Charles Messier (June 26, 1730 - April 12, 1817)

Note: Because of newly occurred historical evidence, parts of this biography have been, and are in process to be further updated, as e.g. new historical data about Madame Messier, as well as Messier's years in Badonviller and other little known details on his life have to be integrated. Thanks to Jean-Paul Philbert for contributing most of these updates. See also Philbert (2000).

- Look at our systematic timeline of Messier's life
- Note our new account of Messier's Deepsky Observations
- More on the Charles Messier portrait of 1771 by Desportes
- Please send me any comments, corrections and additions. Especially, informations on Messier's private life are far from being complete and would have a good place here.

Charles Messier was born in Badonviller, Meurthe-et-Moselle, Lorraine, France (20 miles from Luneville), then part of the Principality of Salm, as the 10th of 12 children of Nicolas Messier (1682-1741) and Francoise b. Grandblaise (d. 1765). At that time, the Principality was an independent small state, situated in the Vosges mountains, between the Duchy of Lorraine and the Kingdom of France.

Many sources (including former versions of this webpage) say Charles Messier grew up in humble conditions, a rumor probably going back to incomplete remarks in Delambre's short biography (Delambre 1827). Actually, his family lived in considerable wealth (Philbert 2000): Nicolas Messier served in the administration of the Princes of Salm, including services in court, and resided in a beautiful home in Badonviller. Six of his brothers and sisters died at young age, not unusual at that time: the twins Nicolas and Anne (Marie), b. 1716; Anne (b. 1719), Barbe (1723-1724), Nicolas (b. 1725) and Joseph (1728.1729). Charles Messier knew only 5 of his brothers and sisters: Three brothers were older than he was, namely Hyacinthe (1717-1791), Claude (b. 1725) and Nicolas-François (b. 1726), while brother Joseph (1732-1804) and sister Barbe (1734-1787) were younger.

In 1741, when Charles was 11, the Messier family suffered from the untimely death of his father. At that time, the oldest brother, Hyacinthe, then at age 24, took over the role of the man in the house. Hyacinthe had worked with a curator in Nancy and had returned to Badonviller in 1740, to take a position in the administration of the Princes of Salm. Also about that time, the young Charles suffered from an accident: While playing turbulently, he was falling out of a window of the Messiers' house and breaking a leg on the level of the thigh, but he was found and taken care by a farmer of his hometown, who looked after him and assured complete recovery. Charles was taken from school, and Hyacinthe took care of his education, and trained him for eight years for administrative and methodic work. During that time, he developed a sense for precise observing and a feeling for fine details, which would become important in his later career.

Charles got interested in astronomy in younger years, and seems to have liked observing the stars and the phenomena in the night sky in very early years. When he was 14 years old, a great 6-tailed comet appeared (discovered by Klinkenberg and closer studied by

De Chéseaux). His interest was further stimulated by an annular Solar eclipse which was visible from his hometown on July 25, 1748.

In 1751, that part of present-day France was reorganized, and the Princes of Salm retracted from the control of Badonviller. Hyacinthe Messier decided to stay loyal to the Princes of Salm, and therefore to leave Badonviller and establish himself at Senones. For Charles, now at 21 years of age, time had come to look for work. Therefore, a friend of the family, the Abbé Thélosen, found two opportunities for him to take up a job in Paris: one with the curator of a palace, the other with an astronomer. After some consultations with friends, Hyacinthe accepted for him the second position, that with the astronomer, because it promised more advantages and prospects.

Charles Messier left Badonviller on September 23, 1751, and went to Paris, where he arrived on October 2. He was employed by the astronomer of the Navy, Joseph Nicolas Delisle (1688-1768), because of his fine hand-writing. Delisle and his wife, a couple in their sixties without own childs, gave Messier a new home within their appartment, situated in the Collége Royal de France (Royal College of France). Messier's first job was copying a large map of China; for that purpose, large space was needed, which Delisle assigned him in a long, unheated hall in the Royal College; Delambre (1827) commented that this was just appropriate for a future observational astronomer.

Besides these activities, he got introduced into Delisle's observatory and instructed in using its instruments by Delisle's secretary and assistant, Libour. This man also instructed him to keep careful records of all his observations.

Delisle's observatory had been established in 1748, after Delisle's return from Russia a year before, on a tower of Hôtel de Clugny (later Hôtel de Cluny), a residence constructed in 1480, on the ruins of Roman thermes from the 4th century, as the temporary Paris residence for the abbots of the Clugny order and their guests. In the 18th century, it was rented to the administration of the Royal Navy.

Charles Messier's first documented observation was that of the Mercury transit of May 6, 1753. Delisle himself introduced him into elementary astronomy and convinced him of the usefulness of measuring exact positions of all observations -- without doubt one of the most important preliminaries for the success of his catalog. In 1754, he was regularly employed as a Depot Clerk of the Navy.

Somewhen in 1757, Charles Messier started looking for comet Halley. His first reported observation of M32, a companion of the Andromeda Galaxy, took place in the same year 1757; he must also have seen the "Great Nebula" M31 latest on this occasion. Comet Halley was expected to return in 1758, which, at that time, was no more than a scientific hypothesis. Delisle himself had calculated an apparent path where he expected comet Halley to appear, and Messier created a fine star chart of this path. Unfortunately, there was a mistake in Delisle's calculations, so that Messier always looked at the wrong positions. However, he discovered another comet on August 14, 1758, which he followed and carefully observed with telescopes to November 2, 1758; this comet (C/1758 K1 De la Nux) had been discovered earlier, on May 26, 1758, by De la Nux. During these observations, he discovered another comet-like patch in Taurus on August 28, 1758. Evidently, it turned out that this patch was not moving, and was thus indeed not a comet, but a nebula. He measured its position on September 12, 1758, and it later

became the first entry in his famous catalog, Messier 1 or M1, -- this object later turned out to be one of the most interesting objects in the sky, the remnant of the supernova 1054, now commonly called the Crab Nebula. It was also this first discovery of a comet-like nebula which triggered Messier to both looking for comets with telescopes, thus "inventing" comet hunting, a new discipline of astronomy in these days, and to compile his catalog of nebulous objects which might be taken for comets.

Comet Halley was finally discovered by the German amateur astronomer Johann Georg Palitzsch (1723-1788) in the Chrismas night (December 25-26) of 1758. Messier independently found it on January 21, 1759, about 4 weeks later, when he finally doubted the correctness of Delisle's path. Delisle however did not believe in this fault, advised him to continue observing, and refused to announce his discovery. Messier as loyal employee stated: "I was a loyal servant of M. Delisle, I lived with him in his house, and I conformed with his command." When Delisle finally announced the discovery on April 1, 1759, it was not believed by the other French astronomers (perhaps they took it as an April Fool's joke).

Perhaps this disappointment and frustration was even more stimulating to the 28-year old observer, so that he devoted his professional life to comet hunting. This devotion suffered from a further frustration (and perhaps got further emphasized) when Delisle refused to publish a further comet discovery by Messier in early 1760.

In the following, Delisle changed attitude, supported Messier, and let him do his own observational work; also, it seems that because of his age, he more and more retracted from astronomical work. Messier recorded his second "nebula," M2, previously discovered by Jean-Dominique Maraldi (1709-1788), and plotted it on a chart showing Comet Halley's track. He observed the transit of Venus of June 6, 1761, and the appearance Saturn's rings. He observed Comet 1762 Klinkenberg from May to July, 1762, and on September 28, 1763, he discovered Comet 1763 (Messier), and the next one, Comet 1764 Messier, on January 3, 1764 (this one was as bright as 3.0 mag when discovered, according to Don Machholz). A first hope to enter the French *Académie Royale des Sciences* [Royal Academy of Sciences] in 1763 did not come true, a considerable disappointment for Charles Messier.

With the discovery of a further "nebula", his third object (globular cluster M3) and his first original discovery, it seems that he undertook a serious scan of the skies for these objects, as they could frequently fool comet discoverers. Alternatively, it may be that he decided to undertake this endeavor due to other reasons, and M3 was his first discovery in the course of doing so: It was at that time that Le Gentil's memoir on nebulae was going to be printed (finally, in 1765), and it may well be that Messier had knowlegde and was perhaps influenced by this. Within his search for nebulae, Charles Messier both undertook own scans, leading to 19 original Messier discoveries during that year, and used all the catalogs compiled previously by other astronomers he had access to: Edmond Halley's list of 6 objects, the catalog of William Derham, who chiefly had extracted from Hevelius' star catalog, *Prodomus Astronomiae*, which was available in a French translation by Pierre de Maupertuis, and Nicolas Lacaille's Catalog of Southern "Nebulae" of 1755, as well as lists of Maraldi and Le Gentil, with some references to (but very probably not the list of) De Chéseaux, probably from Le Gentil. He cataloged the objects M3--M40 this year, and looked for several non-existent nebulae from the

older catalogs (certainly without success, but this explains why the double star M40 entered his catalog).

At that time, Messier was in vivid correspondence with astronomers and other academicians in Britain, Germany, and Russia. His Russian correspondent, Frederick La Harpe, was exile from Swiss and member of the Academy of sciences. Moreover, on May 21, 1764, Charles Messier was selected as a member of the Academy of Harlem (The Netherlands), and on December 6, 1764, was made a foreign member of the Royal Society in London. In 1765, memberships in the Academy of Auxerre and the Institute of Bologne followed.

Early in 1765, he found the star cluster M41. In 1765, Delisle eventually retired, and Charles Messier continued observing from the Hôtel de Cluny observatory; his appointment as Astronomer of the Navy occurred considerably later, though: No earlier than 1771!

On March 8, 1766, he discovered a new comet, and co-discovered one more on April 8 of that year.

In 1767, Messier, the long-term Depot Clerk and later Astronomer of the Navy, took part in the only naval journey in his life, in order to test and regulate some new marine chronometers, constructed by J. Le Roy. Therefore, he went on the ship *L'Aurore* for a 3 and a half-month voyage in the Baltic, together with his colleague Alexander-Guy Pingré (1711-1796). Messier did the astronomical observations and Pingré the necessary calculations. During his absense from May 12 to September 1, 1767, Lalande continued the observing program at Cluny.

In early 1769, Messier must have decided to publish a first version of his catalog, and to enlarge the number of objects, cataloged the well known objects M42--M45 (Orion Nebula, Praesepe, and the Pleiades) on March 4, 1769.

On August 8, 1769, Messier discovered a new comet (1769 Messier, the Great Comet of that year). He sent a description and a map of this comet's discovery to the King of Prussia, who was so impressed that under his influence, Messier was made a member of the Berlin Academy of Sciences on September 14, 1769; in April of the same year, he had already been selected as a member of the Royal Academy of Sweden in Stockholm.

Finally, in 1770, he was elected into the Paris *Académie Royale des Sciences*, which he entered on June 30. This occurred about 2 weeks after he had discovered another comet, on June 14, which became known as Comet Lexell; unusually, this comet was not named for its discoverer, Charles Messier, but for the calculator of its orbit, Anders Lexell, a Finnish astronomer and mathematician working at St. Petersburg Observatory.

The same year, on November 26, 1770, Charles Messier, aged 40, married Marie-Françoise de Vermauchampt (37). They had known each other from viewing for at least about 15 years, when Charles Messier had to do in the College de France.

On January 10, 1771, Messier independently co-discovered the Great Comet of that year. On February 16, 1771 he presented the first version of his Catalog of Nebulae and Clusters of Stars, with the first 45 objects, to the Paris Academy of Sciences. This was

his very first memoir presented to the Academy, followed by a large number of others. Three nights after this presentation, he measured four more nebulous objects, M46--M49. For two of them, however, M47 and M48, he didn't proceed with the usual care, and did mistakes in the reduction of positional data, so that they were missed until their 20th century identification. M49 was moreover the first Virgo Cluster galaxy discovered. On April 1, he discovered Comet 1771 Messier, his 13th comet in his own counting, his 12th independent and his 7th original discovery. Later this year, on June 7, Messier discovered M62, but only measured an approximate position, so he included this "Very Fine Nebula" not before 1779. In the same year of 1771, on September 30, Charles Messier was finally officially made the "Astronomer of the Navy" by the Minister of the Navy, de Boines, and granted a regular salary of 1700 francs annually (this was raised again in 1774 to 2000 francs). Also this year. in March, 1771, the portrait of Charles Messier displayed at the top of this page has been created by Desportes, together with a portrait of Madame Messier.

On October 31, 1771, Messier and his wife moved from his and formerly Delisle's appartment in the Collége de France into a lodging within the Hôtel de Clugny, where the Observatory of the Navy was situated.

On March 15, 1772, Madame Messier gave birth to a son, who was christened Antoine-Charles. Following the birth, both Madame Messier and the small boy died within 11 days, Madame Messier on March 23, and Antoine-Charles on March 26, 1772.

A slightly malicious legend is reported by Jean-François de Laharpe, written in 1801, that the death of Messier's wife had prevented the discovery of another comet which would have been his thirteenth, and Messier was more desperate because of the lost discovery than of the death of his wife (especially as this comet was discovered by Montaigne, whom he didn't like). However, this legend doesn't stand serious criticism: Montaigne had already discovered this one on March 8, a week before Messier's son had been born, and whatever counting is appointed, this was not Messier's thirteenth comet (according to Messier's own counting, as well as a published memoir, and mentioned above, his 13th comet had already appeared in 1771).

Anyway, Messier observed this comet March 26 - April 3, 1772. On April 5, 1772, he added another cluster to his list, M50. Later that year, he took a 3-months vacations in Lorraine, from September to November 1772. That year, he was also elected a member of the Academy of Brussels (Belgium) and the Royal Academy of Hungary.

Perhaps partly because of these private experiences, "Nebula" observation was apparently reduced by Charles Messier in the years following: On August 10, 1773, he discovered the second bright companion of the Andromeda "Nebula", M110, but due to unknown reason did not catalog it. He discovered one more comet on October 13, 1773; this one was found when it was "just visible to the naked eye" (Glyn Jones), or at 4.5 mag (Machholz). He found two more objects (M51 and M52) in 1774, and observed Comet 1774 Montaigne. Also in the year 1774, Pierre Méchain was introduced to Messier by Jerôme de Lalande, the leading French astronomer at that time; it may well be (according to a conjecture of Owen Gingerich) that he had met Messier before this time.

Until 1777, Messier did not discover another nebula, nor another comet. In February that year, Messier cataloged M53 (this globular had been discovered two years earlier by Johann Elert Bode). He also contributed to the dubious hypothesis of a planet inside Mercury's orbit, when he reported several small bodies crossing the Sun's disk on June 17, 1777. He added that the objects observed might be atmospheric phenomena, but "more probably small meteorites". On La Harpe's recommendation, Messier was named to the Academy of St. Petersburg in Russia on January 9, 1777.

In 1778 Messier found two more nebulae, the original discovery M54, and M55 which had been reported by Lacaille, and which Messier had looked for in vain in 1764.

In 1779, Messier co-discovered Comet 1779 Bode on January 19, 13 days after its original sighting by Bode on January 6. Following this comet, until May 19, he observed six objects (M56--M61). There was a modest discovery "outburst" when the comet passed Virgo and the Virgo cluster of Galaxies, and was observed by Messier, Johann Gottfried Koehler from Dresden, and Barnabus Oriani in Milan. Thus Koehler discovered M59 and M60 on April 11, 1779, but overlooked M58 which was discovered by Messier when he independently also found the other two on April 15. Oriani was the first to identify M61 on May 5, 1779; Messier found it the same day but took it for the comet on May 5, 6, and 11 -- he realized its nature as a nebula finally on May 11. Messier eventually got a good position for M62 which he had longly discovered in 1771. M63 was the first discovery of Méchain (on June 14, 1779), who had definitely started observing about that time, and like Messier focussed on comet searching and observing. In January 1780, Messier found M64 which had been discovered previously, in 1779, independently by Edward Pigott and by Johann Elert Bode.

Owen Gingerich reports that Messier, by chance, found M65 and M66, in March 1780. Admiral Smyth, and later some other authors probably following him, has assigned these two objects to Pierre Méchain, most probably in error, as Messier didn't acknowledge an earlier discovery, unlike his practise on all such occasions that actually occurred. Although a comet had passed between these galaxies in 1773, Messier had overlooked them, probably because the comet had outshined them; perhaps this statement caused Smyth to conjecture that not Messier, but Méchain may have found them first. Also, Messier did not find a 3rd galaxy, NGC 3628, of visual magnitude 9.5 (but less surface brightness than the other two), which forms a conspicuous triangular group with them: This gives a hint on the modest power of his telescopes. In April 1780, he discovered two further objects, M67 and M68, and thus completed his observations for a second version of the catalog. This version was containing the objects up to M68, published 1780 in the French almanac, *Connoissance des Temps*, for 1783. M67 had been discovered earlier by Köhler, before 1779, while M68 was again subject to a misassignment to Méchain by Admiral Smyth.

In May, 1780, Messier became a member of the Literary Society of Upsala, Sweden.

Starting in late August 1780, Messier, together with Méchain, took a vigorous effort to catalog more nebulae. Messier's first two new discoveries, M69 and M70, just made it to an appendix to the *Connoissance des Temps* for 1783. By the end of the year 1780, Messier had collected the entries up to M79, and discovered a new comet (1780 I Messier, on October 27), shortly after having missed another one, 1780II Montaigne-Olbers. By April 1781, the list of nebulae and star cluster had increased to 100 objects.

Hastily, three more objects observed by Pierre Méchain (M101--M103) were added without personal validation, to get the catalog ready for its final publication in the *Connoissance des Temps* for 1784 (published 1781). Very shortly after publication, on May 11, 1781, Messier added M104 to his personal copy of the catalog, as well as positions for the hitherto undetermined objects M102 and M103. A look to Messier's personal matters shows that he had listed two more nebulae, discovered by Méchain and mentioned in the catalog with M97, which are now known as M108 and M109. One of Méchain's discoveries of March 1781, M105, had been overlooked and missed the final catalog. Méchain discovered a further nebulous object, now M106, in July. Méchain also discovered his first two comets in 1781, on June 28 and October 9.

Meanwhile, Friedrich Wilhelm (William) Herschel, who was at that time astronomer (observer and telescope maker) and organist at Bath, England, had discovered planet Uranus on March 13. Messier got the note on April 14, 1781, one day after his last observing session for compiling his catalog, and immediately started observing it. He wrote to Herschel: "It does you the more honor as nothing could be more difficult than to recognize it and I cannot concieve how you were able to return several times to this star or comet as it was necessary to observe it several days in succession to perceive that it had motion, since it had none of the usual characters of a comet." He passed his observations to the French president de Saron, who was a good mathematician, and was among the first to calculate that Uranus was a planet and not a comet, since its perihelion was too great (this result was obtained on May 8, 1781). Others, namely Boscovich, Lexell, Lalande and Méchain, obtained the same result, and confirmed that Uranus was orbiting the sun beyond Saturn's orbit. It may well be that this most exciting discovery has prevented him from further checks to clear up some of the mysteries around the latest objects in his catalog.

Later this year, on November 6, Messier's work was unfortunately interrupted by an awful accident, when he fell into the ice cellar about 25 feet deep. He was severely injured, and it took more than a year for him to recover; he was up not until November 9, 1782.

In the meantime, in April 1782, Méchain had discovered another "nebula", which finally became the latest discovered Messier object, M107.

Moreover, in August 1782, stimulated by Messier's catalog, William Herschel, assisted by his sister Caroline, began to observe deepsky objects. Herschel had received a copy on December 7, 1781, from his friend, Dr. William Watson, which had been sent to them by Alexander Aubert. On September 7, 1782, William Herschel did his first original discovery of a deepsky object, the Saturn Nebula (NGC 7009), and in October 1783, after some research of efficient observing techniques, he began his extensive deep-sky survey of the sky visible from England (i.e., the Northern sky), and cataloged 1000 deep-sky objects until 1786, and a total of over 2500 until 1802 (however, some of them don't exist, and some others had been discovered earlier).

Three days after his recovery on November 9, 1782, Charles Messier observed a Mercury transit on November 12, 1782.

On May 6, 1783, Pierre Méchain wrote an important letter to Bernoulli of the Berlin academy, which was published by Bode in the *Astronomisches Jahrbuch* for 1786,

together with a translation of the Messier catalog. In this letter, among others, he communicated the last three objects discovered by him (now M105-M107). He also disclaimed the discovery of M102, thereby initiating a still open controversy on the identification of this object (i.e., if it duplicates M101 as Méchain claims, or may be identified with NGC 5866 which matches his description and - up to a reconstructable error in data reduction - Messier's handwritten position).

Messier resumed his assiduous observing activities as before, again concentrating on comets. He seems to have used his personal copy of his catalog also for a number of years, but apparently did not invest great effort in further attempts to find new nebulous objects, and not much work to improve the catalog further. This is perhaps because he knew of Herschel's survey, and as he couldn't compete in instrumentation, he may have lost interest: He probably was aware that future comet hunters could use Herschel's compilation also. However, there are a number of notable exceptions: His measurements of stars in the open star clusters Praesepe (M44) and the Pleiades (M45) in 1785, 1790, and 1796, a number of observations of about 1790 of nebulae and clusters marked by hand in his personal copy of the catalog, his corrected positions of 1790 for the Andromeda "Nebula" (M31) and its companion M32, as well as his 1795 investigations and drawing of the Andromeda "Nebula" (M31) and both its satellites M32 and M110.

Messier himself puts it on the large number of comets that appeared since about 1785 that did not permit much time for other observational activities.

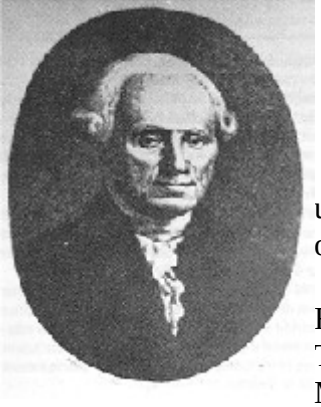
The Messier catalog was finally corrected by identifying the 4 missing objects (or at least three of them), and brought into its current state by adding the late discoveries of Méchain, M104--M109, plus the uncataloged discovery M110, only in the 20th century.

Messier's comet search led to a further success on January 7, 1785, when he discovered comet 1785 I Messier-Méchain, when it was about 6.5 magnitudes bright; this one was visible for about 5 weeks. Méchain discovered another comet on March 11, 1785, and a further one on January 17, 1786; this was the first apparition of comet Encke, the comet with the shortest known orbital period of only about 3.3 years.

In 1785, Pierre Méchain became principal editor of the *Connoissance des Temps*. He served on this post until 1792, and was responsible for the publication of the *Connoissance des Temps* for 1788 to that for 1794. Some sources say that Messier was also appointed as associate editor of this publication in the same year, and hold this post for five years until 1790, but the present author could not yet find evidence to confirm this statement.

Both astronomers continued their successful comet search: Messier discovered a new one on November 26, 1788, while Méchain found a further comet on April 10, 1787, and discovered comet Tuttle when it appeared in 1790, on January 9. Further academic memberships came for the Academy of Sciences of Dublin (1784), the Académy de Stanislav, Nancy, Lorraine (1785), and the Academy of Vergara, Spain (1788).

Meanwhile, the French Revolution had begun with the storming of the Bastille on July 14, 1789. These events may have intercepted attempts by Charles Messier to publish an



updated version of his catalog: In his personal copy, he added notes on observaitons of nebulae and clusters in about 1790.

Four years later, this culminated in the "Year of Terror" in France, 1793-1794. That year, the French King Louis XVI was guillotined on January 21, and Messier's friend, ex-president de Saron, on April 20, 1794, shortly after he had calculated the orbit of Messier's comet discovered on September 27, 1793, and Messier could notify him secretly that he had found the comet on the calculated path. The terrorism ended when finally Robbespierre himself was guillotined on July 27, 1794. During that time, Messier lost his salaries and pension, and had to loan oil for his lamp from Lalande. Méchain was in Spain, employed in surveying the meridian, where he discovered another comet in January, 1793, but his family lost their estate during this year. He left to Italy, and returned to Paris in 1795. Together with Messier, he entered the new *National Institute of Sciences and Arts*, successor of the *Academy of Sciences*. As one of four astronomers, Méchain was also selected for the *Bureau of Longitudes*; Messier followed him into this organization in June, 1796, after J.D. Cassini (Cassini IV) decided to leave.

Messier discovered another comet on April 12, 1798.

At that time, he apparently felt the need to comment on his intention for compiling his catalog. In the *Connaissance des Tems* for the year IX (of the French republic, i.e., 1800/1801), which was published 1998, he lined out:

"What caused me to undertake the catalog was the nebula I discovered above the southern horn of Taurus on September 12, 1758, whilst observing the comet of that year. This nebula had such a resemblance to a comet in its form and brightness that I endeavored to find others, so that astronomers would no more confuse these same nebulae with comets just beginning to appear. I observed further with suitable refractors for the discovery of comets, and this is the purpose I had in mind in compiling the catalog.

After me, the celebrated Herschel published a catalog of 2000 which he has observed. This unveiling the heavens, made with instruments of great aperture, does not help in the perusal of the sky for faint comets. Thus my object is different from his, and I need only nebulae visible in a telescope of two feet [focal length]. Since the publication of my catalog, I have observed still others: I will publish them in the future in the order of right ascension for the purpose of making them more easy to recognise and for those searching for comets to have less uncertainty."

As it came out, Messier never carried out this plan.

In 1801, when the first asteroid, Ceres, had just been discovered by Piazzi on January 1, Charles Messier, now at an age of 71 (shown at about this time in this image), took part in an observing project of occultations of the mag 1 star Spica (Alpha Virginis) by the Moon, on March 30 and May 24. Charles Messier did his last score in comet discovery on July 12, 1801, when he independently co-discovered Comet 1801 Pons; this brought

the number of his comet discoveries to 20, 13 being original and 7 independent co-discoveries. He did some observations of the newly discovered "planets" (asteroids) of Piazzi (Ceres) and of Olbers (Pallas).

Pierre Méchain lately became director of the Paris Observatory, a post he had for several years. But as he had been worrying about some latitude determinations in his longitude survey, he finally got Napoleon's permission to extend this survey to the Balearic Islands. He left Paris in 1803. After completing parts of this work, he caught yellow fever and died in Castillion de Plaza, Spain, on September 20, 1804.

In his older days, Charles Messier finally came to a certain portion of honor when Napoleon himself, in 1806, presented him the Cross of the Legion of Honor. In turn, the old man Messier ruined much of his scientific reputation by an elaborated memoir, devoting the great comet of 1769 to Napoleon, who had been born that year; thus he became probably the last serious scientist who claimed that comets announce events on earth, or as Admiral Smyth put it: 'The last comet put astrologically before the public by an orthodox astronomer'.

In the time following, Messier did less and less observing, although he didn't completely cease, mainly because he suffered from decreasing eyesight. Thus he was unable to determine positions for the two comets of 1805 and that of 1806. His observatory grew into worse and worse state, with no funds to repair. The last comet Messier reports to have seen and observed, the positions measured with the help of other observers, was the "Great Comet" of 1807. His last memoir, presented to the National Institute of France, similar to his first of 1771, the first version of the Catalog of Nebulae and Star Clusters, was again a considerably important memoir on "nebulae:" his presentation of his 1795 observations and a drawing of the Andromeda "Nebula" M31, together with its companions M32 and M110.

In 1815, Messier suffered a stroke which left him partially paralyzed. After partial recovery, he attended one or two more academy meetings, but his everyday life became more and more difficult. In the night of April 11-12, 1817, Charles Messier passed away in his 87th year, in his home in Paris. He was buried on April 14 on the cemetry of Père Lachaise in Paris.

Charles Messier has been honored lately by the astronomical community by naming a Moon Crater (or even two) after him, situated on Mare Fecunditatis. Asteroid 7359, discovered on January 16, 1996 by M. Tichy at Klet Observatory, and provisionally designated 1996 BH, was named "Messier"; it had already been observed previously, and designated 1978 WR14 and 1989 WT1.

Already during his lifetime, in 1775, Messier's French fellow astronomer Jerôme de Lalande had proposed to name a constellation after him: *Custos Messium*. This constellation was formed from bordering stars of Cepheus, Cassiopeia and Camelopardalis. However, it was very short-lived and is longly extinct now.

Anyway, the most obvious honor is certainly the still common naming of the Deep Sky Objects in his catalog after him, with their "Messier" number, e.g. Messier 42 or M42 for the Orion Nebula, or M31 for the Andromeda Galaxy.