

LEBANON CAMERA CLUB

The Sky's the Limit

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The Sky's the Limit

Motivation

Note: This talk is going to focus on daylight/sunset landscapes.

- A great sky can make an image
- A poor sky can detract from a good image
 - ◆ Overexposed → blown highlights, often in clouds



The Sky's the Limit

Motivation

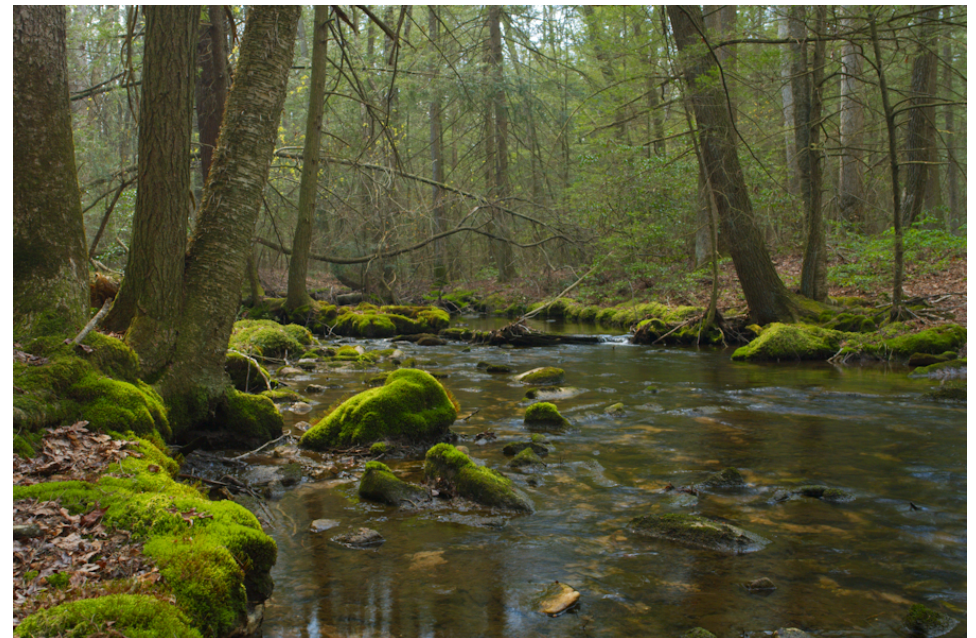
- A great sky can make an image
- A poor sky can detract from a good image
 - ◆ Overexposed → blown highlights, often in clouds
 - ◆ Sky color → maybe too dark, not a good blue (teal or purple)



The Sky's the Limit

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 - ◆ Sky color → maybe too dark, not a good blue (teal or purple)
 - ◆ White sky → overexposure, high-level clouds, overcast



The Sky's the Limit

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 - ◆ Polarizer issues → sky too dark, uneven brightness



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 - ◆ White sky → high-level clouds or overcast
 - ◆ Polarizer issues → sky too dark, uneven brightness
 - ◆ No clouds → bare sky is not dramatic

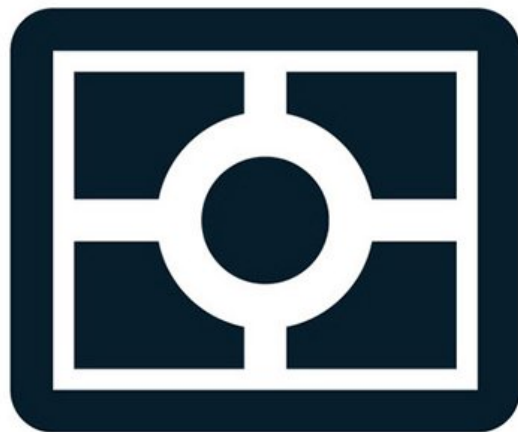


The Sky's the Limit

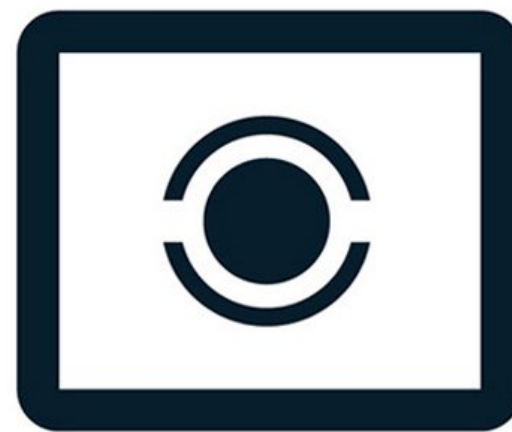
Note: The main types of metering are matrix (multi-zone, evaluative, ESP), center-weighted, and spot.

Overexposure

- Cause
 - ◆ Metering on the land → sky is over exposed
- Prevention
 - ◆ Use matrix metering mode → entire frame is considered
 - May give a more balanced exposure for sky and land



MATRIX METERING
NIKON



EVALUATIVE METERING
CANON

The Sky's the Limit

Overexposure

Note: Most cameras have a “live histogram” which can be displayed in the viewfinder (mirrorless) or on the LCD (DSLR live view mode).

- Cause

- ◆ Metering on the land → sky is over exposed

- Prevention

- ◆ Watch the histogram → while shooting or image review
 - Number of pixels in each luminance 'bin' → left = dim, right = bright
 - Farthest left (0) & right columns (255) → likely indicate clipping

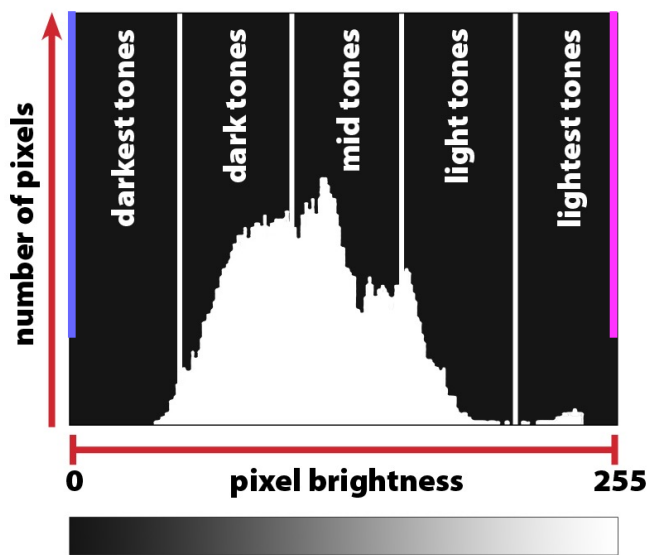


image review RGB histograms, which are more critical for determining clipping

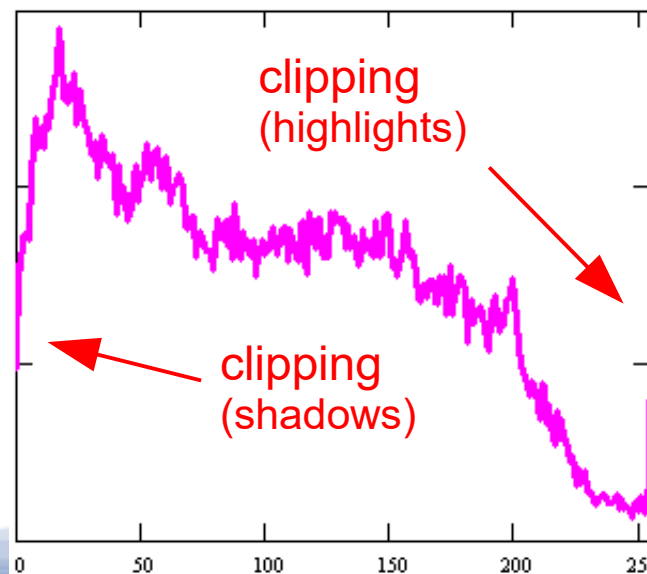


The Sky's the Limit

Note: Older digital camera sensors had less dynamic range, newer cameras have much better dynamic range due to sensor improvement.

Overexposure

- Cause
 - ◆ Metering on the land → sky is over exposed
- Prevention
 - ◆ Watch the histogram → while shooting or image review
 - Number of pixels in each luminance 'bin' → left = dim, right = bright
 - Farthest left (0) & right columns (255) → likely indicate clipping
 - Issue: sometimes the camera can't capture the entire dynamic range



better to clip in the shadows instead of the highlights → eye goes to bright parts of the scene, shadows less obvious

The Sky's the Limit

Overexposure

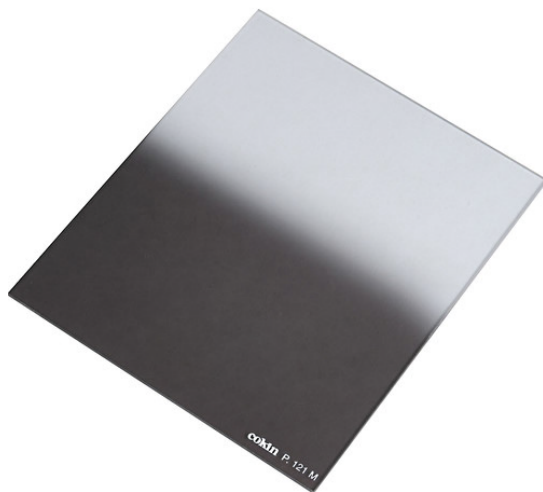
Note: Square filter holders attach to the lens filter threads using adapter plates that match the lens filter diameter → can use step-up rings to match different lenses

- Cause

- ◆ Metering on the land → sky is over exposed

- Prevention

- ◆ Use a graduated neutral density filter to limit dynamic range
 - Reduces sky brightness so scene is can be captured without clipping
 - Usually square so they can be adjusted vertically → special holder
 - Comes in different densities (# of stops) and transitions (hard or soft)



2 stop, hard edge GND



Cokin filter holder



3 stop, soft edge GND

The Sky's the Limit

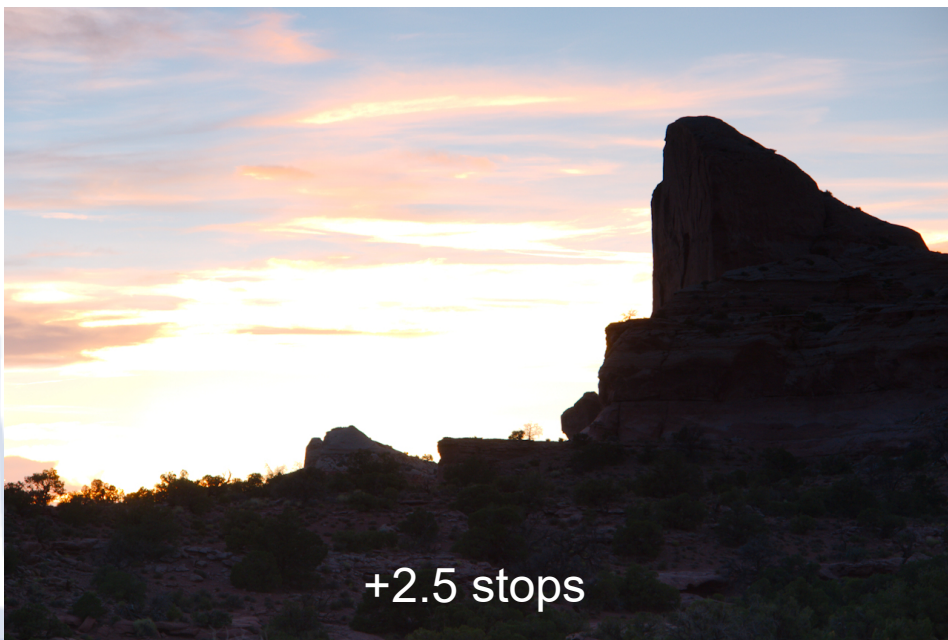
Overexposure

Note: Many image editors now have an HDR function.
Some cameras now have an HDR function →
in-camera HDR usually produces a JPEG file,
which is not optimal for further editing.

- Solution

- ◆ High Dynamic Range (HDR) photography, multi-image
 - Multiple shots at different exposures to capture full dynamic range
 - 3 images at -2, 0, and +2 stops (or -2, -1, 0, +1, +2 on some cameras)
 - Manual exposure adjustment or bracketing → shutter speed changed
 - Combine them in camera, using special software, or in an image editor
 - Problem: moving clouds may not align when images are combined

The Sky's the Limit



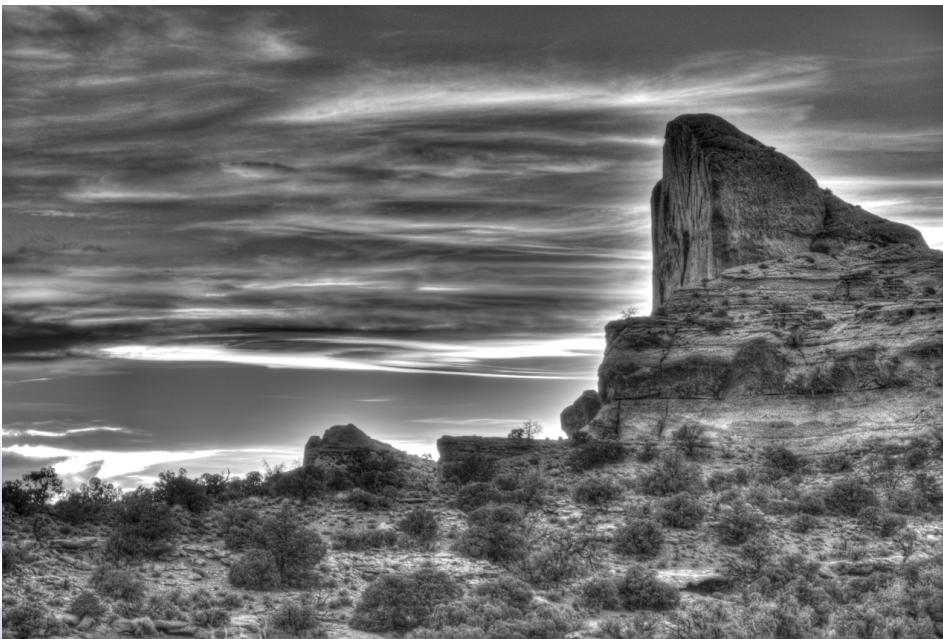
The Sky's the Limit

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The Sky's the Limit

Overexposure

Note: RAW files permit a significant amount of highlight and shadow recovery, as long as the image is not overexposed (clipping in the shadows is not as much of a problem).

- Solution

- ◆ High Dynamic Range (HDR) photography, single-image
 - A single RAW file can be processed to simulate different exposures
 - 3 images at -2, 0, and +2 stops, or 2 images → 1 for land, 1 for sky
 - Combine them using special software, or in an image editor
 - No issue with cloud movement or image alignment

The Sky's the Limit



original image



+2 stops in RAW developer



HDR result + some postprocessing

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Overexposure

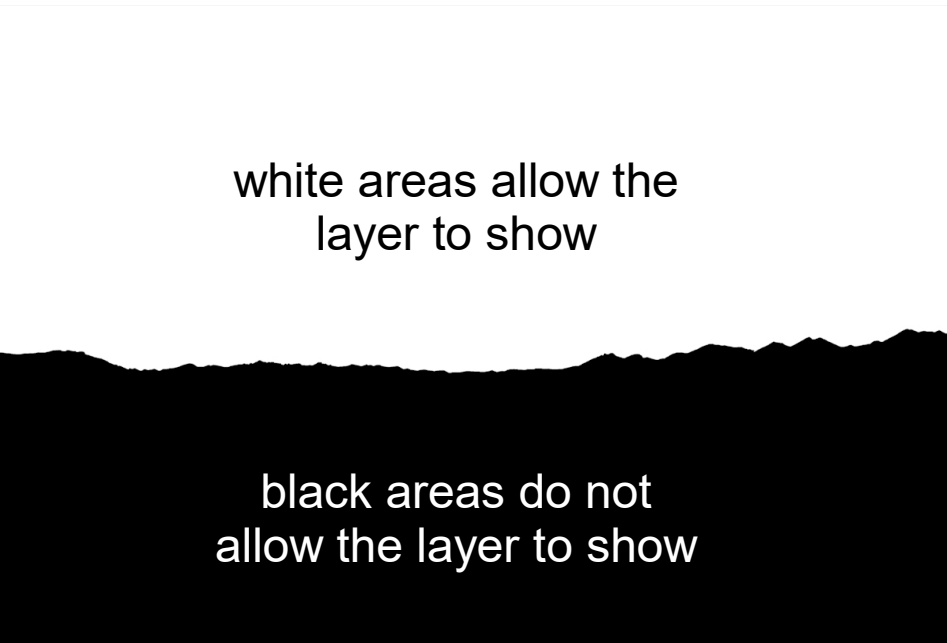
Note: The ability to make a good composite depends on your image editor skills. Usually done with layer masking. A well defined land/sky edge makes masking easier.

- **Solution**

- ♦ **Single-image composite**

- A single RAW file can be processed to simulate different exposures
- 2 images → 1 for land, 1 for sky
- Combine them in an image editor by layer masking
- No issue with cloud movement or image alignment

The Sky's the Limit



white areas allow the layer to show

black areas do not allow the layer to show



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The Sky's the Limit

Note: Blue sky is a difficult color to get right.
Using a gray card in direct sunlight
balances for the sun, not the sky.

Sky color

- Cause
 - ◆ Improper white balance
 - ◆ Atmospheric conditions
- Prevention
 - ◆ Use white balance techniques
 - Set camera custom white balance using gray card
 - Shoot gray card or color calibration card → correct in editor later

The Sky's the Limit

Sky color

- Solution
 - ◆ White balance on a cloud (if not overexposed)
 - ◆ Make sure you are picking on the white part of the cloud



The Sky's the Limit

Sky color

Note: The white balance tool may have a “preserve luminance” setting. If so, deactivate it because it will probably be necessary to change luminance to match the good sky color.

- **Solution**

- ♦ **White balance using the sky color from another photo**

- Put desired color on a small patch on its own layer
- Use the white balance tool to adjust the bad sky color to match
- May need to mask the WB adjustment so it doesn't affect the land

The Sky's the Limit

White sky

- Cause
 - ◆ Overexposure, high-level clouds, overcast
 - Seems to happen a lot in the summer, even without clouds
- Prevention
 - ◆ None

The Sky's the Limit

White sky

• Solutions

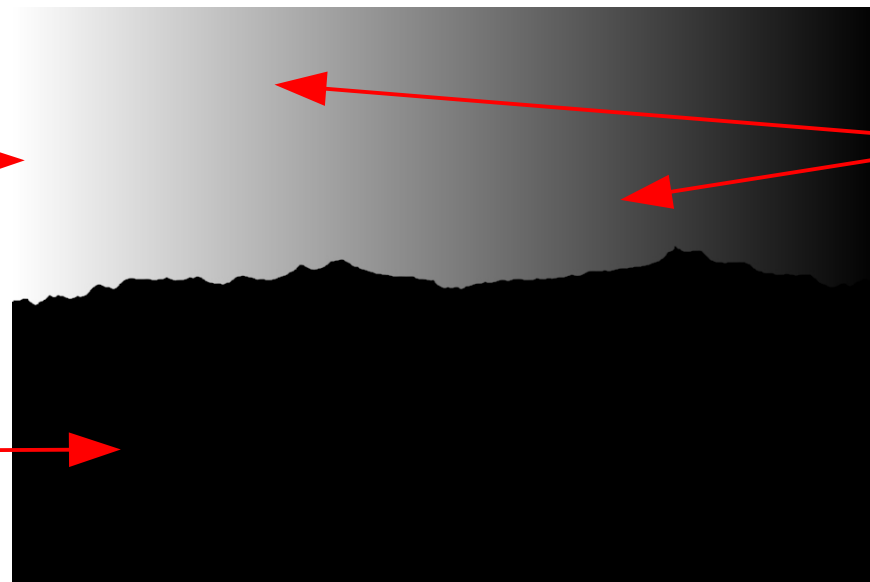
- ◆ Small patches → can tint them blue
 - Copy image to another layer and set the white balance to a blue tint
 - Use mask to apply blue tinted areas selectively
 - Tinting doesn't work well for large areas → too uniform

Note: A low color temp. setting in an editor gives an image shot in daylight a blue tint → you're telling the editor what color temp. the image was shot at. If the image was shot in low color temp. light (yellow), then the editor would add blue to compensate.

white mask does
allows the
layer/effect to show



black mask does
not allow the
layer/effect to show



gray mask allows
the layer/effect to
show partially →
lighter gray is more
visible, darker gray
is less visible

mask example

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White sky

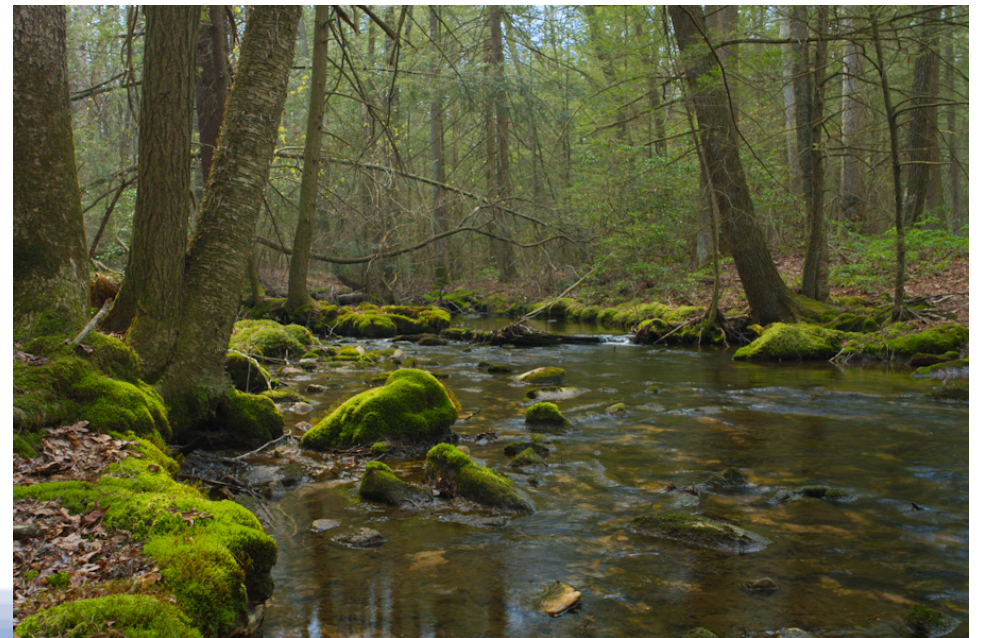
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- Solutions

- ◆ Small patches → can tint them blue

- Copy image to another layer and set the white balance for a blue tint
- Use mask to apply blue tinted areas selectively
- Can also use a colored layer for tinting → too uniform for large areas

The Sky's the Limit



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The Sky's the Limit

Note: Replacing the sky may violate competition rules, especially in the Nature division.

White sky

- Solutions

- ◆ Large areas → composite image with new sky
 - Copy sky to a new layer
 - Use masking to apply the new sky selectively → overexposed sky is an advantage because it's easier to select all of it at once
 - Best when there is a hard transition between land and sky
 - Trees with noticeable leaves can be very difficult → have to be very careful with feathering to make it look natural (takes practice)

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White sky

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The Sky's the Limit



Note: Fine detail like leaves and branches may not look natural on close inspection → difficult to get an ideal mask



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The Sky's the Limit

Polarizer problems

- Causes
 - ◆ Polarizer can make the sky dark but clouds stay bright
 - Can be dramatic, but sometimes looks unreal
 - ◆ Polarizing effect intensity changes based on sun angle
 - Sky brightness and color will change in different parts of the sky
 - Wide angle lenses exhibit this the most
- Prevention
 - ◆ Be careful with polarizer use
 - ◆ Especially with wide angle lenses

The Sky's the Limit

Polarizer problems

Note: A gradient mask changes from black to white gradually over some or all of the image.

- Solution

- ◆ Can try to compensate using brightness effect
 - Uneven → gradient mask to apply the effect selectively
 - May also need a white balance correction



original image



brightness & white balance applied,
with gradients

The Sky's the Limit

No clouds

- Causes

- ◆ Wrong time of year

- Some areas have dry seasons

- ◆ Wrong time of day

- Example: no clouds in the morning, develop later in the afternoon

- ◆ Dry day(s)

- Always the chance for a dry spell

- Prevention

- ◆ Make sure you're there at the right time

- Don't take a trip out west in August → it's very dry

- ◆ Give yourself time in a location

- Stay for several days to hopefully get better weather

The Sky's the Limit

No clouds

Note: Replacing the sky may violate competition rules, especially in the Nature division.

- Solutions

- ◆ Sky replacement

- Very difficult to insert clouds into a blank sky
- Clouds don't have definite edges, so you have to match the sky color
- Easier to replace the whole sky



original image



composite with fireworks + night simulation

The Sky's the Limit

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