The ASA/ANSI/ISO NUMBER SERIES

This number series was invented to quantify the sensitivity of film to light. It originated in the United States offices of the **A**merican **S**tandards **A**ssociation, which became the **A**merican **N**ational **S**tandards **I**nstitute. The beauty of this system is that it is a geometric series, and the comparison of relative film speeds is simply the ratio of the two numbers.

A useful coincidence is that the film speed number becomes the shutter speed when photographing subjects lit with bright sunlight and the f/# of the lens is set to f/16. For instance, the **B**asic **D**aylight **E**xposure when using 100 speed film is to set the aperture of the camera to f/16 and the shutter speed to 1/100 of a second, or the closest one to it if using a mechanically timed shutter, usually 1/125".

The European film speed number system did not have that advantage, plus relative sensitivities could not be easily calculated, since their system was an *arithmetic sequence*. These **DIN** (**D**eutsche **I**ndustrie **N**orm) numbers had equivalents to the ASA numbers, but doubling the sensitivity was indicated by a jump of three digits; i.e. DIN 17 needed only half the amount of light of a DIN 14 film.

Finally the **I**nternational **S**tandards **O**rganization based in Switzerland adopted the American numbering system for the benefit of all. So you may hear old-timers say ASA when referring to a film's sensitivity.

* 10 * **12** * 16 * 20 * **25** * 32 * 40 * **50** * 64 * 80 * **100** * 125 * 160 * **200** * 250 * 320 * **400** * 500 * 640 * **800** * 1000 * 1200 * **1600** * 2000 * 2500 * **3200** * 4000 * 5000 * **6400** * 8000 * 10,000 *

ASA/ISO:	25	32	40	50	64	80	100	200	400	…
DIN	15	16	17	18	19	20	21	24	27	…