow. To reproduce the effect of an active hyquatherm, a beaker of heated water is placed on the left side, on an insulated pad. On the right, an ice-filled beaker reproduces a cooling hyquatherm of *contracting* air. An incense stick is lit and placed on the hot water side to show air movement. As the photos clearly demonstrate, expanding water vapor from the beaker of heated water (heated close to boiling) moves air into the right, cold-air side, which is an area of low-pressure.

In the lower photograph, the heated water was removed and an interesting air movement developed. The heated beaker had heated the surrounding glass and pad, apparently producing enough heat to cause the air to continue expanding, albeit at a much slower rate. This caused the air to clump, cloud-like, in the upper portion of the heated left side. On the right side, a clearly visible low-pressure area formed above the ice-filled beaker, with air streaming *towards* the container, just as it does in atmospheric low-pressure systems.

This easily repeatable experiment illustrates how air moves away from areas of high-pressure towards areas of low-pressure. Because of the expansion of hot air and the contraction of cold air, no mechanical circulation was required.

The experiment also demonstrates the First Law of Weather; the Earth's weather is changed by hyquatherms, by showing the movement of air systems according to the simple general gas law PV ~ T, where pressure changes from a change in temperature. The First Law of Weather is powerful because of its simplicity; knowing that hyquatherms create areas of high and low-pressure will make weather much easier to understand and comprehend.

High-Pressure Narrow-Ridge Evidences

If high-pressure areas are *formed by earthtide and hyquatherms*, we can expect high-pressure systems to be generally ***narrow*** *in shape* because earthquakes occur along predominantly linear fault lines. In fact, since many faults parallel mountain ridges, the high-pressure systems may appear to look like "high pressure ridges" themselves. A 2005 article titled, *Weather's Highs and Lows: Part 1 The High*, Keith C. Heidorn explains just such a phenomenon:

"Following formation, **most Highs are generally elliptical in shape**, and **often large and sprawling**. But as they interact with other air masses and topography, and are distorted by forces of the upper atmosphere, **high pressure cells often become long and narrow in shape**. When plotted on a surface weather map, **these elongated pressure patterns resemble mountain ridges on terrain maps**. Meteorologists therefore refer to them as ***high pressure ridges*** or simply ***ridges***." Note 9.2i

This observation provides a significant piece of the high-pressure puzzle; high-pressure systems are "generally elliptical in shape" and are "long and narrow." This corresponds to the active, narrow earthquake zones that are expected to create the high-pressure systems. It is further evidence of the hyquathermal origin of high-pressure areas, and it shows that high-pres-

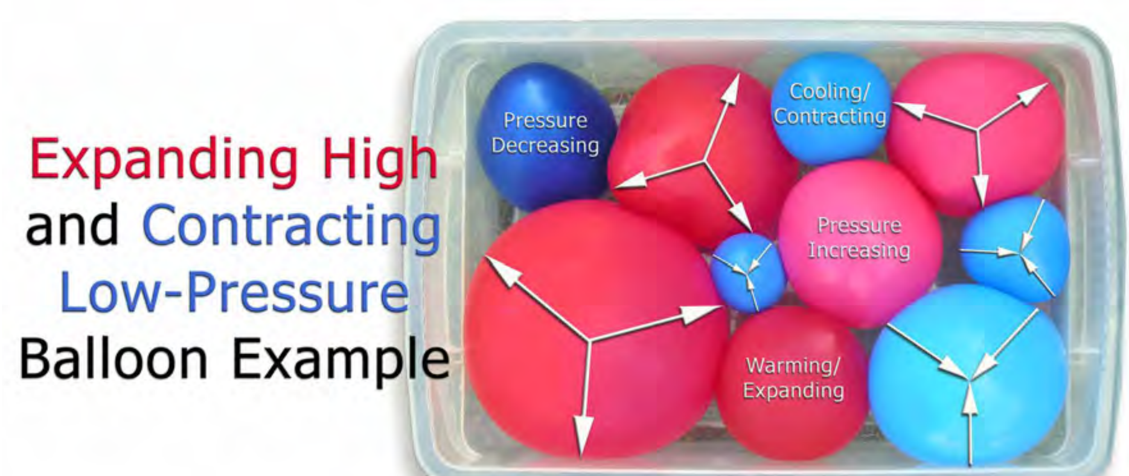

Fig 9.2.9 – Red and blue balloons illustrate areas of high and low-pressure that exist in our atmosphere. The larger red balloons represent an expanding high-pressure system because of warming. The smaller blue balloons illustrate the contracting nature of low-pressure systems. As high-pressure systems are created, they expand to fill the place of contracting low-pressure systems.

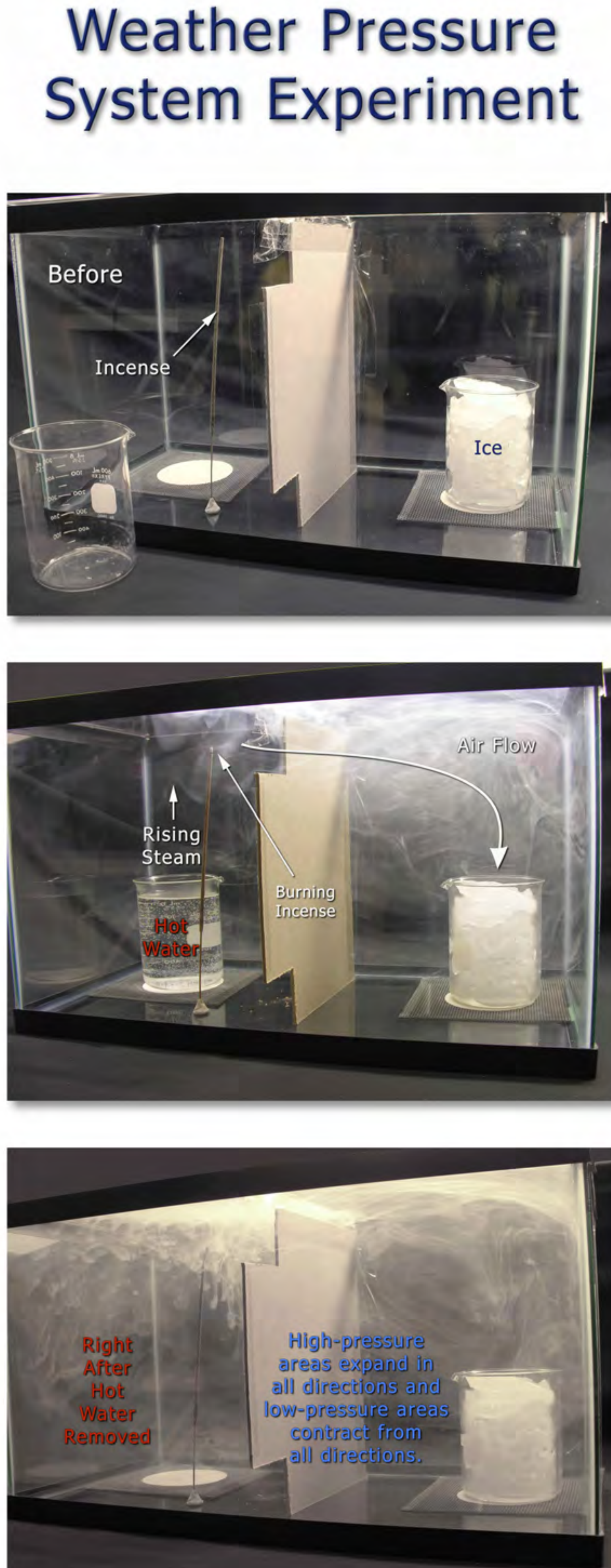

Fig 9.2.10– The Weather-Pressure System Experiment illustrates how air pressure is changed in a closed system by heating and cooling the air. A 10-gallon aquarium with a clear plastic top is divided into two compartments with a piece of cardboard. Two two-inch openings are cut to allow for airflow. A beaker of nearly boiling hot water is placed on the left side to illustrate the *expanding heated hyquatherm* from beneath the Earth's crust. A beaker of ice is placed on the right to illustrate a *contracting, cooling hyquatherm*. An incense stick is lit to show the movement of air in the mini-atmosphere. Airflow moves up and away from the high-pressure area created by the hot water, but moves downward, towards the low-pressure area. This is ***opposite*** the current weather theory. After the beaker of hot water was removed (bottom image), the air on the left clumps cloud-like in air above where the heated water was located, while a clearly visible flow develops above the cold, low-pressure beaker of ice. This experiment demonstrates the first Law of Weather: The Earth's weather is changed by hyquatherms.

sure systems are *not* randomly formed weather systems with a 'column of heavier air.' As we see here, and in the next subchapter, high-pressure systems have a cyclical nature, often reoccurring in the same locations.

The Origin of Weather Summary

This subchapter introduced many important concepts, including the four main principles of the Weather Model and three new weather laws. It also revealed the missing factor of weather—earthquakes—without which, the origin of weather would remain a mystery.

Several previously introduced UM models, including the Lava-Friction Model and the Hydroplanet Model, made it possible to discern the source of heat—gravitational friction—that is pumping heat and water vapor into the atmosphere, changing the weather. The remaining subchapters will continue to establish this extraordinary claim.

Previously unacknowledged but important research from Russia and India is now comprehensible within the framework of the Weather Model, which sees Earthtide Heating and the Hyquatherm as the origin of weather. In the future, as researchers become aware of the Weather Model, new research will further refine the three new natural laws, shown to be involved in the development of high and low-pressure systems that control the weather process. Next, we will explore the Earthquake Cloud Evidence.

9.3 Earthquake Cloud Evidence

In the last subchapter, we discovered that changes in weather are a product of changes in atmospheric pressure. Barometric pressure changes are a result of hyquatherms, which are earthquake-heated water systems in the Earth's crust that are driven by earthtide. When the earthtide is accompanied with an above average swarm of earthquakes, a substantial increase in vaporization occurs.

Using earthquake clouds, some researchers have been able to predict the size, location, and timing of earthquake activity with some degree of accuracy. This subchapter identifies three new classifications of clouds and outlines a new mechanism of cumulus cloud formation. Connections between earthquakes, cumulus clouds, tornadoes, microbes, and lunar-weather cycles are also reviewed.

Earthquake Cloud Evidence from Thermal Research

The last subchapter introduced thermal satellite research from a project headed by Russian scientist A. A. Tronin who conclusively established the connection between