



VATICAN OBSERVATORY FOUNDATION

Annual Report of Giving

2013



President's Report

2013 was a very good year for the Vatican Observatory Foundation. In 2012 we transitioned and planned projects for 2013. This year saw some of those projects being realized and that represents a major step forward for us. This year we began serious planning for the full robotization of not only VATT, but doing this in conjunction with two University of Arizona telescopes as well. As the project has gathered strength and focus, there is now the prospect of adding several other telescopes to our consortia. This work will vastly increase the accessibility and scope of VATT's work and scientific audience. We are moving ahead strongly with the planning and implementation of this work.



Fr. DiUlio with Greg and Linda Maxon.

2013 also saw us able, for the first time, to extend the use of remote observing to several high school classrooms in California. This was most enthusiastically welcomed by the schools whose astronomy classes now have a chance to see real life astronomers at work and see what they do and see what they see. It is a truly marvelous addition to our repertoire of educational outreach and we hope to expand this program in 2014 and beyond. These changes and upgrades will continue to rely on the support and help of our friends who have done so much for us over the years. We will continue to provide opportunities for support and help in a variety of ways as the reach of the VOF and VATT continues to expand and grow.

2013 saw donations from individuals and foundations increase by over 50% even in a challenging economic environment. Three new Vatican Observatory Foundations Guardians (total lifetime gifts of over \$100,000) were added as well. The VOF sponsored a one week tour to Rome in November where 15 folks enjoyed a wonderful trip that included a Papal Audience; a private tour and dinner in the Vatican Museums; a visit to the Vatican Gardens; the Tower of the Winds; the Secret Archives; the Swiss Guard Museum and Barracks and the School of Mosaics. We concluded the tour at our Headquarters in Castel Gandolfo with a visit to the gardens there and the Papal Palace, which still houses four telescopes that had been used by the Vatican Observatory in years past. The highlight of our visit to Castel Gandolfo was a gala closing banquet at the Vatican Observatory on our final night.

The Vatican Observatory Foundation continues to carry out our mission with VATT and with extending our work in the promotion of dialogue between religion, faith, science and culture. Our scientists continue to do cutting edge research as well as outstanding publication and teaching and most importantly sharing that with their colleagues and the world.

We are grateful and appreciative of your support with prayers, care, dedication and treasure. None of what we do and promote would be possible without you. This is your work, the work of the Church, and we, who work here, if only for a time, are proud to share our time and gifts with you.....the Heavens are truly God's creation and our playground and laboratory. Their mystery is our challenge and so we forge ahead.

Albert J. DiUlio, S.J.
President

Our Mission

The Vatican Observatory has a double-edged mission:

scientific research into the knowledge of the universe, including our place in it, and the education of the public based upon the knowledge derived from that research. These two driving forces of our mission are very much intertwined. In 1987, the Vatican Observatory Foundation was established as a tax-exempt corporation to support this mission.

RESEARCH. In the early 1990s the marvels of technology and the commitment of a few visionary philanthropists made possible the creation of the Vatican Advanced Technology Telescope (VATT), which empowered scientists to look with more acute "eyes" into the universe. Today, the VATT continues to provide stunning access to the heavens for researchers from around the globe. Combined with other technologies and the continued commitment of Vatican Observatory scientists, our work is literally pushing the boundaries of what we know and how we know it. Joining in this research are many students of astronomy from around the world.

EDUCATION. Each year members of the Observatory staff share their expertise by making educational presentations on the average to over 5,000 persons from 90 educational, religious, and academic groups. In recent times Vatican Observatory scientists have played an increasingly important role in the dialogue between science and faith.



Chairman's Report

The Heavens declare the Glory of God...

Positioned between immensity and eternity, we ponder the vastness of the universe and our place within it. Why is there something rather than nothing? Where did we come from? What is our purpose? Great mysteries of existence.

Simple questions like these have profound implications on living an enlightened life. Both science and religion grapple with these questions, each shedding light on answers that illuminate a portion of our lives.

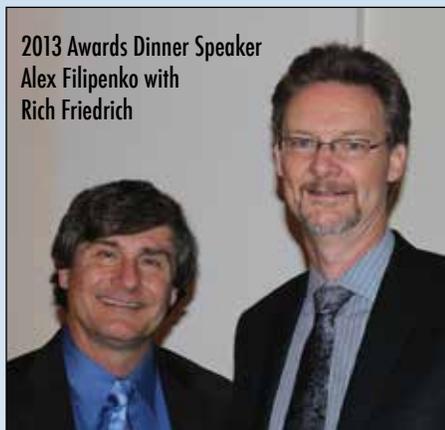
The Vatican Observatory is one of the few institutions where science and religion meet in constructive dialogue. I found myself in awe of the work of the Vatican Observatory when I first learned of the group fifteen years ago. The study of the universe by men of faith is fascinating on multiple levels, and I am honored to help guide the non-profit Vatican Observatory Foundation created to support it.

The Vatican Observatory Foundation was established in 1987 at the urging of Pope John Paul II in order to fund construction of the Vatican Advanced Technology Telescope to conduct leading edge research as well as to support education. The mission remains the same today, and is made all the more relevant in a time when many misleadingly assert that religion and science are incompatible. In my view, the Vatican Observatory Foundation is a fascinating partnership between the Catholic Church, dedicated scientists, and benefactors who welcome research of the heavens. Our Board of Directors is committed to enhancing this partnership, and I am happy to present these pages to illustrate the important work taking place in the US and throughout the world.

In 2013 the Vatican Observatory achieved a unique milestone in reaching students fascinated with the Universe. A pilot program was begun employing leading edge remote observing technology in conjunction with real time access to Jesuit astronomers acting as their guides, so high school students can actively participate in astronomical exploration using the powerful Vatican Advanced Technology Telescope.

The economy in 2013 continued to improve but the need for nurturing the interactions between science and religion remains pressing. On behalf of the Board of Directors, I offer my profound gratitude to all who support the Vatican Observatory Foundation. Your support is paramount to the long-term viability of this vital endeavor. In these pages I hope you find insight, inspiration, and perhaps the same sense of awe I experienced the first time I met these Jesuit scientists over a decade ago.

Rich Friedrich
Board Member



2013 Awards Dinner Speaker
Alex Filipenko with
Rich Friedrich

Guardians of the Vatican Observatory

The VOF offers a special word of thanks to those individuals who have so generously supported the Vatican Observatory and its enduring impact in our world. With lifetime gifts of \$100,000 or more to the Vatican Observatory Foundation, Guardians facilitate the ongoing commitment of the Church to scientific research and its role in the human experience. The VOF is fortunate to add three new Guardians this year, Rose Cracchiolo Collins and Jim and Diane McGee.

We would also like to honor the following Guardians who continue to support the observatory each year and did so in 2013.

- Ben and Karen Dalby
- The Dan Murphy Foundation
- Rich and Debora Friedrich
- Jesuit Community of the Vatican Observatory
- Fred A. Lennon Charitable Trust
- Mrs. Peter Mullen
- William and Barbara Murphy



Fr. Jose Funes introduces Guardian Rose Collins to Pope Francis during the November Rome Tour.

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About the cover: This photo taken with the VATT shows the Crab Nebula, a remnant of a massive star. The nebula is about 6,500 light-years away from the Earth and is 5 light-years across. This supernova was discovered by Chinese astronomers in 1054 when it was visible for several weeks in broad daylight.

THANK YOU *to our generous benefactors*

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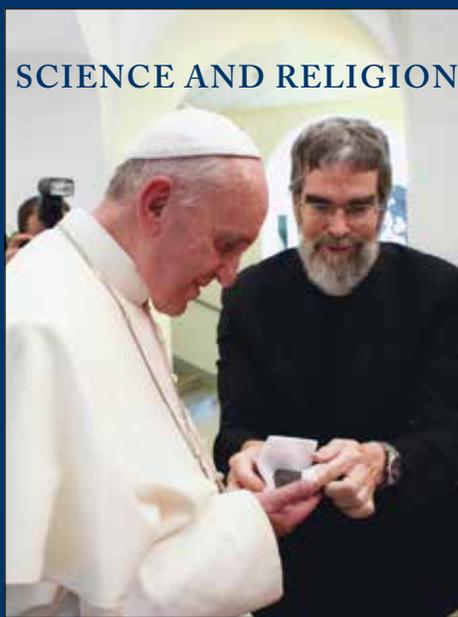


The VOF has made every effort to ensure that all information is correct. If any errors or omissions are noted, we offer our apologies and ask that you notify us.



VISITORS

In October a group made the trek up to Mount Graham International Observatory to celebrate the 20th Anniversary of the VATT.



SCIENCE AND RELIGION

During his July visit and lunch with the Vatican Observatory Pope Francis studies a Mars Rock with Meteorite Collection curator, Br. Guy Consolmagno.

EDUCATION



Loyola High School Newsletter (excerpt)

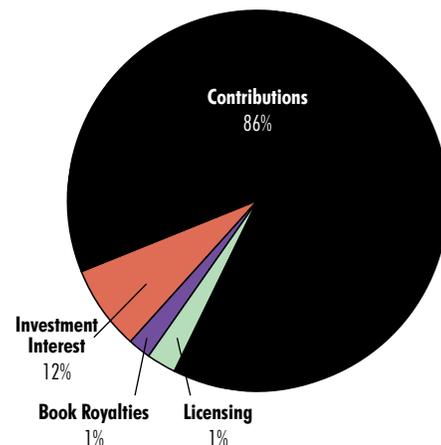
With the visit by Vatican astronomers to Loyola's Honors Astronomy class on Friday, Oct. 4, the question of the Church's role in scientific endeavors has been renewed. During the visit, Vatican astronomers spoke to students via Skype about their investigations regarding comets, meteors and asteroids.

That the Vatican is taking such an interest in the scientific endeavors of its youth to send representatives to our school is an incredibly encouraging sign for us as students. Loyola Cubs now feel the backing of the Catholic Church in pursuing scientific studies; we no longer need to feel marginalized for being a generation that highly values science. Religion and science should not be mutually exclusive; they must be able to build upon the other and solidify the other's works.

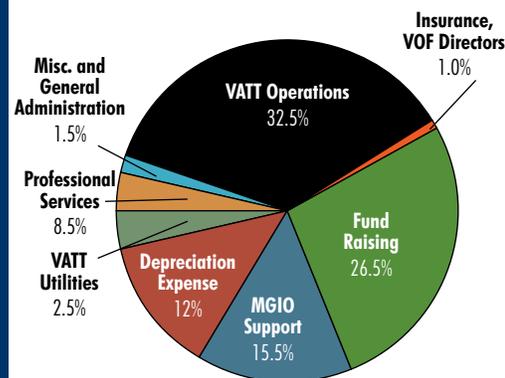
Teacher Andrey Aristov feels that "for the students to be able to have an opportunity to actually interact with real professional astronomers takes this in magnitude beyond where we can go.

For more information about becoming a Guardian or member of Sacred Space Giving, contact Katie Steinke at Katie@vaticanobservatory.org.

Income *{ \$600,320.04 }*



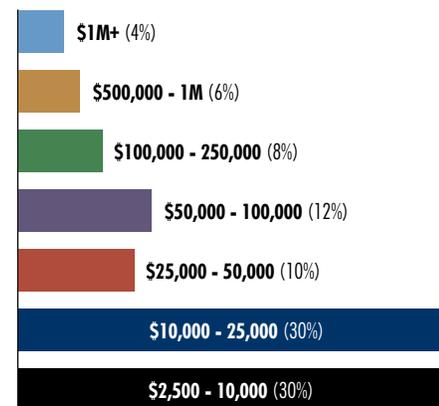
Expenses *{ \$722,900.15 }*



The financial information above reflects pre-audit figures subject to adjustment.

Lifetime Giving of 2013 Benefactors

{ \$2,500 or more }





Development Report

Starting in San Francisco and ending in Rome made 2013 a very busy and exciting year for the Vatican Observatory Foundation. Our Annual Awards Banquet held in San Francisco and graced by the phenomenal presentation of guest speaker, Dr. Alex Filipenko of the University of California at Berkeley, was attended by many local friends and students from the University of San Francisco, Santa Clara University Berkeley School of Theology and from as far away as Embry Riddle University in Prescott, Arizona. The following day's Seminar on Astrobiology with the very knowledgeable panel comprised of Dr. Chris Impey from Steward Observatory, Dr. Margaret Rush of NASA SETI and our own Fr. Bill Stoeger, S.J., was also exceptional and well received.

Our new education program with high school students in the fall proved to be very successful and the challenges faced were almost all been addressed so we expect to be able to expand this program in the coming months.

Crowned by several foundation grants and the continuing generosity of many individuals believing in our work 2013 can be considered a successful year. With your help we look forward to expanding our programs, maintaining and upgrading the VATT and continuing to move ever forward in the coming year.

Katie Bannan Steinke
Development Director



God of Surprises

13th March. It was about 11:10 am in Tucson when the white smoke from the chimney of the Sistine Chapel announced to the Saint Peter Square and the world that a new Pope had been elected. I was following the events in the Internet like many of you. It was a kind of surprise that the Cardinals have resolved the election so quickly but for me the surprise did not end then. I was surprised and shocked when I heard the name of the elected Cardinal. Father Jorge Mario Bergoglio was one of the Jesuits who examined my vocation when I asked to join the Jesuit order.

14th July. Another memorable day. We had the great honor and joy of welcoming Pope Francis at our headquarters. Another surprise and another first time. The Holy Father had lunch with the Jesuit community. It was the first time that a Pope had lunch with his astronomers. During lunch with Pope Francis, we had the great opportunity to talk about our activities and projects.

To the Edge of the Universe

From the beginning of his Pontificate, Pope Francis has encouraged the Church to go in the suburbs and not only geographical, but also existential. His teaching is very important for the mission of the Vatican Observatory; his words encourage us to go out to the outskirts of the Universe, to explore the Universe, its origins and its future. It also means to come out of ourselves to ask the deepest human questions about science and faith.

We are also very grateful to Pope Benedict XVI for his support and his teachings. I remember his words at a colloquium sponsored by the Vatican Observatory on the occasion of the International Year of Astronomy in 2009. Benedict XVI invited those in attendance "to consider the immense progress of scientific knowledge in the modern age and, in a particular way, to turn our gaze anew to the heavens in a spirit of wonder, contemplation and commitment to the pursuit of truth, wherever it is to be found." Inspired by these words and aware of the swift progress of our understanding of the universe, the Vatican Observatory staff has prepared a document to chart a scientific roadmap for its quest to address the big questions of astrophysics and cosmology.

We are enthusiastic about our mission. Like all astronomers our deepest desire is to be on the frontier of astronomical research; we share with our colleagues the same excitement in seeking answers to the fundamental questions about the universe:

Are we alone?

Are there other Earths?

How do stars and planets form and evolve?

How do galaxies form and evolve?

What is dark matter and dark energy?

What do we know about the universe in its first instants?

Are there many universes?

In outlining the role of the Vatican Observatory in the future, we have produced a document with the Science Priorities of the Vatican Observatories for the Next Decade. Our aim is to determine the path to the best scientific return for the Observatory, given the constraints of budgetary considerations, available human resources and collaboration, realistic timelines, and technical readiness, which builds on research already in progress or completed.

This enterprise would be impossible without the support of many colleagues, benefactors and friends, and especially of the Governatorate of the Vatican City State. To all of them goes our deepest gratitude.

The exploration of the Universe is a journey for all good-will people not only for the Vatican astronomers. I hope you will join us. We will be delighted.

José G. Funes, S.J.
Director, Vatican Observatory



A PILGRIMAGE TO ROME

A wonderful group of Vatican Observatory Foundation “Pilgrims” spent a week in Rome in November. One such Pilgrim was Father James Gregory, Pastor of St. Mary Magdalen Church in Oakville, CT. After the trip he shared the following inspirational thoughts with his parishioners and with us.

“As you know, faith and science are intertwined in me. Paul says to the Romans (1:20), “Ever since the creation of the world, his [God’s] invisible attributes of eternal power and divinity have been able to be understood and perceived in what he has made.” I believe in and constantly seek the God who through the mystery of Christmas, known as the Incarnation, reveals love to us through the natural world, and perfectly so through Jesus Christ. Science has the capacity, through its ability to discover objectively the laws of nature, to open a window upon the invisible attributes of God.

I take great pride in the Church who gives resources to the practice of science in astronomy as an expression of faith. This successful synthesis of faith and science by the Vatican Observatory provides a comprehensive view of creation. Its view is not limited by neither a creationist/intelligent design point of view which denounces or changes science in support of biblical expressions of creation nor a materialistic atheism that finds comfort in mere scientific facts.

A very memorable event for me was an early evening on the roof of our hotel in Rome. There in the new darkness I saw the dome of the Gesù, the Jesuit’s Mother Church, jutting up above the Roman streets accompanied by the planet Venus to one side of the dome and a waxing crescent moon to the other side. It was a natural symbol of why I was there, namely, to witness the beauty of the relationship religion has with science, even more specifically, Catholicism with astronomy.

Faith can establish through the discoveries of science ways to ennoble the world and help advance it toward the fullness of life in Christ God intended. In other words faith can use science to overcome the effects of sin and bring everyone closer to God.”

One of our first visits: Sant’Ignazio with our fantastic guide, Eric Ramirez, a student at the Gregorian University. He did an excellent job explaining the history and artistic details of the church. Unfortunately one tour participant is missing in this photo. Jerry Sullivan was our “official” photographer throughout preparing over 500 magnificent photos to commemorate our trip.



Brother Guy maneuvers the solar telescope in Castel Gandolfo so Rome Tour visitors can see sun flares.



Our last evening – an incredible dinner with the Jesuits and those who made the trip so memorable!



Our group listens attentively to Brother Guy as he tells the story of Galileo and how he first presented his telescope in this garden of the American Academy in Rome in 1611.

Thank you all!



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www.vofoundation.org*



Chile Spring 2015

Due to unforeseen complications, the Tour in Chile has been postponed until Spring of 2015. Watch for details in Upcoming Issues of the Newsletter and on the Website. Space will be limited so for more information and to indicate your interest please contact Katie Steinke at (805) 901-6591 or katie@vaticanobservatory.org