From 23-27 June eleven members of the Vatican Observatory and three younger Jesuits who are candidates to join the Observatory met at the Jesuit retreat house at Calascio, in the hill country of Italy’s Abruzzo region, to discuss the direction and future priorities of the Observatory. It is a joy to know that we have a very promising future. The Lord’s blessings are, indeed, from one generation to the next.

The first priority of the Observatory is scientific research. Therefore, we began by discussing our astronomical research in the following fields: planetary sciences, stellar astronomy, extragalactic astronomy, cosmology, and the history of astronomy. Our major research tool is the Vatican Advanced Technology Telescope (VATT) on Mt. Graham in southern Arizona. Father Christopher Corbally, S.J., Vice Director for the Vatican Observatory Research Group in Tucson, reported the VATT is in excellent shape, with a newly aluminized mirror and a new CCD camera; a small spectrograph is in development and should be online soon. The VATT team continues to make this one of the most efficient telescopes in Arizona.

Father William Stoeger, S.J., Coordinator for Science and Theology Programs, outlined the efforts of the Observatory in this field as members of the Observatory are often called on to contribute to these discussions. Brother Guy Consolmagno, S.J., Coordinator for Public Relations, discussed the importance of not only doing good science, but letting the world see it through education, public outreach, and public relations. He recalled that the Vatican Obser-
A Valuable Collection of Heavenly Data

In 1962 observations began at Castel Gandolfo with the Schmidt telescope, one of the most powerful instruments of its day for wide-angle photographs of the sky. For the next twenty years this telescope accumulated on photographic plates an immense treasury of astronomical data, only a small fraction of which led to research and subsequent publications. The Schmidt data will soon be available in digital form on the Internet for use by international astronomers. Father Alessandro Omizzolo of the Observatory staff carried out the meticulous work of electronically scanning 3,400 plates and storing a total of 600 billion pieces of data on 110 DVDs. Named for inventor Bernhardt Schmidt, an Estonian by birth and an optical technician at the observatories of Potsdam and Hamburg-Bergedorf in Germany, the Schmidt telescope came into use at the end of World War II and produced a veritable revolution in the field of Milky Way research. Typical conventional telescopes at that time could only observe an extremely small part of the sky, varying from 100,000th to one millionth of the total area. The Schmidt, in contrast, can photograph on a single plate zones as large as one-thousandth of the celestial sphere, and it can do this with relatively short exposures since it has large light-gathering power. This telescope, therefore, became an indispensable tool for research on the distribution of stars and dust in the Milky Way, on large extended diffuse gas clouds, on the organization of the material in large clusters, and on superclusters of galaxies. Much of the data obtained with the Observatory’s Schmidt telescope has never been available for research. Now, astronomers who wish can have a feast!

A Serendipitous Discovery

Father Sabino Maffeo, S.J. recently discovered that the Observatory possesses a telescope lens of great historical value. It was constructed by the famous mathematician and astronomer Giovanni Battista Amici (1786-1863) at the Institute and Museum of the Sciences at Florence, Italy. There are only two other lenses in existence, both in Florence.
New Staff Members

Father David Brown, S.J., joined the staff of the Observatory on 1 October. Father Brown, 41 years old, was born in New Orleans, Louisiana. He obtained his bachelor of science degree in physics at Texas A&M University. In 1991 he joined the Society of Jesus. After studies of philosophy at Fordham University, New York, and theology at the Weston Jesuit School of Theology in Cambridge, Massachusetts, he was ordained to the priesthood in 2002. Father Brown has completed his doctoral studies in astrophysics at the University of Oxford, England. He has been working on synthesis of stellar populations to model the ultraviolet excess in giant elliptical galaxies. Father Brown is a member of the New Orleans Jesuit Province and this year he was assigned by his superiors to the Vatican Observatory.

Dr. Ileana Chinnici has been appointed Adjunct Scholar of the Vatican Observatory, the first woman to hold such an appointment. Born in 1966, in Palermo, Sicily, Dr. Chinnici is an astronomer at the Observatory of Palermo and an expert in the history of astronomy. She has published studies on Father Angelo Secchi, S.J., a renowned Jesuit astronomer of the 19th century, and on the Carte du Ciel (“Map of the Sky”), an international project to map the positions of millions of stars. The Vatican Observatory was one of the participating observatories. The historical telescope that was used for the survey is still in the Vatican Gardens at Castel Gandolfo. Dr. Chinnici is now collaborating with Father Sabino Maffeo, S.J., of the Observatory staff to write a paper about the valuable instruments we have at the Vatican Observatory. She is also one of the main organizers of the exhibit on antique instruments to be displayed at the Vatican Museums in celebration of the 2009 International Year of Astronomy. The exhibit is scheduled to open in mid-October 2009.

Noteworthy

In September, Father George Coyne, S.J, was awarded the Mendel Medal by Villanova University. Established in 1928 by the Board of Trustees of Villanova to recognize scientific accomplishment and religious conviction, the medal is one of the highest awards the University bestows.

Brother Guy Consolmagno, S.J, (at left) was named a “Fellow of the Meteoritical Society” at the annual meeting held this summer in Matsue, Japan. Members who have distinguished themselves in meteoritics or in closely allied fields may be elected Fellows by the Council; no more than 1% of the members are elected every two years.

After many years of work classifying stars, Father Chris Corbally, S.J, and Richard O. Gray’s “Stellar Spectral Classification” will be published in April 2009. The only one of its kind, this epoch-making book is a definitive and encyclopedic volume.
Reaching for the Heavens

Foundation Hires Development Firm

As of June, the Vatican Observatory Foundation has hired the firm of Petrus Development to help us formulate strategic plans to solicit major gifts with an aim of increasing our endowment. The firm’s principals are Peter de Keratry and John Flynn. Based in Austin, Texas, Petrus has had a great deal of success working with Catholic institutions, especially university Newman Centers. Foundation president Father George Coyne, S.J., and Board of Directors member Brother John Hollywood, S.J., met with Peter and Colleen de Keratry in Tucson in mid-June. Since then, Petrus is rapidly becoming familiar with our operation and helping us with our development efforts.

Fathers Funes and Coyne Address Astronomy Conference in Mexico

From 16-18 April, Father José Funes, S.J., Director of the Vatican Observatory, and Father George Coyne, S.J., Director Emeritus, participated in the XXII Congress of the National Astronomy Society of Mexico, which was held for the first time at the Jesuit Universidad Iberoamericana in Mexico City. Fathers Funes and Coyne each gave a keynote address. The conference provided a wonderful occasion for them to join in a party with the Vatican Observatory Summer School’s many alumni from Mexico.

On the evening of 20 February 2008 Francis Cardinal George, OMI, Archbishop of Chicago, hosted a reception at his residence for friends and benefactors of the Vatican Observatory. The event was organized by Paula and Oscar D’Angelo, Sunny and Gery Chico, and Maureen and Ken Schmidt, all of whom took part in a September-October 2007 trip to visit Rome and the Vatican. While under the enchantment of that trip, they decided to organize the Chicago event. Thirty invited guests enjoyed the company of the Cardinal, who gave a cordial and enlightening introduction to the evening. Father George Coyne, S.J., President of the Vatican Observatory Foundation, spoke of the Observatory’s history and current research. He also addressed the need to increase the Foundation’s endowment, outlining the steps being taken toward that goal.

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Reaching for the Heavens

President of the Pontifical Commission to Visit Tucson

Giovanni Cardinal Lajolo, President of the Pontifical Commission for Vatican City State to whom the Vatican Observatory reports, will visit Tucson, Ariz., to participate in the Vatican Observatory Foundation Board Meeting and the events surrounding it 26-28 February 2009. He will also tour the Vatican Advanced Technology Telescope on Mt. Graham. On the evening of 2 March, Cardinal Lajolo will be honored at a reception on behalf of the Foundation to be hosted at the Papal Nunciature in Washington, D.C., by His Excellency Pietro Sambi, Papal Nuncio to the United States.

International Year of Astronomy

In 2009 the Observatory will join in celebrating the International Year of Astronomy, known as IYA2009, being celebrated through the initiative of the International Astronomical Union and UNESCO. The year-long celebration marks the 400th anniversary of Galileo’s first telescopic observations. As reported in the Spring 2008 Newsletter, the Observatory is planning the following activities for IYA2009:

- Together with the Vatican Museums and Italy’s National Institute for Astrophysics, the Observatory is organizing an exhibit at the Museums featuring telescopes through the centuries. The exhibit will open in autumn of 2009.

- The Pontifical Academy of Sciences and the Observatory are preparing a Study Week on Astrobiology to be held at the Academy 6-10 November 2009.

- From 21-26 June 2009, the Observatory will host Summer School alumni on the theme of “Astronomy: A Stimulus to Dialogue on Humanity’s Common Concerns.” The meeting will be held at the Istituto il Carmelo Conference Center in Sassone, Italy, near the Observatory’s headquarters at Castel Gandolfo.

- The Observatory is a sponsor of the VI Conference on the Inspiration of Astronomical Phenomena to be held in Venice from 18-23 October 2009.

Benefactor Notes

Thomas Golden

“During the course of my tour, I saw ‘Lux et Veritas et Historia’ on the ceiling.” Golden immediately recognized the similarity to the Yale motto ‘Lux et Veritas’ and found it particularly appropriate.

A sense of history woven with light and truth was manifest in Golden’s review of the Observatory’s “Book of Visitors” listing those who had signed in during a visit to the Specola over the years. Famous scientists including H. A. Lorentz, Edward Hubble and Guglielmo Marconi signed in. Alec Guinness and Walter Ciszek, S.J. also left their monikers.

Recognizing he was in good company, Golden was compelled to get involved.

“I have a great admiration for the Vatican Observatory and for Father George Coyne, former director of the Observatory and now President of the Foundation,” said Golden. “We’re on the eve of the greatest scientific and economic opportunities in the world,” he said. “Organized religion and science will bring us about to a new future. The VOF symbolizes all this for me.”

“In this era in which science and religion seem to be in conflict, it should be demonstrated that there is much more affinity between the two,” said Thomas Golden in a recent conversation about his involvement with the Vatican Observatory Foundation. Golden, a benefactor and current Board member of the VOF, was introduced to the organization through his philanthropic endeavors at Yale University.

“I was educated at Yale as a civil engineer and at my 50th reunion, I did some thinking,” said Golden. “I decided at that time to help make possible the Thomas E. Golden Jr. Center at the Catholic Chapel at Yale. In addition, I sponsor a series of lectures on faith and science because I believe that science is a unifying presence in our world.”

Brother Guy Consolmagno, S.J., a speaker at the Golden Center, introduced the Vatican Observatory to Golden. Subsequently, Golden and Father Robert Beloin, Chaplain of St. Thomas More Catholic Chapel at Yale, visited the Specola in Italy.
On 4 September, Father José Funes, S.J., Director of the Vatican Observatory, was received in private audience by the Holy Father. Father Funes briefed the Holy Father on the conclusions of the June staff meeting held at Calascio, Italy, and on the International Year of Astronomy (see reports elsewhere in this Newsletter). His Holiness and Father Funes exchanged thoughts on the need for dialogue between the cultures of faith and of science. The Pope expressed his interest in the young Jesuits who were joining the staff and of the Observatory’s plans to help in the Church’s apostolic work in Africa. This papal audience is a concrete manifestation of Benedict XVI’s appreciation of the work being done by the Observatory.