Zippy's Dilemma

Even though most people consider *internet searches a necessity*, Zippy was not a fan. And so, when he had a real hankering for some surf and turf, Zippy *dec*ided to send a letter to Altamaha Steak and Seafood, inquiring about their menu options. To ensure proper and timely delivery, Zippy made sure to include these digits on the envelope:

On the other hand, Zippy thought, he might be more in the mood for something wit*h ex*tra cheese, so he also sent inquiry letters to both Towpath Pizza and to Johanson Café and Pizzeria. He made sure those two envelopes were clearly marked with these digits, respectively:
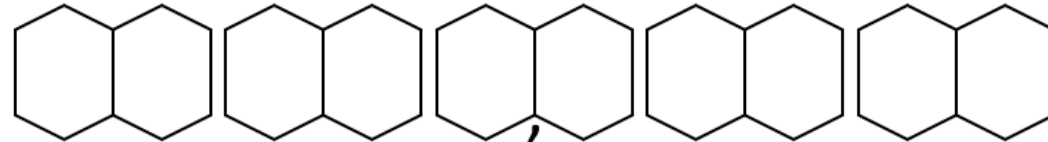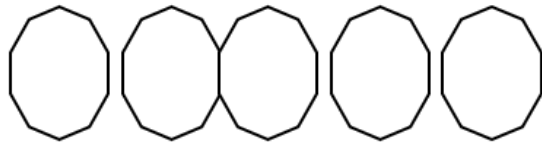
Even though these were all domestic US deliveries, it was weeks before Zippy heard back, and by then he was no longer all that hungry. All the same, Zippy is going to want to bring this with him to the next Puzzled Pint event!

The realization is that Zippy needs zip codes. Googling this restaurant gives a zip code of 31545 in Jesup, GA. Using **dec**imal code for 3 15 4 5 gives CODE   The other two zip codes are 13080 in Jordan NY and 50514 in Armstrong Iowa. Using the **hex** code for 13 08 05 05 14 gives SHEET. Solution: **CODE SHEET**

The Path

Originally having nothing to do with permanent vision loss, this code's precursor was developed in 1819 by the French army to allow soldiers to communicate at night without speaking or using candles. In 1824, a fifteen-year-old French schoolboy named Louis (who had lost his vision at age three) learned about the code and reworked it into a more usable, streamlined version which is still in use today.

At right is the field behind Louis' school house. In this field, spell out the name of this code in this code.

Louis loved to go for walks. Never crossing his own path and avoiding the one tree and the seventeen hills, Louis moved like a chess king – left, right, up, down and diagonally – to explore the entire rest of the field.

After you determine Louis' path, stop and consider what a person using this code ultimately possesses.

BR AIL LE in braille is written as circles in three lines on the grid above. Reading these left to right, top to bottom, spells "USE 7 DIAGONAL MOVES." The only path that fits the criteria and uses 7 diagonal moves is shown in the line which spells out the solution: "THE WORLD AT ONES FINGERTIPS."

Who Knew?
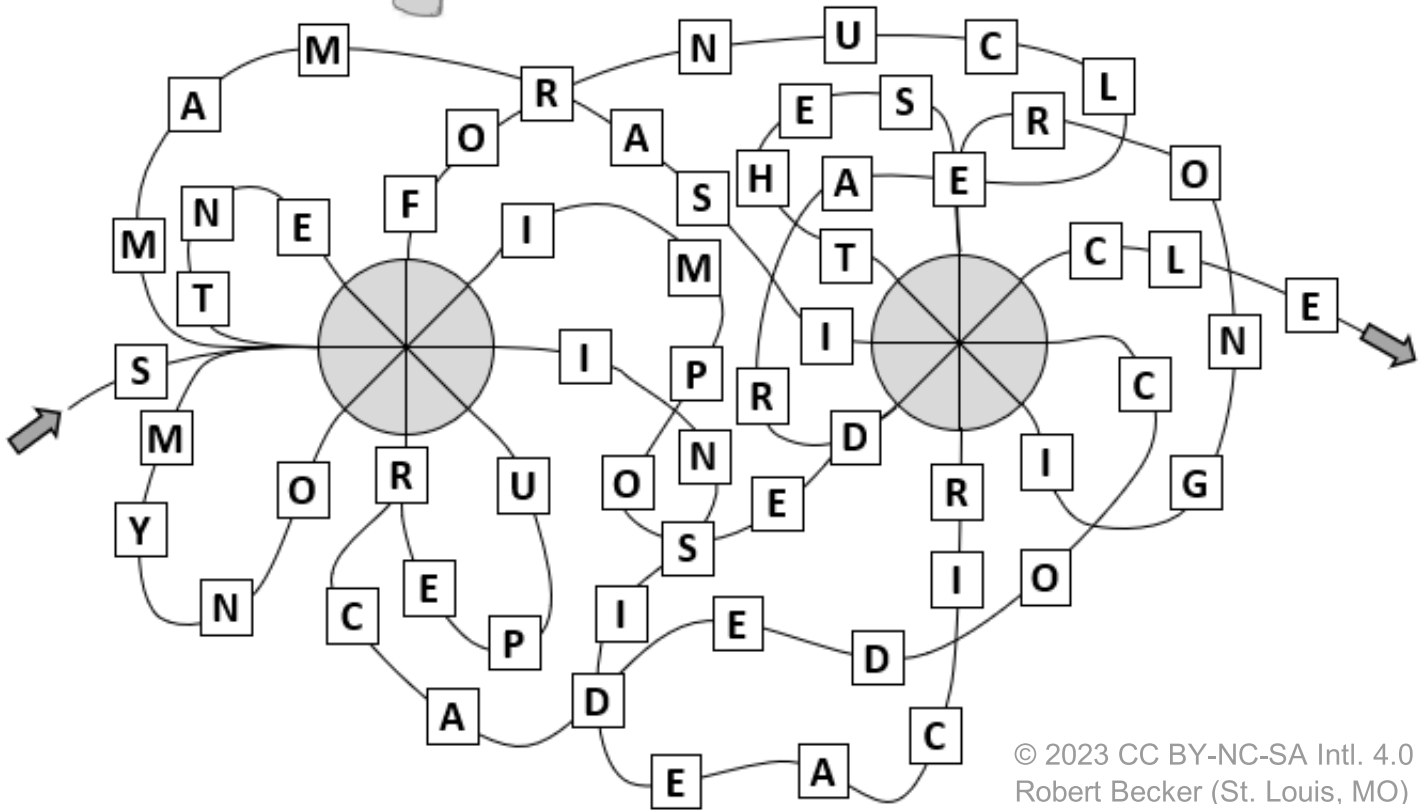
Originally used with the optical telegraph in 18ᵗʰ century France to communicate over land from tower to tower, a century later, this code was modified into the ship-to-ship and ship-to-shore signaling most puzzlers are familiar with. So, check out the map above. Then spell out the name of this code in this code. Be sure to use your turn *signals* in those crazy eight-way intersections as you cruise along through this tangled maze!

Perhaps you will discover how this very same code was used in the design of a well-known international icon.

Semaphore written in semaphore is:

Starting at the arrow on the left, make these turns as you follow the path. The first four turns have been shown in the path above – blue, then green, then. Doing so spells out "SUPERIMPOSED ACRONYM FOR NUCLEAR DISARMAMENT INSIDE A CIRCLE." The acronym for nuclear disarm-ament is ND, which in semaphore would be: Superimposing them inside a circle produces:

Solution: | P | E | A | C | E | | S | I | G | N |

Laser Maze

Stop for a moment and consider: In base three, not counting 000, there are precisely 26 numbers that can be represented by a string of three digits (001, 002, 010… 222). That's the exact same number of letters in the English alphabet – which of course makes it very convenient for this rarely-used base-three code!
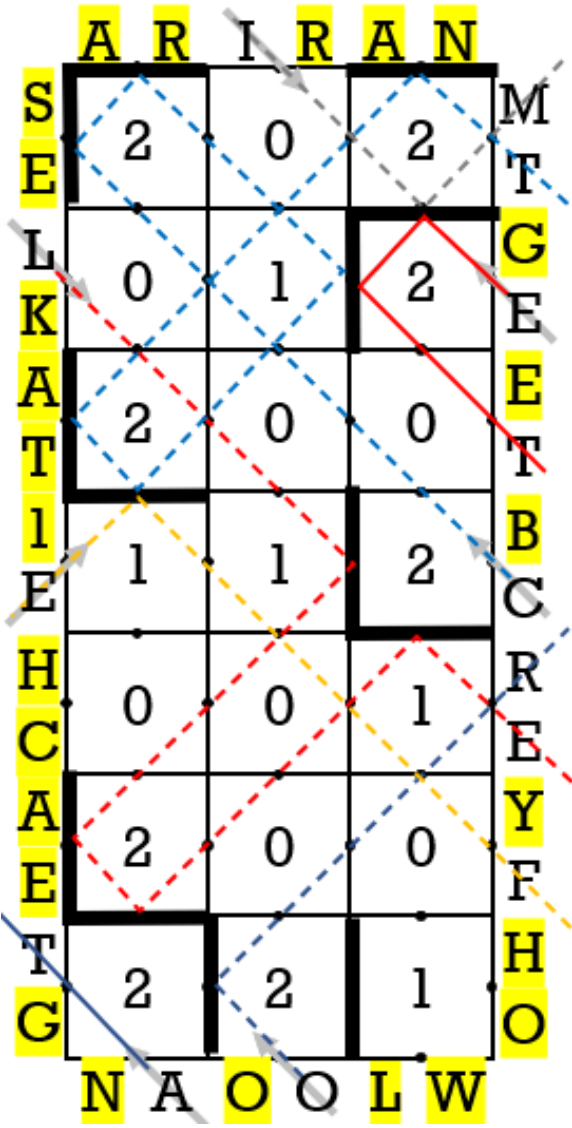
Populate the grid at right with 0's, 1's, and 2's to spell out the name of this code in this code.

Now, notice how two mirror panels (dark lines) have been drawn in for you near the upper-right corner. Draw in eleven more mirror panels along the edges of the squares so that the number of panels bordering each square agrees with the number (0, 1, or 2) you wrote in that square.

One laser shot (gray arrow and dotted line path in upper-right corner) has been drawn in for you. Light travels at 3.0×10^8 m/s, so it would take that light beam about 150 ps (picoseconds = trillionths of a second) to travel that path from the "I," bouncing off the one mirror into the letter "M." Draw in the remaining laser shots. To keep things simple, each shot is at a precise 45° angle. Some of the shots will take shorter periods to cross the grid; others will take longer.

Just something to think about when you think about this.

Grid (outer letters):
Top: A R I R A N
Left (top to bottom): S E L K A T I E H C A E T G
Right (top to bottom): M T G E E T B C R E Y F H O
Bottom: N A O O L W

Grid values (top to bottom, left to right):
Row 1: 2 0 2
Row 2: 0 1 2
Row 3: 2 0 0
Row 4: 1 1 2
Row 5: 0 0 1
Row 6: 2 0 0
Row 7: 2 2 1

TERNARY written in ternary would be 202 012 200 112 001 200 221. These are written into the grid, top to bottom, and the mirror panels placement would be as shown above. The shortest laser shot (lower left corner) travels through the "A", crosses one square quadrant, bounces off of 0 mirrors and lands on the "T." After all the shots are taken, the leftover letters spell (starting in upper right and proceeding clockwise: "ARRANGE BY HOW LONG EACH 1 TAKES." If all the shots are arranged shortest to longest the sequence of letters is **AT IM ET OR EF LE CT**: which gives the solution. **A TIME TO REFLECT**.

A Transformative Experience

When you think of the North Atlantic Treaty Organization, you might think of a <u>large</u>, <u>assertive</u> <u>group</u> of nations willing to <u>fight</u> to defend one another. This group also has a code named after it. Spell out the name of this code in this code, then complete the transformations below using only real words and names. A few linked letters may help you along the way.

| N(-3) | O | V | E | M | B | E | R | | A | L(+9) | F | A | | T | A | N | G(-3) | O | | O(+0) | S | C | A | R |

First, change all the F's to PH's, but keep everything else the same.

| N | O | V | E | M | B | E | R(+1) | | A | L | P(+4) | H | A | | T | A | N | G(+1) | O | | O | S | C(+2) | A | R |

Second, change to a different member of the same group.

| J | U | N | E(-4) | | T(-6) | A | U | | S(+0) | W | I | N | G | | G | R | O | V(+1) | E | R |

Third, change the last letter.

| J(-5) | U | N | K | | T | A | X(-6) | | S | W | I(+0) | N | E | | G | R(+1) | O | V | E | L |

Fourth, change to a synonym.

| T | R | A(+2) | S | H | | L(+3) | E | V | Y | | P | I | G(-3) | | C(+2) | R | A | W | L |

Finally, change the first letter all to the same letter.

| B | R | A | S | H(-2) | | B | E(+10) | V | Y | | B | I(+9) | G | | B(+0) | R | A | W | L |

If done correctly, the final four words arranged alphabetically mean "<u>group</u>," "<u>large</u>," "<u>assertive</u>," and "<u>fight</u>," respectively. Good job. You ***shifted*** your way through that quite nicely. If you've accomplished all that, then...

The correctly filled out chart is shown above. If the letter spaces with numbers in them are shifted by that number, it spells out: KUDOS THE ANSWER IS CODE FOR B. Thus, the solution is **BRAVO**

Puzzled Pint — April 2023

META Pictographs – the Original Code

This is bound to get a little **messy**… and fun! For the sake of those around you, try to **restrain any squeals** of delight!

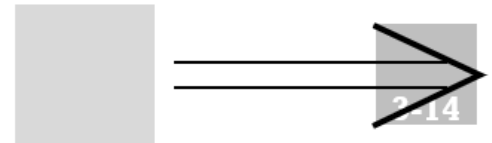|	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	T	H	E	W	O	R	L	D	A	T	O	N	E	S	F	I	N	G	E	R	T	I	P	S
2	P	E	A	C	E	S	I	G	N															
3	A	T	I	M	E	T	O	R	E	F	L	E	C	T										
4	B	R	A	V	O																			

One of these (also a cape)
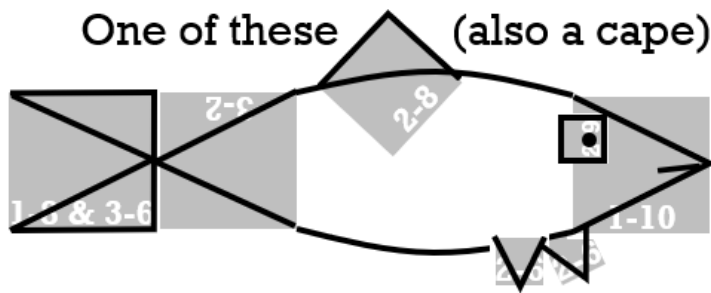
In the event that…
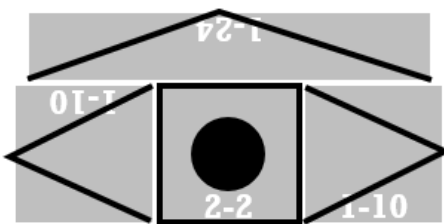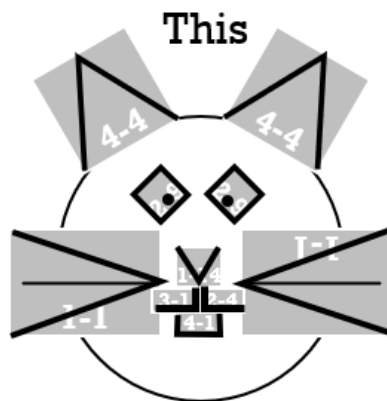(logic symbol shown below)

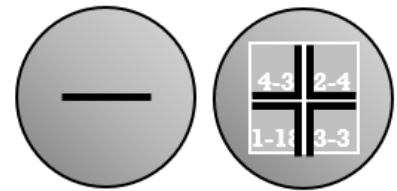C O D

This

I F

Homophone of

One of these particles

I

C A T

I O N

So, what was this whole puzzle set all about anyway?

The four solutions written in the grid. The gray boxes have numbers like 3-6 which means 3rd solution, 6th letter (T). So the pig pen code for T is written into this box. Doing this completes the pictographs which are: COD IF I CAT ION.

Out with the Old...

This code's first version written by its namesake had spaces in some of the letters and utilized dashes of various lengths. Sounds confusing! That version was soon replaced by a much-improved version developed by Friedrich Gerke, which is pretty much the code that is still in use today – admittedly, mostly by puzzle solvers.

The cryptic message below doesn't seem to mean anything, but send it anyway on your electric telegraph system. Realize, however, that by the time this sleepy message from yesteryear arrives at its destination, the telegraph wire will have changed into a fiberoptic cable. All the dots and dashes will have woken up to a new era – and a new code – where computers do quite a *bit* of the communicating, providing yeses and noes to all our inquiries. By the way, woken dots don't look much different, perhaps more wide-eyed and alert, but woken dashes look very different – tall, attentive and ready to stand their ground!

This new message will suggest a location where one would assume one could find all sorts of useful information about the original outdated code. Good luck with that!

FIVXKHLJQSUYGMA

The letter sequence above written in Morse code is:

●●—● ●● ●●●— —●●— —●●— ●●●● ●—●● ●——— ——●— ●●● ●●— —●●— — ——● — —●●

When these wake up, the dots become wide-eyed circles (0's) and the dashes stand up and become vertical lines (1's):

0010 00 0001 1001 101 0000 010 00111 1101 000 001 1011 110 1 100 . Regrouping these into strings of five to match the binary code:

00100 00001 10011 01000 00100 01111 10100 00011 01111 01100 which spells out the solution: **DASH DOT COM**