'''天文學臨時編號'''是[[天體]]在被發現后即時給予的[[天體命名|命名]]。當計算出可靠的軌道資料后，臨時編號往往會被一個永久代號（命名）取代。但[[小行星]]，由於有太多被發現了，因此絕大部分在發現之後都不會有其他命名。

==小行星==

現在取用的[[小行星]]臨時編號系統自從1925年便開始使用。其之前另有幾個編號系統，但隨小行星發現的數量日益增多，它們也紛紛被後者淘汰。

小行星的臨時編號中的第一個元素便是發現年份，緊接著兩個字母，再是一個可有可無的數字。

第一個字母代表發現日期，每半個月以一個字母代表——“A”表示一月的上半月，“D”表示二月的下半月，“J”表示五月的上半月（“I”不被使用），如此類推到“Y”表示十二月的下半月爲止。上半月的定義為從1號至15號，餘下無論多少天都歸于下半月。

第二個字母和數字代表在那半個月時間中小行星被發現的次序。如1950年3月下半月發現的第8顆星會記為1950 FH。然而現代的小行星發現迅速，每半個月的發現遠超過25顆（剔除“I”的使用），因此字母后會被加上一個下標數字，表示這個字母被循環使用了第幾次。這樣，1950年3月下半月發現的第28顆星便是{{mp|1950 FC|1}}。但由於電腦輸入並不方便，下標有時會被輸入成普通的大小位置：1950 FC1。{{mp|1926 GA|1}}第一次使用下標數字的系統。

下標系統引申的有趣現象是，儘管第二個字母比後面的數字“進位”得更快，但是卻被放在之前。這和世界上其他的編號系統有所差異。

===更多例子===

In the year 2004, the first asteroid discovery of January 1 would be named 2004 AA. Then the naming continues to 2004 AZ, followed by {{mp|2004 AA|1}}. The next discovery is {{mp|2004 AB|1}}, then {{mp|2004 AC|1}}, etc. Eventually one could get to something like {{mp|2004 AA|276}}. Following the end of the half-month, the next asteroid to be discovered would receive the provisional designation 2004 BA.

The large outer solar system object [[90377 Sedna]] had the provisional designation {{mp|2003 VB|12}}, meaning it was discovered in the first half of November 2003, and that it was the 302<sup>nd</sup> object (B->2 + 12\*25 = 302) discovered during that time. [[28978 Ixion]], originally {{mp|2001 KX|76}}, was discovered in the latter half of May 2001, and was the (X->23 + 76\*25 = 1923) 1,923<sup>rd</sup> object discovered during that time.

As of [[April 13]], [[2007]], the busiest half-month has been the second half of October 2005<ref>[http://www.cfa.harvard.edu/iau/lists/Desigs.html Provisional Designations<!-- bot-generated title -->] at CfA homepage</ref>. During those 16&nbsp;days, 12,875 asteroids were observed and provisionally discovered, and the last one was thus named {{mp|2005 UW|512}}<!--- = {{mp|2007 EW|102}} --->. As observations made then are further analyzed, that number may continue to climb.

===Survey designations===

Minor planets discovered during four special past surveys have designations that consist of a number (order in the survey) followed by a space and one of the identifiers:

\*'''P-L''' Palomar-Leiden Survey (1960)

\*'''T-1''' First Trojan Survey (1971)

\*'''T-2''' Second Trojan Survey (1973)

\*'''T-3''' Third Trojan Survey (1977)

For example, the 2040th asteroid in the Palomar-Leiden Survey is [[2040 P-L]]. The majority of these bodies have since been assigned a number.

===Historical designations===

The first four [[asteroid]]s were discovered in the early 19th century, after which there was a lengthy gap before the discovery of the fifth. Astronomers initially had no reason to believe that there would be countless thousands of asteroids, and strove to assign a symbol to each new discovery, in the tradition of the symbols used for the major planets. For example, [[1 Ceres]] was assigned a stylized sickle, [[2 Pallas]] a lozenge with a crossed handle, [[3 Juno]] a Venus mirror crowned by a star (later became a star with a crossed handle) and [[4 Vesta]] a sacred fire altar<ref>http://aa.usno.navy.mil/hilton/AsteroidHistory/minorplanets.html</ref>.

It soon became apparent, though, that continuing to assign symbols was impractical and provided no assistance when the number of known asteroids was in the tens. [[Johann Franz Encke]] introduced a new system in the ''Berliner Astronomisches Jahrbuch'' (BAJ) for 1854, published in 1851, in which he used encircled numbers instead of symbols. Encke's system began the numbering with Astrea which was given the number (1) and went through (11) Eunomia, while Ceres, Pallas, Juno and Vesta continued to be denoted by symbols, but in the following year's BAJ, the numbering was changed so that Astraea was number (5).

The new system found popularity among astronomers, and since then, the final designation of an asteroid is a number indicating its order of discovery followed by a name. Even after the adoption of this system, though, several more asteroids received symbols, including [[28 Bellona]] the whip and lance of Mars' martial sister<ref>http://adsbit.harvard.edu/cgi-bin/nph-iarticle\_query?1854AN.....38..143.</ref>, [[35 Leukothea]] an ancient lighthouse<ref>http://adsbit.harvard.edu/cgi-bin/nph-iarticle\_query?1855AN.....40..373K</ref> and [[37 Fides]] a latin cross<ref>http://adsbit.harvard.edu/cgi-bin/nph-iarticle\_query?1856AN.....42..107L</ref>. According to Webster's ''A Dictionary of the English Language'', four more asteroids were also given symbols: [[16 Psyche]], [[17 Thetis]], [[26 Proserpina]], and [[29 Amphitrite]]<ref>[http://www.uni-heidelberg.de/zentral/ari/minor.planets/mp-signs.htm Webster's ''A Dictionary of the English Language'', G. & C. Merriam & Co., Springfield (Ma), USA, p. 1780 (1884)]</ref>. However, there is no evidence that these symbols were ever used outside of their initial publication in the ''Astronomische Nachrichten''.

===Genesis of the current system===

Several different notation and symbolic schemes were used during the latter half of the nineteenth century, but the present form first appeared in the journal ''[[Astronomische Nachrichten]]'' (AN) in 1892. New numbers were assigned by the AN on receipt of a discovery announcement, and a permanent designation was then assigned once an orbit had been calculated for the new object.

At first, the provisional designation consisted of the year of discovery followed by a letter indicating the sequence of the discovery, but omitting the letter I (sometimes J was omitted instead). Under this scheme, [[333 Badenia]] was initially designated 1892 A, [[163 Erigone]] was 1892 B, etc. In 1893, though, increasing numbers of discoveries forced the revision of the system to use double letters instead, in the sequence AA, AB...AZ, BA and so on. The sequence of double letters was not restarted each year, so that [[379 Huenna|1894 AQ]] followed [[378 Holmia|1893 AP]] and so on. In 1916, the letters reached [[830 Petropolitana|ZZ]] and, rather than starting a series of triple-letter designations, the double-letter series was restarted with [[831 Stateira|1916 AA]].

Since a considerable amount of time could sometime elapse between exposing the photographic plates and actually spotting an asteroid on them (witness the story of [[Phoebe (moon)|Phoebe]]'s discovery), or even between the actual discovery and the delivery of the message (from some far-flung observatory) to the central authority, it became necessary to retrofit discoveries into the sequence &mdash;To this day, discoveries are still dated based on when the images were taken, and not on when a human realised he was looking at something new. In the double-letter scheme, this was not generally possible once designations had been assigned in a subsequent year. The scheme used to get round this problem was rather clumsy and used a designation consisting of the year and a lower-case letter in a manner similar to the old provisional-designation scheme for comets. For example, [[6484 Barthibbs|1915 a]] (note that there is a space between the year and the letter in order to distinguish this designation from the old-style comet designation [[C/1915 C1|1915a]]), [[886 Washingtonia|1917 b]]. In 1914 designations of the form year plus Greek letter were used in addition.

==彗星==

1995年之前使用的系統很複雜。年份及空格之後是一個羅馬數字（發現順序），因此當兩顆彗星編號之間要插入第三顆彗星時便會出現困難。例如，報告彗星1881 III和彗星1881 IV發現之後，另一顆彗星的發現日期介乎兩者之間，但報告得更遲；然而此時這顆彗星不能被命名為“彗星1881 III 1/2”。更常見彗星的命名會是發現者名稱和年份。另一種編號法是以其經過近日點的年份和順序。因此“法葉彗星”（現代編號為[[4P/Faye]]）同時為彗星1881 I（1881年第一顆被發現的彗星）和彗星1880c（1880年經過近日點的第3顆彗星）。

1995年起採用的系統和小行星所使用的相似。<ref>[http://www.cfa.harvard.edu/iau/lists/CometResolution.html Cometary Designation System]</ref>這個彗星編號由發現年份、空格、一個字母（與小行星兩個字母不同）和數字（並不用下標）組成。當中的字母表示彗星發現日期在一年中的第幾個半月（A=一月的上半月，B=一月的下半月，如此類推，但不用I，餘下Z無須使用）。最後的數字代表在那半個月中彗星發現的順序。所以，2006年3月下半月發現的第8顆彗星會有以下的編號：2006 F8，而第10顆則為2006 F10。

若彗星分裂了，那其碎片的臨時編號會和原先的相同，但在后順序加上大寫A至Z然後小寫a至z。超過52塊碎片，再每塊跟蹤的可能性微乎其微，因此不再向後編號。

若一顆小行星漸漸被發現是一顆彗星，則這顆彗星會擁有其原來的小行星編號。如，小行星1954 PC後來被發現為法葉彗星，因此“4P/1954 PC”也可作爲它的編號。

編號之前會加上四种可能的前綴，用來粗略辨別彗星分類。前綴“P”（如[[P/1997 C1]]）代表[[周期彗星]]，公轉周期小於200年或被觀測經過近日點至少一次。（e.g. [[153P/Ikeya-Zhang]]，公轉周期為367年）。這些彗星在第二次經過近日點后會得到一個永久的數字前綴（2007年1月爲止有183顆[[周期彗星列表|周期彗星]]）。

未能達到“周期”標準的彗星會有前綴“C”（如[[C/2006 P1]]，麥克諾特彗星），不過如果這些彗星之後達到“周期”的條件，是可以被轉爲“P”的。而不見了的或解體的彗星會被加上“D”作爲前綴（如[[D/1993 F2]]，蘇梅克-列維九號彗星）。最後，古代記錄的但沒有可靠軌道資料的彗星會被加上“X”（如[[X/1106 C1]]）。

==行星的衛星和環==

當發現了[[衛星]]或[[行星環|環]]，它們會得到一個臨時編號，如“{{nowrap|S/2000 J 11}}”（2000年發現的[[木星]]的第11顆新衛星）、“{{nowrap|S/2005 P 1}}”（2005年發現的[[冥王星]]的第一顆新衛星或“{{nowrap|R/2004 S 2}}”（2004年發現的[[土星]]的第二個新環。開頭的“S/”或“R/”分別表示“衛星”（satellite）或“環”（ring），有別于用於彗星的“A/”、“C/”、“D/”、“P/”和“X/”。這些編號有時省略第二個空格：“{{nowrap|S/2005 P1}}”。

前綴“S/”代表天然衛星，接著為年份（得到其照片的年份，並不一定是發現的年份）。然後是一個字母，代表其圍繞公轉的行星（J、S、U、N、P分別為木星、土星、天王星、海王星、冥王星），再接著一個表示發現順序的數字。如，海王星最内側的衛星[[海衛三]]，最初時命名為“{{nowrap|S/1989 N 6}}”。

最初，編號系統中的羅馬數字是表示衛星距離行星的距離次序，如木星[[伽利略衛星]]'''I'''至'''IV'''（從内至外）。然而後期發現的新衛星往往比前者更接近行星，編號顯然成爲了一個問題。因此到了19世紀末，除了一些較早的編號特殊情況外，羅馬數字都大概表示衛星發現的順序，而非距離。而這個編號規則後來延伸到了小行星衛星的命名。

==小行星衛星==

[[小行星衛星]]的臨時編號系統與行星衛星的編號系統幾乎相同。而小行星衛星編號中的行星代號會由括號中的小行星編號取代。如，1998年發現的小行星87[[林神星]]（87 Sylvia），其臨時編號為S/2001 (87) 1，之後才得到永久命名(87) Sylvia I Romulus（羅穆樂斯）。當發現多於一顆小行星衛星時，便用羅馬數字表示發現順序，如林神星的第二顆衛星就是(87) Sylvia II Remus（雷摩斯）。

==參考資料==

{{reflist}}

\* {{cite journal

| author = [[Benjamin A. Gould]]

| url = http://adsbit.harvard.edu/cgi-bin/nph-iarticle\_query?1852AJ......2...80G

| title = On the symbolic notation of the asteroids | journal = Astronomical Journal

| volume = 2

| issue = 34

| pages = p. 80

| year = 1852

| doi = 10.1086/100212

}}

==參見==

\* [[天體命名]]

\* [[衛星的命名]]

\* [[小行星序號]]

==外部鏈接==

\* [[James L. Hilton]], [http://aa.usno.navy.mil/hilton/AsteroidHistory/minorplanets.html When Did the Asteroids Become Minor Planets?]

\* [http://www.cfa.harvard.edu/iau/info/OldDesDoc.html New- And Old-Style Minor Planet Designations] (Minor Planet Center)

[[Category:命名法]]

[[Category:天體]]

[[Category:彗星|\*]]

[[Category:小行星| ]]

[[Category:衛星| ]]

[[Category:行星環| ]]

<!-- The below are interlanguage links. -->

[[br:Anvadur an asteroidennoù]]

[[de:Benennung von Asteroiden und Kometen]]

[[es:Designación provisional en astronomía]]

[[fr:Désignation provisoire]]

[[it:Designazione provvisoria]]

[[mk:Привремена ознака во астрономија]]

[[ja:仮符号]]

[[no:Overgangsnavn]]

[[nn:Overgangsnamn]]

[[simple:Provisional designation in astronomy]]

[[sk:Predbežné označenie v astronómii]]

[[sl:Začasno označevanje nebesnih teles]]

[[sv:Provisoriska beteckningar på småplaneter]]