## Geocaching: High-Tech Treasure Hunt with GPS NCGE 90 ${ }^{\text {th }}$ Anniversary - Birmingham

Your Goal: Complete this geocaching course in downtown Birmingham and win fabulous, wondrous geo-prizes! Use the sheet on page 7 to record your 37 answers. Turn in your answers at the NCGE registration table. Along the way, (1) learn more about how to use your GPS receiver, (2) discover the history and geography of Birmingham, and (3) think about how you might be able to use GPS
 with your students.

What is Geocaching? This enormously popular sport is a high-tech treasure hunt. You are given clues and a latitude-longitude coordinate pair. Your challenge is to navigate to the latitude-longitude coordinates provided using a GPS receiver, and to solve each clue.

Remember: (1) Don't be so engrossed in your GPS unit that you are not watching out for traffic! (2) Be aware that most hand-held GPS units are only accurate to 10 meters or so. Tall buildings and trees can further reduce signals in downtown settings and make your GPS coordinates even less accurate. Therefore, when you find each location, be sure to be a Real Geographer: LOOK around at your surroundings! The clue should be close by.

The Scenario: Agnetha Azimuthal and Mark Mercator were happily attending the first NCGE meeting in 1915. While deeply engrossed in studying native Alabama flora and fauna, they tumbled off a cliff and hit their collective geographic heads! They have awakened in Birmingham 90 years later, in 2005, and are experiencing The Geographer's Worst Nightmare: They have no idea where they are!

Your Goal: Help Agnetha and Mark determine their true location, and to learn about the history and geography of Birmingham.

## The Course:

Agnetha and Mark stumbled across the sidewalk, rubbing their heads.
"I thought we were in Birmingham, but everything looks completely different from the way I remember it," remarked Agnetha.
"Are you sure it is not just because we hit our heads?" asked Mark. "I do recognize those distant hills."
"Yes, but maybe we've been knocked out for a long time," said Agnetha. "Just look at this!" she exclaimed, looking down at a label in the concrete at 33.52403 North, 86.81033 West. "How can this be under this hard surface?"
(1) What is Agnetha referring to?
"I don't know, but if we are in the future, I predict that this substance will be even more important than it was in 1915," wryly observed Mark as they walked to 33.52493 North, 86.81068 West.
(2) What do the 4 large letters on the sign indicating the name of the convention center stand for?
"Even these flowers are different," said Agnetha as she studied the flowers at 35.52504 North, 86.81081 West. "They cannot be native, can they?"
(3) What is the name of these types of flowers?

(4) How many trees are planted on the island in the middle of the street that they are standing in?
"The folks in the future sure do transport things a long way!" said the two at exactly the same time while standing on xxx North, xxx West. "This metal object, for example, came from a completely different state!"
(5) In what state was the object manufactured?
"Is there REALLY a subway in Birmingham in the future?" asked Mark as he saw the sign.
"That doesn't look large enough to house a subway," replied Agnetha. "Let's walk, instead. And we need to stick together."
"Right," said Mark. "because, as the band Three Dog Night sang during the 1970s, one is the loneliest number that you'll ever $\qquad$ ."
(6) What word goes in the blank that Mark sang?

As the pair ambled south, they found themselves at 33.52316 North, 88.80965 after walking under an enormous transportation artery. "I wonder which states these two major interstate highways begin and end," mused Agnetha.
(7) Name the states marking the beginning and ending points of I-20.
(8) Name the states marking the beginning and ending points of l-59.

The two saw the name of Cicero on a building at 33.52243 North, 86.80909 West. "He surely was not from Alabama," Ron said.
(9) Where was Cicero from?

The two found a clue as to the reason why Birmingham grew and prospered at 33.52179 North, 88.81033 West.
(10) To whom is the statue here built in tribute?
"Here is something I do recognize—a map!" exclaimed Agnetha at 33.52170 North, 86.81068 West. "I suppose I could use this to navigate my way to the Lakeview District using Dart."
(11) What Dart lines would she need to take from her position to the Lakeview District?
"Now I know we're in the future," said Mark after reading the sign at 33.52067 North, 86.80977 West. "This park has been renamed three times!"
(12) How many names has the park had since 1881?

The two gazed at the massive county courthouse.

(13) What is the name of the county they were standing in, whose name is on the courthouse?
(14) What is the only county name that is more common in the USA than the one they were now standing in?

Next, the two wandered to 33.52008 North, 86.80938 West.
(15) Where was the Rebellion (at the dawn of the $20^{\text {th }}$ Century) that is referred to in the memorial that they found at this spot?

At 33.51934 North, 86.80872 West, Mark said, "I'm glad to see that the US Department of the Interior still exists in the future. They were founded in 1849. Here, they are protecting this church in the national register of historic places."
(16) During what year did the US Department of the Interior designate Cathedral Church on the National Register of Historic Places?
"Other things stay the same as well," observed Agnetha at 33.51826 North, 86.80853 West while looking at the Alabama flag. "They have the same flag as when we were knocked out in 1915."
(17) What two colors appear in the Alabama flag?
"I wonder what the 5 largest cities in Alabama will be in 2005," pondered Mark.
(18) What would you tell him that are the 5 largest cities in population in Alabama in 2005?
"More geography!" said Agnetha as she stood at 33.51712 North, 86.81010 West. "It says here that this object was a gift from a country in Africa."
(19) What country is she referring to?

The two made their way to one of Birmingham's richest historical places, Kelly Ingram Park.
(20) How many ministers did they find kneeling in prayer at 33.51612 North, 86.81271 West?

At UTM 517321 Easting, 3708544 Northing, the two landed at the Center of Revolution and Reconciliation.
(21) Why was this park the park at the focal point of protests during the 1960s?
(22) In what UTM zone is Birmingham located?
(23) What is the central meridian of the zone in which the two were standing?

On the way to the $16^{\text {th }}$ Street Baptist Church, the two paused and gazed at Dr Martin Luther King Jr.'s statue.
(24) How old was Dr King when he was assassinated?

The two found a marker at 33.51649 North, 86.81499 West.
(25) The creators of this marker hope something prevails on the Earth. What is it?
(26) What significant historical event occurred at this church on 15 September 1963, two months before President Kennedy was assassinated?

Agnetha and Mark then walked to 33.51447 North, 86.81302 West and read the sign posted there.
(27) During what month did they discover that Black History is celebrated?

At 33 degrees, 30 minutes, and 55.4 seconds north, 86 degrees, 48 minutes, and 38.5 seconds west, Agnetha and Mark found a memorial to Eddie Kendrick (note—many sources list him as Eddie Kendricks).
(28) What musical group did he help make famous, and also made him famous?
"Here is another historical site," said Agnetha at 33.51664 North, 86.80891 West.
(29) What were the Freedom Riders protesting?
"Despite all of these impervious surfaces, here is a tree species I recognize," said Mark at 33.51748 North, 86.80755 West.
(30) What kind of tree is it?
"Look at this church," remarked Agnetha at 33.51805 North, 86.80599 West. "It was constructed before we had our long sleep."
(31) When was the First Presbyterian Church constructed?
(32) What time do worship services meet on Sundays here?

At 33.52002 North, 86.80748 West, the two glanced up.
(33) In Birmingham, are they standing North or South of the baseline for addressing?

At 33.52069 North, 86.80782 West, the two looked west. "Despite all of these changes, at least libraries and learning are still important. On that building across the street, I recognize the name of that famous scientist written high on the corner," said Agnetha.
(34) What country was this astronomer from?
"Next we find a real geocache!" exclaimed the pair as they searched for the "Petrified" geocache at 33 degrees 31.249 minutes North, 86 degrees 48.501 minutes West.

The following description for this geocache is from geocaching.com: "Close to the Birmingham Museum of Art and a piece of artwork in its own right. This quick cache will provide you
 with a surprising trip back to the Paleozoic era in downtown B-Ham. A log only micro so bring pen. Please be discrete and careful during search and retrieval... best times are during the weekends and non-business hours. Also please use extreme discretion when replacing the cache... if someone sees you do it, it could be shortlived. Thanks!"
(35) Where in Alabama was this fossil found?

If you can find this geocache, you will receive an extra set of prizes!
"Now what are these?" asked Mark at 33.52200 North, 86.80889 West. "Dry standpipes-what is that?"
(36) How many dry standpipes did he find here?
"Look at this!" said Agnetha as they arrived at 33 degrees 31.347 minutes north, 86 degrees 48.533 minutes west.
"Yes, and there is another real geocache planted somewhere near here," said Mark.

The following description for this geocache named "Centurion" is from geocaching.com: In the center of town there is a monument to fallen heroes.....heroes of law enforcement; men who have lost their lives defending ours. This cache is to bring you to this place to remember their sacrifice and to pay silent homage to them. This cache is a micro, log only, cache and is not on the monument itself. Please bring your own pen.

Once again, you will receive additional prizes if you find the geocache!
(37) How much does a new Veggie Burger cost at Sophia's Deli across the street?

As the two came back to their starting point, they saw the signs announcing the NCGE's $90^{\text {th }}$ Conference. "That's one thing that has not changed," said Agnetha Azimuthal. "The NCGE is still here. I do hope geography education is still important in the $21^{\text {st }}$ Century."
"Let's go find out," said Mark Mercator as they stepped inside the building.

## Geocaching at $90^{\text {th }}$ NCGE Meeting - Answer Form

Your name(s): $\qquad$
$\qquad$
1.
19. $\qquad$
2. $\qquad$ 20. $\qquad$
21. $\qquad$
3. $\qquad$
22. $\qquad$
5. $\qquad$ 23. $\qquad$
6. $\qquad$ 24. $\qquad$
7. $\qquad$ 25. $\qquad$
8. $\qquad$ 26. $\qquad$
9. $\qquad$ 27. $\qquad$
10. $\qquad$ 28. $\qquad$
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15. $\qquad$ 33. $\qquad$
16. $\qquad$ 34. $\qquad$
17. $\qquad$ 35. $\qquad$
18. $\qquad$ 36. $\qquad$
37. $\qquad$

