

Most people think of astronomers as people who spend their time in cold observatories peering through telescopes every night.

大多数人想象天文学家是那种把他们的时间花费在冰冷的天文台上，每天晚上透过望远镜观测的人。

In fact, a typical astronomer spends most of his or her time analyzing data and may only be at the telescope a few weeks of the year.

事实上，一个典型的天文学家会花费他或她的大部分时间分析数据，并且可能一年中只在望远镜上花费数周的时间。

Some astronomers work on purely theoretical problems and never use a telescope at all.

有些天文学家从事于纯粹的理论问题，并且根本就从来都不使用望远镜。

You might not know how rarely images are viewed directly through telescopes.

你可能不知道直接通过望远镜观察影像是多么罕见。

The most common way to observe the skies is to photograph them.

最常见的观察天空的方式是去拍他们的照片。

The process is very simple.

这个过程很简单

First, a photographic plate is coated with a light-sensitive material.

首先，一个照相底板被一种光敏的材料覆盖。

The plate is positioned so that the image received by the telescope is recorded on it. This plate is positioned so that the image received by the telescope is recorded on it.

Then the image can be developed, enlarged, and published so that many people can study it.

然后，图像能够被开发，放大，并且出版，使得很多人能研究它。

Because most astronomical objects are very remote, the light we receive from them is rather feeble.

因为大多数天体都很遥远，我们从他们那里接受到的光相当的微弱。

But by using a telescope as a camera, long time exposures can be made.

但通过使用望远镜当相机，长时间的曝光能够使影像显示出来。

In this way, objects can be photographed that are a hundred times too faint to be seen by just looking through a telescope.

这样，百倍微弱的，仅仅通过望远镜观察而看不清楚的天体也能被拍摄下来。