

Technical note on the colours of the Red Cross and Red Crescent emblem

Introduction

Should the colours of the Red Cross emblem be standardized?

This seems to give concern to some members of the Red Cross movement and the ICRC has been asked the same question on several occasions.¹ One proposal was that the colours of the emblem be defined scientifically and that only those shades which comply with the standards thus adopted be used for our movement's armbands, flags, distinctive signs, for the writing paper and the publications.

A similar question concerning the dimensions and proportions of the red cross in the emblem could be examined: should these be subject to specific rules and standardized? The same problem would arise for the Red Crescent: should its tips be pointing right or left, and should they be more or less closed?

The Red Cross emblem

In order to situate the problem, certain facts should be kept in mind.

In its first session on 17 February 1863, the International Standing Committee for Aid to Wounded Soldiers recognized that it would be meet and right for a sign, a distinctive mark, to be universally adopted.

At the International Conference in October 1863 this idea was taken up again. A distinctive, internationally recognized sign which commands the respect of combatants, should be adopted. After several discussions the proposal was adopted: the sign would be a white armband bearing a red cross.

¹ The question raised here is also applicable to the colours of the Red Crescent emblem. In this note, the words "Red Cross emblem" will always mean "Red Cross and Red Crescent emblem".

The First Geneva Convention of 22 August 1864 says in Article 7 that “a distinctive and uniform flag shall be adopted for hospitals, ambulances and evacuation parties... An armlet may also be worn by personnel enjoying neutrality... Both flag and armlet shall bear a red cross on a white ground”.

The Geneva Conventions of 12 August 1949 express the same concerns: “The emblem of the red cross on a white ground and the words ‘red cross’... may not be employed... except to indicate or to protect the medical units and establishments, the personnel and material protected by the present Convention...” (First Convention, Art. 44).

These texts therefore clearly define the meaning and value of the sign chosen: it is a distinctive sign, which makes it possible to single out those wearing it in a crowd; and it is a protective sign which confers special status and protection.

It is by considering these two characteristics that we shall be able to reply to the question posed at the start. ²

The definition of the colours

In physics, the study of colours is related to the study of light, the latter being essential for perception of colour.

To determine a colour, colour science or colorimetry uses a chromaticity diagram (triangle of colours) where all colours may be defined by systems of co-ordinates. The International Commission on Illumination has standardized a trichromatic system of co-ordinates, x, y, z, to which various international organizations, including the International Standardization Organization (ISO), refer.

The trichromatic co-ordinates of a colour sample are measured with a spectrophotometer, a device fitted with a standardized source of white light.

The colours are defined by the system of trichromatic co-ordinates marking the boundaries of a monochromatic zone of the colour spectrum obtained by the diffraction of white light.

Red and white colours of the emblem

No attempts were ever made to define or to standardize the red and white colours of the sign for the following imperative reason.

² We shall not, in this brief technical note, consider the use of the sign by the National Societies for purposes other than protection.

The emblem of the Red Cross or of the Red Crescent is not only a distinctive sign but also a protective sign and it should be possible to improvise the protective sign of the Red Cross or the Red Crescent on the battle-field with the materials available.

It is clear that there may not be sufficient time or the right materials on the battle-field, or even elsewhere, to obtain colours defined with scientific precision.

In addition, all colouring matter undergoes change with time and coloured stuffs change and become soiled with use, but any such alterations should not modify the protection conferred by the sign, for example in a combat zone.

Consequently, the Geneva Conventions of 12 August 1949 do not lay down any norm for the red and white colours of the distinctive sign, so that it retains its entire protective value whatever the shade of the red and the white colours.³

For the same imperative reason, the Geneva Conventions do not lay down any rule concerning the dimensions and proportions of the Red Cross, so that these two emblems retain their protective value in all circumstances.

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Article 43 of the Second Geneva Convention states that hospital ships and protected craft shall be distinctively marked with several easily visible *dark* red crosses which should be as large as possible. This provision is particularly important, as will be seen below, for infra-red observation.

In the Regulations concerning Identification, annexed to Protocol I of 8 June 1977, the red of the visual distinctive sign is not specified, for the same reasons as those given above.

Article 3 of these Regulations says that the distinctive emblem may be made of materials rendering it recognizable by technical means of detection.

Such technical means of detection include the use of infrared light devices. In infra-red, red is not visible if it is on a light background, and no contrast of white with red may be observed on the screens of the infra-red optical observation devices. It should, however, be mentioned that several methods exist for restoring the necessary contrast, such as the incorporation of black pigment in the red, the addition of a coating of black under the red, or the utilization of reflecting materials, etc.

³ It must be stressed that whilst the sign is a means of identifying protected persons or property, they are protected regardless of whether they are wearing or displaying it or not.

It should be borne in mind that this dark red would become of a lighter hue after the armband, helmet, flag, aircraft, or ambulance, etc., on which the emblem is painted, had been utilized for some time and exposed to all kinds of weather and dirt; nothing can be done to prevent any alteration of the colour.

Conclusion

The shades of red and white in the Red Cross or Red Crescent emblem should not be prescribed or standardized, since it must in certain circumstances be possible to make the emblem rapidly with improvised means.

However, as it is essential for the emblem to be as visible as possible in all circumstances, a dark red should be used whenever available for the cross, since it will provide a sharper contrast with the white background; if the dark red contains black pigment, it will moreover be identifiable in infra-red light.

But besides the colour, the shape and size of the emblem are of paramount importance for identification at a distance. Here experience has shown that the cross, the geometric sign which provides the largest red surface, and the very simply shaped crescent are distinctive signs well suited to their purpose. And as Annex I (Art. 3) of Protocol I of 1977 points out: "The distinctive emblem shall be as large as appropriate under the circumstances".

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