

Reach for the stars

A1.

1 0

A2.

1	0	1	0
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A3. C

A4. just over 209 bytes

A5:

0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	1	1	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	1
0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0

00 1110 1010 00 1010 1010 101 (split to make it easier to read)

A6: it's our Solar system with the Sun on the left and 9 planets next to it. The Arecibo Message was sent in 1974 when we still considered Pluto a planet (it's since been recategorised as a dwarf planet). The third planet from the Sun is the Earth and it's raised above the line to indicate that this was the planet that sent the message.

0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	1	1	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	1
0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0

A7: 1,679 bits at a rate of 10 bits per second means it takes about 170 seconds to transmit = 2m 50s / just under 3 minutes.