

Chapter 4 – FIELD OBSERVATIONS

4.1 OBSERVATION PROCEDURES

For each sub trial a group of 15 to 20 observers should be available to provide adequate statistical sensitivity. An observer should, due to the learning effect, participate in only one sub trial against each background. The observers are not allowed to see the trial set-up before their participation. Before starting their observations the observers are briefed on their task. The briefing should take place at a point from which the targets cannot be seen. The briefing should be verbal but based on a written briefing to ensure that all groups of observers are briefed in the same way. A briefing example is shown in Annex A.1. The observers should be allowed to ask questions to ensure that they have understood their task correctly. After the briefing the observers are supplied with the necessary equipment to record their observations. One example is a paper observation form (e.g. Annex A.2), however, there may be other recording methods. It is important that no misunderstandings occur as to the performance of the observations, including the filling in of the observation forms. Those who are charged with giving the briefings should be carefully instructed to ensure that each briefing is identical.

The observers move along the observation path and perform their observations at each observation post independently of each other. Here they observe the marked background used for the sub trial and record their detections on the form, indicating in which section of the background (as identified during the instructions) a target has been observed, if any. Ideally, there should be no restrictions as far as observation time is concerned, but the experiment should be conducted as quickly as possible to minimize the amount of change in the illumination conditions. A knowledgeable supervisor should collect the observation forms at the end of the observation and make an initial check of the entries made by the observers and record any abnormalities that may influence the data analysis. Observers should not be allowed to communicate with each other during the sub trial or with observers from other groups before completion of the entire trial.

4.2 EXAMPLE FIELD OBSERVER EXPERIMENT

An example of the kind of adaptation and flexibility that can be achieved through the use of these guidelines is the Camouflage Assessment Trial conducted by NATO SCI-095 on 15-17 October 2002, in Germany [2]. A cable car carried the observers from the top of a mountain towards a military vehicle located along a wood line in the valley below. The cable car system provided a means to do repeated and controlled trials in which observers traveled at constant speed towards the wooded area containing the target vehicle. Observer runs were conducted over three consecutive days. As observers in the cable car moved down the mountainside, they scanned an area in the field of regard. The observer indicated on a photograph of the trial area the location of any potential military targets. This allowed the supervisors to confirm when the observer located the target. The time at which the observer first correctly pointed to the location of the target (Initial Detection) was recorded. Upon detection of a vehicle, observers were asked to describe the class of vehicle (Recognition/Classification) and identify the vehicle (Identification), if possible. The times at which Recognition and Identification took place were also recorded. The recorded times were later converted to range from the target for analysis. Complete details on the conduct of the live observer trial and the analysis of the results are provided in Reference 2.

Care was taken to ensure that the observers did not view the observation area on the ride up in the cable car. On arrival at the starting point, the observers were given a briefing explaining the purpose of the trial, and any

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questions were answered. One observer was used at a time. Trial procedures were again briefed in detail and any questions were answered prior to beginning the descent in the cable car. The observer was given a pen to point out on the picture the location of any potential military targets. This made it possible for the supervisors to verify that the observer located the target of interest. The time at which the observer first correctly pointed to the location of the target of interest was recorded as the initial detection. Recognition was defined as the time at which the observer first stated that the target was a small wheeled military vehicle.