

God is the Greatest Scientist And I Know Him, and you can know Him

God has a perfect plan of Salvation

A Scientist's View of the Gospel

And an Unusual tie to the Allan Variance

By

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Introduction

God is the greatest scientist, He is the greatest in any positive discipline you can imagine, because of His Righteousness and because He is all knowing. His greatest attribute is his Righteousness; Man of Holiness is one of His many names. All His other powers derive from His Righteousness. We have every hope because of God's Righteousness. Satan is the opposite.

God is RIGHTEOUSNESS: In Noah Webster's 1828 Dictionary he defines: RIGHTEOUSNESS; 1. purity of heart and rectitude of life; conformity of heart and life to the divine law. 2. *Applied to God*, the perfection or holiness of his nature; exact rectitude; faithfulness. Jesus asked us, "Be ye therefore perfect, even as your Father which is in heaven is perfect." (Matt. 5:48) We do so as we conform our hearts and lives to the divine law and take upon us His characteristics and attributes. Let us understand the beauty and soul lifting dimensions of how divine law lifts us to be like God – to enjoy His perfection and participate in His fullness of joy. Internalizing His characteristics and attributes takes us there.

Have you ever thought that God is also the greatest mathematician? The famous mathematician, [Srinivasa Ramanujan \(Ra-ma-nu'-dzen\)](#) from Madras, India, was a deeply religious Hindu. He credited his world-renown mathematical capacities to divinity – revealed to him by a family goddess. "An equation for me has no meaning," he once said, "unless it expresses a thought

of God.” Having been taught by an angel, Ramanujan is considered the most unique and brilliant mathematician to ever live. Living only 32 years (1887-1920), his accomplishments are both inspiring and enormous. He is the first Indian to be elected a Fellow of Trinity College, Cambridge and one of the youngest fellows in the Royal Society. The value of his work is still being uncovered a hundred years later. [Remarkable Angel Assistance Stories | It's About Time \(itsabouttimebook.com\)](http://itsabouttimebook.com) An inspiring DVD movie has been made documenting his life: *The Man Who Knew Infinity*.

It is my desire to help you to come to know God and His perfect plan in the midst of all the world's troubles and our imperfections. The blessings of coming to know Him are enormous. Many atheists say, if he exists, why doesn't he make himself better known. Because He is also perfectly loving, His Perfect Plan of Happiness has the ingredient that we need to live here in this mortal sphere by faith in order to grow from life's experiences and to obtain perfection.

Also, because He is perfectly loving, “free choice” is paramount in His Plan of Happiness and Holiness. He will force no one to heaven. It would not be heaven, if He were to do so. For “free choice” to work, we have the Law of Opposition. Satan is just the opposite of God.

The law of opposition is given so that we may progress. This law has always existed, and brought about the war in heaven. One result of that war was that Satan and his angels were cast out, but notice; they were cast down to the earth. God could have cast them out into outer darkness, but He knew we needed opposition to grow and become like Him. Without opposition a fullness of joy is not possible.

Many say, “If God is good, why is there so much pain and suffering in the world?” During his teenage and apostate years, C. S. Lewis felt that the strongest force for atheism was expressed in a poem of Lucretius:

*Had God designed the world, it would not be
A world so frail and faulty as we see.*

Then Lewis found Christ, and came to know that God knew we would sin during our mortal journey because of “free choice” and the Law of Opposition, so He gave us a Savior. Later in his life when Lewis found Christ, he profoundly pointed out the inconsistency of those who believe, “Christ is just a great moral teacher. This thought is absurd. Either Christ is what he said he was, the Son of God, or he is a liar. If a liar, then He cannot be a great moral teacher. If He is the Son of God, then we best get on with true Christianity — loving God and our fellow man and looking forward to being like Him.”

The beautiful eternal truth is that we are the “offspring” of God – His spirit children (Acts 17:29). Hence, we have in us the potential to become like Him. The Savior's commandment to “Be ye therefore perfect, even as your Father in heaven is perfect” is the commandment to receive the fullness of joy He has in store for you if you live all His commandments.

God gives us commandments to help us have joy during our mortal journey and as opportunities for moving our lives toward exaltation and a fullness of joy in the life to come. His commandments are not forced upon us. If we choose to live them, we are blessed. If we don't, we deny ourselves His blessings, and the peace, love, and joy that come when we live them. If we don't live them, there are consequences. You don't want to go there!

The greatest of His commandments is to love Him with all our heart, soul, mind, and strength, and to love our neighbors as ourselves. In the doing we make our lives ever closer to Him. To be like Him is a fullness of joy. This is what He wants for us, but it is our choice to exercise faith during our mortal journey in the path leading to eternal life – life with God, life like God.

In His Perfect Plan of Happiness, because we are all sinners and we cannot perfect ourselves, He gave us His Beloved Son, who has worked out a perfect and infinite atonement to cover our sins and perfect us if we repent and come unto Him. [The Infinite Atonement of Jesus Christ | It's About Time \(itsabouttimebook.com\)](http://The Infinite Atonement of Jesus Christ | It's About Time (itsabouttimebook.com)) Because of His infinite atonement, He also has in store for us a glorious resurrected body that will never die and live forever.

Because His atonement is infinite, it totally overcomes both the physical and spiritual deaths brought about by the fall of Adam and Eve – leaving our path forward totally our choice. He descended below all – overcoming all things – and then ascended above all with His glorious resurrection for all – even for the earth to bring it as well to celestial realms of glory. I believe Mary Magdalene went from the depths of despair to the heights of ecstasy, when she was first to see the risen Lord. She became one of the greatest missionaries ever because of her witness. <https://itsabouttimebook.com/drama-of-lost-disciples/>

In addition, when we were born our perfect Loving God gave us the Spirit of Christ, to know good from evil. It is totally our choice to choose the good or not. Choosing the good will lead us to Christ, for He portrays and is all that is good. Thus, we see the great importance of choosing Christ in our lives. If we don't, we will not be on the path for a fullness of joy. Since we cannot perfect ourselves, but He can and will, because of His infinite atonement, if we will but come unto him and keep His commandments, which are designed to bring us back to God and to be like Him.

In my search for truth, I have found the following to be true:

1. You cannot prove a theory true; the best you can do is show data consistency; data correlation does not provide validation.
2. You can prove a theory false if you have valid falsification data. This is extremely useful in moving from false things toward what is true.
3. You can **only know something is true** if God tells you.

An example of No. 1. is in Chapter 6 of my book www.ItsAboutTimeBook.com using some of the brightest minds on the planet and their resource materials, I prove the theory of organic evolution false. This has enormous implications to the world, since this theory is pervasive in

our education system and promulgated across our lives – leading to more and more atheists and people believing the Bible is a myth. Knowing this theory is false helps us with our faith in the creation message of the Bible.

Since we can only know something is true if God tells us, then I share with you the following link. Using the above three points and the scientific method, I prove the King James Version of the Bible to be the word of God, as well as the Book of Mormon:

<https://itsabouttimebook.com/religious-science-translation-of-it-came-to-pass/> In other words, if the KJB is false, then the 1,800 data points I use could not exist as they do. Since they exist as they do, then the KJB is the word of God, even with its imperfections. On that assumption, I quote from both and the scriptures associated therewith. I also develop below a way for you to know the KJB and Book of Mormon are true as well, as far as they are translated correctly. Chapter 3 of my book deals with the problem of correct translations. The KJB and the Book of Mormon are like two independent witnesses of the validity of God's word – coming from both the Eastern as well as the Western hemispheres.

How do you develop Faith?

Since faith is essential in our mortal journey, how do you develop faith? Faith is like a seed. You plant it, nourish it, and if it is a good seed, it will bring forth fruit. If the fruit is good, then you know the seed is good. If it is not a good seed, then in spite of your best efforts to nourish it, it will not produce good fruit. So it is with faith. If you put your faith into action, then if what you believe is true, you will enjoy good fruit from your actions consistent with that belief.

This test – like the planting of the seed -- provides both a necessary and sufficient condition for you to know that what you believed in and took action on is true. This has been a powerful tool throughout my life, and my tree of truth has grown throughout my life with enormous blessings – peace, love, and joy to my soul, and success in my scientific endeavors as well.

I am an experimental physicist; though I love theory. Many times, in my career path, I have had ideas and theories come into my mind, which in many instances came in answer to prayer. Then when I acted on them in faith, they bore delicious fruit. My IEEE ORAL HISTORY tells some of those stories: [Oral-History:David W. Allan - Engineering and Technology History Wiki \(ethw.org\)](http://ethw.org) I have learned that our Loving God is in the details of our lives, and it doesn't matter what it is. He wants us to be successful in whatever we are doing, if we are focused on doing good.

A Scientist's View of the Gospel

In his book, *Think Independently*, emeritus professor of philosophy, Chauncey C. Riddle, shows that in the past century, as well as now, both historians and scientists have operated under a false postulate that to do good histories or to do good science things spiritual and about God need be excluded. Knowing this postulate to be false, in Chapter 1 of my book www.ItsAboutTimeBook.com, I develop a scientific method that includes God and things spiritual that can be shown to have validity.

Using this greatly improved scientific method, in Chapter 2, I develop the basics of God's Plan of Happiness, and show the significance of the Law of Opposition. I answer the hard question, "How can a God who is good allow so much evil and suffering in the world?" The heart of that plan is Heavenly Father's gift of His Beloved Son, who actuated that plan by His infinite and eternal atonement. [The Infinite Atonement of Jesus Christ | It's About Time \(itsabouttimebook.com\)](http://itsabouttimebook.com) "For God so loved the world, that he gave his only begotten Son, that whosoever believeth in Him should not perish, but have everlasting life." (John 3:16)

Within the framework of this perfect plan is the gospel, and the Apostle Paul said it well: "For I am not ashamed of the gospel of Christ: for it is the power of God unto salvation to every one that believeth; to the Jew first, and also to the Greek." (Romans 1:16) God's church is His vehicle to carry forth that gospel and to help those who accept it to enjoy the peace, love, and joy that come by living it and giving them great hope for eternal life, hereafter.

My wonderful parents raised me believing in God, but didn't go to church. Being raised by non-judgmental parents, I felt that one church may be as good as another. Later in my teens, with the influence of good boy and girl friends, I started looking at beliefs. My cousin, Collin Allan, had served a mission for the Church of Jesus Christ of Latter-day Saints in Hawaii, and he had a great experience serving there. He shared some of those experiences, and they had a very positive effect on me.

Being of a scientific bent, two logical insights touched my soul back then and still do to this day: 1) a perfect God will have a fair religion that will give everyone an opportunity to know the truth that can lead them back to His promise of eternal life, if they so choose; and 2) it logically made sense to me that God would provide His word, which could bring eternal life to those who believed, in both the Eastern as well as the Western Hemispheres.

Regarding item 2), I have also learned that God gives his gospel to prophets and prophetesses and to a covenant people, who are not better in God's eyes than anyone else, but are under premortal covenant to share the gospel with others who don't have it. Then God provides the opportunity for those who don't get a chance to hear the gospel in this life to hear it after they die in the spirit world. Over the years in the pursuit of my faith, as I have studied all the main religions of the world, I have found that the Church of Jesus Christ of Latter-day Saints is the only one that satisfies these two logical requirements. God then provides His church to share this message of gladness – the good news of the gospel of Jesus Christ.

It warms my heart to see the many other Christian churches share Christ's teachings across the globe. When we served our mission for our church in West Africa, Cote d'Ivoire, we made friends with the leaders of other churches and had great experiences with them. Over the decades, they had brought the Bible to many there, and this gave a wonderful foundation for us to share the fullness of the gospel, as contained in the Book of Mormon and brought forth by the Prophet Joseph Smith to bless these good people even more than they could have received without the fullness.

I have learned that the gospel, which means "the good news," is not only the good news, it is the BEST NEWS! I know of nothing more beautiful and profound than its message of hope, of

salvation, and exaltation – with applicability both in time (during our mortal journey) and in eternity (giving great hope for us beyond the veil of death). The death of the body is a birth into the life beyond with God’s perfect promises. A perfect God will give us what we desire most. Even for the atheist, who will get a great surprise when he/she crosses over the veil of death.

What are the Characteristics of God?

In the Gospel of John 17, we have Jesus’ great last High Priest’s prayer, which was focused on being ONE with God. He prayed, “That they all may be one; as thou, Father art in me, and I in thee, that they also may be one in us: that the world may believe that thou hast sent me. And the glory which thou gavest me I have given them; that they may be one, even as we are one.” (John 17:21-22)

In 2015, I felt impressed to derive an equation, which shows how to be one with God. Like Ramanujan, an equation has no meaning, “unless it expresses a thought of God.” At that time, I was asked to give a talk, write a paper, and chair a panel at an international navigation conference in St. Petersburg, Russia. Being brave in my faith, in this paper (D. W. Allan; [*Historicity, Strengths, and Weaknesses of Allan Variances and Their General Applications*](#) (DRAFT)) I shared this equation and its enormous implications. The final paper is in the [*proceedings of the 22nd Saint Petersburg International Conference on Integrated Navigation Systems*](#); 25-27 May 2015)

As you can imagine, they kindly asked me to remove the religious part from the paper, which I kindly obliged. And at least, I got the review committee to read it. I also wrote the equation as an article on my book’s website: [So You Want To Be One With God](#) ([itsabouttimebook.com](#)). The conference was a great success. I made many friends and sold two cases of my book.

In that same Chapter 17 of the Gospel of John, the Savior defines “eternal life.” (John 17:3) “And this is life eternal, that they might know thee the only true God, and Jesus Christ, whom thou hast sent.” To come to know the Father and the Son is the process of gaining life eternal – the greatest of all the gifts of God. (Doctrine & Covenants 14:7; hereafter denoted D&C) <https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/14?lang=eng>

We come to know God as we come to acquire God’s characteristics and attributes. In that process of being ONE, we internalize God’s characteristics and attributes into our lives. What are his characteristics and attributes?

- God is RIGHTEOUSNESS: holiness of His nature, purity of His heart, His glory is His intelligence or light and truth, and conformity in all He does with divine law.
- “God is love.” (1 John 4:8, 16) “...and he that dwelleth in love dwelleth in God, and God in him.”

- Everything that God does is motivated by His infinite love for His children. His marvelous creations – the heavens and the earth -- are a manifestation of His love.
- God’s wrath (anger, fury, indignation) is kindled when the cup of iniquity is full. Because He loves His children so passionately, there comes a time when their sinning becomes so great that He knows it is better for them to be destroyed rather than go deeper into sin.
- Jesus, as the Son of the Father, emulated His Father’s characteristics and attributes perfectly.
- Believing in Christ means following His exemplary life, living and internalizing his teachings, and faithfully basking in the most important gift ever given humankind in His infinite atonement, as we repent of all our sins and in due process, as part of His perfect plan, receive a glorious resurrected body.
- Both in His ministry and in His infinite atonement, He did the will of the Father perfectly. We may not know what the future holds in detail, but we know who holds the future, and to be in step with Him is the greatest opportunity of our existence.
- Since Heavenly Father is Righteousness. Jesus is the “Son of Righteousness.” (2 Nephi 26:9; 3 Nephi 25:2; Ether 9:22) Jesus has all the characteristics and attributes of His Father, who personifies perfect Righteousness. When Philip asked, “Shew us the Father...” Jesus responded, “He that hath seen me, hath seen the Father...” In other words, Jesus has exactly the characteristics and attributes **and appearance** of His Father. Joseph Smith documented this with his first vision in the spring of 1820, which vision opened up the Dispensation of the gospel for the fullness of times prophesied by the Apostle Paul (Eph. 1:10), and Enoch prophesied of the date of the first vision some 5,000 years before it happened, because of its importance.
<https://itsabouttimebook.com/the-date-of-the-first-vision/>
- All His commandments are designed to bring us closer to Him. The commandments are opportunities for exaltation. Some view the commandments as constraints in their lives, but when viewed from an eternal perspective, it is just the opposite.
- He asks us to be like He is – to be perfect like He is perfect – because of His love for us that we also might have a fullness of joy; here, we list some of His characteristics and attributes:
 - Having love unfeigned
 - Faithful
 - Virtuous
 - Temperate
 - Longsuffering
 - Patient

- Gentle
- Meek (Matt. 11:28-30) and “Blessed are the meek; for they shall inherit the earth.” (Matt. 5:5) when it shall be celestialized, after the millennium.
- Forgiving -- we must forgive all that we may be forgiven of all.
- Brotherly kindness
- Godliness -- and He opens up to us the mysteries of godliness as we come unto Him, which brings enlightenment and joy to the soul.
- Knowledge; God is all knowing. “He that keepeth his commandments receiveth truth and light, until he is glorified in truth and knoweth all things.” (D&C 93:28) <https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/93?lang=eng>
- Wisdom: “Happy is the man that findeth wisdom.” (Proverbs 3:13) The Jews commented of Jesus, “Whence hath this man this wisdom?” (Mark 6:2)
- Eye single to the glory of God
- Is not vain or prideful
- Humble
- “Thinketh no evil”
- “Not easily provoked”
- “Charity suffereth long” He suffers for the sinful choices we make, because of His infinite love for us. Life, in some sense, is a war between good and evil; God versus Satan. Without the opposite we cannot grow. But in the end, God wins and has no losers. We get the desires of our hearts – whether good or evil.
- “Endureth all things”
- “Beareth all things”
- God is everything good.

Some of God’s Physics

In 1999, John Wiley and Sons asked me to write a college text entitled, *GPS and Precise Time*. My wife and I were then serving a mission for our church in West Africa, Cote d’Ivoire, and I suggested that I wait until I got home to see if there was a need, since writing such a book would be a lot of work.

When I got home, I could see there was a need, so I started and was making good progress. While doing the research for the book, I was impressed to study the Unified Field Theory (UFT), which Einstein didn't finish before he passed on.

As I was praying about this direction, several experiments came to mind. We have done seven experiments that have never been done before and documenting some new UFT insights. Since these insights came from on high, I call them God's physics. They are written up in Chapter 21 of my book www.ItsAboutTimeBook.com.

More detail of most of the experiments can be found on our other website: [Unified Field Theory with New Model for Gravity \(allanstime.com\)](http://allanstime.com). The following simple egg experiment can be done in your kitchen: [The "Magic" of an Egg Explained \(allanstime.com\)](http://allanstime.com).

At the 50th anniversary of the Institute of Navigation (ION) held at Colorado Springs, Colorado, I was asked to give an invited talk regarding precise timing and its relationship to navigation with the interesting request that was made of all eight invited speakers. We were asked to project where we would be in navigation in the next 50 years, as well as where we had come in the last 50 years.

I felt to share both my scientific as well as my religious perspectives while I was prognosticating the next 50 years. I received more complements on that talk than any scientific talk I have ever given. I condensed this talk into the following for our website, since for me, it is more of the Lord's physics: ['We are in Touch with Eternity,' Article about God and Man by David W. Allan \(allanstime.com\)](http://allanstime.com).

The Lord's physics couples both the physical and spiritual dimensions, and is so beautiful and complete. I feel I have only touched the edge of the physics of our God. After all, He is the Greatest Physicist as well!

Repentance and the Allan Variance

Repentance is the process of changing our lives to align with the characteristics and attributes of God. Like repentance is change, the Allan variance is a measure of change in whatever time series is being analyzed. The time series of our lives is measured by how well we have accepted the Christ, and His teachings, and His infinite atonement for us, and by our works – the changes we have made in our lives toward being like our ever-Loving Heavenly Father and His Beloved Son.

Along with standing on the shoulders of giants, I believe the Lord gave me the inspirations for the Allan variance, the Modified Allan variance, and the Time variance. https://ieee-uffc.org/wp-content/uploads/2020/11/190426_David_Allan_Lecture_FINAL.pdf. I count them as part of God's physics, because they give full color to the different kinds of natural noise processes we see in nature. They are like God giving us measures of the full spectral colors of a rainbow. Whereas, the classical variance and standard deviation taught in traditional statistics classes only give you a black and white view of a rainbow – giving you intensity, but no color.

Since people seem to be scared of equations, I will share the Allan variance equation in King's English. Before I do, consider what a clock is. Every clock is imperfect, just like people. Any clock is a two-part device. **First**, something that oscillates at some frequency – like a pendulum -- and **Second**, a counter that adds up those oscillations. A clock's rate determines whether it is going slow or fast with respect to correct time. The Allan variance measures how good a clock is -- how much its rate is changing.

Specifically, the Allan variance compares a clock's rate over an interval of time – call it τ – with how much it changed over the next τ interval of time. For a given interval of τ , this difference is squared and averaged over the data set and divided by 2. Voila', that is the Allan variance for that value of τ . As the Allan variance is computed for different values of τ , the different colors of noise are revealed. For example, you can separate measurement noise, from clock noise, from environmental perturbations noise, as the Allan variance is computed for the different values of τ .

This is what the world knows as the "Allan variance," but in my thesis there is a lot more to it, which you can download from this link: <https://tf.nist.gov/general/pdf/7.pdf>. People usually do a log-log plot of the square-root of the Allan variance (TDEV) versus τ . It is called a sigma-tau diagram. If you search the internet for "Allan variance," you will get many thousands of hits. My Russian colleagues told me they have better search engines and found two million hits.

Furthermore, the potential accuracy and precision of a clock can be written as the square-root of the Allan variance. This equation takes on a different form. In King's English, the numerator on the right hand side of this equation is how close you are to the ideal clock rate. In the denominator are two terms. The first term is the frequency of the clock's oscillation. The second term is the *Signal to Noise* available for the measurement. The *Signal to Noise* ratio is improved as the square-root of $N \times \tau$, where N is the number of atoms or molecules available for the measurement per second and τ is the averaging time for the measurement in seconds.

One can clearly see from this equation that the higher the frequency the smaller is the instability and the greater is the potential accuracy. The stability also improves for longer averaging times and as more atoms or molecules are available for the measurement.

The current definition of the "second" is based on an oscillation frequency coming from a quantum transition in the Cs-133 atom and is a microwave frequency. Current optical-frequency clocks have frequencies about 100,000 times higher than the 9,192,631,770 Hz frequency of cesium atom, and their accuracies now are in the 18 significant digits. This is like measuring the distance to the sun with an accuracy of 1/100th the width of a human hair. It has been so exciting for me to be part of the precise timing community over the years and to see the phenomenal accuracy improvements and their enormous benefits – GPS as an example. I spent many man-years of my life helping in the development of GPS. <https://itsabouttimebook.com/my-involvement-with-gps-development/>

We can think of the higher the frequency, the more nearly perfect and the smaller the changes as we approach God's perfection through our Savior's infinite atonement. It is fun to have a second

equation that reflects a path to perfection. In the mouth of two or three witnesses His “word” is established.

The first one is the one I wrote for the paper I gave in St. Petersburg, Russia, in 2015. You will find it as the last publication in the list of my publications at: <http://allanstime.com/Publications/DWA/index.html>. Titled: D. W. Allan; *[Historicity, Strengths, and Weaknesses of Allan Variances and Their General Applications](#)* (DRAFT); The final paper is in the *[proceedings of the 22nd Saint Petersburg International Conference on Integrated Navigation Systems](#)*; 25-27 May 2015. The last section of the DRAFT of this paper has this first equation with an explanation under the heading: SYNTONIZATION AND SYNCHRONIZATION OF SOULS.

All three elements in the second equation shown above led to perfection. For example, the numerator is a measure of how close you are to the true resonance; like, how close are you in being ONE with God. The clock’s frequency term in the denominator could denote how frequently we pray; perfection comes when you pray continually. Lastly, the *Signal to Noise* denotes how well you are listening to God, and the less worldly noise you have, the better you can hear God’s voice speaking to you and how well you are treasuring up His word.

As we make those changes in our lives to fully come to the Christ, then we enjoy the full color of a rainbow of righteous living – following the example of our Beloved Savior. Well did King Benjamin say:

I would desire that ye should consider on the blessed and happy state of those that keep the commandments of God. For behold, they are blessed in all things, both temporal and spiritual; and if they hold out faithful to the end they are received into heaven, that thereby they may dwell with God in a state of never-ending happiness. O remember, remember that these things are true; for the Lord God hath spoken it. (Book of Mormon, Mosiah 2:41)

God’s TIME versus Man’s time

Man’s time is not time. It is time interval, as explained in Chapter 20 of my book www.ItsAboutTimeBook.com. It is the accumulation of time intervals from some origin. For example, your watch reads the estimated time since noon or midnight. The calendar gives us an estimate of the number of years since the birth of Christ, the days since the beginning of the year, and the days of the month.

The time intervals used by the world have been historically first based on solar time, then ephemeris time, and now on atomic time. Up until 1956 we used solar time – the number of hours, minutes, and seconds in an average over the year of the earth’s spin with respect to the sun. Then the length of the second was 1/86400 of a mean solar day, since there are 60 seconds in a minute, 60 minutes in an hour, and 24 hours in a day ($86400 = 60 \times 60 \times 24$).

When astronomers noticed that the earth’s spin rate was irregular and nominally slowing down with respect to the time interval that it took the earth to go around the sun, they redefined the

“second” in 1956 to be based on the earth’s orbit around the sun combined with their measurements of the moon’s orbit around the earth. The problem with this definition is that it took them about nine years to get a good average value for the length of the “second.”

Then atomic clocks came along with their massive improvements in timing. In 1967, the length of the second was redefined to be, “The second is the duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the cesium-133 atom.” This definition will likely be replaced with a new one because of the incredible potential accuracies available from atomic clocks operating in the optical frequency region.

In my lifetime of 84 years, I have witnessed a billion-fold improvement in timing accuracy. The navigation accuracy of GPS is made possible by the excellent frequency stability of the atomic clocks on board the satellites. <https://itsabouttimebook.com/how-gps-works/> The clocks on these satellites are synchronized to about a nanosecond (a billionth of a second). The best atomic clocks today are 10,000 times better than that needed for GPS, and over the years since I have been privileged to be associated with the many outstanding scientists doing this work, I have observed that atomic clocks have improved by about a factor of ten every seven years. (Moore’s Law)

After graduating from Brigham Young University, we moved our little family to Boulder, CO, to do graduate work at the University of Colorado with the intention to get a doctorate and return to BYU to teach and do research. In 1965, I was working on my master’s thesis on how to characterize the performance and properly use atomic clocks, when my church leaders asked me to serve in a bishopric. This was contrary to my plans, so I entered probably the most intense time of fasting and prayer of my life to ascertain the Lord’s will in my life. I got an answer, and that changed my life forever: [Inspiration for "Allan Variance" \(allanstime.com\)](https://allanstime.com/inspiration-for-allan-variance/).

I believe that the inspiration for my thesis came as a result of doing things the Lord’s way, rather than my way. The Allan variance came out of that thesis, which can be shown to be the optimum ideal atomic clock characterizer. It was used to make sure the atomic clocks for GPS met specification. Because of its usefulness, in 2016 the IEEE/UFFC made a special publication celebrating the 50th anniversary of the publication of my thesis.

In 1968, I used it – along with help from colleagues and some other ideas, which I believe God gave me – to write the time-scale algorithm, AT-1, which optimally combines the readings of an ensemble of atomic clocks producing a time more stable than the best clock in the ensemble, and the worst clock contributes optimally as well. With improvements by colleagues, AT-1 is still providing official time for the USA today, as far as I know. [45.pdf \(nist.gov\)](#); [803.pdf \(nist.gov\)](#)

I find the ideal society, Zion, to be like AT-1. In Zion, motivated by pure love, everyone is different, but their time and talents are used optimally to yield a community that both best serves the needs of the individuals as well as the community as a whole with no poor among them. And they are of one heart and one mind. This is like AT-1 is optimized so that the time generated by the algorithm is better than the best clock, and even the worst clock benefits the whole.

Over my 32 years at NBS/NIST, we also developed the Modified Allan variance, and the Time variance, which have become extremely useful in the navigation and telecommunication communities. All three of these variances have been adopted as international IEEE measurement standards: [190426 David Allan Lecture FINAL.pdf \(ieee-uffc.org\)](#).

Time cannot be extracted from the universe. Time is a metaphysical concept in our minds. My good friend, Chauncey Riddle, has the best definition of time of which I am aware, “time seems to be the possibility of change.” I tie his definition to the Allan variance, which is the optimum estimator of change in rate of an ideal atomic clock, in Chapter 25 of my book with some fascinating implications.

God’s TIME is the most exciting, and I discuss that in both Chapters 24 and 25. God’s time is spent in “bringing to pass the immortality and eternal life of [His precious sons and daughters]” (Moses 1:39) in “one eternal round.” Mortals are limited to time as we have it, but God and His angels operate in a fifth dimension, which I call the eternity domain, which we documented with experiments while researching the new UFT insights, and which is explained in chapters 21-25. We show direct experimental evidence of the existence of the fifth dimension (eternity domain) in one of the seven experiments described in Chapter 21. These seven experiments are all consistent with a new Unified Field Theory. The implications and insights from this new UFT are most exciting.

God’s TIME is explained in detail in Chapter 24 in the concept of “one eternal round.” The one eternal round in God’s TIME signifies going from celestial, to terrestrial, to telestial, to terrestrial, and back to celestial. It is a GRAND chiasmus. In other words, we were born spirit children in celestial realms and the earth was created for a place for His children to dwell; then Adam and Eve were placed in the Garden of Eden in a paradisaical, terrestrial, degree of glory; then after the fall of Adam and Eve, they and the earth moved into a telestial degree with the earth being in its fallen state, as it is now, and with Satan and his angels providing opposition to God’s perfect Plan of Happiness; then, with the Second Coming of Christ, the earth moves into its terrestrial degree of glory during the millennium; then lastly, completing the “one eternal round,” the Savior delivers His kingdom at the end of the millennium back to the Father where it will be made a celestial kingdom with all who have lived the gospel at the celestial degree by receiving fully of the infinite atonement of our Lord and Savior. Fully receiving the atonement is repenting until we act as Christ does in all things.

We cannot comprehend the glory, love, happiness, and fullness of joy that God has in store for the faithful. Because of free choice, “...strait is the gate, and narrow is the way... and few there be that find it.” (Matt. 7:14) In those celestial realms our Heavenly parents glory in those who have accepted their Perfect Plan of Happiness to be with them and to be like them – having been perfected by Christ through His perfect-infinite atonement in our glorious celestialized-resurrected bodies. We cannot imagine a better plan; it is perfect and designed to bring fullness of joy to the faithful.

It is fascinating to me that the two great civilizations described in the Book of Mormon, the Jaredites and the Nephites, both mapped out this perfect plan in a 4 ½ square mile set of earth-works near Newark, Ohio, USA. Starting with our celestial place of birth with our Heavenly

Parents, then coming to earth and depicting that 1/3 of their children followed Satan and were denied physical bodies but were sent down to the earth as part of the need for opposition in our growth process. Then, the millennium is depicted – showing Heavenly Father’s Plan to be perfect for all of His children. Lastly the earth is shown celestialized and the faithful who follow Christ’s glorious gospel, are back with our Heavenly Parents in celestial realms of glory. I have found 25 correlations with Heavenly Father’s Plan of Happiness and these earth works made thousands of years ago by the Jaredites and then fine tuned by the Nephites, as is shown by carbon dating.

Now, Our Exciting Future in God’s TIME

Many fear and have deep concerns in their hearts about the days ahead – given what is happening in the world. We need Divine perspective. The Lord has revealed the last days to many of the prophets. It will be the best of times and the worst of times. It is called the “great and dreadful day of the Lord.” A great day for the righteous and looking forward to the Glorious return of our Lord and Savior. In contrast it is a dreadful day for the wicked and horrendous, as apparently the “world is coming apart.” Does the Lord work through cataclysmic events to get our attention; indeed, He does!

The sciences tend to assume that things are in steady state; how things are today are like they were yesterday. Hence, the evolution of humankind over millions of years back to a one called whatever. In contrast, the Lord often uses cataclysmic events to do His work – getting our attention about such non-steady-state and important events. For example, the fall of Adam and Eve, Noah’s flood, the events around the birth and death of our Savior. And in the last days we can anticipate several massive and cataclysmic events, some of which I will share below. It will move us all to the core of our souls and be far from “steady state.” Some big surprises for scientists are coming.

The Lord has shared a fascinating perspective regarding the future, “which our forefathers have awaited with anxious expectation to be revealed in the last times, which their minds were pointed to by the angels, as held in reserve for the fulness of their glory.” “A time to come in the which nothing shall be withheld...” (D&C 121:26-28)

<https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/121?lang=eng> . If we will open our hearts and minds, we can “be made partakers of the glories which are to be revealed in the last days, as it was written by the prophets and apostles in days of old.” (D&C 66:2)

<https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/66?lang=eng>. And we have this great and exciting promise from the Lord:

Yea, verily I say unto you, in that day when the Lord shall come, He shall reveal all things. Things which have passed, and hidden things which no man new, things of the earth, by which it was made, and the purpose and the end thereof – Things most precious, things that are above, and things that are beneath, things that are in the earth, and upon the earth, and in heaven. (D&C 101:32-34)

<https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/101?lang=eng>

The Apostle Peter spoke of our day when we would receive the “restitution of all things.” (Acts 3:19-21)

So, soon we will see the end of this world, (of worldliness), as we move in due process from our telestial – worldly sphere – of existence to the millennium and the terrestrial sphere of existence, where Christ gloriously reigns as King of kings, and Lord of lords for a thousand years.

In that process in the future we will see the New Jerusalem built here in this Promised Land (North America); we will see the Ten Tribes of Israel come back; we will see the earth receive its baptism of fire as part of its purification process – following its baptism by water with Noah’s flood – this will be as the wicked are destroyed; we will see the continents come back together, as part of the “restitution of all things;” and we will see Zion built up – the Bride to meet the Bridegroom. How exciting it is to know the resurrected Savior will be in our midst as part of this great process. We will see Him face to face and bask in His perfect and eternal love.

Now, we are witnessing the great gathering of Israel from the “four-corners of the earth,” as one of the grand steps in preparation for the Savior’s millennial reign. President Russell M. Nelson has counseled us that the best thing we can do at this time is to help in this great gathering on both sides of the veil.

As the Prophet Joseph Smith declared:

...shall we not go on in so great a cause? Go forward and not backward. Courage... and on, on to the victory! Let your hearts rejoice and be exceedingly glad. Let the earth break forth into singing... Let the mountains shout for joy, and all ye valleys cry aloud; and all ye seas and dry lands tell the wonders of your Eternal King! And ye rivers, and brooks, and rills, flow down with gladness. Let the woods and all the trees of the field praise the Lord; and ye solid rocks weep for joy! And let the sun, moon, and the morning stars sing together and let all the sons of God shout for joy! And let the eternal creations declare His name forever and ever! (D&C 128:22-23)

<https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/128?lang=eng>

Then consider that in this millennial preparation process the earth moves out of our solar system, as the “stars fall from heaven,” and our light for the “new heaven and a new earth” is Christ during the millennial epoch, as the earth is relocated in another special place in our galaxy – on its way to eternal glory. Your “seat belts” will not be good enough to ride through this time. The key is to truly come to Christ, fully repent, and “hearken” to His voice. (D&C 29:1-2)

<https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/29?lang=eng>

What a glorious time it will be, and we will see that all the trials and challenges associated with what most might consider a “horrific” time, will not only be worth it, but we will be eternally grateful to be part of His Kingdom – knowing His justice and mercy are perfect, because of His infinite atonement.

Most don’t know that this “promised land” (North America) has a blessing and a curse placed upon it by the Lord; it is a:

...land of promise, which [is] choice above all other lands, which the Lord God had preserved for a righteous people. And He had sworn in His wrath... that whoso should possess this land of promise, from that time henceforth and forever, should serve Him [keep His commandments], the true and only God, or they should be swept off when the fulness of his wrath should come upon them... And the fulness of his wrath cometh upon them when they are ripened in iniquity. (Ether 2:7-9)

<https://www.churchofjesuschrist.org/study/scriptures/bofm/ether/2?lang=eng>

North America is where the Garden of Eden was, where the City of Enoch was – and was taken up and will return as part of the “restitution of all things;” it is where Noah built his Ark; it is the place of two great civilizations described of in the Book of Mormon; it is where the Ten Tribes will return to receive their temple blessings; it is where the heads of all seven dispensations of the gospel will give their keys to Adam, who will give them to Christ at Adam-ondi-ahman, as He begins His reign as Lord of lords and King of kings; it is where the New Jerusalem will be built, and where a Zion (pure in heart people) will be prepared to meet the Savior and have Him in their midst with no poor among them.

In His perfect love, He will effectuate the Divine Law of Witnesses: First, He will warn through the prophets; then, Secondly, He will warn with natural disasters. He will send “the fulness of his wrath... upon them when they are ripened in iniquity,” (Ether 2:9) but only after He has warned them and given them time to repent and after they have rejected the “testimony”, of the prophets sent amongst them. “Therefore, they are left without excuse, and their sins are upon their own heads.” Then they will be “swept off,” because our Loving God knows they would only go deeper into sin, and their destruction is a manifestation of His perfect, justice, and mercy. (D&C 88:72, 73, 82, 86-102) <https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/88?lang=eng> God is the only one that truly knows our hearts – the only perfect judge. Many of the wicked will destroy the wicked as well.

To move to a higher level, it is imperative that worldliness, wickedness, come to an end, as the earth moves from its telestial level to its “new heaven and a new earth” terrestrial level. How blessed we are to live at this glorious time in anticipation of His Coming. Let us choose to repent and take full advantage of His infinite atonement. How great it will be to be included in the Bride to meet the Bridegroom at His coming. How glorious that will be. Choose Christ, who will be our perfect Lord and King, or be destroyed. That is our choice.

How you can come to Know God

Jesus said, “If any man will do His will, he shall know of the doctrine, whether it be of God, or whether I speak of myself.” (John 7:17) As an experimental physicist, this scripture has great meaning to me. In other words, if you do the experiment and do God’s will, you then will enjoy the fruits of knowing those teachings and commandments are good because they bring joy to your soul. It is like planting the seed of faith in God’s teachings. As mentioned before, this test provides both a necessary and sufficient validation of the truth lived, as it is internalized in our souls.

Joseph Smith performed this experiment, in the spring of 1820, after reading James 1:5-6, “If any of you lack wisdom, let him ask of God, that giveth to all men liberally, and upbraideth not; and it shall be given him. But let him ask in faith, nothing wavering. For he that wavereth is like a wave of the sea driven with the wind and tossed.”

This experiment gave Joseph and the world the true nature of God in contrast to the creeds that had evolved over the centuries in Christendom. In this grand epiphany, the Father and the Son appeared to Joseph in celestial glory in answer to his prayer as to know which church was correct. He did not expect that all of them were incorrect – having strayed from the doctrines and teachings of the original church that Christ had set up with Apostles and prophets. To his surprise, he was told to join none of them.

Later, the Lord sent the Angel Moroni to give to Joseph some gold plates and with the gift and power of God, Joseph translated them into English. Both the translation <https://itsabouttimebook.com/new-book-of-mormon-miracles/> and the printing <https://itsabouttimebook.com/book-of-mormon-printing-miracle/> were amazing miracles bringing forth the Book of Mormon and sharing with the world the religious history of two sequential and major civilizations that had inhabited North America from the time after the confusion of tongues at the time of the Tower of Babel down to about 400 A.D. Moroni was the last prophet to write in this record. The book was named after Moroni’s father, Mormon. Most of the record is Mormon’s abridgement condensed down from other records he had. The annotated edition of the Book of Mormon beautifully describes these events in detail: <https://www.amazon.com/Annotated-Book-Mormon-David-Hocking/dp/194420038X>

The prophets who kept this record anciently knew it would come forth to the Gentiles in our day as prophesied by Isaiah and Ezekiel, with the purpose “to the convincing of the Jew and Gentile that Jesus is the Christ, the Eternal God, manifesting himself unto all nations.” In addition, it contains a prophecy by Joseph in Egypt and by the Prophet Nephi that there will come a day when the book comes forth that many will disbelieve the Bible. The Book of Mormon will validate that great and most important book of scripture – the Bible -- that has done more good in the world than any other book. It is tell-tell that a recent survey shows that 93% of the leading scientists in the America believe the Bible is a myth. Indeed, Joseph in Egypt and Nephi saw our day.

The Book of Mormon has an incredible promise – the prophets knowing it would come forth to us – that if we would read it and pray and “ask with a sincere heart, with real intent, having faith in Christ, He will manifest the truth of it unto you, by the power of the Holy Ghost.” (Moroni 10:4) <https://www.churchofjesuschrist.org/study/scriptures/bofm/moro/10?lang=eng> Thousands, if not millions, have applied this promise since the book was published in 1830 and found it to be true. I know the Book of Mormon to be the word of God. It is a second witness along with the Bible that Jesus is the Christ.

The Book of Mormon was miraculously published in time for the Lord to organize His Church, the Church of Jesus Christ of Latter-day Saints with six members, and it has grown exponentially since, and now with over 16 million members and with Apostles and Prophets like the original church Jesus organized in the meridian of time.

The annotated edition of the Book of Mormon – mentioned above -- helps all who read it to both know that Jesus is the Christ and where it took place – in this covenant “Promised Land.” I have found 1800 phrases that tie back to the language of Adam distributed in all of our scriptures: Bible, Book of Mormon, Doctrine and Covenants, and Pearl of Great Price, that prove beyond reasonable doubt the validity not only of the Bible, but of all the scriptures – showing the fingerprint of God in these phrases and that these phrases tie back to the language of Adam.

You can come to know these scriptures about God are true. Then as you internalize their messages, you can come to know God and that He is the author of them. Trust in Him and not the arm of flesh. Avoid one of the major sins of the world, IDOLATRY. As you come to know Him, you will learn to love like He loves, and that this knowing in each person’s heart can solve all the world’s problems – bringing peace on earth and good will toward men. You will be motivated to help bring about Zion – the ideal society with Christ in our midst – and look forward with great anticipation to Jesus coming to reign as King of kings and Lord of lords for a thousand years. Then you will know through your faithfulness that the millennium is followed by celestial realms of glory and a fullness of joy for you and your loved ones. You will know – and be part of -- Father’s Plan Happiness that is perfect and greatly rejoice with all those participating in it.

How masterful God is – bringing perfection out of imperfection and a fullness of joy to those who choose Christ’s gospel and the fullness thereof. I find it fascinating that because of His Righteousness and His flawless science, He brings this to pass in His “One Eternal Round.” We cannot say enough about how good God is. Our hearts well up in gratitude forever and ever for His infinite love and kindness, for all He has done, is doing, and will do for us.

If you want to know more, please visit: <https://www.comeuntochrist.org/about-us> .

If you want to call me (435) 445-3216 or write me, I will be happy to visit further with you as well:

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Last September, 25th 2020, my birthday, one of my talks was shared on the internet as part of the VIRTUAL www.BookofMormonEvidence.org conference. There I discuss the future time-line-of-the-Lord entitled, “How can we prepare for Zion?” and for the coming of our Lord.

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