

CREATOR

VOLUME 25

NUMBER 1

ROYAL DECREE

*Great is the LORD, and highly to be praised,
and His greatness is unsearchable. Psalm 145:3*

Since the beginning of time, every drop of rain that has fallen to Earth has landed exactly where Christ directed it and at precisely the time He determined (see Job 37:11-12). Every bolt of lightning goes unerringly where He commands (see Job 36:32). Every cloud you see today—down to its exact size and shape—was conceived in the mind of God in eternity past (Isaiah 46:10). In the same way, the precise path and force of the winds Earth has ever known were set down in the the plan of our loving Creator before the world began. We might ask, “How could God so perfectly orchestrate the near infinite number of details found in weather from the beginning of time until now?” Oh, He is great indeed! The world is full of many uncertainties but, we can be sure of this—the atmosphere obeys our Lord Jesus Christ. So does the ocean (Psalm 89:9),¹ for the two—sky and sea—are interconnected.²

OUT OF CONTROL?

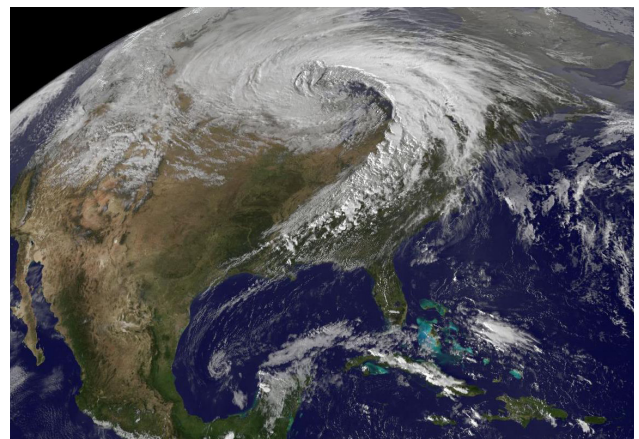
*One generation shall praise Your works to another,
and shall declare Your mighty acts. Psalm 145:4*

Have you ever heard someone say, “The weather is out of control!”? Reports come to us almost daily—

- ***A man struck by lightning.*** . .
- ***A town ravaged by a massive storm.*** . .
- ***A region of the country flooded by rain.*** . .
- ***A nation devastated by drought.*** . .

But is weather truly capable of being out of control?

The Bible loudly proclaims that Christ reigns on high in Heaven and His sovereign will is done on Earth, to the glory of His Heavenly Father. Mankind tasted His



¹ Read more about God's control of the ocean in **CREATOR** Vol 18 Num 3.

² Waves usually form by the force of the wind. A tsunami is an exception.

absolute authority over nature when Jesus stilled the raging storm (Matthew 8:23-27; Mark 4:35-41).

Which is a greater demonstration of God's power and sovereign control—a great storm or a perfect calm?

The question then becomes, “Do we see evidence of God’s sovereignty in the science of weather?” The study of weather and weather forecasting is called *meteorology*. It is a word derived from the Greek language, meaning “the study of things high in the air.” In the last issue of the *CREATOR Journal*, we examined how moons, planets, stars, even entire galaxies execute the will of our Triune God. We now come closer to home and delve into the science of Earth’s ever-churning atmosphere—exploring weather and its many fascinating phenomena—to see how Christ’s hand is at work in this realm of creation.

“FORCE OF NATURE”

On the glorious splendor of Your majesty and on Your wonderful works, I will meditate. Psalm 145:5

Water molecules in the ocean respond to the energy of the Sun by moving from a liquid state to a gas state. This is how weather begins.³ This “law of evaporation” was ordained by God; water has no will of its own. Christ built into water molecules the ability to transform themselves back and forth from a solid (snow/ice) to a liquid (water) and to a gas (invisible water vapor).⁴

Moment by moment, God interacts with His creation causing things to work and be the way they are. He is not a distant Creator.⁵ John 5:17 sheds light on this: “My Father is working until now, and I Myself am working.” God is intimately involved with His creation.

³ See *CREATOR* Volume 18 Number 2.
⁴ Read about this in *kids' kreation* #53.

⁵ This idea was held by the deists of the 18th century.

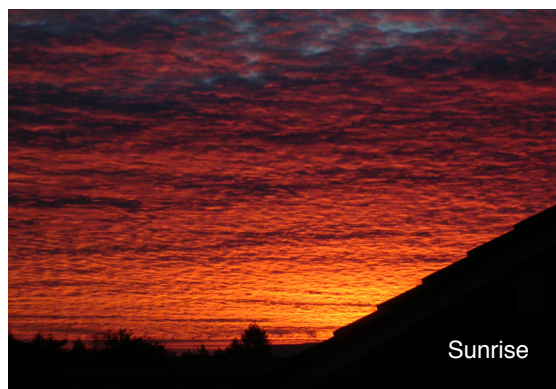
This divine work includes the salvation of God’s people and Christ’s loving care for our lives. But His care for creation is no less real (Psalm 145:17).

Nature reflects and reveals our Lord’s character because it is intimately shaped by His powerful and creative hands moment by moment. There is no such thing as an impersonal “force of nature” seen in the study of the atmosphere. God’s care for our world is *very personal* and, therefore, must reveal all the qualities of His personhood. In the science of meteorology we see the incomprehensible power, wisdom and love of our Creator.

THE MATH OF WEATHER

Men shall speak of the power of Your awesome acts, and I will tell of Your greatness. Psalm 145:6

There have long been ways to understand the weather simply by looking at the sky. Jesus mentions this in His teaching (Matthew 16:2-3; Luke 12:54-55). Farmers and sailors have for centuries been able to read the skies with a certain amount of accuracy. This was an essential skill because their lives and livelihoods depended upon it. But to gain more than a “folksy” grasp of weather, we must go deeper.



Understanding and predicting the weather is a little like the art and science of medicine. When meteorologists check the “health” of the atmosphere, they measure air temperature, air pressure, humidity,

wind direction and wind speed. (It's similar to having your temperature and blood pressure taken at the doctor's office.) These measurements are known as "variables" of the atmosphere because they often change or "vary" over time.

Air is composed of extremely tiny molecules of nitrogen, oxygen, and carbon dioxide. Earth's gravity pulls these gas molecules downward, squeezing them together near the surface. This creates air pressure. (See *kids' kreation* #62.)

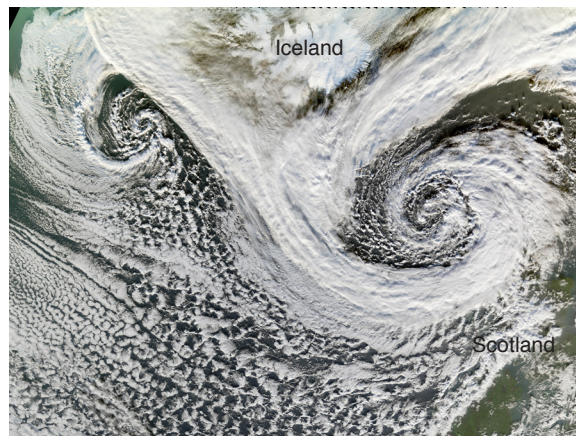
If meteorologists want to understand what's happening in the atmosphere over a large area of the world, they must make multiple measurements of temperature, pressure, humidity, and wind at several different locations.⁶ This will help them diagnose the weather.

Over the years, scientists began to see patterns in the way these variables interact with each other. They found, for instance, that when the Sun heats a portion of the atmosphere, its air rises because warm air is less dense than cool air. Why? Quite simply, because our Creator God made air to respond in this way! Meteorologists thus discovered the "law" that says, warm air rises and is associated with lower atmospheric pressure in that region. Scientists came to recognize additional predictable patterns in the behavior of air, discovering other laws written into the fabric of the atmosphere.

Seven basic laws or equations of meteorology have now been identified—all of which are necessary to understand and predict the weather. (It is interesting to note that scientists refer to these laws as being "obeyed.") But these laws are not comprehensive—they don't tell us all that is taking place in the sky. What they do provide are critical clues to what Christ is doing there

and how the atmospheric variables obey Him, creating distinct patterns.

It was eventually recognized that the sky is populated by huge wheels of rotating air, 500 miles (800 kilometers) or more in diameter. Like enormous spinning tops, these wheeling air masses meander around the world, moving west to east. Atmospheric



Two cyclones over the North Atlantic Ocean

spirals are created by God using heat and moisture, and they consist of two types—high- and low-pressure systems—often mentioned on TV weather reports. A low-pressure system is also called a *cyclone*,⁷ and is frequently associated with rain. High-pressure systems are known as *anticyclones* and are typically identified with clear, dry weather. In the northern hemisphere, cyclones—seen from space—rotate counterclockwise while anticyclones spin clockwise. The opposite is true in the southern hemisphere.

When a cyclone moves into a particular region of the country, it usually brings with it changing weather as air pressure drops. And as it matures, it builds up moisture, eventually shedding rain. There is an instrument called the *barometer* that measures air pressure and is useful for predicting this change in weather (see the *kids' kreation* page).

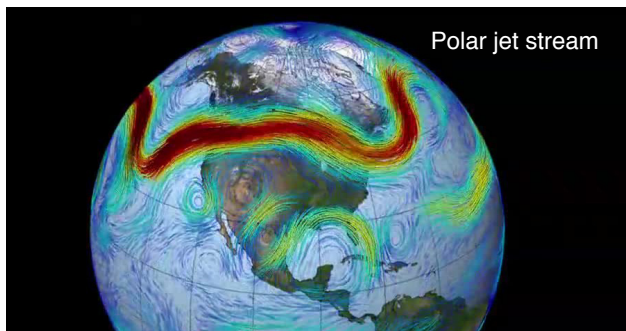
⁶ Every day, and all over the Earth, millions of measurements are obtained from ships, buoys, planes, balloons, satellites, and land stations.

⁷ Not to be confused with a tornado or a twister.

These spirals in the atmosphere don't magically appear, however, but are created by the Sun's heat energy beating down upon the equator and by the rotation of the Earth—both commanded by Christ.⁸ Cyclones and anticyclones also change shape and intensity with time, usually lasting one to two weeks before they disappear.

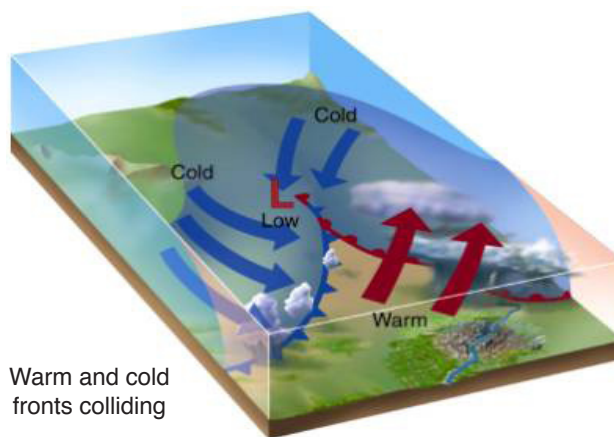
Christ precisely controls the energy that powers cyclones and anticyclones. We can use a figure skater as an analogy. When a skater performs a spin, she controls the direction of her rotation. She can also spin more rapidly if she pulls her arms inward close to her body. Likewise, God can cause the winds of a low pressure system to increase by decreasing the size of a cyclone.

God has also created great rivers of air high in our atmosphere that move in an easterly direction, travel about 110 mph (180 kph), and are found at an altitude of six to eight miles (nine to twelve kilometers). These atmospheric rivers, commonly known as *jet streams*, are used by our Lord to help make cyclones and anticyclones. Jesus also



placed jet streams both north and south of the equator to form thermal “fences” in order to separate the cold polar air from the rest of the Earth. In this, Christ demonstrates His kindness to us by keeping us from getting too cold. Jet streams are present on other

planets, and are especially easy to identify on Jupiter (see page 9). Our Lord uses them to create beautiful stripes of different colors (zones and belts) on that planet.



Warm and cold fronts colliding

The typical low pressure cyclone is composed of warm and cold fronts. When these fronts meet, violent weather sometimes results. (Forecasters borrowed the term “front” from military maps that show the fronts of opposing armies clashing with each other.)

By God's grace, mankind was led to develop new technologies during World War II that could be used to better understand the utter complexity Christ has built into the atmosphere. During the 1940s, the dual technologies of *radar* and *computer* began to take shape.⁹ Today, advanced radar and supercomputers are essential for us to grasp—though in a very limited way—the divine commands and nature's obedience, which result in organized weather, and allow for weather forecasting. Using radar, meteorologists can see where and how much precipitation—rain, sleet, snow—is falling in a particular area of the country. They can also detect the movement and strength of storm systems. Computers, on the other hand, are used to predict when and where storms and precipitation will occur *in the future*.

⁹ Radar and computer technology were first developed for wartime use, but quickly transitioned into peacetime applications thus giving us tools to study weather and see God's glory. This is an example of God using tragedy to promote His own glory.

⁸ See **CREATOR** Volume 18 Number 2.

CHRIST'S HIDDEN BEAUTY

*They shall eagerly utter the memory
of Your abundant goodness and will shout joyfully
of Your righteousness. Psalm 145:7*



Beautiful clouds near the Australian coast

In an attempt to simplify the complex computer math involved in weather forecasting, it became necessary for scientists to overlook much of the beauty Christ writes into His script of weather. Much of the atmosphere's beauty is found in clouds—either individual clouds or small groups of them. And these do not show up on computer-generated weather forecasts. Many of these finer details of our atmosphere must be ignored by meteorologists in order to focus on “the big picture”—warm and cold fronts, thunderstorms, hurricanes, etc. And thus, sadly, the wonderful patterns God sculpts into clouds are considered “background noise.” It is understandable that these beautiful features of the atmosphere had to be disregarded by early weather forecasters. They were trying to comprehend the overall large-scale processes of the atmosphere in order to predict what would happen next. But we can be very thankful that the great power of our God always produces in nature detailed

revelations of Christ's stunning beauty and kindness, if we have eyes to see.

As useful as our supercomputers are today—capable of performing billions of mathematical computations in mere seconds—they are simply too slow and too limited to paint for us a picture of detailed weather on a small scale. In other words, computer forecasting can predict large thunderstorms fairly well, but not local rain showers or lightning,¹⁰ let alone the shapes of individual clouds. And a supercomputer certainly cannot tell us if tonight's sunset will be pretty or not!



These facts alone should move us to marvel at Christ's infinite ability to control and direct untold trillions of things going on within our atmosphere all across the globe every fraction of every second. *God doesn't predict the weather, He makes it!*

***God doesn't
predict the
weather,
He makes it!***

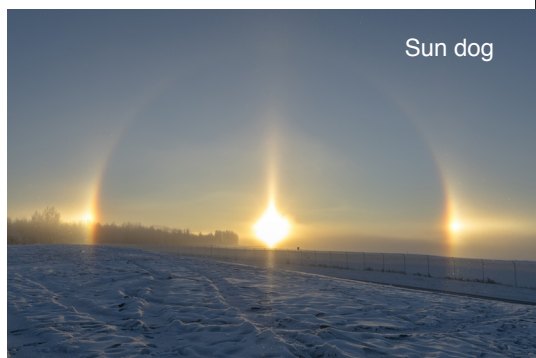
¹⁰ Advancements in computer technology are allowing scientists to forecast rain a few hours and lightning one hour ahead of time. This is known as “nowcasting.”

The photos on this page show just a few of the phenomena that supercomputers have difficulty seeing and predicting, but so wonderfully reveal and reflect *the beauty of our Lord Jesus*.

Our Lord creates fog by cooling humid air down to the dew point.



Ice crystals in the air can act like millions of tiny prisms causing sunlight to appear in truly mysterious ways.



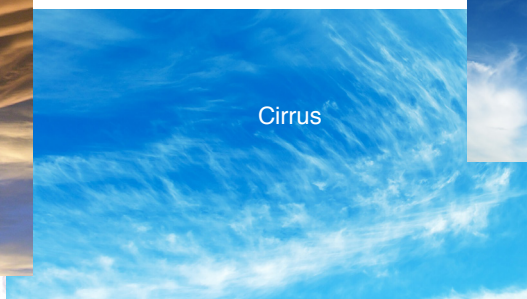
Sun dog



Some of the most terrifying things in the world are seen coming down from clouds. This should move us to grow in *the fear of the Lord!*



Altocumulus clouds



Cirrus



Cirrus

Many of the beautiful clouds God makes are high in the atmosphere.

PRECISE OBEDIENCE

The LORD is gracious and merciful; slow to anger and great in lovingkindness. Psalm 145:8

There have been times in the past when groups of Christians, led by the Holy Spirit of God, were fully dedicated to obeying Christ. In adoring love, they obeyed in most exacting ways, while avoiding legalism and a prideful heart. The Puritans of England and New England were just such people. Through the “precision” of their obedience, God graced them with a beauty of personal character in their daily lives that is rare today.

In a similar way, it is the precise obedience of the atmosphere to Christ’s rule that enables weather to reveal the stunning beauty of its Creator. Clouds and other atmospheric phenomena daily grace our world with the loveliness of Christ (see previous page)!

It must also be said that the governing mathematical equations used in meteorology—with its laws, rules, and formulas—are only approximations of Christ’s command and sovereign rule over weather. *The atmosphere does not obey these equations, it universally obeys its Maker.*

The atmosphere does not obey these equations, it universally obeys its Maker.

THE IMPOSSIBLE DREAM

The LORD is good to all, and His mercies are over all His works. Psalm 145:9

Using present day supercomputers, meteorologists can forecast weather out to about five days. The most accurate forecasts will be for the next day. Each successive day after that—day 2, day 3, day 4, day 5—the forecast becomes less and less accurate. Past five days, the number of unknown variables

in computer programming becomes too large and our ability to forecast falls apart. Will mankind ever be able to forecast the weather accurately beyond a week? Can we know with any certainty what our climate will be next month, next year, ten years from now?¹¹ These are questions meteorologists sincerely want to answer.

We might be able to illustrate the problem that these questions pose using a simple analogy. Do you know what the world record is for balls juggled in the air? The answer



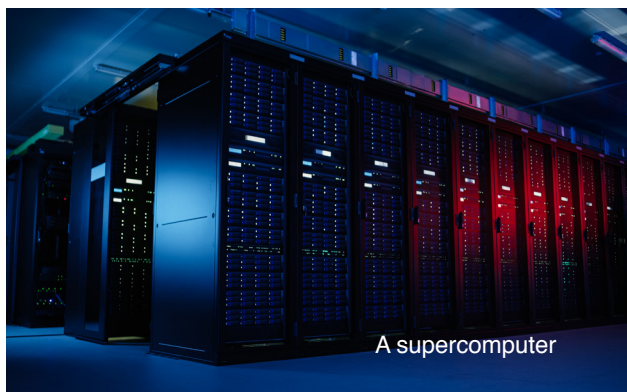
Meteorologists regularly “juggle” the five variables of temperature, pressure, humidity, wind speed and direction.

is eleven.¹² (There is an interesting article online about the physics of juggling and why no one will ever be able to juggle thirteen or more balls.)¹³ What does this have to do with weather forecasting? Computing the sum total of worldwide readings of temperature, pressure, humidity, wind speed and direction is like a person successfully juggling a million rubber balls all at once. In

¹¹ In an almost comical way, statistician George E.P. Box has said that “essentially all [climate] models are wrong, but some are useful.”

¹² By Alex Barron of the United Kingdom on April 3, 2012.

¹³ <http://www.juggling.org/papers/limits/>



A supercomputer

order for computers to forecast the weather and climate weeks into the future, it would require them to “juggle” trillions upon trillions of data points. Many in the scientific community have come to believe that this will never happen because it is simply beyond human technology to achieve.

If it is indeed true that we will never be able to produce accurate long-range forecasts, *let us bow our heads before Jehovah Jesus*. His ability to weave together what seems like an infinite number of atmospheric threads to faithfully create weather—while nourishing crops, thwarting armies, and proclaiming His majesty—is truly amazing!

A CLOUD OF UNKNOWING

All Your works shall give thanks to You, O LORD, and Your godly ones shall bless You. Psalm 145:10

It can rightly be said that God is a *God of mystery*. By His grace, and for His own glory, some of our Lord’s secret workings have been revealed to His people: “the mystery which has been hidden from the past ages and generations, but has now been manifested to His saints” (Colossians 1:26.) Such is the Gospel and its sincere free offer of salvation to all people—Jews and Gentiles.

Other aspects of our Creator’s sovereign will have not been made known because “the secret things belong to the LORD our God” (Deuteronomy 29:29) and He reveals

to us what He wishes. In a past issue of the *CREATOR Journal*, we discussed decomposition and composting, and how these largely remain a mystery to scientists, despite ongoing and intensive research. And it was meteorologist Edward Lorenz—back in the 1960s—who “concluded that long-range weather forecasting might be forever beyond our capabilities.”¹⁴

Sixty years later, we realize that Dr. Lorenz is probably right, and as we have mentioned, the complexity of our atmosphere remains far beyond the human capacity to fully understand. Unfortunately, some scientists have concluded that these mysterious details of weather are the result of “random behavior” or “chaos” within the atmosphere. To be certain, there are a myriad of invisible phenomena taking place in the atmosphere every second that constantly work to alter the predicted course of storms, winds, waves, and precipitation. But these phenomena are anything but chaotic in nature.

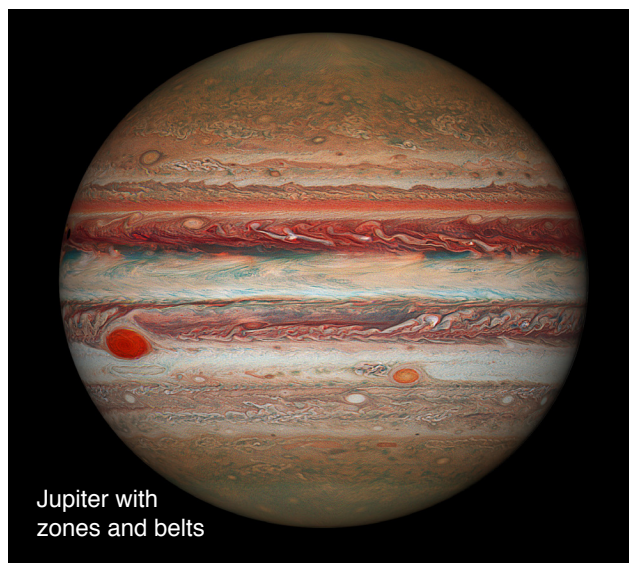
If chaos (a type of random *chance*) really was present in the atmosphere, then we wouldn’t be able to see organized patterns of weather phenomena at all:



cyclones, thunderstorms, hurricanes, calm air, beautiful clouds, or gentle breezes. And God wouldn’t be God. *God and chance*

¹⁴ Ian Roulstone; John Norbury, *Invisible in the Storm*, (Princeton University Press: Princeton, NJ, 2013) p. 231.

cannot both exist.¹⁵ The very nature of clouds and the beauty they reveal is a loud testimony to Christ's complete control of the infinitesimally small water and air molecules found in the atmosphere. These recognizable patterns of weather behavior especially speak loudly of the "storm and calm" of God's amazing character (Romans 11:22).



Jupiter with
zones and belts

Compare Earth with other planets possessing a significant atmosphere (Venus, Jupiter, Saturn, Uranus, Neptune), and something striking becomes apparent. Apart from Earth, none of these worlds show signs of clear weather—we cannot see the surfaces of these planets. Clear skies and calm weather represent, therefore, an incredibly kind gift from Jesus to His living creation here on Earth. And this "miracle" of clear skies allows us to do something we could never do on these other worlds—observe the glory of God visible in the heavens (Psalm 19:1-4; Isaiah 40:26).¹⁶ It is evident from Scripture that God desires people to observe and enjoy His glory (Matthew 6:26, 28).

¹⁵ R.C. Sproul, *Not a Chance*, (Baker Books: Grand Rapids, MI, 1994) p. 3.

¹⁶ For a fascinating discussion of this, please obtain a copy of *The Privileged Planet* on DVD or book.

LOVING OBEDIENCE

*They shall speak of the glory of Your kingdom
and talk of Your power; Psalm 145:11*

The world is full of many dangerous things—hurricanes, volcanoes, poisonous snakes, deadly diseases, lightning, earthquakes, and tsunamis. Yet all of these have a purpose in God's eternal plan of redemption. None happen by accident. Extreme weather reminds us that *God is One to be feared* (1 Chronicles 16:25)! But He is also *the Safe Haven* for those who love Him. At the end of Psalm 91, the Lord gives His people a promise of deliverance from trouble. This promise, however, is conditional—it depends upon our loving Him and knowing His glory. These things—knowing and loving God—are the very reason for our existence.

This should lead us to ask, "How do we love God and know Him better?" Scripture teaches that love for the Lord is built upon the foundation of

fearing and obeying Him. *The test of true Christianity is obedience to Jesus* (1 John 5:2) with godly fear and trembling

(Philippians 2:12). Pastor Andrew Murray (1828 – 1917) has rightly said, "The secret of true obedience . . . is a clear and close personal relationship to God." And knowing Him is born out of obedience. Conversely, it is impossible to be close to God if we disobey His son. This is why Scripture encourages us to bring "into captivity every thought to the obedience of Christ" (2 Corinthians 10:5 KJV).

Do we adore Christ and all He commands us? "How blessed is the man who fears the LORD, who greatly delights in His commandments" (Psalm 112:1). Do we tremble before Him in love (Psalm 114:7)?

***The test of true
Christianity is
obedience to
Jesus.***



This is how we grow in childlike humility (Matthew 18:2-5) and obedience, and this is the true Christian's delight. Fearing God and obeying His commands are, together, the one sure way to remain safe in His all-powerful and loving arms (Isaiah 8:13-14a).

If you adore Jesus, then please make this your prayer: "Give me understanding, that I may observe Your law and keep it with all my heart (Psalm 119:34)." Obedience is more than head knowledge though; we must also long to please God with all our hearts (2 Corinthians 5:9; Ephesians 5:10). If we are honest with ourselves, we will admit that sometimes it's difficult to submit with a whole heart (Romans 7:7-25). Fear not, Christ's love will lead us to obey Him and delight in surrendering our will to His (John 4:19).

What if we have little or no desire to obey God? Eventually, this will lead to dire consequences. Defiance of Christ's authority is like a powerful tornado that destroys, upends, and disorders our lives. In view of nature's universal obedience to its Creator, we must conclude that *disobedience is unnatural.* If we do not delight in Christ's sovereign rule now, we will never see Heaven. If we don't want God to rule our lives now, we will have no desire for Him to rule over us after we die.

Weather reveals the excellencies of our Creator's character. Do we want God to appear to us as a gentle breeze (1 Kings 19:11-13) or a destructive storm (Jeremiah 23:19)? Obedience to Christ and His Gospel is not, however, something we can produce on

our own. It is through Christ's obedience to His Father—in dying for the sins of His people and creating in us the grace of obedience to His Gospel—that we are saved (Hebrews 5:8-9). Please pray that the Heavenly Father will shower you with the grace of His Son, and by His Spirit give you a heart to know Jesus and obey Him. This is eternal life, to know God and the One He sent (John 17:3).

To make known to the sons of men Your mighty acts and the glory of the majesty of Your kingdom. Your kingdom is an everlasting kingdom, and Your dominion endures throughout all generations.

Psalm 145:12-13

Amen



R.J. DESTREE
Editor

PASTOR CHRIS KAWA
JOSEPH ADRIAN
Theology Editors

TREY TIPPIE
Science Editor

DR. SEAN ALLISON
MAGGIE RICHARDSEN
Editorial Panel

KELLEY CARLSON
COLLEEN DESTREE
Art Directors

VISIT US AT OUR WEBSITE:
www.hiscreation.com

The **CREATOR** Journal is published quarterly by **HIS CREATION**, PO Box 1735, Blairsville, GA 30514. Copyright © 2020 by **HIS CREATION**. All rights reserved. Our publications are offered without charge, however donations are greatly appreciated!

Scripture references are from the New American Standard Bible, Copyright © 1960, 1962, 1963, 1968, 1971, 1972, 1973, 1975, 1977, 1995 by the Lockman Foundation.

PHOTO/ILLUSTRATION CREDITS

- 1 NWS
- 2 Simon Eugster CC BY-SA 3.0
- 3 NASA
- 4 NASA/Goddard Space Flight Center
- 4 University of Arizona
- 5 NASA
- 5 Public Domain
- 6 Mountain fog—© Can Stock Photo/Vapi
- 6 Fog—© Can Stock Photo / Enjoylife
- 6 Lightning—© Can Stock Photo/Sportactive
- 6 Tornado—© Can Stock Photo/solareseven
- 6 Sun dog—© BILD LLC / Shutterstock
- 6 Altocumulus in Colorado—© R.J. Destree
- 6 Cirrus—© Can Stock Photo/PaulPaladin
- 6 Cirrus—© Can Stock Photo / Serg64
- 7 Juggling—© giulia186 / Shutterstock
- 8 Computer—© Gorodenkoff / Shutterstock
- 8 High clouds in Georgia—© R.J. Destree
- 9 Jupiter—NASA
- 10 Lightning— Vasin Lee / Shutterstock