Table of Contents

Parents and Teachers	4
Outline	
Welcome, Detectives!	6
Case #21: Cuban Missile Crisis	
Case #22: Apollo 11	17
Case #23: Apollo 13	27
Case #24: America's Bicentennial	37
Case #25: Miracle on Ice	47
Case #26: Mount St. Helens	57
Case #27: Space Shuttle Program	67
Case #28: Exxon Valdez Oil Spill	77
Case #29: Hubble Space Telescope	
Case #30: International Space Station	
Bonus Cases	107
A Detective's Work Is Never Done	108
Dossier #13: Katherine Johnson	
Dossier #14: Martin Luther King, Jr	
Dossier #15: E. B. White	
Dossier #16: Hank Aaron	
Dossier #17: Willem Kolff	
Dossier #18: Ronald Reagan	149
Dossier #19: Norman Schwarzkopf	157
Dossier #20: Clarence Thomas	165
Code Breaker	
Code Wheel	
Bonus Map Work	
Answer Kev	187



Parents and Teachers

This unit aims to engage the minds of your kids and help them learn about important events in modern history. To get started, print the Code Wheel toward the end of this book on two separate pieces of paper or cardstock. Cut out the wheels and attach them using a metal fastener.

The Case File text shares the history of each event. Have the student read the text and then answer the two questions that follow. The first question tests reading comprehension. The second question shares more information with them to help them learn about what happened. They can find the answer by using their Code Wheel. A Code Breaker sheet toward the end of this book tells them what to set their wheel to so they can correctly decipher the code in each case.

The Gathering Evidence questions that follow the first four readings in the Case File are optional, but they can be used to help students learn how to do research using books, Internet sites, the library, or whatever resources you have available.

As they read the Case Files, they will encounter bolded, underlined vocabulary words. As they complete each page of the Case File, have them fill out the vocabulary exercise, Did I Understand You Correctly?

After the fifth Case File reading, they can draw a Case Sketch to help them visualize and retain what they've learned.

They can also practice map skills using an atlas or similar resource by completing the Case Locations page. This allows them to record the location of one or more important places from the event. A more advanced optional map activity for each lesson is included in the Bonus Map Work section.

When they've completed these activities, they can fill out Solving the Case, Pt. 1. On this page, they need to copy the facts they learned that followed each Case File reading. This helps them practice reducing the question and answer to a single sentence. They can write down any additional facts they learned at the bottom of the page.

Finally, when they are finished, they can complete Solving the Case, Pt. 2. This is a place for them to retell what happened to show comprehension of the material.

Optional bonus units are included at the end. These Dossier assignments each focus on a key person, two from each decade the unit covers. These are shorter units and do not include vocabulary practice or bonus map work. A suggested plan for when to do these units so they flow chronologically is provided on the next page.

Outline

The Dossier units are optional and are included toward the end of this book.

Dossier #13: Katherine Johnson

Case #21: Cuban Missile Crisis

Dossier #14: Martin Luther King, Jr.

Case #22: Apollo 11

Case #23: Apollo 13

Dossier #15: E. B. White

Dossier #16: Hank Aaron

Case #24: America's Bicentennial

Case #25: Miracle on Ice

Case #26: Mount St. Helens

Case #27: Space Shuttle Program

Dossier #17: Willem Kolff

Dossier #18: Ronald Reagan

Case #28: Exxon Valdez Oil Spill

Case #29: Hubble Space Telescope

Dossier #19: Norman Schwarzkopf

Dossier #20: Clarence Thomas

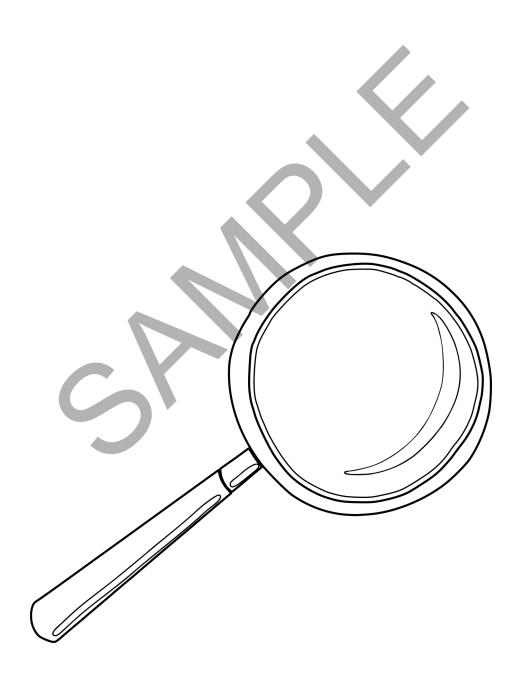
Case #30: International Space Station



Welcome, Detectives!

Welcome! You have ten mysteries to solve. Each Case File begins with a picture of an historical event. Your job is to figure out what is happening in the picture and why it was important. You'll have case information, puzzles, evidence, and more to help you.

Are you ready? Let's get started!





Case #21 1962

The Cold War struggle between the United States and the Soviet Union started after World War II ended. The relationship between the countries improved a little after the death of Soviet dictator Joseph Stalin in 1953, but by 1958, tensions were rising again. That year, the Soviet Union deployed ICBMs, long-range nuclear-armed <u>ballistic</u> missiles that can travel thousands of miles. The United States followed by deploying ICBMs in 1959. In late September 1962, U.S. spy planes flew over the island of Cuba, which sits just 90 miles (145 km) south of Florida. On October 14, 1962, a U-2 spy plane took pictures of a Soviet missile base near San Cristobal. Cuba.

Soviet missile base near San Cristobal, Cuba.
Case Facts:
What kind of missile was first deployed in 1958?
What communist leader ruled Cuba in 1962?
18+7 18/9 1x23 6x4 30/6 66/3 40/2 72/6 22-9 77/7 40/5 Gathering Evidence:
Get your investigator's cap on and do some research. Find the answer to this question and record your source.
What does the "U" in "U-2" stand for?
Answer:
Source:

In the 1960s, you couldn't immediately see a picture after you took it. Pictures were captured on film, and then the film had to be treated, or developed, so that you could make a photograph. The spy plane's pictures were developed on October 15. Then experts studied them to make sure they were right about what they thought they saw. On October 16, President John F. Kennedy was <u>briefed</u> on the threat. The U.S. had known the Soviets were sending weapons to Cuba since July, but the missile base represented a very significant new threat. The President decided not to let word about what was happening leak out because it would only cause the public to panic. On October 18, he met with Soviet Foreign Minister Gromyko. He did not tell Gromyko that the U.S. knew about the missiles but reminded him that the Soviet Union was not allowed to base weapons in Cuba.

Case Facts:

On what date was President Kennedy briefed on the threat?

What was Minister Gromyko's first name?

2x10 84/12 46/2 99/9 144/6 50/25

Gathering Evidence:

Get your investigator's cap on and do some research. Find the answer to this question and record your source.

What special day did President Kennedy observe on October 17 by attending a church service?

Answer:	 	 	
Source:			

The President and his advisors began to prepare to send naval units to Cuba. Some people wanted the President to invade Cuba, but others cautioned that an attack could start a nuclear war with the Soviet Union. On October 22, President Kennedy talked to former presidents Hoover, Truman, and Eisenhower by phone for their advice. It's important to remember that these four men did not all belong to the same political party, so it showed how much President Kennedy wanted to do what was best for the entire country. That same day, he formed an Executive Committee and told them to meet every day, and he filled in his Cabinet and the leaders of Congress on what was happening. He also made plans to address the American public that evening.

Case	Fa	${\sf ct}$	S
------	----	------------	---

On what date did President Kennedy speak	k with three former presidents?
--	---------------------------------

Who was the U.S. Secretary of State during the crisis?

69/3 48/2 100/5 77/11 66/6 56/4 84/7 32/8

Gathering Evidence:

Source: _

Get your investigator's cap on and do some research. Find the answer to this question and record your source.

On October 22, President Kennedy informed Prime Minister Harold Macmillan of the crisis. What country was Macmillan a leader of?

Answer:

Shortly before President Kennedy addressed the nation on October 22, he told the U.S. Secretary of State to let Soviet Ambassador Anatoly Dobrynin know what he would tell the American people and the world. The President spoke and ordered that the missiles be removed. He also set up a naval quarantine of Cuba and ordered the U.S. military to make sure no more missiles reached Cuba. The U.S. Navy and Soviet submarines took positions in the Caribbean. Soviet freighters carrying weapons stopped but did not return to the Soviet Union. One Soviet oil tanker continued to move toward Cuba. President Kennedy reached out to Premier Khrushchev, asking him to recall his ships. He did not want to order the U.S. Navy to fire and risk starting a war. Khrushchev initially resisted but later relented. He withdrew the ships carrying weapons, and the U.S. allowed the oil tanker through.

~	0	3 0	F.	00	+	a	
l : :	Я۶	30		я с	15	8	•

Who was the Soviet Ambassador during the crisis?

What was Premier Khrushchev's first name?

91/13 66/33 20/5 16/8 78/6 4x5

Gathering Evidence:

Get your investigator's cap on and do some research. Find the answer to this question and record your source.

In what year did Khrushchev become the leader of the Soviet Union?

Answer:

Source: ___

On Friday, October 26, more photographs showed that the construction of Soviet missile sites in Cuba was accelerating instead of stopping. Fidel Castro, the leader of Cuba, encouraged Premier Khrushchev to make a nuclear first strike against the U.S. if Cuba was invaded. Premier Khrushchev sent a letter to the President offering to remove the missiles if the U.S. promised not to invade Cuba and lifted the naval quarantine. On October 27. Khrushchev added that the U.S. also had to remove Jupiter missiles from Turkey. That same day, an American U-2 plane was shot down over Cuba, killing the pilot. President Kennedy's advisors pushed him to go to war. He brought military squadrons to active duty in case it was necessary but continued to work for a diplomatic solution. President Kennedy's brother Robert, who was the U.S. Attorney General, met with Ambassador Dobrynin, and they reached an agreement. The U.S. would not invade Cuba and would remove the Jupiter missiles from Turkey, and the Soviet Union would remove the missiles from Cuba. On October 28, 1962. Premier Khrushchev announced the agreement, and the Cuban Missile Crisis was resolved.

Case Facts:

On what day did the Cuban Missile Crisis end?

What was the name of the pilot who was killed? Major Rudolph _____, Jr.

60/3 28/4 29-6 17+7 25-14 69-57 96/12 63/9

Case Sketch

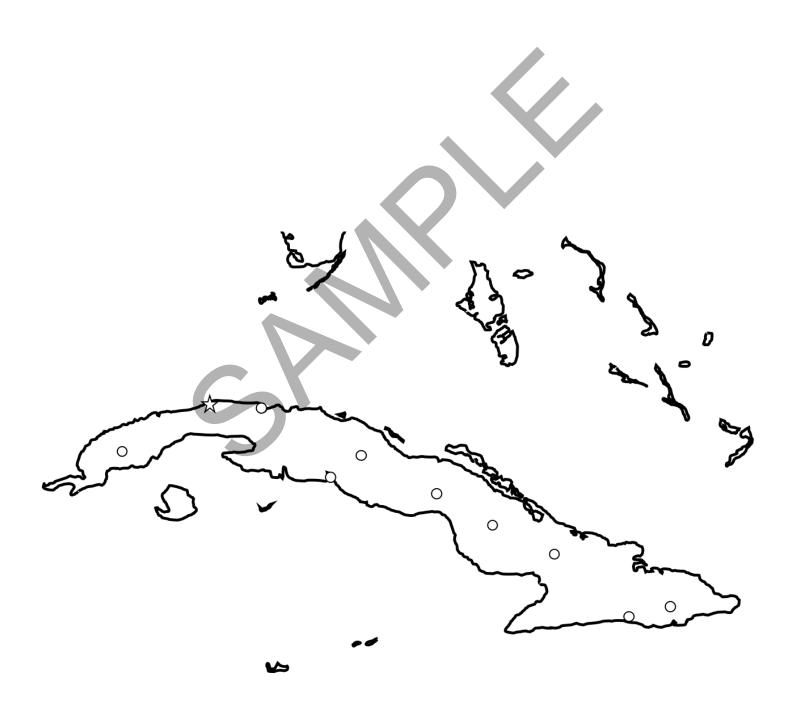
A good detective needs to have a sharp eye for detail. Draw a picture of one of the things you learned about on this case.

Did I Understand You Correctly?

As you research your case, you'll probably run into some words you aren't sure of. It's important to know what the words mean. What do you think the following words mean from their context in the case file? ballistic _____ briefed _____ cautioned _____ relented _____ accelerating _____ Look them up in a dictionary. Are there any definitions you need to revise or expand? If so, write them below.

Case Locations

During the Cuban Missile Crisis, all eyes were focused on the island nation of Cuba. Using a map or another resource, see if you can label Havana, the capital of Cuba, as well as the cities of Camaguey, Las Tunas, Guantanamo, Santiago de Cuba, Ciego de Avila, Cienfuegos, Santa Clara, Pinar Del Rio, and Matanzas.



Solving the Case, Pt. 1

Copy all of y	your case facts here:
l .	
2•	
3	
1	
3	
9•	
10•	
π:± 3	
write down a	ny additional facts you learned.

Solving the Case, Pt. 2

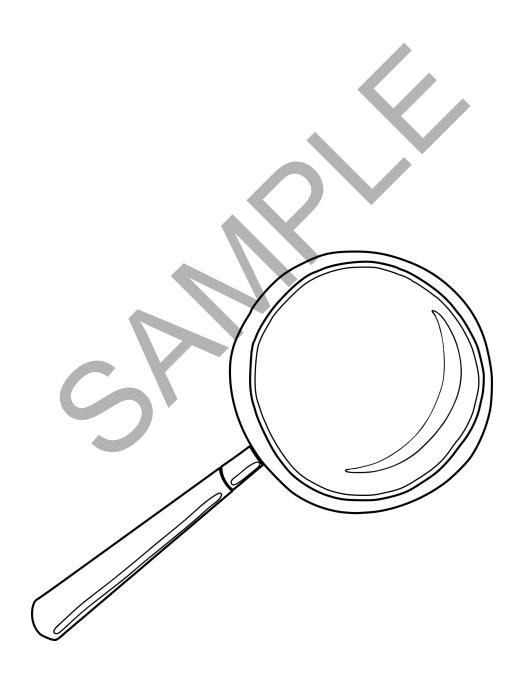
ur case report. Explain what your case file image represense as many of your case facts as you can.

Bonus Cases

A Detective's Work is Never Done

You've been hired by an agency that needs background information on eight individuals. Your job is to find out as much as you can about these people including what they've been up to. You'll have some basic dossier information, puzzles, and more to help you.

Are you ready? Let's get started!





Dossier #13

Dossier

Katherine Johnson was born on August 26, 1918, just over two months before the end of World War I. She loved numbers from the time she was little and excelled at everything mathematical. She started high school when she was ten years old. She graduated high school at the age of fourteen and college at the age of eighteen in 1937. She moved to Virginia to become a teacher, but in 1939, she and two others were chosen to be the first African Americans to enter a graduate program at West Virginia University. She began the program but left in 1939 to marry, work as a teacher, and raise a family.

Getting the Facts:

How old was Katherine when she started high school?

In addition to a bachelor's degree in mathematics, what language did Katherine also receive a bachelor's degree in the same year?

15+8 45/5 15+7 35/7 5x4 5x5

Gathering Evidence:

Get your investigator's cap on and do some research. Find the answer to this question and record your source.

What college did Katherine originally attend?

Answer:

Source: _____

Dossier

In 1953, Katherine joined NACA and went to work as a mathematician at
the Langley Research Laboratory. NACA was segregated, so Katherine
worked with a group of African American women in the West Area
Computing unit. It wasn't long, however, until her exceptional skill led
to her transfer to the Flight Research Division. Katherine's husband,
James Goble, died in 1956, and in 1959, she married James A. Johnson, a
U.S. Army colonel. It's important to remember that the idea of computers
like we use today was extremely new in the 1950s and 1960s. It was the
job of Katherine and the other women to be human computers, to
"compute" all the complicated math that was needed to send people into
space and bring them home again safely. In 1958, NACA became NASA.

gooding one races	G	ett	ing	the	Facts:
-------------------	---	-----	-----	-----	--------

Where	did	Katherine	get	transferred	to?
-------	-----	-----------	-----	-------------	-----

Who was the head of the West Area Computing unit? Dorothy _____

39/3 6x3 24/2 48/2 17+8 2x9 40/8

Gathering Evidence:

Get your investigator's cap on and do some research. Find the answer to this question and record your source.

What did NACA stand for?

Answer: _____

Source: ______

Dossier

There was never a shortage of work in the space program in the 1960s. In 1961, Katherine helped calculate by hand the trajectory, or the route, that was needed for the Freedom 7 mission. Alan B. Shepard, Jr. flew Freedom 7 and became the first American in space on May 5, 1961. Then Katherine helped check the trajectory for John Glenn's Friendship 7 mission on February 20, 1962. The mechanical computers had figured it out, but John asked that Katherine personally check the numbers and make sure they were right. During that successful mission, John Glenn became the first American to orbit the Earth. In 1969, Katherine calculated the trajectories needed to successfully land men on the moon on the Apollo 11 mission. Katherine continued her work with NASA until she retired in 1986. She passed away on February 24, 2020, at 101.

Getting the Facts:

What mission was the first to orbit Earth?

How many research papers did Katherine author or coauthor while she was with NASA?

99/9 28/2 88/4 60/12 55/5 4x4 60/6 2x13 5x3

Gathering Evidence:

Get your investigator's cap on and do some research. Find the answer to this question and record your source.

What record did John Glenn set in 1998?

Answer:

Source: ____

Gathering Evidence

Get your investigator's cap on and do some research. Find the answer to this question and record your source.

When was a data center at NASA's Langley, Virginia campus renamed the Katherine G. Johnson Computational Research Facility in Katherine's honor?

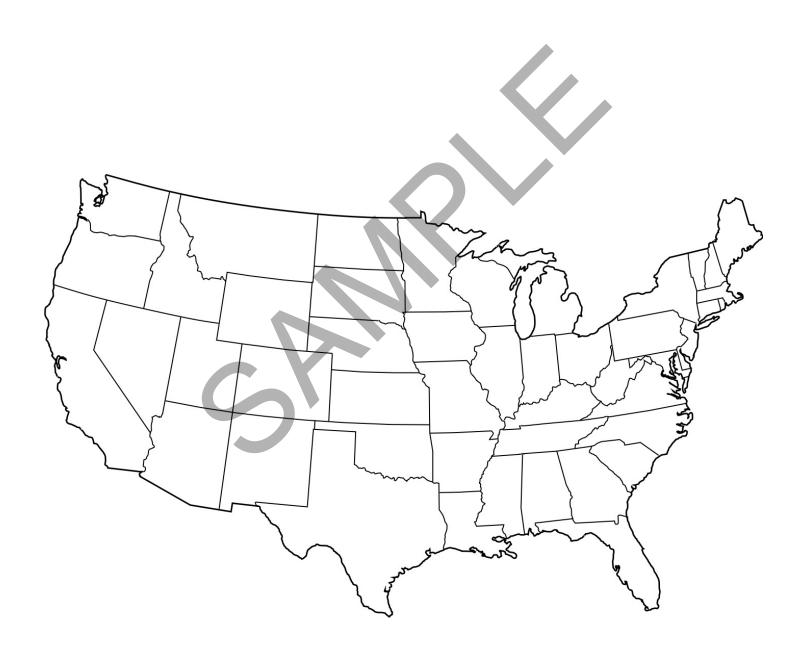
Answer:	
Source:	

Case Sketch

A good detective needs to have a sharp eye for detail. Draw a picture of one of the things you learned about on this case.

Case Locations

Katherine Johnson was born in White Sulphur Springs, West Virginia, and did work in Hampton, Virginia. Alan B. Shepard, Jr. was born in East Derry, New Hampshire, and John Glenn was born in Cambridge, Ohio. Using an atlas or another resource, label these locations on the map below.



Creating Your Dossier, Pt. 1

Copy all of your dossier facts here:
1
2
z
3
4
5•
6.
Write down any additional facts you learned.

Creating Your Dossier, Pt. 2

Write your gathered as		dossier.	Try	to	use	as	many	of	the	facts	you
											
								>			
							X				
			7						-		
	<u>C</u>)									
											

Code Breaker

For Case File #21,
$$A = 20$$
.

For Case File #23,
$$A = 16$$
.

For Case File #24,
$$A = 6$$
.

For Case File #25,
$$A = 10$$
.

For Case File #26,
$$A = 15$$
.

For Case File #27,
$$A = 9$$
.

For Case File #29,
$$A = 18$$
.

For Case File #30,
$$A = 21$$
.

For Dossier #13,
$$A = 18$$
.

For Dossier #14,
$$A = 15$$
.

For Dossier #15,
$$A = 4$$
.

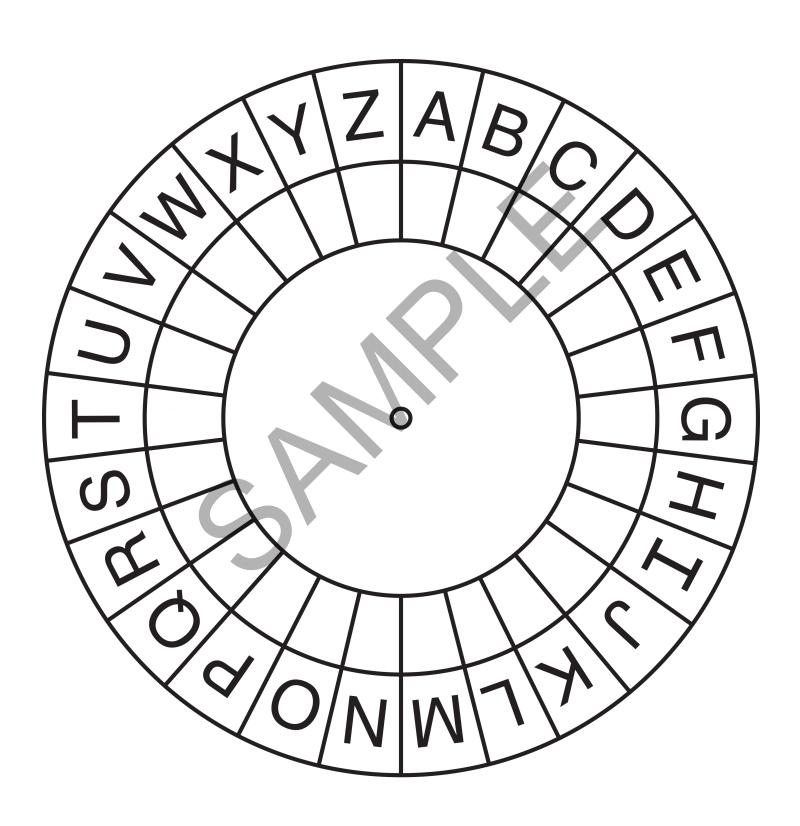
For Dossier #16,
$$A = 21$$
.

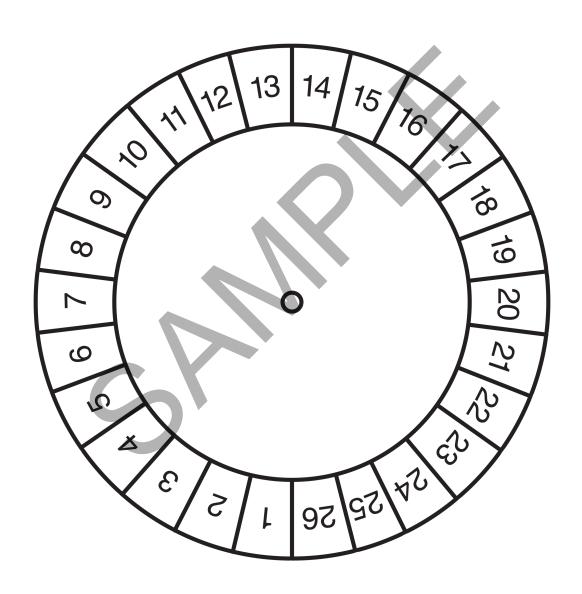
For Dossier #17,
$$A = 16$$
.

For Dossier #18,
$$A = 6$$
.

For Dossier #19,
$$A = 21$$
.

For Dossier #20,
$$A = 10$$
.

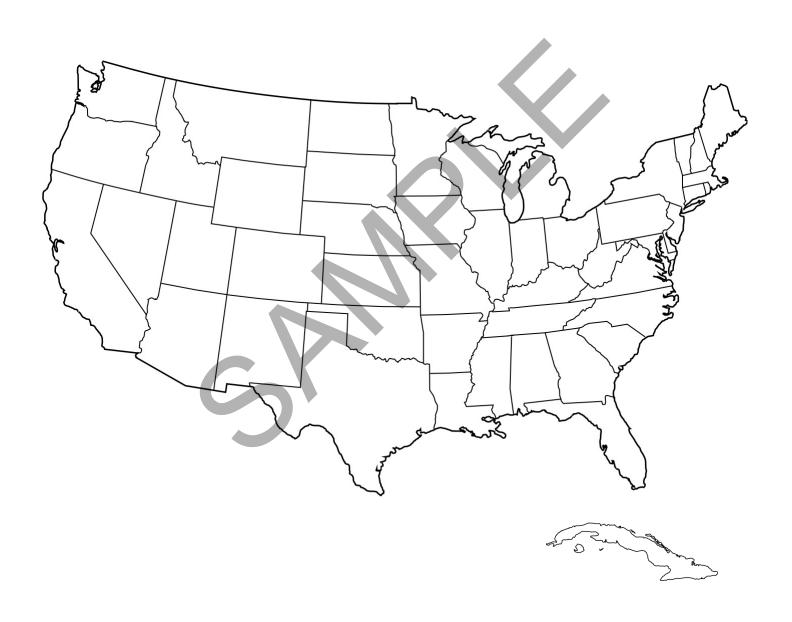




Bonus Map Work

Case #21: Bonus Map Work

Just a few of the major U.S. cities that were threatened by the ICBMs in Cuba were Washington, D.C.; Columbus, Ohio; Indianapolis, Indiana; Dallas, Texas; Louisville, Kentucky; Norfolk, Virginia; Charlotte, North Carolina; Tulsa, Oklahoma; Columbia, South Carolina; Atlanta, Georgia; Jacksonville, Florida; New Orleans, Louisiana; Birmingham, Alabama; St. Louis, Missouri; and Memphis, Tennessee. Using an atlas or another resource, label Cuba as well as these cities on the map.



Answer Key

Case #21

Case Facts & Gathering Evidence

- ICBMs; Fidel Castro
- utility
- October 16; Andrei
- National Day of Prayer
- October 22; Dean Rusk
- the United Kingdom
- Anatoly Dobrynin; Nikita
- 1958
- October 28, 1962; Anderson

Case #22

Case Facts & Gathering Evidence

- Sputnik 1; seven
- 1958–1963
- two; ten
- first U.S. spacewalk
- 1961; Saturn V
- command module, service module, and lunar module
- Michael Collins; Tranquility
- 39A
- moonquakes; regolith