

Aliens Land at Denver's City Park!

Adventures in Geocaching

What: Your Attention Please: Aliens Magembe Mercator, Pete Peters, Anita Azimuthal, and Roberta Robinson landed at the USGS Benchmark east of the Denver Museum of Nature and Science. Can you help them brave the Planet Earth?

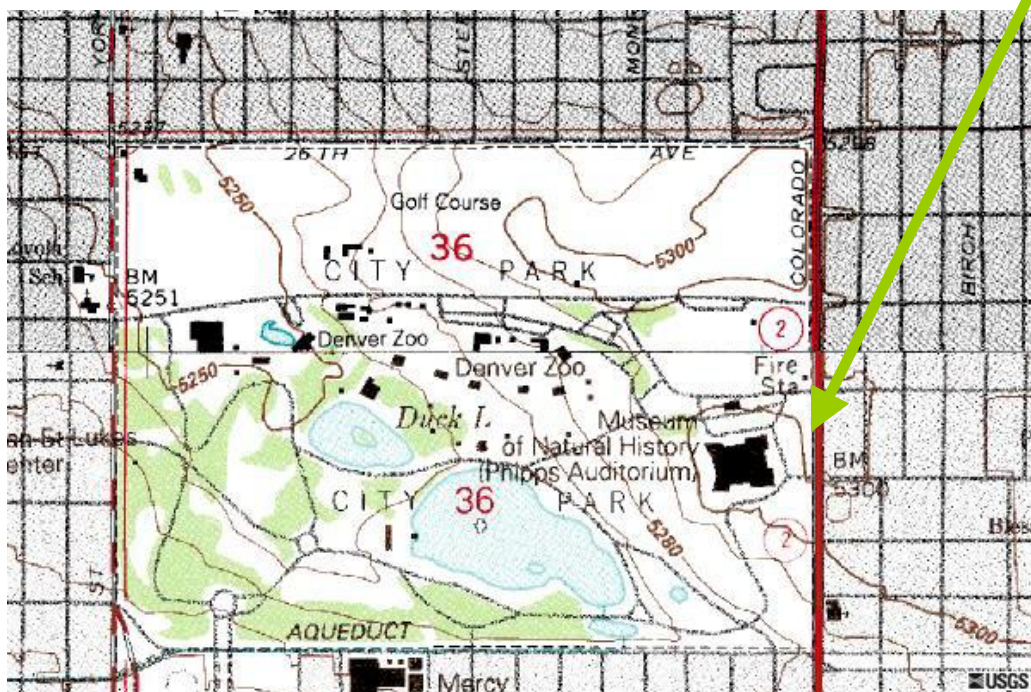
Be the first to find 20 virtual geocaches and answer 42 challenging questions with Joseph Kerski and Mark Eaton of the USGS during our Geocaching Adventure for GIS in the Rockies.

Where: Denver City Park, East of Denver Museum of Nature and Science. Meet at USGS Benchmark, Easting 505058, Northing 4399788.

When: Friday 8 October 2004, at 9am sharp!

Why: To practice using a GPS, to network with your GIS colleagues, to win fabulous USGS prizes, and to do some fun geographic fieldwork!

How: Register through www.gisintherockies.org. Participate individually or bring a team from your workplace!



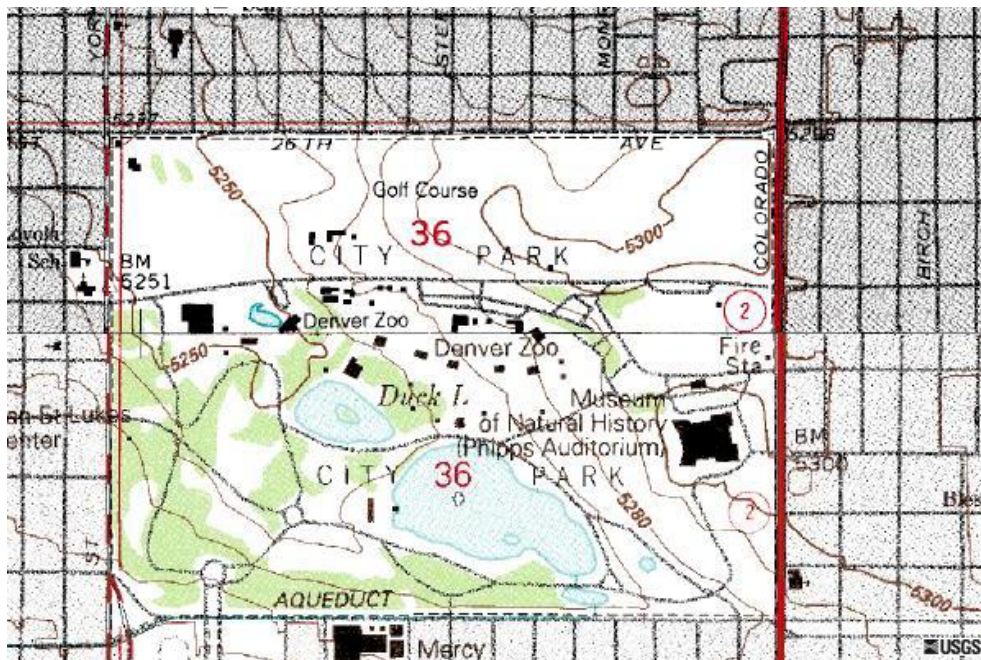
Aliens Land at Denver's City Park!

Adventures in Geocaching

Your Attention Please: Magembe Mercator, Pete Peters, Anita Azimuthal, and Roberta Robinson landed at the USGS Benchmark east of the Denver Museum of Nature and Science while we were all at the GIS In The Rockies conference. They explored the park, returned to the benchmark, and departed, leaving without a trace. Inquiring minds want to find evidence of their visit.

Your mission: Can you find this evidence and help them brave the Planet Earth using the clues below?

Your goal: Answer the questions to the best of your ability. Fabulous USGS prizes will be awarded to the individuals or teams with the fastest time, the highest score, the slowest time, and the most creative answers.



Clockwise Version

“**That** was a rough landing!” exclaimed Magembe Mercator as he brushed the grass off his uniform. “Who set this benchmark?”

“The USGS,” replied Anita Azimuthal.

“I’ve heard of them,” said Roberta Robinson. “They are active in the GIS community, and their second director was an interesting explorer and scientist named ___ (1).”

“Thanks for the information! Hey, I thought people inhabited this planet,” remarked Pete Peters as he gazed around. “Where are they?”

“They are all at the annual GIS in the Rockies conference,” answered Roberta. “So it’s up to us to learn about this environment. Where are we, anyway?”

“We’re near Colorado Boulevard in Denver Colorado, Earth,” replied Anita Azimuthal, approximately 505058 Easting, 4399788 Northing. Geocaching Point number 1!”

“That’s all well and good,” put in Pete, “but those coordinates could be in any UTM zone on Earth. What UTM zone are we in? ___ (2)

“Be careful!” shouted Roberta Robinson. “You almost stepped in the street. I’ve heard that these combustion-engine motor cars can be dangerous. What state highway is this?” ___ (3)

“Let’s explore a bit before we have to beam back to Mother Ship GISCO,” proposed Anita Azimuthal. “We can’t just look at **one** point.”

“Right, “ agreed Pete, “because a band called Three Dog Night on this planet once sang, “One is the loneliest number that you’ll ever ___ (4) “

The group agreed and set out to 505024 Easting, 4399652 Northing.

“What cardinal direction is that from where we are standing now?” asked Pete?

“It is ___ (5) of where we are now” replied his colleagues, and off they ran.

When they arrived at Geocaching Point 2, what was the type of the three trees that they found themselves in the middle of? ___ (6)

“I’m out of here!” said Magembe as he darted off to take notes on a fascinating growth on a juniper at Geocache 3, 504952 E, 4399626 North.

What was growing on the main trunk of the juniper? ___ (7)

“Look over here!” remarked Pete as he stopped at Geocache 4, at 504931 E 4399630 N. This plant reminds me of a larger version of a Japanese ___ (8).

The group then walked to Geocache 5, at 504815 E, 4399608 N. "The person who designed this shared the same profession as Jack Dangermond!" remarked Roberta. "He worked as a ___" (9)

When water flows in this structure, and on through subsequent rivers, in what river is it flowing before it reaches the Missouri River? ___ (10)

As the group ambled off toward Geocache 6, at 504765 E, 4399433 N, Anita remarked, "We are crossing an important contour line for the City of Denver." What was it? ___ (11)

"A famous lily was planted here at Geocache 6 in the year 1917," read Pete. What is the name of the biome where the lily came from? ___ (12)

"What are those strange objects over there?" the group said in unison. They walked to Geocache 7, at 504706 E, 4399510 N. Approximately 11 meters in one of the cardinal directions is an identifying marker. How many **links** away is the marker? ___ (13)

The group walked to the marker at Geocache 7. What direction were they walking? ___ (14)

Where was the piece of equipment they were examining constructed? ___ (15)

What is the nickname of the state where the piece of equipment they were examining was constructed? ___ (16)

"Let us tarry not, " said Anita as she led the group to Geocache 8 at 504471 E 4399468 N.

The group stood puzzling at this object for quite awhile. "If this is a replica of small Earth inhabitants, they are very strange," said Roberta. "How did they walk? Didn't they have ___ (17)?"

"Geocache 9 is awaiting at 504153 E, 4399444 N, " Magembe reminded them. What is the name of the road that marked the southern boundary of City Park to their left as they walked along? ___ (18)

"This park has some unique vegetation, " remarked Pete Peters. "It reminds me of an ancient Tom Jones song that I heard in our library entitled "The Green Green Grass of ___ (19)." Is this the natural vegetation of this area?"

"Absolutely not, " said Magembe Mercator. "In this high plains biome, the natural vegetation for this area is ___" (20)

The group arrived at Geocache 9. What is the most common number that appears on this object? ___ (21)

"Geocache 10 is located at 504003 E 4399587 N," Anita Azimuthal told the group.

"How do you pronounce your last name, anyway?" Pete Peters asked her as they began walking.

“Never mind that” replied Anita when they arrived at Geocache 10. “Here’s a question for you: How far are we from the Central Meridian of this UTM zone?”

“That’s easy” said Magembe. “We are ___ (22) kilometers from the central meridian, and to reach it, we would need to walk in a ___ (23) direction with a bearing of ___ (24).”

“You are top notch, Magembe! But what is this ancient device?” asked Pete about the object at Geocache 10.

“It is a ___ (25) and was used to determine the ___ (26).” replied Magembe.

The group sped off toward Geocache 11 at 503969 E and 4399692 N.

Find the name of the club that was responsible for this object. Who was president of the USA when the object was donated? ___ (27).

The group left the object to find Geocache 12 at 503829 E 4399765 N. Of the four environments identified there, which would you say that GISCO member Greg Bryant gets most excited about? ___ (28).

The group left this point and found a communications device near Geocache 13 at 503727 E 4399960 N. If the aliens had asked you what this device is, what would you have told them? ___ (29)

If you wanted to contact someone in Grand Junction with this device, what 3-digit number would you have to dial first? ___ (30)

As the group walked toward Geocache 14 at 503615 E 4400150 N, they crossed a 1000-meter northing line. When they crossed the line, how far was it to the equator, in kilometers? ___ (31)

When they arrived at Geocache 14, they were baffled.

“What is the purpose of this land use?” they asked. What would you tell them? ___ (32)

What is the character trait identified on the sign that GIS folks are noted for? ___ (33)

How far is it to the hole, as identified by the sign, to the closest meter? ___ (34)

“We need to keep moving and look out for small white spheres” said Anita as they walked to Geocache 15 at 503882 E 4400148 N.

What is the route name of the transportation that stops here? ___ (35)

Next, they walked to a mysterious contraption that was just south of Geocache 16, at 504155 E 4400131 North. What would you tell them that this contraption is? ___ (36)

“Let’s find out what this entire facility does, and we can do so by visiting Geocache 17, at 504380 E 4400039 N,” proclaimed Roberta.

Why could the group determine the purpose of the facility at this location? __ (37)

The aliens then walked to Geocache 18, at 504571 E 4400028 N.

"I read about a scientist who worked extensively with the animals in the wild identified on this sign," remarked Pete Peters. "Her name was __ (38).

"Time's running out, we'd better hurry to Geocache 19 at 504773 E 4399728 N," warned Anita. How many concrete wedges surround the center circle that they found there? __ (39).

"Where did the student who named this object attend school?" asked Roberta.

"It says so right here, " answered Magembe. "She attended __ (40)."

"Right! On to Geocache 20 at 504977 E 4399773 N remarked Anita with a wry geographic grin.

Once there, they identified the name of the auditorium to the west of them as __ (41).

They also found out that Gates Planetarium was __ (42) of the auditorium.

The aliens returned to the benchmark, beamed up, and were gone. Gone but not forgotten, for the GISITR Geocaching Event will forever live on in all the participants' memories.

Answer Key – Clockwise Version

1. John Wesley Powell
2. Zone 13
3. State Highway 2
4. Do
5. Southwest
6. Crabapple
7. A vine
8. Bonsai
9. landscape architect
10. Platte River
11. 5280 feet – 1 mile high
12. tropical rainforest
13. 1 link = .2017 meter, so 11 meters is 54.5 links. Acceptable: 40 to 70 links.
14. West
15. Farmington, MO
16. The Show-Me State
17. Feet
18. 17th Avenue
19. Home
20. Short prairie grass
21. 3
22. 4.003 km
23. West
24. 270 degrees
25. sundial
26. time of day
27. Theodore Roosevelt
28. Water
29. Telephone
30. 970
31. 4,400 kilometers
32. Golf
33. Integrity
34. 34 meters
35. Route 32
36. Unknown contraption
37. Because it is the entrance to the Denver Zoo
38. Dian Fossey
39. 16 wedges
40. Park Hill Elementary
41. Phipps
42. Southwest

Worksheet: Geocaching in City Park,
Denver: Clockwise

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The group agreed and set out for Geocache 20 at 504977 E 4399773 N.

Once there, they identified the name of the auditorium to the west of them as __ (5).

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How far is it to the hole, as identified by the sign, to the closest meter? __ (15)

The group left this point and walked to Geocache 13 at 503727 E 4399960 N. En route, they crossed a 1000-meter northing line. When they crossed the line, how far was it to the equator, in kilometers? __ (16)

When they arrived at Geocache 13 and found a communications object, puzzling about its purpose. If the aliens had asked you what this device is, what would you have told them? __ (17)

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What was growing on the main trunk of the juniper? ___ (40)

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Denver: CounterClockwise

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