What are the color bars in archival prints?

Search long enough through the LOC collections, and you’ll eventually come across photos or prints with a series of colored boxes included outside the margins of the original document:

These are called “color bars” or “color control patches” and are used to calibrate the color of the scan to that of the original.

Color bars are standard in archival preservation, ensuring that the digital representation is as close to identical to the analog original as possible.

Just like with any digital technology, hardware and software can interpret colors and tonal values differently. Without regular calibration, manipulated images may be introduced, and color and tonal biases may result. This is sometimes referred to as “color contamination.”

You might remember the SMPTE color bars that used to appear before video broadcasts and recordings. This calibration technique is implemented for the same reason as with archiving images: ensuring fidelity to the original.

Since many images in the LOC collection are in black and white, the introduction of a grayscale color bar is sometimes necessary. Sepia-toned images are tricky and usually utilize both.

For more information, visit: http://blogs.archives.gov/innovation/2014/01/10/image-quality-dpi-vs-tone-reproduction/