

How Great Thou Art

by: Ronald L. Dart

Now I'd like for all of you to make yourselves very comfortable in your seat. Wriggle yourself around; just get yourself in a very, very comfortable position because I want to ask you to not move at all for a moment. Now get yourself in a position where you are not going to get antsy and feel like for sixty seconds or maybe even two minutes that you do not have to move. Okay? Are you comfortable? Now then...do you best to remain absolutely still, relax; do not move. Now you're moving...you're moving...close your eyes for a moment all of you...just close your eyes now and concentrate. Everyone in here is moving at 860 miles per hour at this moment.

Can you visualize that? Do you realize that where you sit in your chair you're actually moving straight forward because if you take a look now – you can open your eyes – this earth of ours rotating on its axis, everybody in here is moving this direction at exactly 860 miles per hour. Now your children should be careful about jumping up and down because, you know, if you're jumping up and the earth keeps on moving at 860 miles an hour, who knows where you may come down. I'll leave it to your parents to explain to you why that's not dangerous to you, but it is something to think about. How fast is that? Is that very fast – 860 miles per hour? Is that really moving along? Is that really getting, you know, picking 'em up and putting 'em down, moving on down the road? It's something well over the speed of sound. It's not quite 150% percent of the speed of sound, but it's well over the speed of sound. That's getting it on. Isn't it? Well...not exactly, because you see, we are also moving at 66,661 – not 62; not 60 – 61 miles per hour around the sun. So the earth itself as it makes its way around the sun is moving – and we're on it – and we're moving right along with it at 66,000 miles per hour?

Now is that fast? That's pretty fast. However, when you think about it, how long does it take us at 66,000 miles an hour to make it all the way around. It takes a whole year. That harkens back to the old sailing days when a ship would leave England, you know, and be gone eighteen months or longer to make a trip to the South Seas and finally get back. To go to Australia and come back could take two years sometimes. You start thinking about that...well, wait a minute...is 66,000 miles an hour that fast? Why does it take so long? Well, the answer is that the journey around the sun is something close to ½ billion miles. 583,600 to be exact; plus or minus a mile. That's a long way, so consequently even when you're moving along at a good clip like 66,000 miles per hour, it doesn't seem so fast when you're looking at that kind of distance.

Now light moves a lot faster than that. We know that light moves at 186,000 miles per second. If you happen to have a pulse rate of 60, that means with every beat of your heart light has traveled 160,000 miles. That works out to be something in the neighborhood of 670 million miles per hour. Now I would say that is fast. By comparison the distance covered in one year at 66,000 miles per hour (that's the speed of the earth around the sun) that distance is covered by light in 52 minutes. Now that's fast. That's picking them up and laying them down. In fact, there is nothing in the universe that is faster than that. There is, it seems, a speed limit in the universe, and that speed limit is 160,000 per second. That is the speed of a photon. What in the Sam hill, one might ask, is a photon? Well a photon is a minute energy packet of electro-magnetic radiation.

Now do you know what a photon is? Told you a lot didn't it? Basically all it is, is a tiny – so tiny that it is inexpressible tiny; a little bundle not of matter, but of energy. And all photons travel at 186,000 miles per hour and they do not exist at rest. If they come to a complete stop, they have no mass, they have no weight, there is nothing to a photon once it stops. They are either going – they've got two speeds: they're either going at a 186,000 miles an hour or they don't exist. They also carry varying degrees of energy with them. And that difference of energy between them is what makes the difference in the color of light. Because all a photon is, is just a little particle of energy which, in a certain spectrum, we see as light. Simple. But the light travels from your face to my eye at 186,000 miles per second. And for all practical purposes, in a room like this, the transmission of light is instantaneous. We are not aware of any change, or any time lapse involved at all, are we? It's not significant.

Do you ever stop to think about, you know, here are all these photons of light arriving here from the sun and they shower light all over the landscape, and maybe at night though, when none of them are coming, we can be in this room and have all the lights on, all these lights are just putting out photons of light. They're just constantly filling the room with it. Now, let's pick a real dark night, no lights anywhere around and of a sudden we switch off the light in this room. What happens to all those photons that were ricocheting around this room until we turned the light off? Well, they're absorbed by the carpet, they're absorbed by the walls, and the things around here. And even our own bodies and our own eyes – they're all just absorbed. Well, how come we don't see them while they decay? Because every one of them are traveling at 186,000 miles per second. And all of that absorption takes place in a period of time shorter than even nano-seconds which is one of the period of times measured by computers. It's even faster than that because of the speeds that are involved in the transmission of light. So consequently, when you begin to look at these speeds that are going on around here; you know, the earth around the sun at 66,000 miles an hour, it's really not so fast at all compared to the speed of light. So here we are sitting on this earth moving at 66,000 miles per hour. Well, no...not exactly. Because, you see, our earth is going around the sun, and the sun is not sitting still. The sun itself is moving as a part of a galaxy of stars. It actually moves in a circular fashion around a center of stars – a globular cluster right down toward the center of this group – looking nothing like so much as a giant whirlpool in the sky if you could really see it. Our sun is about 2/3 of the way out that galaxy and it's making its

way around that. It makes its way around the center of this galaxy at a speed something in the vicinity of 700,000 miles per hour.

Now we're getting on up there in speed, aren't we? Now we're picking it up and laying it down. Now we are really getting on with it – 700,000 miles per hour. Now, how long do you suppose it takes our sun to go from where it is today completely around that galaxy and come back to where it is again today? How many of you think it would take a year or less? Nobody buys that? How many think it would take ten years or less – less than 10 years. Anybody buy that? How many of you think it would take twenty years or less? How many people want to buy any of this? Are you careful or you just saying “Well, I don't know; who cares?” Okay, I'm going to give up and tell you. It will take our sun, traveling at 700,000 miles per hour a 188 million years to make its way completely around the galaxy to where we are today. 188 million years at 700,000 per hour. Now that is fast. And yet when you look at it and when you really consider how far you would get, it isn't that fast. Because whenever you look at the distances, the ratio of the speed of travel of physical bodies becomes really relatively minor by comparison. And so that any kind of movement in interstellar space takes agonizingly long periods of time – 188 million years just to make the loop in the galaxy. Now that all by itself should tell you something about the age of the galaxy. How old it is, and perhaps, how old it's going to be. And then when you look at it and you realize that 700,000 miles per hour that the sun is making its way around the galaxy, is something just barely better than 1/100,000 of the speed of light, then you realize that 700,000 miles an hour, relatively speaking, isn't very fast at all.

But the real shocker comes when you have settled down and you've come to understand the speed of light and you understand that light moves 186,000 miles per second, it really is for all intents and purposes as far as you and I are concerned, instantaneous. When you suddenly realize the size of the universe, even the speed of light seems to be slow for the distances involved. For example, a photon from the center of our galaxy, would take 30,000 years to reach your telescope. Now that's mind-boggling. You might find yourself somewhere along the line – I'm sure you will, in fact – your mind will just slip through two or three cogs as we go through some of these things. Because they really are a little bit beyond what you and I are prepared to grapple with. You and I could go out on a dark night, we can turn our telescopes toward the center of our galaxy and then try to get yourself to understand in your head, in your mind, that what you see in your telescope was happening 30,000 years ago and see if you can grapple with that. That's our galaxy; that's the kind of size we're talking about. This light moving at these incredible speeds will take 30,000 – not days – but years to reach us from the center of our galaxy. And then you begin to try to comprehend what this all means in terms of other things.

For example, our galaxy is part of a cluster of galaxies. It's mind-boggling in itself to realize that our galaxy has something well in excess of a billion stars and it's only one of about twenty of a local – what astronomers call the local group” – if you can call distances like this “local.” There are twenty galaxies in our local group. The Andromeda Galaxy, a

neighboring galaxy, (you can walk out on a clear night if you've got a fairly good little telescope, you can spot that; take a look at the Andromeda Galaxy) that galaxy is something in excess of two million light years away. And they say you can't look in your past. Yes you can. If you can look at the Andromeda Galaxy, you will see it as it was over two million years ago. Good grief. It does make you wonder how anyone would ever decide that the heavens were only 6,000 years old, doesn't it, when the evidence for this is so plain.

Now our group of galaxies is part of what astronomers call a super cluster. Now it's not enough to consider that you have a billion stars in a single galaxy that's only part of a cluster of galaxies, but then you realize that our cluster of galaxies is a part of a super cluster, and super clusters can number something in the vicinity of a hundred clusters and a cluster could have twenty galaxies. Do you realize what you're talking about in terms of numbers and distances in this thing? A super cluster – our super cluster – is something like about 150,000,000 light years in diameter. 150,000,000 light years.

These numbers, you know, your brain does tend to start slipping its clutch a little bit as you grapple with them and try to cope with them, but I've tried to start small and work our way up to see if we can grapple in any way, in any form, with the size of this universe. In this super cluster that you and are in, Virgo, which is the nearest large cluster to us is 50,000,000 light years away. So we turn our telescopes on Virgo and what do we see? We see it as it was 50,000,000 years ago. And you sit there and you wonder well has it burned out since then? Is it still there? Well, the answer is no, it is not still in the same position it was; it has moved considerable. As of this moment, as we speak, as we stand here today, Virgo is not where it appeared to be last night in the telescope; it has moved considerably. In fact, it has probably moved at a speed of one million miles per hour away from wherever the center of the universe is in that period of time. Shocking...a million miles every hour means that in the last 50,000,000 years, it has managed to move itself considerably from that location. And, of course, some of the stars have since gone super nova and burned themselves out; they're no longer visible to us here if we were able to see them individually.

It's really a staggering thing to try to understand what it all means. The furthest objects in the universe, quasars, are something over fifteen billion light years away. We had trouble with 50,000,000 and 150,000,000; now we're up to fifteen billion. These are the furthest objects that radio telescopes have been able to detect in our universe. Curious thing about it is that no matter in what direction we look, we find these most distant objects very similar in all direction and the whole thing is the same it seems. The same sort of distribution in every direction we look. And they say the universe is isotropic which means it's the same no matter where you look at it from. If you were halfway across the universe and you took your telescope and you looked around it, it would look very much like it does to you here where you are today. And that in itself is hard to grapple with. What we detect in radio telescopes today, started its journey fifteen billion light years ago and has traveled constantly at a 186,000 per second and is only now arrived for us to consider it; for us to study it, for us

to analyze it, to grapple with, to somehow try to understand. We can only observe these things as they were fifteen billion years ago and we have no idea what they are today.

On a clear night you can walk outside, how many stars do you suppose you can see. Cast back in your imagination to a night when you were out on a farm somewhere, no lights around, you know, it's really, really good and dark. And you sat back in the chair and you lifted your eyes to the heavens and you looked up and here's the Milky Way lighting its way across the sky and here's a star, a star, a star – everywhere a star. And you know that the Bible speaks of the stars being innumerable in multitude, how it talks in terms of them being like the sand of the seashore. You know what's curious about that statement of the Bible is that the stars really are numerable that you can see. Actually, they can sit down and count them; you can lay out the sky in grids and you group of people together and you can start counting and you can put it together. Funny thing is that really there are only some two thousand stars – what appear to be stars or star-like objects in the sky on a given night as you go out. In the course of a year – with the earth moving around the sun – you may be able to put together, if you're careful, some six thousand different stars that are observable. Some of them are actually double stars. That is two stars revolving around one another and you cannot distinguish them with the naked eye. Others are actually galaxies that you see and you think they are stars. Others are star clusters and various stellar objects is what they're talking about when they say two thousand.

Now, imagine if you can again that most starlit night that you've ever seen. More stars than you've ever seen in all your life. Brilliant, beautiful night, no moon, coal black and dark. Now can you in your imagination double the number of stars that you're looking at? Now triple it. Now multiply that figure by ten. Where along the way do you get to the place to where you've really left no part of the sky uncovered by stars. You know, it begins to get rather crowded when you start thinking about it, doesn't it? We've only gone to say thirty times your initial estimate when you triple then multiply it by ten. How many stars are there? In our galaxy alone there are 500,000,000 times as many times are you are able to see on the clearest night. Now we're not just doubling, and tripling and multiplying by ten; we multiply it by 500,000,000. Why if all those stars were close enough to be seen, how much light would you have at night? The sky would be light from wall to wall, would it not? And that is the stars from our galaxy alone. And there are twenty galaxies in our cluster and there are probably a hundred clusters in our super cluster. They said there are probably a billion galaxies in the universe.

How in the world do they know that? Well, they know it because of various works that they've done with radio telescopes. They quantify the energy coming from various quarters, they square off an area of the sky, the search carefully, they analyze what comes in over here, they're able then to determine from the radio signals coming in the magnitude of mass that's outside and the activity that's there and determine how many galaxies there are in that square. And they do another square over here and the proportion is about the same and they do another one, so statistically they've got it all worked out. They just multiply the thing

down and they say that something like one billion galaxies. And they average something like one billion stars apiece. When you begin to put all that together, that is staggering. Absolutely staggering. There's now clear agreement, I think, among astrophysicists and astronomers both that nothing of our observable universe existed twenty billion years ago. I mean there is nothing in the sky that you can look at with the most powerful telescopes or even radio telescopes that existed more than 20 billion years ago. Not even background radiation. Now that is interesting. It tells you that everything that there is; all that we observe, all the things that we can see, all these billions times billions of stars came into existence less than twenty billion years ago. Now that's an astronomical period of time. It's a mind-boggling period of time, but it is finite. It is real. And it means there was a definite time and point of beginning and that the universe since that time has been expanding and has not stopped expanding until this day. As far as we know. You have to keep in mind, we can't see the most distance ones. But there is no reason to suppose from anything we can see that, that expansion has stopped. In fact the majority of scientists nowadays believe it will never stop. That there will never be a time when all of the general mass of the universe slows all this down, and by gravitation begins to pull it all back together. That That will not happen. There is insufficient mass in the universe to prevent the escape of all galaxies from one another eventually. And that is indeed mind-boggling.

There is, or course, what all of us have heard about: the Big Bang Theory. There was a big bang some twenty million years ago. Called by one the Primordial Fireball which has a certain bit more dignity than Big Bang does. At point zero there was nothing it seems except light. Just an incredible primordial fireball that began at that moment of time. How it began, no one is even willing to attempt to suggest. They cannot find any evidence of what there was before so no one even bothers to speculate that. They have occupied themselves sufficiently with being able to determine with a surprising degree of accuracy that this did happen. Ten seconds later nearly all of the energy is in the form of protons, nearly all of the matter is in the form of hydrogen has expanded itself into a fireball of some 33,600,000 miles in diameter. Ten seconds. One hundred seconds from point zero, the fireball is 36,000,000 miles across. Helium has begun to form in addition to hydrogen. Nuclear reaction has begun to die out in about one hundred seconds from that point zero. All this has been worked out very carefully by theory and from different models of the universe and it's probably not that far out of line. But what actually did take place? It took about a thousand years for the change over to take place from a radiation dominated universe to a matter dominated universe and strangely a hundred million years from point zero the first galaxy formation began. A hundred million years. Which means that those galaxies were something like one hundred million light years from the center of the universe as all that stuff begins to scream at 186,000 miles per second away from the center of the universe.

Is your God big enough for all this? Is your God big enough to step out into space where there is nothing but darkness as far as the eye can see and say "Let there be light?" To create a gigantic fireball 36,000,000 miles apart of pure light, and energy and hydrogen? Your God that big? The one that you worship, the one that you get up and pray to every morning? The one whose Word you study in the Bible? Is he big enough to say the word to

create that primordial fireball of nothing but pure light, energy and hydrogen? 36,000,000 miles across within one hundred seconds from the time he said the words? Is your God big enough to condense energy and hydrogen into stars and galaxies and to begin to transform hydrogen and helium through the nuclear process into iron, selenium, oxygen, copper, all of the different elements that you and I now know? Is your God big enough to make all of that take place? To create it, bring it about? Is your God big enough to call the role of stars and mention every one of them by name? One billion times one billion. How big of a computer would you need to record the names of a billion, billion stars? And yet the mind of God calls them, we're told, all by name. Where would you even find that many names much less the time to name them? The time to call them off? The time to speak them? The time to give attention to them? Of course, when you understand that twenty billion years is not that long compared with eternity, maybe that would help to understand some of the time element involved.

You know with all these things in mind, I think we ought to take a look at some scriptures again. Old familiar scriptures to us maybe; some of them not so familiar. And review in our minds this God of ours and just how great this God is and just what in the world is he doing with this universe. Because here we are just like a fly speck off in one corner of this thing. Little ants crawling around on the globe who have absolutely no significance in a universe that is forty billion light years from one end of it to the other. And that may not be all that there is of the universe. That's all we have been able to discern. And that may not be the only universe. There could be two or three or a hundred or a million universes for all we know. Here we sit trying to think in terms, or trying to fathom or understand or believe in or grasp or grapple with God.

Job had to fight the battle of understanding about God for a little bit. In a time of adversity when things were going bad for him, his perspective didn't always waver. His friends had given him quite a little bit of a bad time. In Job the 26th chapter, he says *"Job answered and said how have you helped him that is without power?"* You aren't helping me a bit by the things that you have said? *"How have you counseled him that has no wisdom? and how have you plentifully declared the thing as it is? To whom have you uttered words? and whose spirit came from you? Dead things are formed from under the waters, and the inhabitants thereof. Hell is naked before him, and destruction has no covering. He stretches out the north over the empty places, and hangs the earth on nothing"* That is a profoundly modern idea. Galileo was sent into permanent exile by the Roman Catholic Church and had to live alone for years because he postulated that God had hung the earth really upon nothing and that the earth could rotate around the sun the way that it did. The Ancients believed that everything up there was suspended and the earth was the only solid thing that there was. And yet Job knew that the earth was hung in space. That God had hung the earth upon nothing. He said *"He binds up the waters in his thick clouds; and the cloud is not rent under them. He holds back the face of his throne, and spreads his cloud under it. He has compassed the waters with bounds, until the day and night come to an end. The pillars of heaven tremble*

and are astonished at his reproof. He divides the sea with his power, and by his understanding he smites through the proud. By his spirit he has garnished the heavens..."

It's interesting. I sat in a restaurant and saw on the menu this little thing called "entrecôte steak garni" which means a little flank steak garnished. And by garnished they sort of surround it with some peas and carrots and a little parsley and so forth. And here the translators of the Bible use the word "garnish" like you would garnish a plate, or like you would garnish a wall with decorations, or like you would wander around your house hanging up lights at Christmastime and they say he has garnished the heavens. Decorated it with streams of lights. He puts the stars out there just like you and I would hang up little strings of lights here and there in times of celebration, or put little decorations and garnish the room, you know, hang things on the wall and put up flowers for a wedding. All those little things that we do, he said, God garnishes the heavens much in the way that we would do that. *"By his spirit he hath garnished the heavens; his hand hath formed the crooked serpent."* Now that's not talking about the devil or Satan being the serpent. It's an ancient reference, probably the oldest reference, to Draco, the serpent, which is the constellation that is about in between the Big Bear and the Little Bear, the Big Dipper and the Little Dipper in the northern heavens. If you find the Big Dipper and look to the North Star, Polaris, right in between you'll see, if you look carefully, a little twining of stars that winds up to a four-star head which is by the Ancients referred to as "The Serpent" otherwise known as "Draco", one of the constellations well known to people who study the heavens. And that's the reference. He said, *"his hand formed the crooked serpent."* He actually put them in position ; moved them around; for us to view. It's an interesting simile that he drew and what he's saying is that God has placed these things where they are. Now perhaps Job may not have fully understood that in about 25,000 years or so, if we're all still here, those stars will not be in quite the same positions that they are today. For example, the Big Dipper in about 25,000 years will no long be recognized as such because all the stars of the Big Dipper are moving in different directions relatively from our point of view, and would look quite different in that period of time because the heavens do move. But for all the time of man, the heavens have basically been the same. And that's the reference he is making here.

Turn back to Job 37 were God has begun to speak to Job. In chapter 37 he said *"This also my heart has trembled and has moved out of his place. Hear attentively the noise of his voice, and the sound that goes forth out of his mouth."* Later he will say in verse 17 *"How your garments are warm, when he quiets the earth by the south wind? Have you with him spread out the sky, which is strong, and as a molten looking glass?"* Like this beautiful heavens that are above us. Chapter 38, passing down to verse 31 *"Can you bind the sweet influences of Pleiades, or loose the bands of Orion?"* What's he talking about here? He started out in the chapter by saying the *"Then the LORD answered Job out of the whirlwind, and said, Who is this that darkens counsel by words without knowledge? Gird up now your loins like a man; for I will demand of you, and answer you me. Where were you when I laid the foundations of the earth?"* This is the theme that God will continue to develop with Job all through this chapter. And he puts him in his place by saying "Alright, I've gone on and

you've talked and you've spilled out all these words before all these people and you've talked as though you were a great wise man. I have a question for you: Where were you when I did these things? Do you have the power to bind that great serpent yourself?" And the answer, of course, is no. And he said in verse 31 *"Can you bind the sweet influences of Pleiades, or loose the bands of Orion?"* What does he mean?

Well, you go up in the night sky and you'll find those three stars across which form what is generally called the "Belt of Orion" and you've got this Orion, the Hunter, who is one of the constellations in the sky. And he says "I want to know this. Can you walk out there tonight and can you lose those things which hold Orion in place?" Those stars that are there and they were there last year and they were there the year before. And even though they are moving at such incredible speeds in your entire lifetime, and in fact, in the entire history of the earth they will always look the same, can you move them around? Can you put them in place? Can you cut them loose?" Pleiades is one, he says can you bind it? Orion is another, can you lose it? *"Can you bring forth Mazzaroth in his season? or can you guide Arcturus with his sons?"* Other references to constellations in the sky which show up in their seasons and are not seen at other times. Can you control when they're there and when they're not, he wants to know. *"Do you know the ordinances, the laws of the heavens? Can you set the dominion thereof on the earth? Can you lift up your voice to the clouds that the abundance of waters may cover you?"* and so on. Can you do these things? It's an astonishing thing to realize. He says *"Do you know the ordinances of the heavens?"*

And here we are so many thousands of years later (because Job is probably the oldest book in the Bible; probably written long before any other book in the Bible was ever written. It's the most ancient Hebrew.) And here we are all these thousands of years later, and we know so much more than he knew and yet we know so little comparatively speaking, compared to what there is to be known. We know we can say that the universe is some twenty billion light years across, but he might not have understood that; might not have grasped it. We come to grasp with some degree, maybe, the age of the earth; things that he did not know and yet we still know so little of the ordinances of heaven. We still, in all that we see and all that we have explained and all of the things and in forty years of study basically the Big Bang Theory, in forty years of the analyze of this thing, there has no absurdity cropped up in it. And there should have been if the theory is wrong. And yet with all that we understand and we look out to the heavens, there are still things that are not there that ought to be there. There are still things that we don't see that we should be able to see. There are still suggestions or ideas or thoughts of theories that cannot be weighed because we have no way of measuring. And we are still, like Job, God can look just right at us and say *"Do you know the ordinances of the heavens?"* And the most intelligent and the most learned, and the wisest among us would have to say "No, Lord; no, Lord, we really don't even yet understand or begin to grasp the ordinances (that is the laws) of the heavens." As much as we have learned; as far as we have come, we still find ourselves absolutely helpless in the face of such distance, in the face of such power and can only by the power of the logic which God has placed in human minds even grapple with it at all.

In Psalm 19:1 David being moved with what he saw in the night sky said, *"The heavens declare the glory of God; and the expanse shows his handiwork. Day unto day utters speech, and night after night shows knowledge. There is no speech nor language, where the voice of the stars is not heard. Their line is gone out through all the earth, and their words to the end of the world. In them has he set a tabernacle for the sun, Which is as a bridegroom coming out of his chamber, and rejoices as a strong man to run a race. His going forth is from the end of the heaven, and his circuit to the ends of it: and there is nothing hid from the heat thereof. The law of the LORD is perfect, converting the soul: the testimony of the LORD is pure, making wise the simple. The statutes of the LORD are right, rejoicing the heart..."* and so on he goes with the tremendous explanation, not only of the physical law of God as is witnessed in the heavens, but the moral law of God as it is witnessed in the earth. What a beautiful concept that keeps being developed again and again. There's so many scriptures in the Bible that refer to things like this. Turn back to the 136th Psalm, beginning in verse one *"Oh give thanks to the LORD for he is good"*. This is that unusual Psalm where the repeated expression *"His mercy endureth forever"* is found. Obviously it was written to be sung and probably was sung in counterpart with these things working together. *"O give thanks to the LORD; for he is good: for his mercy endures for ever. O give thanks to the God of gods: for his mercy endures for ever. O give thanks to the Lord of lords: for his mercy endures for ever. To him who alone does great wonders: for his mercy endures for ever. To him that by wisdom made the heavens: for his mercy endures for ever. To him that stretched out the earth above the waters: for his mercy endures for ever. To him that made great lights: for his mercy endures for ever: The sun to rule by day: for his mercy endures for ever: The moon and stars to rule by night: for his mercy endures for ever."* Through every generation men look to the skies and saw again and again the glory of God and the power of God as it was expounded. Turn over to Isaiah, one of the prophets who got rapturous really about the universe. Isaiah chapter 40:21 *"Have you not known? have you not heard? has it not been told you from the beginning? have you not understood from the foundations of the earth? It is he that sits on the circle of the earth, and the inhabitants thereof are as grasshoppers; that stretches out the heavens as a curtain, and spreads them out as a tent to dwell in: That brings the princes to nothing; he makes the judges of the earth as vanity."* All these references that crop up (I won't go on with them, but there are so many of them) where the prophets and others make reference to the heavens declaring the glory of God and even in the obligation to all of us to proclaim his glory out of the heavens to all the earth. What is the fate of the universe? You look around you and you see all this and it has gone on for so long, what is the fate of it? Where is it going? What do informed and educated men believe is eventually going to take place. The one thing that is very evident to everyone is that entropy is everywhere. That means that whatever is here, has been wound up and is running down and will continue to run down. All the stars continue to grow colder and they all have a definite life span. They have a time to be born, a time to live, and they go through phases, and the time will come when they will all die. They time will come when our sun will eventually evolve into a red giant as it cools. Its radius will eventually reach the present orbit of Mercury, according to the Encyclopedia Britannica article on this, its radius

will reach the present orbit of Mercury, the Earth's oceans and atmospheres will be long gone before that time because of the heat. Most stars by this time will be very old and approaching the same sort of fate. The Milky Way will slowly become faint and dark. The galaxy, a graveyard of stones. "Man, if he has survived, in a form beyond the wildest dreams of the 20th century, will have embarked on his last and perhaps greatest adventure." What an interesting statement.

Now lest any of you lose any sleep over this as far as time is concerned, they expect the sun to have come to be this red giant somewhere in the neighborhood of ten billion years from now. So, as I say, you don't need to go running out and try to make some kind of preparation for this because it's not going to take place tomorrow. Not by the normal evolutionary course of events. But what we read out of the Book of Revelation, however, is another matter entirely. Ten billion years in the future, but then, of course, eternity is a whole lot longer than that.

There's one Psalm that I skipped over. I'd like you to turn back to it with me. The 8th Psalm. *"O LORD, our Lord, how excellent is your name in all the earth! who have set your glory above the heavens."* Can you think of anything that demonstrates the glory of God more than the physical universe that you can I can sit out here and study and look at and stare at on a dark night? *"O LORD, our Lord, how excellent is your name in all the earth! who have set your glory above the heavens. Out of the mouth of babes and sucklings have you ordained strength because of your enemies, that you might still the enemy and the avenger. When I consider your heavens, the work of your fingers, the moon and the stars, which you have ordained."* How big is God when the moon and the stars are the work of his fingers. Oh, I know he's speaking metaphorically, but still to grapple with what David saw as the greatness, the power, the glory of God so transcending this one is able to form, to shape, to position, to move if necessary, stars, galaxies, worlds, what a staggering thing to realize what he's done. *"When I consider your heavens, the work of your fingers, the moon and the stars, which you have ordained; What is man, that you are mindful of him? and the son of man, that you visit him?"*

One of the things I wanted to do today is to kind of try to get a perspective on ourselves. To try to get a different look. When you start off thinking in terms of going 860 miles an hour toward the rising sun the next morning, that's impressive speed. Then when you think in terms of 66,000 miles and hour, hurrying around to the four seasons to find your way back to summer again, that's awfully fast. Then when you think in terms of 700,000 miles per hour, you've moved even faster and you get on up to the speed of light and you're screaming along at the speed of the universe and you still feel like you're stuck in the mud because of the size of everything, it does help one to realize that somewhere down in the corner of a galaxy on a second-rate or third-rate star or the planet rotating around that star, are a group of small mortal, short life span, you know, living to be sixty or seventy or eighty or ninety years old, who cannot even travel to the nearest star because it's too far for our life spans to cope with. Four and a half years at the speed of light if we could do it. But, you see,

we can't do it. None of us can even live long enough to take a trip to the nearest star and back at the speed our earth is going around the sun. Or even our sun is going around our galaxy. Even at those speeds we cannot do it. For you see that speed, that fastest speed of our sun around the galaxy, that thing is only moving at 1/1000,000 of the speed of light. And it would take four and a half years to go to that nearest double star at the speed of light. At 700,000 miles per hour, what would that work out to be? Four thousand years out and four thousand years back and it might as well be forty million because we would never in ourselves be able to make it. Not with our little old limited life span that we have. It's a peculiar thing as you look at this and you think about it, as all this takes place, are there other worlds and other people? Why not? You see there's plenty of room in this universe of ours for all of us, isn't there? There's just loads and bags of room all over the place. And you see we all live such short life spans and we are so far apart that there's no way any of us will ever bother any of the rest of us. We are, in fact, so far apart that in the entire span of recorded human history, if we all started on these universes about the same time, none of us would ever have time to get a radio signal to another galaxy and back or another star much less go there. So God has ensured that we will never know and we'll never visit and we'll never interfere.

We are all impressed with *Star Trek*. They get up in their little spaceship and Captain Kirk says "Give me Warp 7." You know what "Warp 7" means? Seven times the speed of light. Big deal. Seven times the speed of light you're tripping along here. But when you're talking about twenty billion light years away and you divide that by seven, how long is it going to take it to make it. When you talk about thirty thousand light years away and divide that by seven, how long is it going to take you to make it? Captain Kirk, Scotty and the rest of them haven't got very far when you get right down to it in their own galaxy. Of course, it's fantasy and it's fun, and maybe to some small degree it helps people to realize what a tremendous place it is. I'm still waiting on the science fiction movie that presents the universe as it is. *2001: A Space Odyssey* might have gotten somewhere in the general vicinity of it, but there is much more that could be said and much more that could be done if people want to get involved in science fiction as opposed to fantasy which is really a better description of what most science fiction turns out to be.

"What is man, when you look at all this, that you are mindful of him? Or the son of man that you visit him?" Is he really that important? Turn back to Hebrews, where Paul quotes this scripture and where we can see his interpretation; what he saw in it; what it meant to Paul himself. He says beginning in chapter two of the Book of Hebrews *"Therefore we ought to give the more earnest heed to the things which we have heard, lest at any time we should let them slip. For if the word spoken by angels was steadfast, and every transgression and disobedience received a just recompense of reward; How shall we escape, if we neglect so great a salvation; which at the first began to be spoken by the Lord, and was confirmed to us by them that heard him."* I mean, with all the facts that God has spoken in all these times past. He's spoken by prophets and he's given them visions and he's given them dreams and here comes this big old little man down out of the mountains and says three and a half years it's not going to rain. And that's the way God spoke to them. But in these last

days he sent his own son to us. Now how are we going to escape if we don't listen to his son? He says in verse five: *"For to the angels has he not put in subjection the world to come, whereof we speak. But one in a certain place testified, saying, What is man, that you are mindful of him? or the son of man that you visit him? You made him a little lower than the angels; you crowned him with glory and honor, and did set him over the works of your hands: You have put all things in subjection under his feet. For in that he put all in subjection under him, he left nothing that is not put under him. But now we see not yet all things put under him.."* How true it is. How true it is. The star Aldebaran has not been put under us yet. We can only sit on a dark night and a little telescope and look at it through the telescope and wonder about the distance and what is there. The star Altair is still far beyond our grasp of anything we can do except look and wonder and ponder. The Crab Nebulae, the Horsehead Nebulae, these things we can look at and wonder and ponder, but they're not under our dominion yet. The furthestmost quasars are there for us to study. Seems as though it's the glory of God to hide a matter and the glory of kings and men to search it out and try to find it. He's left us all this to busy ourselves with and in the process understand how great he is and how small and how petty we ourselves are. Everything's not under us yet, but it is intended that it be.

"But we see Jesus, who was made a little lower than the angels for the suffering of death, crowned with glory and honor; that he by the grace of God should taste death for every man. For it became him, for whom are all things, and by whom are all things, in bringing many sons to glory." Now that's staggering to think about. Because God speaks of his own glory being above and beyond and greater than the glory of the heavens and then he turns right around and talks about that one of the objects and one of the things that he's doing with mortal who crawl around like so many caterpillars upon the earth, is to bring these sons to glory. To bring them to the kind of glory that he himself has to the point that John would say, *"When we shall be with him, we shall see him as he is for we shall be like him bringing many sons to glory."* This is what Paul saw the importance of that Psalm being and looking up to the heavens and having your imagination stagger with what you see and then say with all of this and realizing the power of God and realizing what he has done and what he can do, "why on earth does he concern himself with us?" The staggering truth comes home that all of this is about us and for us. The whole thing was done to prepare an environment for me and to create man in that environment. To give him life, to give him a chance himself to become like God. What is man? He is the object of the whole exercise and that is staggering beyond belief.

It is sad in a sense, and sobering as well, that we occupy ourselves with so many little things, so many tedious things, so many petty things, isn't it when you think about it. Then you turn back and you read a scripture like Isaiah 51 and wonder how hard it is for us to keep our perspective. Isaiah 51:1 *"Listen to me, you that follow after righteousness, you that seek the LORD: look to the rock from where you are hewn, and to the hole of the pit from where you are dig. Look to Abraham your father, and to Sarah that bore you: for I called him alone, and blessed him, and increased him. For the LORD shall comfort Zion: he will*

comfort all her waste places; and he will make her wilderness like Eden, and her desert like the garden of the LORD; joy and gladness shall be found therein, thanksgiving, and the voice of melody. Listen to me, my people; and give ear to me, O my nation: for a law shall proceed from me, and I will make my judgment to rest for a light of the people. My righteousness is near; my salvation is gone forth, and my arms shall judge the people; the isles shall wait on me, and on my arm shall they trust. Lift up your eyes to the heavens, and look on the earth beneath: for the heavens shall vanish away like smoke, and the earth shall wax old like a garment, and they that dwell therein shall die in like manner: but my salvation shall be for ever, and my righteousness shall not be abolished.” Interesting that the analysis that they gave that the galaxy is slowly growing cold. He says that the heavens shall vanish away like smoke. Just like decaying and burning out, even God implies that the end of the universe must be as we ourselves finally figured out the end of the universe must be. *“Listen to me, you that know righteousness, the people in whose heart is my law; fear you not the reproach of men, neither be you afraid of their revilings. For the moth shall eat them up like a garment, and the worm shall eat them like wool: but my righteousness shall be for ever, and my salvation from generation to generation. Awake, awake, put on strength, O arm of the LORD; awake, as in the ancient days, in the generations of old. Are you not it that has cut Rahab, and wounded the dragon? Are you not it which has dried the sea, the waters of the great deep; that has made the depths of the sea a way for the ransomed to pass over? Therefore the redeemed of the LORD shall return, and come with singing to Zion; and everlasting joy shall be on their head: they shall obtain gladness and joy; and sorrow and mourning shall flee away. I, even I, am he that comforts you: who are you, that you should be afraid of a man that shall die, and of the son of man which shall be made as grass; And forget the LORD your maker, that has stretched forth the heavens, and laid the foundations of the earth; and have feared continually every day because of the fury of the oppressor, as if he were ready to destroy? and where is the fury of the oppressor? The captive exile hastens that he may be loosed, and that he should not die in the pit, nor that his bread should fail. But I am the LORD your God, that divided the sea, whose waves roared: The LORD of hosts is his name. And I have put my words in your mouth, and I have covered you in the shadow of my hand, that I may plant the heavens...”* That is one of the most astonishing statements that I have ever read in the Bible. I cannot think of any ordinary explanation that reaches out to it or that touches it. “...that I may plant the heavens.” this doesn’t mean sowing stars up there because that was done long ago. It doesn’t mean ordering the heavenly farm of galaxies; that was done long ago. It is almost as though he is suggesting peopling the heavens at some time in the future. Covering them with his own sons. The people that are born of him to be rulers over the furthest reaches of the universe or the galaxies or the quasars or black holes or whatever else there is out there for us to understand and to know. Wouldn’t we hate to miss out on the revelation that will come of the origin of the universe and how it was built and how it developed and where it went? Wouldn’t it be a horrible shame if those of us who understand the glory of God should fail to proclaim the glory of God throughout the world and among all people and all nations and all tongues and all times. I’m reminded of an old song that we love to sing and we love to hear:

O Lord, my God, when I in awesome wonder
Consider all the worlds Thy Hands have made
I see the stars, I hear the rolling thunder
Thy power throughout the universe displayed
Then sings my soul, my Saviour God, to Thee
How great Thou art, how great Thou art.

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Hear more on his "Born to Win" radio program and at borntowin.net.

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