Historical People

Aristarchus – knew phases of the moon. He believed in heliocentric model. He said parallax was small because of the large distance between us and stars. He also figured out the relative distances of the Earth, sun, and moon.

Anaxagoras – figured out phases of the moon and what causes eclipses. He referred to the sun as a burning mass. He realized the Earth was a sphere.

Pythagoras – He realized that the Earth was a sphere. He started a school in Southern Italy.

Aristotle – He made the round Earth model popular. A ship that sinks below the horizon always sinks body first, sail last. He believed Earth didn't move (geocentric model)

Greeks – could not find parallax, so they thought Earth did not move. They focused on the ecliptic

Eratosthenes – measured circumference of the Earth by knowing the angle between sun and zenith at the same time of Earth. He concluded Earth was about 6400 km in circumference.

Apollonius – made idea of epicycle model.

Hipparchus – was an observational astronomer. He made observations of the positions of planets and stars in the sky. He made a catalog of 850 stars and a brightness magnitude scale of stars. The brightest stars were 1 magnitude and the faintest stars you could see without a telescope were 6. He also compared his star charts of earlier ones. He found precession this way. He fit his planetary data to fit the epicycle model. He also believe in geocentric model. He measured parallax of moon by having people measure moon at the same time, but in different locations. He was thus able to measure the direct distance to moon.

Ptomely – he preserved the knowledge of the previous era by writing The Almagest. It included Hipparchus' catalog and epicycle prediction.

Babylonians – Invented concept of a degree. It came from their calendar.

Chinese – They have records back 4000 years. They had star charts, were able to predict eclipses, and knew about precession. They also had accurate records of comets and supernovae. They had astrology, but they focused on the circumpolar region of the sky.

Mayans and Aztecs – might have known about eclipses. They had an accurate calendar. They though Venus was a god. They wrote the Dresden Codex, which was a summary of their beliefs.

Britons – Built Stonehedge in Salisbury Plain, England.

Native Americans – Big Horn Medicine Wheel and about 50 others in North America. There are 28 spokes in the wheel for each day of the lunar month minus the new moon. It perhaps was a calendar.

Copernicus – Made heliocentric model popular. He argued that sun was too big and Earth was too small. He explained lack of stellar parallax by the huge distances of stars from Earth. He said seasons are caused by the Earth's orbit and the axis tilt. He wrote a book called On The Revolution Of The Celestial Sphere. He kept idea that planetary orbits were circles (epicycles). His data did not fit model because of this.

Tycho Brahe – He was observational. He believed in geocentric model. Made accurate measurements. His data supported heliocentric later.

Kepler – Was Brahe's assistant. Used Brahe's data to fit heliocentric model. Came up with three laws of planetary motion.

Galileo – Was an observational astronomer and experimental physicist. He tried to measure how things fell. He concluded objects fall to the ground at the same rate. First person to use telescope to observe the sky. He concluded the moon was a world like Earth. He looked at the Milky Way. He used telescope to study sun and sunspots. He saw the when spots were in center, they moved fast and when they were near the edge, they were slow. This is because of the curvature of the sun. He concluded that spots were on face of the sun and sun was not a perfect celestial sphere. He looked at planets, Jupiter the most. He saw spots near Jupiter and discovered 4 big moons. They are Callisto, Io, Europa, and Ganymede. He concluded they orbited Jupiter. It showed not every object in solar system orbited around sun. He saw Saturn and its rings, which looked like ears. He saw Venus and it's phases. He noticed its big angular size in the crescent phase and its small size during it's full phase. He concluded Venus orbited the sun. In 1992, Pope John Paul II agreed that Galileo was right.