

Widening our Horizons – celebrating 65 years of human spaceflight

Opening Music: 'In Paradisum' from Faure's Requiem

Find it here: <https://youtu.be/6-i1ESIRKdA?si=hagl8OVni02UgjXS>

Welcome: to each and every one of you, whoever you are and however you are feeling, and whatever you bring in your heart – joy, sadness, uncertainty or curiosity! You are welcome, whatever your faith or none.

You are especially welcome if you are joining us for the first time, whether you are here in church, joining us via the wonders of technology on Zoom, or watching the recording online later.

Today it is exactly 65 years since the first human being flew in space, marking the beginning of a new stage in humanity's journey. In our service this morning, we celebrate those 65 years of achievements and the widening of our horizons.

We start, as is our custom, by lighting our chalice flame, as a symbol of our free religious faith. For those at home, if you have a candle you may like to light it with us now.

Chalice Lighting:

Beautiful is the light,
Sunlight streaming through the windows, the soft glow of the candle,
The flaming sky before darkness,
The glittering stars, and the soft silver glow of our moon that light the night,
And the dawn breaking endlessly over the bright rim of creation.

Opening Words:

Above the Moon, Earth rises, a sunlit mossy stone,
a garden that God prizes, where life has richly grown,
an emerald selected for us to guard with care,
an isle in Space protected by one thin veil of air.

Our first hymn is on the theme of exploration, words by a former Minister of this church, Rev John Andrew Storey

1st Hymn: Green Book 40 'Once the fearless navigator'

Once the fearless navigator
Sailing from some native shore,
Bravely crossed uncharted waters,
Finding new lands to explore.

Now we look beyond our planet,
Reaching upwards to the stars:
We have walked the lunar deserts –
Soon we'll tread the soil of Mars.

All that science may discover,
As the Universe it delves,
Will be only scraps of knowledge
If we fail to know ourselves.

So the journey of the spirit,
Which each human soul must face,
Takes us on a greater voyage
To the depths of inner space.

Music: 'Sharon' William Boyce, 1710 - 79

Words: John Andrew Storey, b.1935. Used by permission

Prayers:

Prayer for others and ourselves:

Let us pause and hold in our thoughts & prayers those of our own church community and their loved ones, and those in the wider world, who are experiencing difficult, sad or worrying times, whatever the causes.

We hold in our thoughts & prayers all whose lives have been lost or changed forever through violence due to political and social unrest, natural disasters or accident or plain misfortune, around the world. May those fleeing conflict or natural disasters, many of them vulnerable: the young, the sick, the elderly, find sanctuary and peace. May the places to which they flee somehow find the strength and resources to provide what is needed. May those claiming to be the leaders of all countries be blessed with compassion and wisdom to prevent further destruction.

We think today of dangerous tensions between the so called super powers. May sense & a desire for peace, prevail.

Let us pray that the increasingly fragmented society in our own land, comes to its collective senses, to resolve its differences, heal its self-inflicted wounds, and be at peace with itself.

As we pause now in the quietness of our own thoughts, let us consider both the blessings and the trials of our own lives, and dedicate ourselves to sharing our blessings and to doing what we can to ease the trials of others.

We pause in the shared good silence ... *AMEN* **PAUSE**

Prayer adapted from words of Robert T Weston

Oh Mystery beyond my understanding,
voice in my heart answering to the earth and the light of distant stars!

Oh wonder of this season: the dewdrops sparkling on the web at sunrise, and unseen life moving in the depths and shallows of the brook, trembling in raindrops at the edge of eaves,
Whisper to me of secrets I would know...

O power that flows through me and all that is,
Light of moon and sun and stars, pulsating in the atoms in my heart,
Whether you are mind and spirit or energy transcending human thought
I cannot know, and yet I feel that out of sorrow and pain and the toil through which creation springs from human hands,
A force works toward the victory of life,
even through the stars.
New buds burst forth and life presses on,
O Mystery, May we ever lift keep our sense of wonder and awe
.....*AMEN*

1st Reading; The Bible contains several verses referring to the cosmos, highlighting the beauty and majesty of God's creation. They include verses from Genesis 1:1, Psalm 19:1, and Isaiah 40:26.

Key Verses

Genesis 1:1: "In the beginning, God created the heavens and the earth."

This establishes the concept the cosmos as part of a divine plan.

From Psalm 19:1: "The heavens declare the glory of God; the skies proclaim the work of his hands."

Isaiah 40:26: "Lift up your eyes and look to the heavens: Who created all these? He who brings out the starry host one by one and calls forth each of them by name."

Psalms 8:3-4: "When I consider your heavens, the work of your fingers, the moon and the stars, which you have set in place, what is mankind that you are mindful of them?"

For the first time, in 1961, human beings were sent short distances into space to take a closer look at these wonders, not for aesthetic enjoyment, but as part of an intensely political competitive international 'space race' between the USSR and USA.

The first was Yuri Gagarin, a Soviet cosmonaut, launched aboard the Vostok 1 spacecraft from the Baikonur Cosmodrome in Kazakhstan at 9:07 AM Moscow time on April 12, 1961 – 65 years ago today. He famously exclaimed "Poyekhali!" ("Let's go!") at liftoff. The spacecraft reached a maximum altitude of 327 kilometers (203 miles) and travelled at a speed of approximately 27,400 kilometers per hour (17,000 mph), and completed a single orbit around Earth. The flight lasted 108 minutes from launch to landing. He ejected from left his capsule and parachuted to earth, landing safely on farmland. The first person to greet him was a small girl. In this video clip, made on the 60th Anniversary, this now elderly lady shares her memories of this momentous event

Video clip: Yuri Gagarin 1st man in space

(Memories of a Russian woman who saw him after his landing)

Watch it here; <https://youtu.be/KANuFlElQ5k?si=D6yoUFbMOVx-jzPb>

Less than a month later, the second human to go into space was the American Alan Shepard. on May 5, 1961. His flight was not as long and the USA felt the sting of disappointment at being pipped to the post by USSR. Within a few weeks, President Kennedy made his famous pledge to send men to the moon by the end of the decade. Within two years, more Americans were going into space. Many people questioned the value of sending humans, rather than relying on machines alone. This true story answers them!

Story: 'Man or machine?' read by Stephen

On May 15-16, 1963 Gordon Cooper was orbiting Earth alone inside a capsule barely big enough to turn around in, moving at 17,500 miles per hour. This was part of the American Mercury-Atlas program of space flights. He had been up there for 22 orbits, 34 hours, 19 minutes, 49 seconds

THE WARNINGS

Then the warnings started. First a faulty sensor screaming that the ship was falling — it wasn't. So, he switched it off.

Then something far worse: a short circuit knocked out the entire automated guidance system. The one that kept the capsule steady. The one that was supposed to bring him home.

This made re-entry nearly impossible — too shallow an angle and the capsule would bounce off the atmosphere, back into space, too steep and it would be incinerated. The margin for error was razor thin—and every computer that was supposed to hit that margin was dead.

SILENCE

Down on the ground, NASA engineers watched the telemetry in silence. They could see everything going wrong. They could fix nothing.

Gordon Cooper didn't panic. Because when you have no computers left, you become the computer. He uncapped a grease pencil and drew lines directly on the inside of his window to track the horizon. He looked up at the stars he had spent months memorizing and used

their positions to orient the ship by eye. Then he set his wristwatch to calculate timing in his head, and at exactly the right moment - calculated in his head, confirmed by the stars outside — he fired the retrorockets.

The capsule shook.

The sky turned to fire.

For several minutes, no one on Earth could reach him as plasma swallowed the ship whole.

Then the parachutes opened.

Faith 7 splashed down just 4 miles from the recovery ship USS Kearsarge. It was the single most accurate landing in the entire Mercury program.

The man with a wristwatch and a few pencil marks on a window had outperformed every automated system NASA had.

This proved that the final backup was never the software but the human who could look out the window and think clearly under pressure

THE LESSON

We talk a lot about technology saving us. And it often does. But Gordon Cooper's story is a quiet reminder that behind every machine, there still has to be a human being who can look out of the window, think clearly under pressure, and decide what to do next.

Video clip: Yuri Gagarin became 1st man in space (made in 2018)

Watch it here: https://youtu.be/vkVAqNbX0Nw?si=GfxMYk5sP_oaG156

2nd Hymn: 212 Purple Book: 'Where my free spirit onward leads'

Where my free spirit leads,
well, there shall be my way;
by my own light illumined.
I've journeyed night and day;
my age a time worn cloak I wear
as once I wore my youth;
I celebrate life's mystery;
I celebrate death's truth.

My family is not confined
to mother, mate and child;
but it includes all creatures
be they tame or be they wild;
my family upon this earth
includes all living things
on land, or in the ocean deep,
or borne aloft on wings.

The ever spinning universe,
well, there shall be my home;
I sing and spin within it
as through this life I roam;
eternity is hard to ken
and harder still is this:
a human life when truly seen
is briefer than a kiss.

Tune 'Kingsfold' Melody collected by Lucy Broadwood, 1858-1929. Adapted and arranged by RV Williams. Words: © Alicia S. Carpenter b. 1930. Used by permission

2nd Reading: First Holy Communion on the Moon read by Viv

I am grateful to Viv for reminding me of this, and she will read it for us now:

The First Communion on the Moon

Apollo 11, July 20th 1969, Neil Armstrong became the first human to set foot on the moon. This Eastertide, Christians may rejoice that the second man to do so, Buzz Aldrin, was the first to celebrate Holy Communion there.

In 1969, Buzz Aldrin was an elder at Webster Presbyterian Church in Houston, where he was given the communion kit that he took to Sea of Tranquility after obtaining the agreement of NASA.

Upon landing on the Moon in the “Eagle” Lunar Module, Buzz made the following announcement to Mission Control.

“Houston, this is Eagle. This is the LM pilot speaking. I would like to request a few moments of silence. I would like to invite each person listening in, whoever or wherever he may be, to contemplate for a moment the events of the last few hours, and to give thanks in his own individual way.”

Aldrin reported the following later

“In the radio blackout, I opened the little plastic packages which contained the bread and the wine. I poured the wine into the chalice our church had given me. In the One-sixth gravity of the moon, the wine slowly curled and gracefully came up the side of the cup.

Then I read the Scripture:

‘ I am the vine, you are the branches. Whosoever abides in me will bring forth much fruit, for without me ye can do nothing.’

Buzz continued, “I had intended to read my communion passage back to earth but at the last minute Deke Slayton had requested that I not do this. NASA was already embroiled in a legal battle with Madelyn Murray O’Hair, the celebrated opponent of religion, over the Apollo 8 crew reading from Genesis while orbiting the moon at Christmas. I agreed reluctantly
.....

“Eagle’s metal body creaked. I ate the tiny Host and swallowed the wine. I gave thanks for the intelligence and spirit that had brought two young pilots to the Sea of Tranquility. It was interesting for me to think: the very first liquid ever poured on the moon, and the very first food eaten there, were the communion elements..... At that time I could think of no better way to acknowledge the enormity of the Apollo 11 experience than to give Thanks to God”.

(The event can be relived in the 1998 mini series “From the Earth to the Moon”.)

It is now April 2026 and 96 year old Buzz Aldrin watched the Artemis lift off with his daughter Jan who stated:

“It was amazing to share the lift off of Artemis II with my father watching the launch of a new generation of explorers to leave the planet. Congratulations to the Artemis team and Godspeed to the crew of Artemis”

Meditation: 'One Small Step' by Rev Cliff Reed, originally written for 25th Anniversary of the first moon landing.

“One Christmas an astronaut spoke to us from space. He read to us from Genesis: "In the beginning God created the heaven and the earth..." He greeted all of us on "the good earth".

One July evening two astronauts landed on the Moon.
One called it "One small step for man, One giant leap for mankind".

We walked on another world. We saw earthrise, - and- we thought – could never be the same again.

We gained perspective; saw the earth's beauty and fragility; the absurdity of our pride.

Ingenuity and technology, ambition and politics, money and resources beyond imagination, these got us to the Moon.

These - and the ambivalent human spirit, "a little lower than the angel", reaching out both in wonder and in would-be-mastery.

That was then. We've drawn back and the astronauts bide their time. But the memory and the pictures remain, the words from space, earthrise ... and the perspective too. Let us reflect upon them.

O God, who made the lights in the firmament, we who once walked the lesser light seek wisdom to walk the good earth in gentleness and peace.”

Reflective Music/video clip : Majestic beauty of the cosmos, with images from the Hubble Space telescope

Find it here; <https://youtu.be/khySM1YBQvA?si=198vHNznaGwSvb6j>

ADDRESS – 'Widening our Horizons – 65 years of human space travel

Sixty five years is not so very long; it is less than the modern average lifespan of a person living in the affluent west, and falls short of the Biblical lifetime mentioned in Psalm 90:10,: "The days of our years are threescore years and ten."

Yet in the 65 years since Yuri Gagarin made his historic single orbit of the Earth, there have been so many achievements! Human space flight has evolved dramatically, with many milestones along the way. Yuri Gagarin's flight marked the beginning of human space exploration and of the 'space race' between the United States and the Soviet Union, as already mentioned.

Before going any further, however, lets pause for a moment to think about the many animals sent up, before humans, to test whether living organisms could even survive spaceflight. It was seen as an essential stepping stone to human missions. More were sent up later, to study the effects of space flight on body processes. USA, Soviet Union, France, Argentina, China, Japan and Iran all sent up animals.

These celestial Noah's Arks included included fruit flies, monkeys and apes, dogs, cats, tortoises, mice, rats, rabbits, fish, frogs, spiders, insects, and quail eggs (which hatched on Mir in 1990). The US launched the first primates in 1949. The USSR launched two dogs into sub-orbital flights in 1951. Both survived. Maybe the best known was Laika, found as a stray puppy in Moscow. After weeks training her to live in confined conditions, she was launched aboard Sputnik 2 November 3, 1957, into a low orbit. It is now thought she died within a few hours.

Five months later, Sputnik 2 containing Laika's remains, re-entered Earth's atmosphere and burnt up. I can remember as an 8-year old, asking my Dad what happened to her. He was lost for words and tried to comfort me by saying she wouldn't have felt any pain. There is a memorial to Laika in Moscow, acknowledging her contribution to space exploration.

Two tortoises and several varieties of plants were the first living beings to circle the Moon in September 1968 on the 'Zond 5' mission. In 1972, five mice nicknamed Fe, Fi, Fo, Fum, and Phooey orbited the Moon a record 75 times as part of the Apollo 17 mission. Many animals survived their journeys with no ill effects and contributed to our understanding of long-term living in space, but surely, the time has come for the studies to focus now on humans.

So back to the human guinea pigs!

Early Milestones

In the months following Yuri Gagarin's flight, he visited many countries, as we saw on the video clip, his engaging personality and cheery smile winning many hearts around the world.

Weeks after Gagarin's flight, Alan Shepard became the first American in space on May 5, 1961, in the first Project 'Mercury' flight. The Mercury flights each carried one person. They prepared the way for future multi-manned missions, and as we heard in the story read by Stephen, proved the unique value of having a person on board, compared with flights carrying only machines and instruments.

Russia Valentina Tereshkova became the first woman in space, in Vostok 6 on 16 June 1963. She spent almost three days in space and orbited the Earth 48 times. She was the only woman to have been on a solo space mission. 26 years old at the time of her

spaceflight, she remains the youngest woman to have flown in space (international definition of 100 km altitude), and the youngest woman to fly in Earth orbit. She later married Andrian Grigoryevich Nikolayev, a fellow cosmonaut.

March 18, 1965: Alexei Leonov performed the first spacewalk (extravehicular activity, EVA), proving human beings could survive outside a vehicle.

USA's Gemini project spacecraft each carried two astronauts, and achieved many developments essential for reaching the Moon, like longer time spent in space and docking of two vehicles. These would be incorporated into the Apollo missions, leading to Moon landings. And so, the US caught up and took the lead in the space race. All seemed to be going well, until tragedy struck. Sadly, Gemini astronauts Elliot See and Charles Bassett died in plane crash in February 1966 during training.

Then, during an Apollo 1 ground test, the crew of 3, Command Pilot Gus Grissom, Senior Pilot Ed White, and Pilot Roger B. Chaffee, were killed in a fire onboard January 27, 1967. This shocked the nation and stopped all missions for nearly 2 years. Many hard lessons were learned from this.

Eventually, the Apollo missions resumed. On Christmas Eve 1968 the crew of Apollo 8 successfully completed an orbit around the back of the Moon for the first time. It was furthest any human had been. The body of the moon blocked all radio contact with Earth for many minutes. As the craft emerged to the face the Earth again, radio contact was renewed and the astronauts witnessed the wonderful spectacle of Earth-rise. It was the first time people had seen the Earth as a whole planet, from the distance of the Moon, appearing as a small blue marble amidst the blackness of space. It struck people that this was home to all life as we know it. Many people regard the environmental movement as really starting from this time.

The astronauts were moved to send a very special Christmas message to all humankind, with a shared reading from Genesis. This included words from Genesis Chapter 1 verses 1 – 10 on the Creation.

At the end of his reading, Commander Frank Borman read: “And God said, Let the waters under the heavens be gathered together unto one place, and let the dry land appear: and it was so. And God called the dry land Earth; and the gathering together of the waters called he Seas: and God saw that it was good.” He concluded the message from the astronauts with: “And from the crew of Apollo 8, we close with good night, good luck, a Merry Christmas, and God bless all of you — *all of you on the good Earth.*”

This was broadcast live on millions of TV sets around the world, uniting people from many nations eager to watch the event.

A few months later, In July 1969, during Apollo 11's historic voyage and the first moon landing, Buzz Aldrin quoted Psalm 8: verses 3 & 4, “When I look at your heavens, the work of your fingers, the moon and the stars that you have established; "What are human beings that you are mindful of them, mortals[a] that you care for them?”

And again, millions of people around the world were glued to their TV sets, caught up and united in their desire to watch this historic event.

1970–1972: Subsequent Apollo missions continued lunar exploration. including Apollo 13's safe return after an in-flight accident. It was only through the skill of the astronauts and NASA ground crew that a disaster was avoided and all 3 returned safely to earth.

Since those heady days, over 50 years ago, humans have built large space stations orbiting the Earth, where people from many nations have learned to co-operate to expand our knowledge of the Universe. The Russian MIR (decommissioned after 15 years) became a temporary home to the first British astronaut, Helen Sharman in 1991. In 2015/16, Brit, Tim Peake, spent several months on the International Space Station. His broadcasts from space were especially interesting to young people, and he has toured many places to educate and inspire school children.

There have been sadnesses too, the most memorable being the loss of the Space Shuttle Challenger during launch, 28 January 1986;: About 73 seconds after liftoff, a major structural failure of the rocket caused the death of all seven crew members, horrifying many people who were watching on site and on TV. Some 17 years later, almost to the day, 1 February 2003; Space Shuttle Columbia broke up over northeast Texas: as it was returning after a 16-day mission. All seven astronauts on board were killed.

Sad as this is, it is part of the cost of the human urge to explore. Despite the risks, humans have always had desire to reach out to the unknown. Centuries ago, it was to explore beyond the shores of lands on this planet, now it is to reach out to the far distant shores on other planets.

This draws out the best of the human spirit within us all, uniting millions of others watching from afar, as has the very recent Artemis II mission. I know I wasn't the only person staying up to watch the craft reappear from the far side of the Moon after 40 minutes of radio silence on Monday night. And I know I wasn't the only one of this congregation sitting up late two nights ago to watch the splash down and the safe retrieval of the four crew – the most diverse Moon voyage crew in history. The crew NASA's Reid Wiseman, Victor Glover, Christina Koch and

Canadian Space Agency astronaut Jeremy Hansen — are safely back and in good health, and happy to share these comments.

Christina Koch said. “A crew is a group that is in it all the time, no matter what, that is stroking together every minute with the same purpose, that is willing to sacrifice silently for each other, that gives grace, that holds accountable,” Koch said. “A crew has the same cares and the same needs, and a crew is inescapably beautifully, dutifully linked.”

She added one of her strongest revelations came while observing Earth appear tiny through the window of Orion, and all of the blackness around it. “I know I haven’t learned everything that this journey has yet to teach me,” Koch said. “But there’s one new thing I know, and that is planet Earth: *You* are a crew.”.

Crewmate Hansen added “What you saw was a group of people who loved contributing, having meaningful contribution and extracting joy out of that,”. “And what we’ve been hearing is that was something special for you (the people on Earth) to witness. I would suggest to you that when you look up here, you’re not looking at us. We are a mirror reflecting you, and if you like what you see, then just look a little deeper. This is you.”

NASA Administrator Jared Isaacman said that the Artemis II mission will always be remembered because it’s the moment when the crew, and people around the world, saw the moon again and “where childhood dreams became missions.” And if that’s not widening our horizons, I don’t know what is! *AMEN*

Video clip ‘No human has ever witnessed this’ from Artemis II 1 min 34 secs

Watch it here: https://youtu.be/WWCluZonV_o?si=Iler7nR5TgOMVaMO

Final Hymn: Sing your Faith’ (aka ‘Purple Book’) 186 ‘We are Travellers on a Journey’

We are travellers on a journey
which brought us from the sun,
when primal star exploded
and earth in orbit spun;
but now as human dwellers
upon earth-planet’s crust,
we strive for living systems
whose ways are kind and just.

We are travellers on a journey
which grows from human seed,
and through our birth and childhood
goes where life’s path may lead;
but now we are delving deeper
in quest of greater worth
and reaching unknown regions
and planets of new birth.

We are travellers on a journey
through realms of inner space
where joy and peace are planets
that circle stars of grace;
and when we find the stillness
which comes at journey’s end,

there'll be complete refreshment,
a resting place, a friend.

Words © Andrew M.Hill b. 1942, used by permission. Music, Tune 'Ascension' Henry Hugh Bancroft, 1904 - 1988.

Closing Words:

Remembering that the Universe is so much larger than our ability to comprehend, let us go forth from this time together with the resolve to stop trying to reduce the incomprehensible to our own petty expectations, so that wonder, that sense of what is sacred, can open up our minds and light up our lives.

Extinguish Chalice

Closing Video:

'The World outside my window' Views from International Space Station with music

Watch here: https://youtu.be/GOAEIMx39-w?si=1UtB2_0Mw8N8cZ6-