AFFIDAVIT

I, the undersigned Christopher Walter Monckton, commonly known as The Viscount Monckton of Brenchley, Peer of the Realm, of Runhams Farm, Harrietsham, Maidstone, ME17 1NJ, being first duly sworn, do hereby state under oath and under penalty of perjury that the facts are true:

- 1. I am over the age of 18 and am a resident of the United Kingdom. The information herein is based upon my own personal knowledge. If called as a witness, I could testify competently thereto. I have a degree in Classical Architecture from Cambridge University. The course included instruction in mathematics. I am the Director of Monckton Enterprises Ltd., a consultancy corporation which, *inter alia*, specializes in investigating scientific frauds at government level, on which I advised Margaret Thatcher from 1982-1986 at 10 Downing Street during her time as Prime Minister. I have experience in the use of certain mathematical techniques which allow rigorous assessment of probabilities including the probability that a document has been forged. I have published papers in the reviewed literature on climate science and economics and am an appointed expert reviewer for the forthcoming *Fifth Assessment Report* (2013) of the Intergovernmental Panel on Climate Change. I was this year's Nerenberg Lecturer in Mathematics at the University of Western Ontario, Canada.
- 2. I am asked to give expert testimony on the probability, taking into account the published results of a law-enforcement investigation by the Cold Case Posse acting for the Sheriff of Maricopa County, Arizona, that the document purporting to be a digital photographic image of an original paper long-form Hawaiian birth certificate for President Obama that was personally endorsed by him at a Press Conference on April 27, 2011, and was thereupon posted on the White House website, is genuine.
- 3. I rely on the findings published by investigators acting at the instance of the Sheriff of Maricopa County, Arizona, in two press conferences, given on 1 March and 17 July 2012 respectively. At the second press conference, the Sheriff said he was now certain that the White House document was a forgery. Based on the findings of the law-enforcement investigation, I have conducted a probability analysis to establish the likelihood that the White House document is genuine.
- 4. Where a document contains what appear to be irregularities, they may have arisen by inadvertence or by design. Probability theory assists in evaluating the likelihood that all of the irregularities were indeed inadvertent.
- 5. The method is based on one of the earliest and simplest principles in the theory of probability, which arose from the mathematical study of the odds at games of chance. A simple heuristic will illustrate the method. Suppose that two dice are rigged so that they will always show a pair of identical numbers when thrown. Then the odds that a double-six, for instance, will occur are 1 in 6. On the other hand, if the dice are not rigged in any way, so that they land randomly, the chance of a double six occurring is just 1 in 36, for the face that lands uppermost on one dice is entirely independent of the face that lands uppermost on the other, and the probability that the first die will display a six is 1 in 6, and each time that occurs there is only a 1 in 6 chance that the other die will also display a six.
- 6. In general, therefore, the probability that a series of independent events will occur is simply the product of the individual probabilities that each of the independent events in the series will occur. Thus, with two dice each independently possessing a 1 in 6 probability that a six will show, the probability of a double six is 1 in 6 times 1 in 6: i.e., 1 in 36. With three such dice, the probability of a triple six is 1 in 6 times 1 in 6, or 1 in 216; and so on. The probabilities become rapidly smaller with each additional independent event.
- 7. The same technique may be applied to assessing the probability that a suspect document is genuine. The technique is particularly suitable for the testing of those documents in which the irregularities are so varied that unless they arose by design as in the fabrication of a forgery they cannot be dependent upon one another. If the irregularities arose naturally or by inadvertence, then they are very likely to be truly independent of one another, and their individual probabilities fall to be multiplied together to determine the probability that, overall, the irregularities occurred in a single document by inadvertence rather than by design.

- 8. The value of taking an explicitly mathematical approach to weighing evidence suggestive of forgery particularly where the context is inescapably political is that the test is, as far as possible, objective. Once it is accepted that certain irregularities exist and that the probability of each irregularity occurring by mere inadvertence is as stated, then the probability that the document is genuine becomes a matter of arithmetic. If any individual probability is thought unsuitable, a preferred value may be substituted and the calculation redone. The method and the results are explicit, transparent, and independent of any expertise or prejudice on the part of the mathematician. They may be independently reviewed by any other mathematician.
- 9. The first step in the probabilistic analysis of a document, then, is to list the individual irregularities found therein and to assign a reasonable and legitimate individual probability to each irregularity. I have had detailed discussions with the Sheriff's investigators and with some experts so as to form a view on the probabilities that each of the errors that have been identified are inadvertent.
- 10. The investigators have said during their press conferences that one of their most serious concerns is that the White House document appears to have been fabricated piecemeal on a computer, inferentially by drawing together digitized data from several genuine birth certificates. Not the least of the reasons why the investigators have reached this conclusion is that the distribution of the electronic data between nine distinct "layers" is entirely uncharacteristic of a paper document that has been scanned to create a simple, digitized photographic image that may (or may not) also have been processed either to sharpen the image using optical character-recognition software or to compress the file-size by using file-compression or optimization software.
- 11. The electronic data file of the White House document, when opened in Adobe Illustrator, can be separated into nine separate data "layers" and one clipping-mask path that groups the layers. Forensic experts for the Cold Case Posse established that these layers were not an artefact either of optimization or of optical character recognition. In any event, statements from the Governor of Hawaii and from the White House Press Office establish a chain of custody whereby no mention was made of any alteration or processing of the photocopied images at any point.
- 12. The electronic image was posted at the White House website in the form of a Portable Document Format (.pdf) file at 12.09 pm on 27 April 2011 using a programme called Macintosh Preview, which is recorded among the properties of the data file as the application that created it. However, I am told that forensic experts have deduced that a different software suite, Adobe Photoshop, was used to fabricate or alter the electronic image; then yet another program, Adobe Illustrator, was used to compile the various "layers" and export them as a .pdf; then, immediately before posting on the internet, Macintosh Preview was used in an unsuccessful attempt to erase the digital traces of the previous use of Adobe Photoshop and Adobe Illustrator, and to reduce the file size.
- 13. A key reason for this deduction is that Macintosh Preview will not generate layers in the optimization process, though it will maintain any pre-existing layers generated by the user. For this reason, the investigators consider that the attributes of the layers in the White House document were fabricated before the file was optimized in Macintosh Preview. The presence of layers and their object-code attributes implies that Adobe Photoshop and Adobe Illustrator were significant contributors to and evidence of the fabrication of the electronic image, which was not derived from a photocopy. However, for the sake of caution I have taken no account of this irregularity.
- 14. No genuine electronic document image scanned, photocopied, or photographed from a paper birth certificate in a bound volume without further processing by way of optical-character recognition, file-compression, or optimization would be at all likely to contain more than one layer. Electronic images of scanned, photocopied, or photographed documents typically consist of a single data layer. Yet the White House document contains not only a single layer of 8-bit quality but also eight separate layers each of 1-bit quality, not one of them black. The meaning of "1-bit quality" is that each dot of colored light that comprises the photographic image (a "picture element", or "pixel"), is represented in the electronic data file by a single binary digit (or "bit"). A bit may have the integer value o or 1, and is represented in any electronic circuit by a switch where o represents "off" and 1 represents "on".

- 15. The meaning of "8-bit quality" is that each pixel is represented by a group of eight bits (called a "byte"), representing values from "0000000", for zero, to "11111111", for 255. Thus each pixel is digitally represented by an integer giving a different color value from 0 to 255. Each eight-bit "byte" in a color layer represents a distinct hue. Clusters of pixels of various hues allow millions of distinct colors to be displayed on a color TV monitor.
- 16. No optimization software generates any non-black layers of 1-bit quality, yet all of the 1-bit-quality layers in the White House document are non-black. No such software generates more than one layer of 1-bit quality, yet the White House document has eight such layers. No such software generates no black layer of 1-bit quality, yet none of the eight 1-bit-quality layers in the White House layer is black. No such software generates only one color layer, yet the White House document has a single color layer. No such software generates fewer than 50-150 layers for an image as complex as the White House document, yet that document possesses only nine layers.
- 17. Multiple layers of 1-bit quality each representing a distinct color other than black can only be created by an operator deliberately. If the document had acquired multiple layers as a result of optimization, it would possess only one 1-bit layer, representing all pixels that scan as black. This layer is akin to the edges of the pieces of a jigsaw puzzle. All of the non-black "layers" in standard optimization software would normally be of 8-bit quality. Each 8-bit color "layer" represents a single colored region entirely bounded by black pixels. Each layer, therefore, is not really a "layer" at all: instead, it represents the colored picture on a single "puzzle piece" bounded by black edges. In effect, the "puzzle pieces" form a "jigsaw puzzle". When assembled, they comprise the entire image.
- 18. Any document that possesses multiple layers after automated optimization will possess only one layer of 1-bit quality with a black colour value. The remaining layers will be of 8-bit quality to represent the remaining colours within the image at various locations within the document. No such document would possess merely the single 8-bit colour layer that is present in the website copy of the birth certificate. In the data file for the White House document, the single 8-bit color layer represents the entire greenish "basket-weave" pattern of the readily obtainable "security" paper on which the black data were superimposed.
- 19. Yet a genuinely-created document that possessed layers as a result of a legitimate, automated optimization process would not have the background isolated on one 8-bit color layer: instead, the electronic representation of the basket-weave pattern in an image as complex as a long-form birth certificate would normally be distributed among as many as 50-200 separate "jigsaw-piece" layers each bounded by a black part of the image. The investigators have told me they regard the existence of the single 8-bit color layer representing the entire basket-weave substrate as compelling evidence that the data structure of the document indicates that it was fabricated layer by layer, and that it was not generated by any optimization program.
- 20. Where an event is certain not to occur, its probability is 0. Where it is unlikely to occur, its probability is less than 1 in 2. Where it is likely to occur, its probability is greater than 1 in 2. Where it is certain to occur, its probability is 1. Standing the gravity of the discrepancies between the distribution of layers in the image on the White House website and in an image created after processing by a normal optimization program, it would be legitimate to assign small probabilities (somewhat close to 0) at least to each of the following discrepancies: Multiple distinct layers of 1-bit quality, 1 in 10; none of the layers of 1-bit quality represents black, 1 in 10; a single color layer of 8-bit quality represents the entire basket-weave paper, 1 in 10. If each of these discrepancies were independent of the others, then the abnormalities in the distribution of data among the layers that are evident would have a combined probability of 1000:1 against their having occurred in the same document by inadvertence.
- 21. It is arguably more appropriate to regard these three probabilities as connected. It is possible that an untypical optimization program not known to the investigators was used. However, the investigators reviewed some 600 distinct optimization programs for the Windows operating system and the same 600 programs for the Macintosh operating system, and did not find a single program that created a layering structure in any way consistent with that which the White House document exhibits. Since it is difficult to demonstrate that no optimization program consistent with the observed layering structure exists, I have arbitrarily assumed that ten such programs exist, so that the probability that one of these programs was used is approximately 1 in 60.

- 22. The date when the copy was certified by the registrar, and the registrar's stamp adjacent to it, each appear independently on separate layers of the White House document. Furthermore, these distinct layers contain no other data of any kind. No scan of an original document could possibly produce such separation of discrete items into distinct layers. The forensic experts tell me they regard this as definitive evidence that contrary to the chain-of-custody account from official sources the document was not photocopied but fabricated piecemeal. No legitimate document process would result in this separation of information into independent layers.
- 23. It would have been simple to place a genuine photocopy from Hawaii into a scanner, capture the electronic image, and then print from it the copies to be distributed to reporters at the White House press conference of April 27, 2011, uploading the innocent-seeming electronic image from the photocopied document and concealing entirely the rare if not impossible layering anomalies considered here. The presence of these anomalies establishes that the simpler route was not followed, as it would have been if the original document had been genuine, and that instead the image was pieced together electronically from several sources.
- 24. The two anomalously-layered stamps, if inadvertent, would not only be genuinely independent of one another but so rare as to be for all practical purposes impossible. Nevertheless, for caution I accord them a probability of 1 in 100 each, or 1 in 10,000 together. These irregularities, taken with the independent 1 in 60 probability of the layering irregularity, yield from the analysis of electronic irregularities alone a probability of only 1 in 600,000 that the White House document is genuine.
- 25. There are further anomalies in the presentation of the apparently mechanically-typed entries on the long-form certificate of live birth. Manual typewriters were in use in 1961. All mechanical typewriters then in use have fixed spacing: all letters, capital or lower-case, occupy the same width. A common width was the Elite escapement (typically 6 points wide, i.e. 12 characters to the inch horizontally; and 12 or 24 points line spacing, i.e. 6 single-spaced or 3 double-spaced lines to the inch vertically). Yet the White House document is poorly aligned both horizontally and vertically. To demonstrate how the alignments should have appeared on a genuine form, I invited forensic specialists to use a mechanical typewriter to enter data into a blank specimen form. The resultant image, overlaid with a red grid to show the regularity of line-spacing and letter-spacing compared with the irregularities in the White House document, is marked "M of B 1", annexed and signed as relative hereto.
- 26. The experiment demonstrates how orderly the alignment of the typewritten margins, letters, words, and lines of text would have been if the original birth certificate had been created, like others in the public domain, by inserting a pre-printed form into a manual typewriter, aligning the carriage at the appropriate starting point at top left, and then filling in the form line by line. By contrast, the White House document shows how unnaturally irregular the letter, word and line spacings and alignments are.
- 27. In the White House document, the line spacing of the typewritten entries varies by 1 to 3 points (1/72 to 1/24 in.) above or below the usual 24-point (1/3 in.) double-spacing. That variability would not occur if the original document had been genuinely typewritten rather than electronically fabricated. The Hawaiian long-form certificate, like most forms of its day that were intended for typewriters, was designed precisely to allow double-spaced entries, so that once the first line entered was correctly registered all other lines of type would automatically fall in the right place within the successive form-lines as the carriage-return lever advanced the paper past the ribbon.
- 28. The rollers in a manual typewriter hold the paper firmly enough against the platen to avoid slippage. The numerous visible irregularities in the line spacing of Mr Obama's copy birth certificate is very considerably beyond what would be expected, suggesting that the typed data in the form were placed by hand, or "eyeballed".
- 29. The leftward foot of the letter "M" in "Male" is, as it should be, below the rightward foot, because, as the form-lines above and below it show, the page-image curves downward near the binding. By contrast, the word "Kapiolani", unlike the word "Male" above it, does not curve downward to the left as it should have done if the image had been scanned from a bound volume, following the curvature of the form-lines above and below it.

- 30. The word "BARACK" is not aligned either to the curvature of the printed form-lines or at its right-hand end to the words "HUSSEIN" and "OBAMA" later in the line. Also, the year "1961" is below the adjacent month and day.
- 31. Variations not only line spacing but also in letter spacing are evident throughout the typewritten form entries. One consequence is that the three flush left lines on the document are not vertically aligned with one another, as all flush-left entries on the forensic experts' document are. For instance, the whole word "Male" is offset by almost half a character to the left compared with the word "Kapiolani" two form-lines below it, indicating that one or the other word (or both) may have been imported electronically from another form and inserted. In a genuine document, all the typewritten letters and words on the form should normally have had the same vertical alignment.
- 32. The comma after the figure "4" is offset too much to the right, indicating that it may not have been typed but may instead have been "pasted" in position electronically during the composition of the image.
- 33. Many of the words towards the right-hand side of the form are aligned horizontally almost half a character farther to the right than the words on the left-hand side. This anomaly definitively demonstrates that the document was not typed line by line from left to right. It is unlikely that a clerk entering data into the form would have filled in the data on the left-hand side first and would then have removed and reinserted the form in such a way as to cause so substantial a misalignment when the right-hand half of the form was completed.
- 34. The typist would normally have inserted the form into the typewriter, aligned it, closed the rollers over the platen to hold the form firmly in alignment, and then typed the lines successively from left to right. If so, the systemic rightward shift that is evident in the letters and words appearing towards the right-hand side throughout the form could not have occurred. However, it is possible that this discrepancy arose because of parallax in the microfilm camera that was used to take different portions of the fabricated long-form birth certificate from other documents.
- 35. The variable letter spacing suggests that many of the typewritten letters were placed by hand, and not typed on a typewriter. For instance, the lower-case "a" appears several times on the form more closely to the right than normal, but the capital "A" does not. On a mechanical typewriter, the capital letter is carried on the same arm as the lower-case letter, so that if the document had genuinely been typewritten either the "A"s and "a"s would have been correctly spaced or they would all have been biased either leftward or rightward.
- 36. Word spacing is also variable in a fashion inconsistent with typewriting. Whole words are misaligned by 1 to 3 points (1/72 to 1/24 in., or one-sixth to one-half of a character), suggesting the words were individually "pasted in" as the document was fabricated piecemeal. Yet, for caution, I have taken no account of word-spacing irregularities.
- 37. Though it would have been legitimate to assign individual probabilities to each of the typewriter anomalies to which I have referred, for by their nature they would have been independent of one another if they were inadvertent, I have cautiously assigned a single probability of 1 in 10 to all of the anomalous line spacings taken together as one irregularity, and a separate single probability of 1 in 20 to the anomalous letter spacings, likewise taken together as one irregularity. Distinct probabilities for vertical and horizontal anomalies are appropriate because a typist creating a genuine document would have had to take two different actions to create both anomalies. Thus, based on the misalignments in the typing alone, the probability that the White House document is genuine is 1 in 200.
- 38. In addition to the electronic layering anomalies and the anomalies in the vertical and horizontal spacings in the typewritten entries on the form, other unexpected features suggesting forgery are evident. Individual probabilities will be assigned to the most serious of these further anomalies.
- 39. A halo of white space is evident around the black portions of the White House document. The use of Unsharp Mask a feature in the Adobe Photoshop software suite that also appears to a more limited extent in Adobe Illustrator, and whose purpose is to clean and sharpen the image is one of many possible causes of the problematic halo effect. However, none of these causes apply where an original document is copied on to a photocopier, nor where that photocopy is in turn photocopied.

- 40. The Governor of Hawaii has said the original document was copied and given to Mr Obama's attorneys. The White House Press Office has said the copy birth certificates it circulated on April 27, 2011, were taken from the copies received from Hawaii the previous afternoon. At neither end was anything done that could have caused a white halo around the typewritten entries on the form. The existence of the white halo effect, illustrated in an image marked "M of B 2", annexed and signed as relative hereto, accordingly appears contrary to the course of events described by Mr Abercrombie and the White House Press Office, which do not mention any processing or alteration of the image that could have caused. I have assigned a probability of 1 in 10 to an inadvertent occurrence of the white halo.
- 41. The website copy of the birth certificate exhibits no chromatic aberration the refraction of light when the lens of a scanner or camera comes across contrasts between colours (such as text against background). According to the investigators, this phenomenon arises from established physics. The aberration displays as a blue tint to the top and left edges of any black text character, and a reddish tint to the right and bottom edges. It can be seen in a genuine document if the viewer zooms in closely to a text area for observation, but it is absent in the White House document, though it is present in the printed copies of that image that were given to members of the White House press corps, indicating that the fabricated electronic file was printed out and then photocopied, creating the expected chromatic aberration, which is illustrated in the image marked "M of B 3", annexed and signed as relative hereto. Accordingly, the account of events given by the Governor of Hawaii and the White House Press Office cannot be correct. Since forensic specialists have told me that the absence of chromatic aberration is definitive evidence that that version could not have been photocopied, scanned or photographed from a paper birth certificate, I have cautiously assigned a low probability of 1 in 100, rather than the more realistic zero probability, to the actually-impossible inadvertent absence of chromatic aberration in the White House document.
- 42. A further anomaly is that no photocopied, scanned or photographed document would have incorporated a "clipping mask" that had the effect of truncating the display of certain data forming part of the document image. Yet the White House document has a clipping mask path that conceals the safety paper pattern within the margins. The investigators have told me this can only occur by deliberate manipulation and cannot result from any legitimate processing. Automated processing such as optimization can produce a clipping mask, but a genuine mask will only define the size of the layers and will never prevent display of data or parts of the image. The security paper in the White House document contains a white margin that conceals not only part of the pattern of the security paper but also some data coding numbers in pencil that are relevant to determining whether that document is forged. A genuine electronic image of the pattern on security paper would bleed to the edge of the document. However, I have taken no account of this irregularity, for those creating a genuine file may have wished to trim the security paper to minimize the data file size.
- 43. Mr Obama's short-form birth certificate, when first published in 2008, had its certificate number blacked out. It is not easy to discern any legitimate reason why this should have been done. Indeed, a certificate number appears openly on Mr Obama's long-form birth certificate. However, the number is out of sequence, and it is possible that the original blacking-out of the number on the short-form certificate was an attempt to conceal this irregularity. The certificate appears to be stamped as having been registered on Tuesday, August 8, 1961, on which date the number 10641 was assigned to it. However, the Vital Statistics for 1961 issued by the US Department of Health & Human Services show that 17,578 births occurred that year in Hawaii: an average of 48 births per day. Therefore, Mr Obama's certificate should have been about 3 x 48 = 144 numbers less than the numbers issued to two girls, the Nordyke twins, whose certificates were registered three days later, on Friday, August 11, as 10637 and 10638. It should certainly not have had a number greater than theirs. An automated sequential numbering stamp was used, and batches of birth certificates were collected monthly, ordered by date and time of birth and then sequentially number-stamped in a special room by a single clerk trained for the purpose, precisely to minimize numbering errors. However, for caution I have assumed that 1 number in 25 might inadvertently be out of sequence.
- 44. The birth date of Mr Obama's alleged father is two years out. It not impossible that the child's mother did not know his father's date of birth, or that the date was incorrectly entered. I have assigned a 1 in 40 probability to this event.

- 45. The alleged father's race is described as "African" some 28 years before the term "African" or "African American" first came into general usage. In 1961, written rules forbade the use of such generalized racial descriptors, the term "African" being specifically barred. Ms Verna K. Lee, the registrar a simulacrum of whose signature appears on the White House document, drew the investigators' attention to the list of codings that were used for statistical returns to the Federal Government: 1 White; 2 Negro; 3 Indian (includes Aleuts and Eskimos); 4 Chinese; 5 Japanese; 6 Hawaiian (includes part-Hawaiian); 7 Other Nonwhite; Unknown or not stated (Race of parents only). The word "African" is not listed. I have assigned a 1 in 25 probability to the occurrence of the explicitly-prohibited and then-uncommon use of the word "African" to describe the alleged father's race.
- 46. Coding numbers added to the form in pencil adjacent to various of the typed data entries on the form are incompatible with the data that had been entered. Box 9 on the form, "Race of Father", has "African" typed in it. Yet the coding is "9", which stands for "Unknown or not stated". Likewise, Box 12b, "Kind of Business or Industry", has "University" typed in it, but is also assigned the empty-box code "9". Since these two events may have been connected even if they were inadvertent, and bearing in mind Ms. Lee's statement to investigators to the effect that mistakes were not made on her watch, I have assigned a single 1 in 25 probability to these events taken as one.
- 47. There are many further irregularities in the White House document, but I have not assigned probabilities to them. Had I done so, the probability that the document is genuine would have been still smaller than it is. Those irregularities to which I have assigned probabilities are as follows:

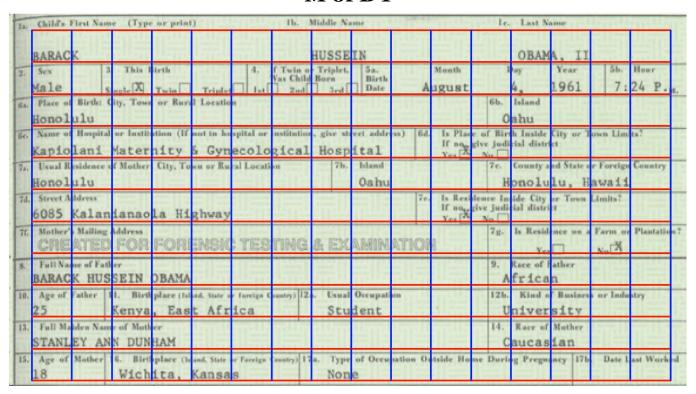
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Independent event Probability
            Multiple layers of 1-bit quality)
    No 1-bit-quality layer represents black )
                                               1 in 60 (combined)
              One 8-bit-quality color layer)
Registrar's signature-stamp on its own layer
                                               1 in 100 (actually impossible)
     Registrar's date-stamp on its own layer
                                               1 in 100 (actually impossible)
                  Line spacing irregularities
                                               1 in 10
                Letter spacing irregularities
                                               1 in 20
         White halo effect around black text
                                               1 in 10
               Chromatic aberration absent
                                               1 in 100 (actually impossible)
         Certificate number out of sequence
                                               1 in 25
            Father's birth date two years out
       Use of "African" against written rules
                                               1 in 25
        Miscoding of Federal statistical data
                                               1 in 25
 Probability that all errors were inadvertent
                                                   1
                                                       in 75 quadrillion
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- 48. As the table shows, the probability that the White House document is genuine (in that each of the irregularities identified by the investigators occurred by inadvertence), is the product of the individual probabilities that the mutually independent irregularities were accidental: that is, 1 in 75,000,000,000,000,000.
- 49. Since there are 13 distinct irregularities to which probabilities below unity are assigned, even if *per impossibile* the probabilities that each irregularity evident in the White House document was present by accident were as great as 1 in 2, the probability that the document might naturally exhibit all 13 irregularities at once and is accordingly genuine would still be as small as 1 in 2¹³, or less than 1 in 8000. This demonstrates a relevant general result in probability theory: if many independent irregularities even with substantial individual probabilities come to light during forensic examination of a suspect document, the probability that the document is genuine must be small.
- 50. Likewise, even where there are as few as two defects in a forged document, each with a low probability of innocent occurrence, the probability that the document is genuine must be small. For instance, given that the isolation not only of the electronic data representing the registrar's signature stamp but also of the data representing his date-stamp on distinct data layers are occurrences that forensic specialists in the examination of electronic documents consider could not possibly have occurred naturally, if the probability of each irregularity is taken as being small (say, 1 in 100 for each of the two irregularities, though the probabilities are likely to be very less than this), the probability that the two defects both occurred by inadvertence and that thus the document is genuine is 1 in 10,000.

- 51. It follows that if as here there are multiple irregularities in a document, most of which possess low probabilities of innocent occurrence, the probability that the document is genuine must be vanishingly small In my experience, I have never found a document which, when this probabilistic technique is applied, is determined to be so very nearly certain to be a forgery as the White House document.
- 52. One might also legitimately assign probabilities no greater than 1 in 100 to each of three irregularities in other identification documents pertaining to Mr Obama. First, there are numerous irregularities in the short-form abstract of his birth record published in the run-up to his 2008 candidacy, including an inconsistency between the text of the abstract and the form of words in use at the time when it was, on its face, issued. Secondly, the selective-service record signed by him carries a two-digit year stamp contrary to written rules issued by the Department of Defense specifying a four-digit stamp, which, as far as the investigators could discover, was invariably used on all other selective-service registration records at that time. Thirdly, his social security number carries a three-digit Connecticut prefix even though he had never lived there and all adjacent social security numbers with the same three-digit prefix that the investigators could trace were issued to residents of Connecticut. Taking these three additional irregularities together with the 13 irregularities in the White House document, the probability that Mr Obama's identity documentation is true falls from 1 in 75 quadrillion to 1 in 75 sextillion.
- 53. Even if each of the 16 irregularities were assigned a probability no less than 1 in 2, implying that each irregularity is at least as likely as not to occur in a genuine document, the probability that the documentation is genuine would be 1 in 2¹⁶, or below 1 in 65,000. Further, in this analysis I have cautiously left out of account several irregularities such as the indication that Mr Obama's social security number fails the official online "e-verify" check each of which ought to be assigned probabilities no greater than 1 in 2, reducing the probability of genuineness still further. Whichever way the analysis is done, that probability cannot be other than vanishingly small.
- 54. In this analysis I have relied upon the published results of the Cold Case Posse's investigation. To the extent that the investigators' results are reliable and robust, and to the extent that the probabilities I have assigned to each individual irregularity that the investigators have identified are considered reasonable, my conclusion that the probability that the White House document is genuine is vanishingly different from zero necessarily follows. Even if the probabilities I have chosen were to be considered excessively low, the fact that there are so many independent irregularities, even if absurdly high probabilities such as 1 in 2 were assigned to each irregularity, would be sufficient to demonstrate beyond reasonable doubt that the White House document is a forgery.
- 55. The images marked "M of B 1", "M of B 2", and M of B 3", annexed and signed as exhibits relative hereto, are the images referred to herein.

Executed this Seve	enth day of November, 2012, in London, England
	Viscount Monckton of Brenchley
Sworn to and subscribe	ed before me this Seventh day of November, 2012

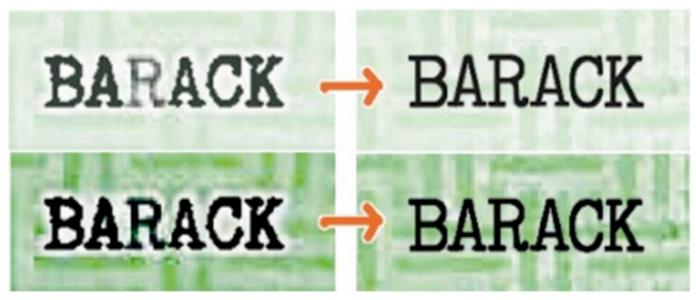
M of B 1



Upper panel: A regularly line-spaced and letter-spaced specimen typewritten form created by forensic specialists. **Lower panel:** Irregularities of both line spacing and character spacing are evident on the White House document. Horizontal red rules indicate double-spaced lines aligned to the first and last typed lines on each form. The vertical blue rules occur every five character spaces, aligned to the "K" of "Kapiolani" & "pi" of "Hospital" using an accurate architectural-geometry program. In the lower panel, lines containing the word "Honolulu" are visibly misaligned: the red rules strike through the text rather than underlining it. Character spacing to the right of the form, where blue rules pass through the centers of characters rather than between them, is also misaligned with that to the left.

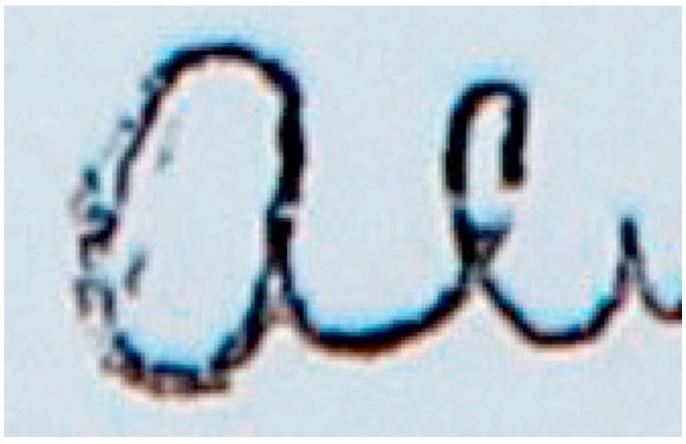
la.	Child's First Name		(Type or print)				1b. Middle Name					le.	Last Na	ist Name		
		4. 44	BAR	ACK		7.57	F	USSET	N	1,000	70,55		OBAMA	A, II		
2.	Sex	/ 3.	This B			V.	Twin or as Child	Born	5a. Birth	Α.	Month	D		Year	5b.	Hour /
5a.	Place of			or Rural			2nd_	3rd_	Date	A	ugust	6b.	sland	961		24 Pon
Se.		The state of the s		ion (If n	onolu oi in hosj & Gvn	oital or in	and the second of the second		2-91 1-0450-454-5-0-0	(s) 6d.	If no.	ive judic		City or T		its?
7 a .			Mother:		n or Rura		5	7b.	Island	hu	Yes A			d State or		
7d.	Street Add		85 K	alani	anaol.	e Hig	hway			7e.		ive judici		r Town I	imits?	
76.	Mother's	failing A	dress								Tes _	7g.	s Reside		Farm or	Plantatio
3.	BARAC	of Fathe			HUSS	EIN			OF	AMA		9. F	ace of F		140	. 4
0.	Age of Fa				d, State or Afric		ntry) 12m		Occupation tuden		O	12b.		Business ersity		try (n)
3.	Full Maid STAN		of Mothe		ANN				DUNE	AM		14.	Race of	Mother aucasi	an	1
15.		other 16			d, State or Lans		untry) 17 a	Туре			side Hon	e Durin	Carrier and S			ast Wor

M of B 2



This is the illustration of the unnatural white halo effect around the black portions of the image on the White House website. The top left image is enlarged from the White House document. In the top right image, the halo has been removed to show how a genuine document should have appeared. The lower images have been artificially darkened to show the halo still more clearly. The presence of the halo effect is an indication that the document may be forged.

M of B 3



This is an image, with blue-tinted and red-tinted chromatic aberration, of part of the stamped signature of Dr. Alvin Onaka that appears on the copy of the White House document that was given to members of the Press Corps April 27, 2011. Chromatic aberration should also appear, but does not appear, on the electronic version posted at the White House website. Its absence is a compelling indication that the White House document may be forged.