

# Proposed Standard Proportion of the Somali Flag, Based on $x^{-1} - x = 1$ , in Nomograph

Article 6/1 of the Draft Constitution of Somalia, August 1, 2012, states: “The Somali flag is light blue (buluug furan) rectangle which has a white, five pointed star in the middle as shown on Appendix A.” In this article we will look into the shortcomings of the Somali flag description given in the Draft Constitution and will propose standard dimensions and color in unambiguous, sufficiently clear and precise manner

Unambiguity is an essential feature of the articles of any constitution/law in order to prevent them from being interpreted in many different ways which may result in unresolvable conflicts. In this case, the wording of Article 6/1 of the Constitution will result in numerous conflicting interpretation of the geometry and the color the Somali flag.

The most prominent feature of the Somali flag is its color. To limit its description to “Buluug furan!” or light blue, is not sufficient to assign a unique color to it as it can be interpreted in numerous shades of light blue, such as the ones shown in figure 1 and photographs shown in figure 2 attest to that.

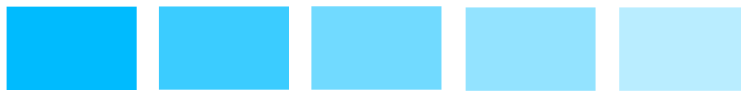


Figure 1: Some of the many different shades of light blue



Figure 2: Different interpretations of the Somalia flag colors due the ambiguity in its description in the Constitution

Similarly, the description “rectangle” can include rectangles of different proportions and even a square, since a square is a rectangle of equal sides, as shown in the figure 3.

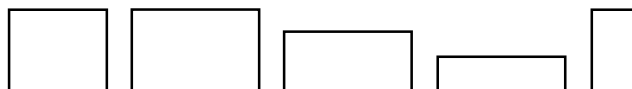


Figure 3: Some of the many rectangles of different proportions

The third feature of the Somali flag that the constitution failed to describe unequivocally is the proportion of the rectangle to both circumscribed and inscribed star pentagons without which can result flags with all kinds of star shapes and sizes as shown in figure 4.



Figure 4: Some of the many star shapes

To address above-mentioned inadequacies, we propose the following: The on-screen RGB and printing CMYK color codes of the Somali flag blue color shall be 66, 143, 222 and 71, 36, 0, 13, respectively as shown in figure 5.

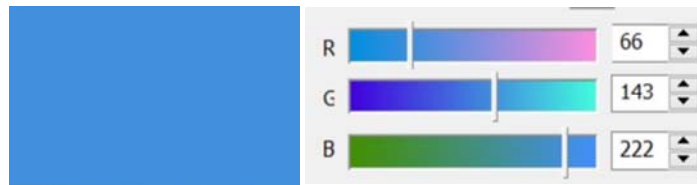


Figure 5: RGB Color Code for the Blue color of the Somali Flag

The proposed blue color of the Somali Flag is similar to the blue of the UN flag, in figure 6, as it was selected in tribute to the help the UN gave to Southern Somalia during the trusteeship period from 1950 – 1960.



Figure 6: The UN flag

To geometrically proportion the flag, we can use a number that when subtracted from its reciprocal equals to one:

$$\frac{1}{x} - x = 1 \quad (1)$$

The unique solution of equation (1) will be used for the width to height ratio of the rectangle. This will fix the degrees of freedom to 1. Either the height or width of the rectangle can be selected and the other will be calculated. Using similar approach, the nomograph shown in figure 7 was produced to acquire all other geometric dimensions of the Somali flag, limiting the degrees of freedom to 1.

The nomograph consists of 5 scale which are multi-directional and the selection can be started from any scale. The first scale proportions the height and the width of the scale. The second one, gives the dimension the circumscribed pentagon height, using the width of the rectangle from the first scale. The third scale gives the circumscribed pentagon side from circumscribed pentagon height. The fourth scale gives inscribed pentagon height from circumscribed pentagon side. The fifth scale gives the triangle height from circumscribed pentagon height.

To give an example, if one wants flag with a rectangle height of 2.75m, the output of the nomograph will be as follows:

From Scale 1: Width = 4.45 m

From Scale 2: Circumscribed Pentagon Height = 1.05 m

From Scale 3: Circumscribed Pentagon Side = 0.68 m

From Scale 4: Inscribed Pentagon Side = 0.26 m

From Scale 5: Triangle Height = 0.4m

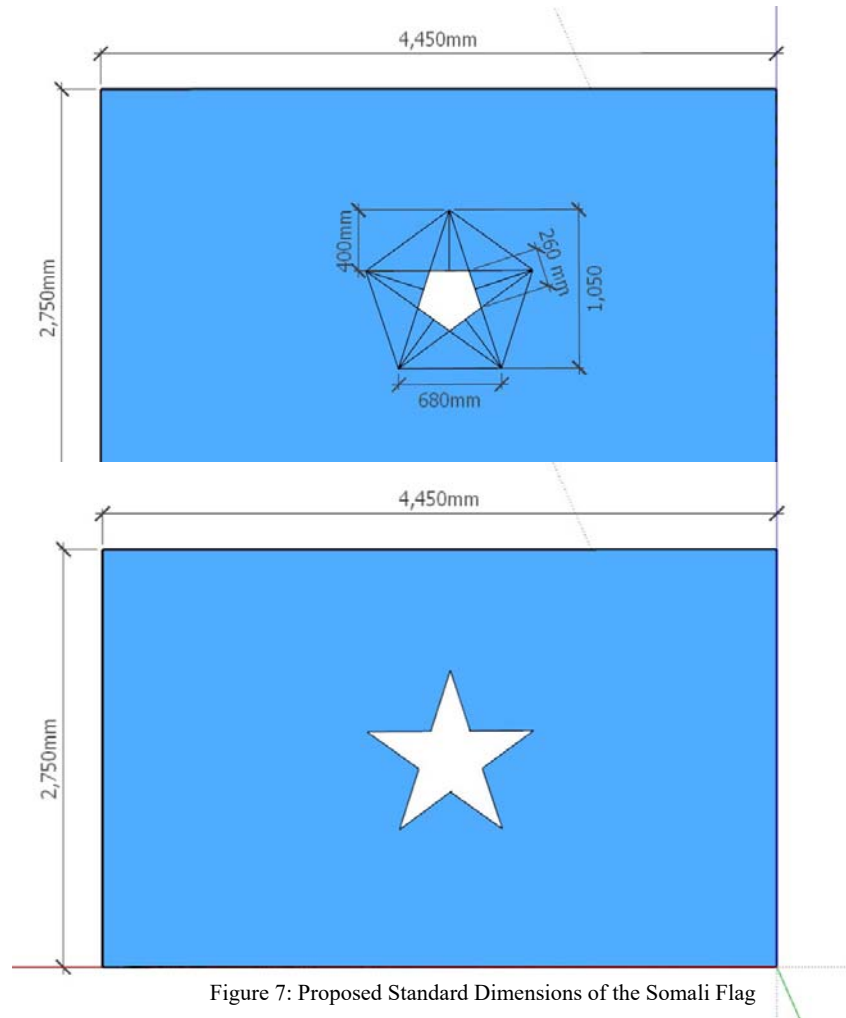


Figure 7: Proposed Standard Dimensions of the Somali Flag

Finally, article 6/1 of the Somali Constitution can be amended as follows: “The Somali flag shall be geometrically proportioned according to the Nomograph in appendix A and its on-screen RGB and printing CMYK color codes shall be 66, 143, 220 and 71, 36, 0, 13 respectively.”

# Proposed Somali Flag Standard Dimensions Nomograph

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