



GRC 101
INTRODUCTION TO
GRAPHIC COMMUNICATIONS

THE NEW COLOR OF MONEY

Information
Sheet No.

1005

The government introduced a new \$20 note design in 2003 and will continue with other denominations. A new \$50 note was issued on September 28, 2004. The next denomination to be introduced in the series will be the \$10 note in 2005. The \$100 note is also slated to be redesigned, but a timetable for its introduction is not yet set. The government has no plans to redesign the \$5 note at this time, and the \$1 and \$2 notes will not be redesigned. The new bills will remain the same size and will use the same, but enhanced, portraits and historical images.

The new \$20 and \$50 notes have been issued and the \$10 will be released in 2005. Redesign of the \$5 and \$10 notes is under consideration, but the \$1 and \$2 notes will not be redesigned. Even after the new money is issued, older-design notes will remain legal tender.

"U.S. currency is a worldwide symbol of security and integrity. This new design is designed to help keep it that way, protect against counterfeiting and make it easier for people to confirm the authenticity of the currency.

The new money is designed to be safer; it is harder to fake and easier to check, smarter to stay ahead of tech-savvy counterfeiters, and more secure. The security features are easier to use, and everyone should learn how to use them.

The New Color of Money

The most noticeable differ-



\$50 NOTE (FRONT) - 2004



\$50 NOTE (BACK) - 2004

The \$20 and \$50 notes have significantly improved security features a few of which include denomination-specific security threads, larger portraits, new art and the addition, for the first time, of multiple colors, specific to each face value. (Right) the 2003 \$20 note.



ence in the \$20 notes is the subtle green, peach and blue colors featured in the background. Different colors will be used for different denominations, which will help everyone — particularly those who are visually impaired — to tell denominations apart.

While consumers should not use color to check the authenticity of their currency (relying instead on user-friendly security features — see below), color does add complexity to the note, making counterfeiting more difficult.

The new bills will remain the same size and use the same, but enhanced portraits and historical images of Andrew Jackson on the face of the note and the White House on the back. The redesign also features symbols of freedom — a blue eagle in the background, and a metallic green eagle and shield to the right of the portrait in the case of the \$20 note.

Security in the \$20 Note

The new \$20 design retains three important security features that were first introduced in the late 1990s and are easy for consumers and merchants alike to check:

- *The watermark* — the faint image similar to the large portrait, which is part of the paper itself and is visible from both sides when held up to the light.

- *The security thread* — also visible from both sides when held up to the light, this vertical strip of plastic is embedded in the paper. “USA TWENTY” and a small flag are visible along the thread.

- *The color-shifting ink* — the numeral “20” in the lower-right corner on the face of the note changes from copper to green when the note is tilted. The color shift is more dramatic and easier to see on the new-design notes.

Because these features are difficult for counterfeiters to reproduce well, they often do not try.

Counterfeiters are hoping that cash-handlers and the public will not check their money closely.

Security in the \$50 Note

The new \$50 notes are safer, smarter and more secure: safer because they’re harder to fake and easier to check; smarter to stay ahead of tech-savvy counterfeiters; more secure to protect the integrity of U.S. currency. Because security features are difficult for counterfeiters to reproduce well, they often do not try, hoping that cash-handlers and the public will not check their money.

A comprehensive public education program already has boosted public awareness of the new \$20 note’s features from 73 to 85 percent, and representatives of major banks credit public education with a smooth introduction of the new \$20 note.

Watermark:



Hold the bill up to the light and look for the watermark, or faint image, similar to the large portrait. The watermark is part of the paper itself and it can be seen from both sides of the note.

Security Thread

Hold the bill up to the light and look for the security thread, or plastic strip, that is embedded in the paper and runs vertically to the right of the portrait. If you look closely, the words “USA 50” and a small flag are visible along the thread from both sides of the note. This thread glows yellow when held under an ultraviolet light.

Color Shifting Ink



Look at the number “50” in the lower right corner on the face of the bill. When you tilt the note up and down, the color-shifting ink changes from copper to green. The color shift is more dramatic in the newly redesigned notes, making it even easier for people to check their money.

Updated Portrait Vignette



The oval borders and fine lines surrounding the portrait of President Grant on the face and the United States Capitol vignette on the back have been removed. The portrait has been moved up and shoulders have been extended into the border. Additional engraving details have been added to the vignette background.

Microprinting Security

Because they are so small, microprinted words are hard to replicate. The redesigned \$50 note features microprinting on the face of the note in three areas: the words “FIFTY,” “USA,” and the numeral “50” can be found in two of the blue stars to the left of the portrait; the word “FIFTY” can be found repeated within both side borders of the note; and the words “THE UNITED STATES OF AMERICA” appear on President Ulysses S. Grant’s collar, under his beard

Federal Reserve Indicators



A universal seal to the left of the portrait represents the entire Federal Reserve System. A letter and number beneath the left serial number identifies the issuing Federal Reserve Bank.

Design Features

To stay ahead of currency counterfeiters, the U.S. will be introducing new currency designs every seven to ten years. Not only will many of these design updates add complexity to the note and make counterfeiting more difficult, other features will help the public, particularly those who are visually impaired, to tell denominations apart.

Symbols of Freedom Symbols of Freedom



New symbols of freedom have been designed on the face of the

\$50 note to represent images of the American flag. The traditional stars and stripes of the United States flag are printed in blue and red behind the portrait of President Grant. A field of blue stars is located to the left of the portrait, while three red stripes are located to the right of the portrait. A small metallic silver-blue star is located on the lower right side of the portrait. The symbols of freedom will differ for each denomination.

Color

The most noticeable difference in the newly designed \$50 note is the addition of subtle background colors of blue and red to both sides of the note. Also, small yellow 50s have been printed in the background on the back of the note. The Series 2004 notes mark the first time in modern American history that U.S. cash will include colors other than black and green. Different background colors will be used for the different denominations. This will help everyone to tell denominations apart.

Low Vision Security Feature



The large numeral “50” in the lower right corner on the back of the bill is easy to read.

Serial Numbers



The unique combination of eleven numbers and letters appears twice on the face of the note. On the new \$50 note, the

left serial number has shifted slightly to the right, compared with previous designs.

A Smooth Transition

More than 150,000 contacts were made with representatives of the cash-handling industry to help them to prepare for the new \$20 notes issued in 2003. Similar outreach was made in preparation for the new \$50 note and included manufacturers of self-service checkout counters, which are becoming increasingly prevalent at retail locations.

The old money will always be good. Every U.S. currency note issued since 1861 is still redeemable today at full face value. Both the new notes and the older-design notes will continue to be legal currency at full face value. The U.S. has never devalued its currency.

Counterfeiting: Increasingly Digital

Counterfeiters are increasingly turning to digital methods, as advances in technology make digital counterfeiting of currency easier and cheaper. In 1995, for example, less than 1 percent of counterfeit notes detected in the U.S. was digitally produced. By 2002, that number had grown to nearly 40 percent, according to the U.S. Secret Service.

Yet despite the efforts of counterfeiters, U.S. currency counterfeiting has been kept at low levels, with current estimates putting the level of counterfeit notes in circulation worldwide at between 0.01 and 0.02 percent, or about 1-2 notes in every 10,000 genuine notes.

Secret Service Director Basham credits a combination of factors in keeping counterfeiting low: "Improved worldwide cooperation in law enforcement; improvements in currency design, like those in the new \$20 notes unveiled today; and a better-informed public all contribute to our success in the

fight against counterfeiting."

Public Education

Because the improved security features are more effective if the public knows about them, and the fact that roughly two-thirds of all U.S. currency is held outside the U.S., the government has undertaken a broad public education program to ensure that people all over the world know the new currencies and help them recognize and use the security features. The outreach program included cash-handlers, merchants, business and industry associations and the media.

Counterfeit Deterrence Fact Sheet

The Federal Reserve and the Department of the Treasury are committed to continuous improvement in currency design and aggressive law enforcement to protect the integrity of U.S. currency against counterfeiting.

- ◆ Currency counterfeiting has consistently been kept low for more than 100 years.

- ◆ Despite counterfeiters' increasing use of technology, advanced counterfeit deterrence on the part of the authorities has kept counterfeiting at low levels. Current estimates put the rate of counterfeit \$50 notes in circulation worldwide at less than 1 note for every 25,000 genuine \$50 notes in circulation.

- ◆ The most recent money designs, which were introduced beginning in 1996, included improved security features to make counterfeiting more difficult and to make it easier for financial institutions, professional cash handlers and the general public to check their U.S. currency.

- ◇ Easy-to-use security features help people check their US money:

Watermark: a faint image, similar to the portrait, which is part of the paper itself and is visible from both

sides when held up to the light.

Security thread: also visible from both sides when held up to the light, this vertical strip of plastic is embedded in the paper and spells out the denomination in tiny print.

Color-shifting ink: the numeral in the lower right corner on the face of the note, indicating its denomination, changes color when the note is tilted. For the new currency, this color shift is more dramatic. It changes from copper to green, making it even easier for people to check their money.

- ◇ Because these features are difficult for counterfeiters to reproduce well, they often do not try; they hope that cash handlers and the public will not check their money.

- ◇ The U.S. Secret Service is working closely with banks and law enforcement agencies worldwide to help suppress counterfeiting activities.

- ◇ Through aggressive law enforcement, authorities seize the vast majority of known counterfeit U.S. dollars before they are passed into circulation.

In fiscal year 2003, the U.S. Secret Service and international authorities seized \$63 million in counterfeit notes before they ever made it into circulation. Another \$38 million in counterfeit U.S. currency that had been passed into circulation was detected and removed worldwide. In these cases, innocent victims who received the bogus bills suffered a financial loss.

In 2003, the U.S. Secret Service made more than 3,640 arrests in the United States for currency counterfeiting activities. The conviction rate for counterfeiting prosecutions is about 99 percent.

About 42% of the counterfeit notes detected being passed in the U.S. in fiscal year 2003 originated outside the U.S., whereas about 50% originated outside of

the U.S. in 2002.

The combined efforts of public education, law enforcement, the changes made to the currency in the late 1990s and increased public awareness have all kept counterfeiting of U.S. currency at a low level.

Counterfeiters are turning increasingly to digital methods, as advances in technology make digital counterfeiting easier and cheaper.

While serious note counterfeiting was once exclusively practiced by organized criminal groups using traditional printing methods that require a high degree of skill, today increasingly deceptive counterfeit notes are produced using basic home computer systems.

In 1995, less than 1 percent of counterfeit notes detected in the U.S. were digitally produced. Since then, digital equipment has become more available to the general public, and as a result, the amount of digitally produced counterfeit notes has risen. Over the last several years, the amount of digitally produced counterfeit notes has remained steady at about 40 percent. 5

In 2003, the U.S. Secret Service made 469 seizures of digital equipment, such as personal computers, involved in currency counterfeiting.

Currency counterfeiting by traditional offset-printing operations is more prevalent abroad, while digital counterfeiting is more prevalent in the U.S.

To stay ahead of counterfeiters, the U.S. will be introducing new designs every 7-10 years.

Enhancing the design of our money has become an ongoing process. The first note of the new currency designs, the \$20 note, was issued October 9, 2003. The series continues with the \$50 note, which was issued on September 28, 2004. The next denomination to be introduced in the series will be the \$10 note in 2005.

The \$100 note is also slated to be redesigned, but a timetable for its introduction is not yet set. The government has no plans to redesign the \$5 note at this time, and the \$1 and \$2 notes will not be redesigned.

The new \$50 notes will be safer, smarter and more secure: safer because they're harder to fake and easier to check; smarter to stay ahead of tech-savvy counterfeiters; more secure to protect the integrity of U.S. currency.

The new \$50 design retains three important security features that were introduced in the 1990s and are easy for consumers and merchants alike to check: watermark, security thread and color-shifting ink.

While consumers should not use color to check the authenticity of their money, the addition of color makes it more burdensome for potential currency counterfeiters because it adds complexity to the note and thus makes counterfeiting more difficult.

Security features are more effective if the public knows about them. To build that awareness, the U.S. government has undertaken a public education program to help ensure people all over the world know the new \$50 note has arrived, and to help them understand and utilize the security features. Outreach is targeted to audiences that use and handle the \$50 note the most, including cash handlers in the financial and retail sectors in general, and in the gaming industry in specific.

People who know how to use the security features can avoid ending up with worthless counterfeit bills.

While current estimates put the rate of counterfeit \$50 notes in circulation worldwide at less than 1 note for every 25,000 genuine \$50 notes in circulation, if you end up with that rare fake, you will lose your hard-earned money. Counterfeit

bills cannot be turned in for genuine ones, and knowingly passing along a counterfeit is illegal.

Money Trivia

What's in a name? The nickname "greenback" originated as a name for Demand Notes, non-interest-bearing notes with green backs issued by the United States in 1861 to finance the Civil War.

Enduring value. All forms of paper currency issued by the U.S. government since 1861 are considered legal tender and redeemable today at full face value. The U.S. government has never devalued its currency.

Comeback for color. The last U.S. currency with background color was the \$20 Gold Certificate, Series 1905, which was tinted gold.

Graced with a feminine face. Martha Washington is the only woman whose portrait has appeared on U.S. paper currency. It appeared on \$1 Silver Certificates, Series 1886, 1891, and 1896.

The biggest buck. The highest-value bank note ever printed by the Bureau of Engraving and Printing was the \$100,000 Gold Certificate, Series 1934. These notes were not circulated among the general public, but only issued for transactions between Federal Reserve banks and the U.S. Treasury.

"In God We Trust." This inscription first appeared on U.S. coins in 1864. Almost a century later, Congress made it the official National Motto, and today its use is required by law on both U.S. coins and paper currency. Use of the motto has been challenged in court many times over the years but has been consistently upheld by the various courts, including the U.S. Supreme Court as recently as 1977.

The buck starts here. Since February 1862, the Secretary of the Treasury has been responsible for the designs that appear on paper currency, including the portraits. Secretary John W. Snow approved the new \$50 design which was introduced on September 28, 2004.

Posthumous portraits only. Since 1866, U.S. law has prohibited portraits of any living person on currency.

Staying power. Portraits of the same historic figures have been featured on U.S. notes since 1929.

Recycled "note" paper. Some of the notes removed from circulation by the Federal Reserve System wind up as recycled stationery.

Writer's cramp! When the U.S. government launched its first major issue of paper currency in 1861, each and every Demand Note was signed by hand by rep-

representatives of the Register of the Treasury and the Treasurer. This impractical practice prompted new legislation allowing the signatures of the Register and the Treasurer to be engraved and printed on currency. This measure went into effect with the issuance of the first series of United State Notes in 1862.

“1” is NOT the loneliest number. More \$1 notes are printed than any other (\$1 notes comprise about 45 percent of all notes printed).

Super-sized “money belt.” The 8

billion U.S. notes printed each year are enough to wrap around the earth's equator over 30 times.

Mile-high millions. A stack of currency 1 mile high would contain over 14½ million notes.

Different strokes for different folks. The most commonly used denominations in the U.S. are the \$1 and the \$20; internationally, it's the \$100 note.

In for a pound...The approximate weight of a currency note, regardless of denomination, is 1 gram. There are 454

grams in a pound, so one pound of currency would contain 454 notes.

Red, whitish and blue. Neutral-colored U.S. currency paper is composed of 25 percent linen and 75 percent cotton. Red and blue synthetic fibers of various lengths are distributed evenly throughout the paper.

Tough stuff! You would have to double-fold a U.S. currency note about 4,000 times before it would tear.

NOTABLE BILLS FROM THE PAST



\$100,000 NOTE (FRONT)



\$100,000 NOTE (BACK)



\$10,000 GREEN SEAL NOTE (FRONT)



\$10,000 GREEN SEAL NOTE (BACK)



\$10,000 BLUE SEAL NOTE (FRONT)



\$10,000 BLUE SEAL NOTE (BACK)