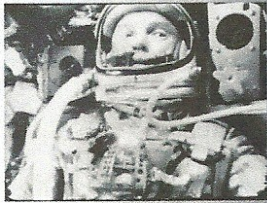
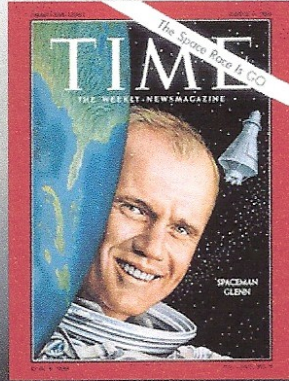


ORBIT



John Glenn
First American to Orbit Earth
20th February 1962



John



Glenn

Prague's Astronomical Orloj—600 years old *by Umberto Cavallaro*

The Prague Astronomical Orloj, one of the most admired technical monuments in the world, celebrated its 600th anniversary in 2010. The Czech Post authority commemorated the event by issuing in June 2010 an attractive stamp of 21 Kč (Czech Crowns).



This is not the first time the Orloj has been featured on a stamp. In 1978 the Prague Clock was the subject chosen for an entire set of five stamps issued, together with one souvenir sheet, by the former Czechoslovakia to celebrate the International Philatelic Exhibition "Praga 1978".



In 1987 the astronomical-mathematical clock was chosen once again as a symbol to celebrate the 125th anniversary of the Czech Mathematics and Physics Union.



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The pride of the Old Town Hall was designed by Mikuláš of Kadaň in 1410 and inaugurated on October 14th. In a multicultural city, which Prague was at that time, the new astronomical clock made it possible for everyone to read the time using alternate methods.

Having encountered its fair share of hardships, the astronomical clock's most recent great misfortune came at the very end of the Second World War when the Old Town Hall was bombed out. It had been successfully repaired and improved several times throughout the centuries and, with about three quarters of the old original parts operational, it is still functional and is thus the most well preserved of its kind across the globe.

The clock's key component is its astrolabe, an ancient

astronomical instrument used by mariners since the Middle Ages to determine the positions of the stars, the Sun and the Moon. For centuries, before the sextant was invented, it was the main tool for orienting navigators and it served for determining local time through knowledge of the longitude, or vice versa.

The "multiple" clock consists of a stationary disk in the centre and two



independently rotating disks: the inner zodiacal ring and the outer ring with numerals in Gothic style. In the background of the stationary disk, the blue circle in the centre represents the Earth, while the upper blue is the portion of the sky which is above the horizon; the beige and brown areas in the stamp (in the reality such areas are respectively red and black) indicate portions of the sky below the horizon. During the daytime, the sun (highlighted in the stamp issued in 2010) sits over the blue part of the background and at night it sits over the black. During dawn or dusk, the mechanical sun is positioned over the red part of the background.

A pointer with a golden hand and a sun moving around the zodiacal circle show together the time in three different ways:

- on the golden Roman numerals at the outer edge of blue circle, the pointer indicates time in local Prague time, or Central European Time.

- against the external ring, with the gothic numerals, it indicates the Bohemian hours (also known as Italian Time), used in the Middle Ages in Bohemia, the country to which Prague belonged, and in Northern Italy. The time of day and night is divided in 24 hours with 24 indicating the time of sunset, which varies during the year from as early as 16:00 in winter to 20:16 in summer.

To adjust the time so that 24 always coincides with sunset, the outer ring rotates slowly to the right during one half of the year (when the days become longer) and in the other half it rotates to the left (when the days becomes shorter). The Prague Astronomical Clock is the only one measuring the Bohemian time.

- Curved golden lines divide the blue part of dial into 12 parts and are marks for unequal hours.

These hours are defined as 1/12 of the time between sunrise and sunset, and vary as the days grow longer or shorter during the year. The position of the golden sun over the curved golden lines indicates the time in unequal hours or sidereal time.

Inside the stationary circle lies another smaller movable circle placed eccentrically in the clock, marked with the signs of the zodiac, shown in anticlockwise order. It rotates once in a year around its own centre and on its own in one day around the centre of the clock. During this combined motion the little sun rolls on the border of the zodiacal ring, shifting on the hand.

At the top, behind two shutters, a kind of puppet show from the 19th century presents at each hour "The Walk of the Apostles". The first stamp (40 haléřů) in the set issued in 1978 represents St. Peter, the first Apostle, holding a key in his hand. In the bottom part of the Orloj, below the astronomical dial, a circular calendar was added in 1870, with month symbols depicted by the Bohemian artist Josef Manes, the originals of which can be seen today on the sides of the stairway of the Prague Museum of History.

The Calendar dial is represented as a whole in the complementary souvenir sheet issued in 1978 (*above left*). The calendar dial consists of twelve medallions representing the months. In the centre lies the Coat of arms of Prague, which is reproduced in the 2 Crones stamp issued in 1978.

Round the coat of arms lie the twelve medallions representing zodiacal signs. The 3,60 Crones stamp represents Libra (September-October), while the 3 Crones value reproduces the grape harvest associated with the next month.



This artwork had already inspired stamps of the former Czechoslovakia. As early as 1936 a set of 3 stamps already reproduced the scene associated with the zodiacal sign of Aquarius (January-February)

Acknowledgements

Thanks to Simona Guidi, careful and diligent collector of Czech philately, who notified me of the 1936 stamp set and provided the relevant illustrations.