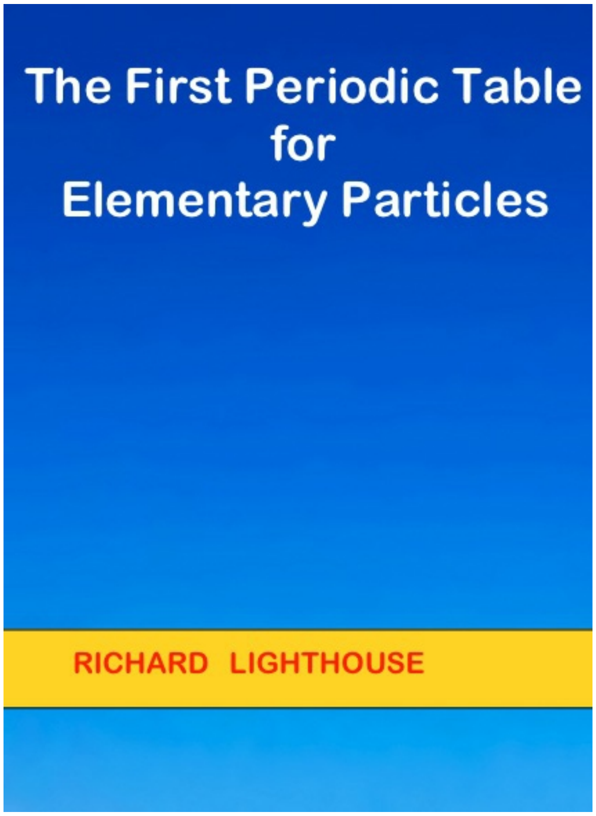

The First Periodic Table for Elementary Particles

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The First Periodic Table for Elementary Particles
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Abstract

This short technical paper presents a new standard model for Elementary Particles. All elementary particle masses are related by simple math. This math is similar to the math used for wifi signals and it is called 1024-QAM. The 1024-QAM table graphically displays how all elementary particles are related, similar to the Standard Periodic Table in chemistry. If we line up all of the particle masses in order, we find there are a number of "gaps." These are called the mass gaps, and they line up perfectly with 1024-QAM, which fits the sequence. Supersymmetry (SUSY) is also found to occur with 1024-QAM. Mass Groups 1 thru 8 have heavyweight counterparts which are found in Mass Groups 9 thru 16. 4 new particles are predicted to be discovered between 1 to 15 TeV. Also, 4 new particles are predicted to be discovered between 50 to 200 TeV. Numerous other new particles are predicted using 1024-QAM. The only possible explanation for elementary particles to match a QAM pattern, is due to a blinking or discrete universe. This ebook provides compelling evidence that our universe is literally blinking, off and on. This blinking frequency is about 1.039 THz.

This author challenges scientists in the particle physics field to provide a better model than 1024-QAM, that will fit the "mass gaps." I suggest starting with a QAM model and see what format you think will best fit the experimental data that is already available. In my opinion, the data to support 1024-QAM is already available at CERN, Berkeley, Fermi Lab, Brookhaven, Perimeter Institute, and Stanford. No expensive, new experiment will need to be run.

1. Introduction

The math for the QAM table is simple and elegant. No previous particle model has been able to explain the mass gaps. The QAM model beautifully explains the mass gaps.

QAM stands for Quadrature Amplitude Modulation. Digital-QAM is a data transmission method that can be used to broadcast television pictures or WiFi signals, and many other applications. For digital applications involving computers, its use seems obvious. However, for applications involving physical reality – this may seem confusing, until it is understood that our universe is literally blinking off and on.

QAM in dynamic motion can be seen here:

https://en.wikipedia.org/wiki/Quadrature_amplitude_modulation

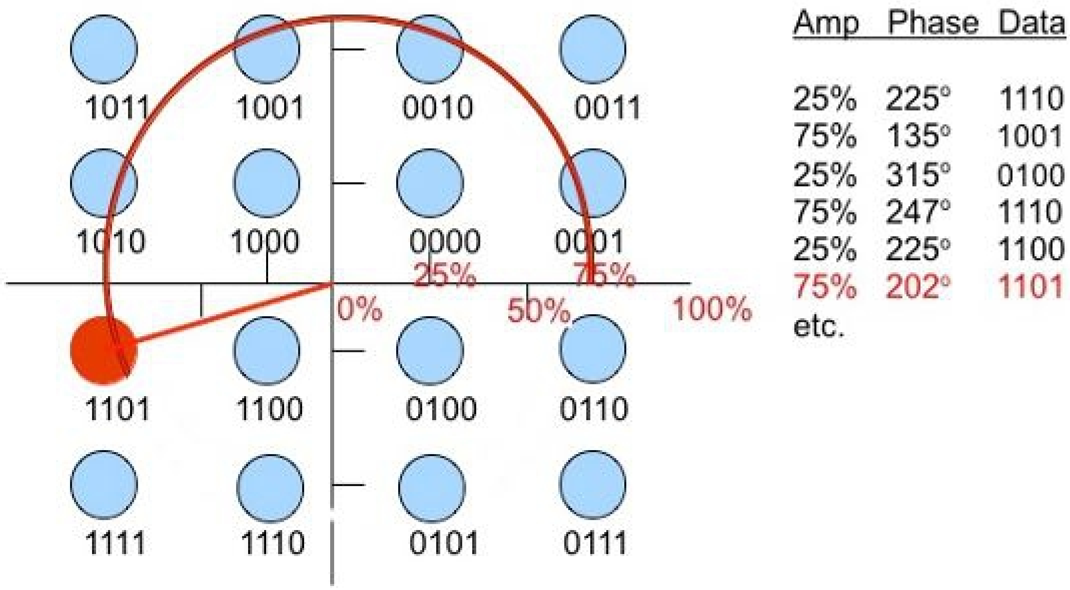

Figure 1. 16-QAM. Note the "Gaps" at 0%, 50%, and 100%. The nodes exist at 25% and 75% amplitude.

It is recommended that readers review reference [1], as the following discussion will make more sense.

Mass

Value	(64 possible masses)			
Data	00	01	10	11
Data	00	01	10	11
Data	00	01	10	11

Charge

Value	-1	-1/3	0	2/3
Data	00	01	10	11

Spin

Value	0	1/2	1	LF*
Data	00	01	10	11

Figure 2. Sample table in QAM demonstrating how each data point contains the particle values in a digital format. *Note that the 4th spin type is explained in another ebook - "Elementary Particles: The 4th Spin"

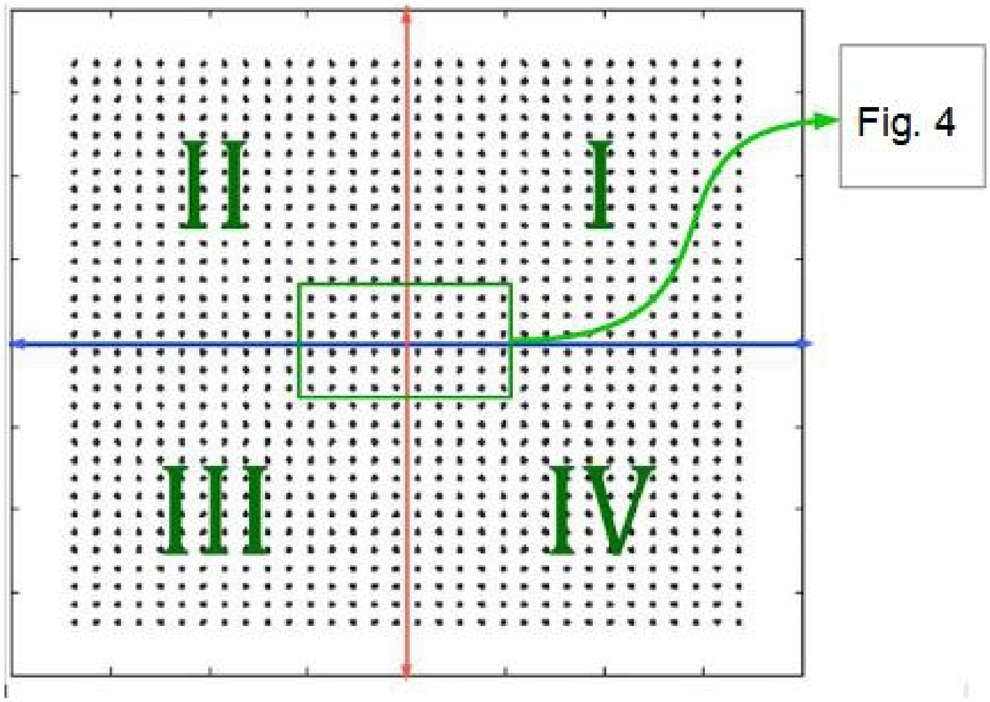

Figure 3. 1024-QAM. 4 Quadrants with 16 Mass Groups and 16 probabilities for a total of 1024 points. Note that each quadrant contains 256 points and has 16 Mass Groups and 16 probabilities. The 16 probabilities are the vertical column (red) of points from the blue baseline. There are 4 x 4 x 4 possible mass types for a total of 64. There are 4 possible charge types and 4 possible spin types.

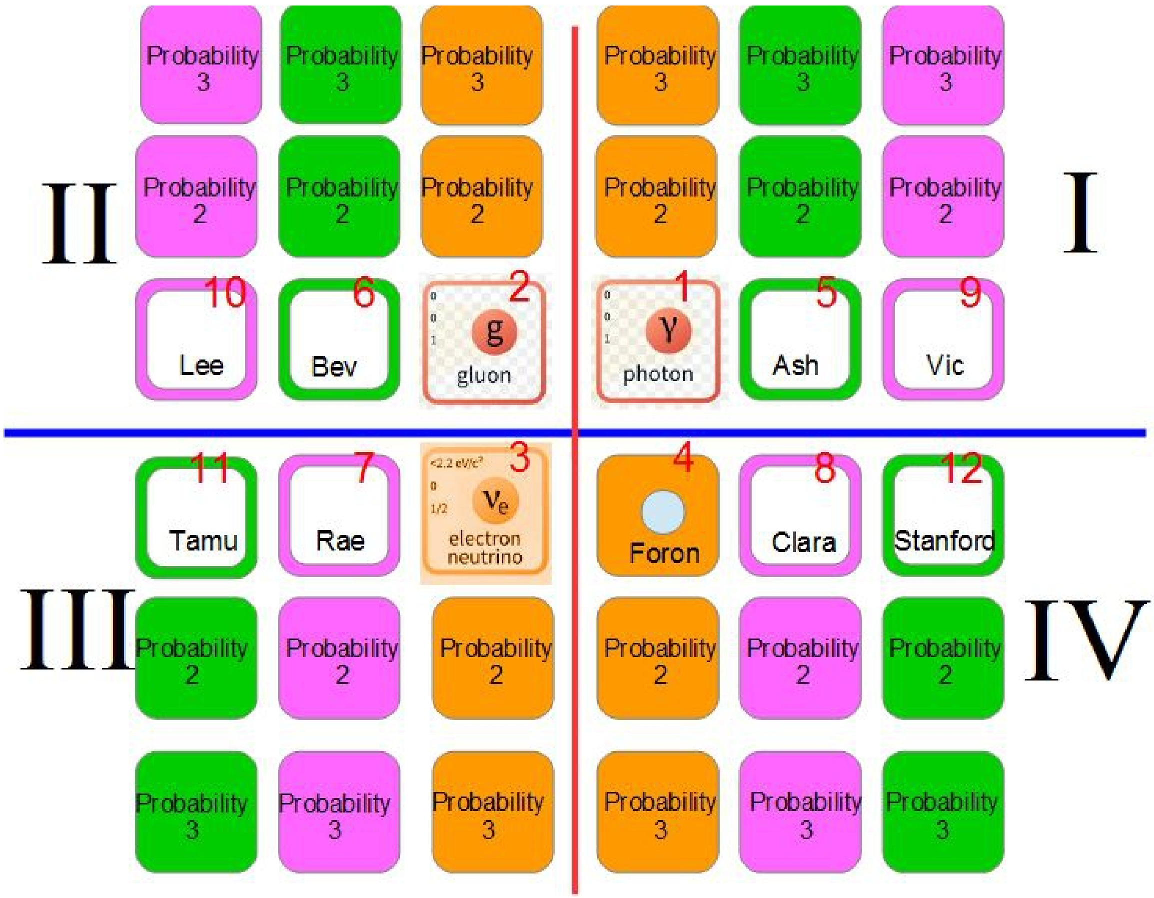

Figure 4. This is how the center of the 1024-QAM table might look like. Note the sequence of red numbers – this is the basic pattern for QAM. It is apparent that the first 4 particle masses are Bosons. There may be some minor changes is the order of leptons and quarks, but the pattern is basically predictable. In our search for particles, it is clear we have skipped over some lightweight particle masses, or we may need to target our future searches for specific masses. Bosons are orange, Leptons are green, and quarks are purple.

My initial thoughts looking at this table are: I can't believe that we missed all of these lightweight particles! How can this be correct? However, I ask you to consider – how many chemicals were missed and skipped over when the Chemical Periodic Table was being assembled in the 1800's and early 1900's? Anyone that knows this history can confirm it – many of the elements were rare in nature and had not been identified. The difference is; this time we are working with a mathematical pattern, not just experimental evidence.

2. 1024-QAM Format

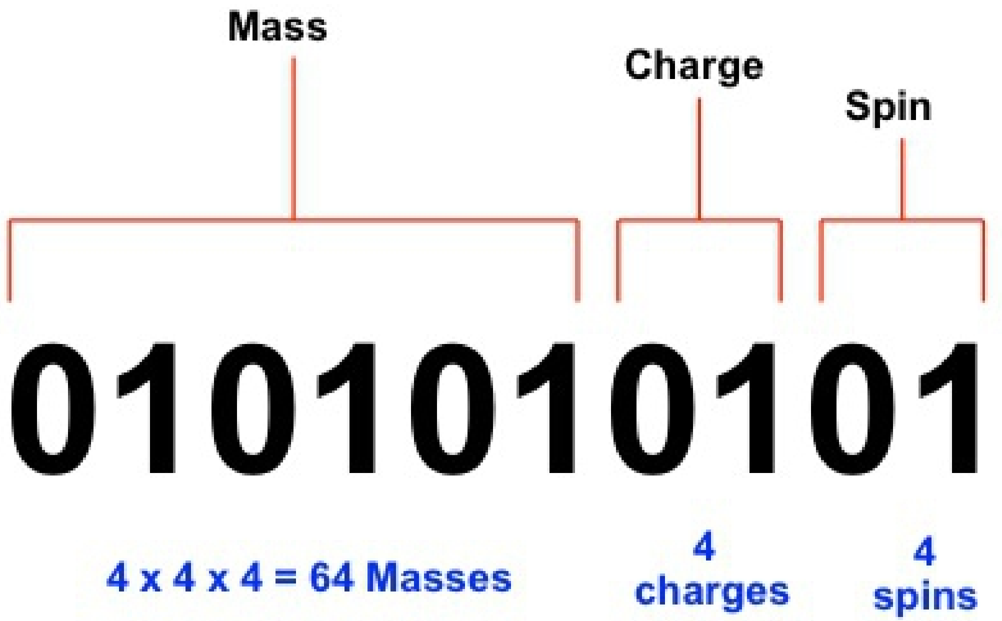

Figure 5. This is the 10-bit format for 1024-QAM. Each position has 4 possible data values: 00, 01, 10, and 11. This equals a total of 1024 possible particles. Our universe is literally constructed with a mathematical pattern.

Periodic Table for Elementary Particles

by Mass Groups

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IV	Foron	Clara	Stanford	M Neutrino	T Neutrino	Tetra	Bottom	Top	Sforon	Sclara	Sstanford	Smuon Sneutrino	Stau Sneutrino	Stetra	Sbottom	Grand
III	E Neutrino	Rae	Tamu	Rob	Down	Nu	Upsilon	Higgs	Selectron Sneutrino	Srae	Stamu	Srob	Sdown	Snu	Supsilon	Higgsino
II	Gluon	Bev	Lee	Jane	Up	Muon	Tau	Z	Gluino	Sbev	Slee	Sjane	Sup	Smuon	Stau	Zino
I	Photon	Ash	Vic	Seth	Electron	Strange	Charm	W	Photino	Sash	Svic	Sseth	Selectron	Sstrange	Scharm	Wino
$*c^2$	1eV	100eV	1KeV	100KeV	100MeV	1GeV	100GeV	100GeV	1Tev	100TeV	1PeV	100PeV	1FeV	100FeV	1ZeV	100ZeV
10^x	0	2	3	5	6	8	9	11	12	14	15	17	18	20	21	23

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*Boson	*Lepton	*Quark	*Quatern
8	24	24	8

Figure 6. Periodic Table for Elementary Particles showing all 16 mass groups. This is the new standard model. Note how the particles appear in groups of four. This is typical of a QAM or wifi signal. They are arranged by mass groups in a natural pattern. This is the simple math that is used for wifi signals and it also relates all elementary particles. It provides compelling evidence that our universe is literally blinking, off and on, at a high frequency. Note that the pattern of quarks and leptons can be “filled-in” from the previously available known data. Although it may need some minor corrections from what is shown in this table, the pattern is basically predictable. Full table shown in the Appendix.

Note that we are aware of 3 particle types: Lepton, Quark, and Boson. In a pattern of 4's (QAM) – there must be a 4th particle type. I call the 4th particle type, “Quaterns.” They are the heavyweight counterparts for the Boson, and have a similar purpose within the particle field. When we discover the photino soon, it will be a Quatern. This is not simply a new particle, it is a new type of particle.

	Mass Group 9	Est. Range		Mass Group 10	Est. Range
IV	Sforon	5 – 9 TeV		Sclara	120-190 TeV
III	Selectron Sneutrino	3 – 7 TeV		Srae	80-140 TeV
II	Gluino	2 – 6 TeV		Sbev	60-100 TeV
I	Photino	1 – 4 TeV		Sash	50-90 TeV
$*c^2$	1Tev			100TeV	
10^x	12			14	

Figure 7. Mass Groups 9 & 10 shown with estimated mass values. These mass ranges are rough estimates, intended for experimental planning purposes. Revised: Photino may be in the 0.5 – 4 TeV range.   Sash may be in the 30 – 90 TeV range.

3. Dark Matter

As previously noted in another paper, the Quatern particle is the heavyweight counterpart for the Boson. Its function is similar to the Boson.

The table information suggests that Dark Matter is comprised of the heavyweight particles, which means that half of the particles in our physical universe are dark matter. These particles are significantly higher in mass value, but generally have shorter lifespans. Once we are able to determine the electromagnetic frequency range for photinos – we should be able “see” this dark matter.

4. Further Research

This preliminary model needs further research. The readers input and suggestions are requested. Readers are encouraged to review the work of Theodore Lach (Reference 8). His equation:

$$\ln(0.511/1777.1) = -3e$$

strongly suggest that particle masses are predictable. Note these values are known particle masses.

5. Conclusions

Mass Gaps, charge, spin and amplitude are readily identified and arranged by a Digital-QAM table.

Other conclusions:

1) There are numerous particles that can be identified and discovered by using the QAM digital table.

2) There must be a mathematical equation associating the mass values in a natural pattern. The precise equation(s) would be very helpful if known, and it appears that Theodore Lach may have found the basic relationships.

3) Prediction: 4 new particles will be discovered between 0.7 to 15 TeV/c^2

4) Prediction: 4 new particles will be discovered between 35 to 200 TeV/c^2

5) Prediction: 4 new particles will be discovered between 0.5 to 30 PeV/c^2.

Readers are encouraged to read the associated technical papers at smashwords.com, lulu.com, amazon, barnandnoble, kobo.com, and apple ibooks.

10. References

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7. Seth (Jane Roberts) Early Sessions, Book 2, Session 60, 1964. "Matter is continually created, but no particular physical object is in itself continuous... No particular physical particle exists for any amount of time. It exists and disappears, and is instantaneously replaced by another."

8. Theodore Lach, "Masses of the Sub-Nuclear Particles;" http://arxiv.org/abs/nucl-th/0008026; submitted 14 August 2000.

Acknowledgments

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APPENDIX

Sample Calculations using approximate mathematical patterns:

Photino Particle

1.275/.511 = 2.495

2.495 x 1.275 = 3.2 TeV

Gluino Particle

1.777/1.275 = 1.394

1.394 x 3.2 = 4.5 TeV

= = = =

Sash Particle

80.4/95 = .846

.846 x 80.4 = 68 TeV

Sbev Particle

91.2/80.4 = 1.134

1.134 x 68 = 77 Tev

etc...by mass ratios

These calculations are not predictions, they are merely rough estimates. It is understood these calculations are based on mathematical patterns.

= = = = =

Periodic Table for Elementary Particles

by Mass Groups

	1	2	3	4	5	6	7	8
IV	Foron	Clara	Stanford	M Neutrino	T Neutrino	Tetra	Bottom	Top
III	E Neutrino	Rae	Tamu	Rob	Down	Nu	Upsilon	Higgs
II	Gluon	Bev	Lee	Jane	Up	Muon	Tau	Z
I	Photon	Ash	Vic	Seth	Electron	Strange	Charm	W
$*c^2$	1eV	100eV	1KeV	100KeV	100MeV	1GeV	100GeV	100GeV
10^x	0	2	3	5	6	8	9	11

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	*Boson	*Lepton	*Quark	*Quatern
	8	24	24	8

Figure A1. First Half of Table. Note that the 10^x pattern skips every third exponent (1-4-7-10-etc.). I will explain this in another ebook.

9	10	11	12	13	14	15	16
Sforon	Sclara	Sstanford	Smuon Sneutrino	Stau Sneutrino	Stetra	Sbottom	Grand
Selectron Sneutrino	Srae	Stamu	Srob	Sdown	Snu	Supsilon	Higgsino
Gluino	Sbev	Slee	Sjane	Sup	Smuon	Stau	Zino
Photino	Sash	Svic	Sseth	Selectron	Sstrange	Scharm	Wino
1Tev	100TeV	1PeV	100PeV	1FeV	100FeV	1ZeV	100ZeV
12	14	15	17	18	20	21	23

Figure A2. Second Half of Table. These are the Supersymmetry (SUSY) heavyweight counterparts for Mass Groups 1 thru 8. The heaviest particle, I have named the "Grand" particle.

	1	2	3
IV	Foron	Clara	Stanford
III	E Neutrino	Rae	Tamu
II	Gluon	Bev	Lee
I	Photon	Ash	Vic

Figure A3. Alternate configuration based on the patterns.

<u>Appendix B.</u>

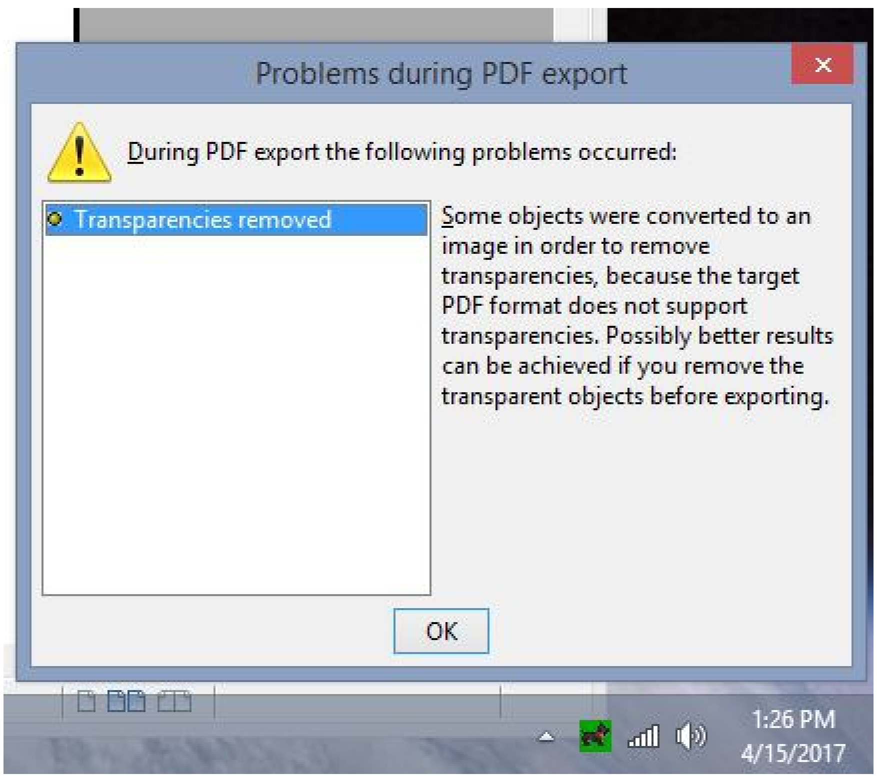

Figure A4. When converting this document to pdf, it is apparent that transparent objects were previously hidden in the document. These objects are likely being used by the government for tracking the distribution of my ebooks. This was not done by the author.