

# FIREWORKS CHEAT SHEET



- Tv: 1 TO 6 Seconds**  
( Longer shutter times will capture more of the fireworks streaking through the sky, but too much can look cluttered.)
- Wide open may be fine**  
(Can be narrowed down to f/5.6 if fireworks are too bright.)
- ISO: 400 - 1600**  
(Lower may be preferable if you have people in the foreground that you don't want lost in noise.)

*Courtesy Grant Johnson Photography and Jennifer Ditterich Designs*

# MILKY WAY CHEAT SHEET

- Tv: 14 to 22 seconds.**  
(Longer shutter times will lead to stars "streaking" through the sky as the earth rotates.)
- Av: As wide open as you can get your lens**  
(f/1.4 - f/2.8 are ideal, but most stock lenses can't get below f/3.5)
- ISO: 1600 - 6400**  
(Noise can be cleaned up easily in Lightroom or Photoshop)

*Courtesy Grant Johnson Photography and Jennifer Ditterich Designs*



# MOONRISE CHEAT SHEET



**Tv: Tricky.**

(Depends on phase of the moon, but it can be like shooting direct sunlight. For full moon I've done 1/10s or as fast as 1/500s.)

**For bright moonlight you can tighten to f/14**

**ISO: 100 - 200**

(Usually better to increase Tv than ISO to keep noise down.)

*Courtesy Grant Johnson Photography and Jennifer Ditterich Designs*

# NORTHERN LIGHTS CHEAT SHEET

- Tv: 5 to 10 seconds.**  
(Longer shutter times will bring in more light from the aurora, but the dancing lights can appear “smeared” if open too long.)
- Av: As wide open as you can get your lens**  
(f/1.4 - f/2.8 are ideal, but most stock lenses can't get below f/3.5)
- ISO: 1600 - 3200**  
(Maybe 6400 if lights are faint or moving rapidly.)

*Courtesy Grant Johnson Photography and Jennifer Ditterich Designs*



# STAR TRAILS CHEAT SHEET

- Tv: Using Bulb Mode Keep Shutter Open 1-2+ hours**  
(The longer you keep the shutter open, the longer the star trails grow.)
- f/3.5 to f/5.6 should suffice**  
(You may choose to tighten up to f/8 or more if your pictures come out hazy from stray light.)
- ISO: 100**

*Courtesy Grant Johnson Photography and Jennifer Ditterich Designs*