## DESIGN & PRODUCTION

## Publishing DIGITAL PHOTOS

by Jeff McDonald

dvances in digital communications now make it possible to share information and images across different media, from traditional print formats to the Internet and e-mail.

New avenues of communication can only be used in an integrated and efficient way if photographers submit photos of high enough resolution for print. A high resolution or large format image can be reformatted for the Internet, which only requires a resolution of 72 dots per inch (DPI). People commonly discuss digital images using DPI but the correct terminology is pixels per inch (PPI). An image first taken at 72 PPI should not be reformatted for a higher resolution for print.

Photographers taking images for publication can make them available for print and Web publishing by setting a digital camera to "high" or "fine." Digital cameras use "resolution" rather than PPI as the setting, and they are sold based on the number of mega pixels they can store. Therefore, a camera that stores two mega pixels can give a resolution as high as 1200 x 1600 PPI. When converted, this would provide an image that can be printed at a size no larger than 6 x 8 inches to maintain a good print resolution of 200 DPI.

Since printed material consists of dots of ink on paper, a resolution that will yield 300 DPI is the most desirable, with the lowest acceptable range about 150 DPI. The resolution required by a computer monitor is only 72 DPI.

The larger the size of an image when taken with a digital camera, the greater the need for more pixels. If a photographer is taking a photo to be printed in a magazine as an 8" x 11" cover, the camera should be set so as to provide resolution that will produce the correct number of pixels per inch for conversion to at least 150 dots per inch when printed at this size. (Consider: 8" width x 150 pixels per inch = 1,200 pixels; 11" height x 150 PPI = 1,650 pixels; since the picture has both height and width, 1,200 pixels x 1,650 pixels = 1,980,000 pixels, or 2 mega pixels.) Your camera will limit your options. Review your owner's manual for information about your specific limitations.

Following these guidelines for digital photographs will contribute to excellence in publishing.

Jeff McDonald is managing editor for *The War Cry*, a Salvation Army publication, at www. salvationarmyusa.org.



Images are enlarged 300% to show differences in resolutions.

