

Graphical Presentation

Graphical representation of the important information contained in the tables is presented in Figures 1 through 18. These figures present the distributions of the important variables listed by the total number of cases in each identification category, since no significant differences were found between the distributions of "Certain" and "Doubtful" identifications of objects with respect to the variables. A chronological study of these figures will afford a broad picture of the tabulated information, without the necessity of a detailed study of the tables.

A critical examination of the figures will show that no trends, patterns, or correlations are to be found, with the exception of Figures 18 through 20. The apparent similarity of the distributions shown by these mirror graphs, Figures 18 through 21, was tested by statistical methods which showed that there was a low probability that the distributions of the KNOWN and UNKNOWN by these characteristics were the same. These tests and their interpretation are discussed in the following section. For purposes of this study, the strategic areas, shown in Figures 31 through 36, and Tables 4221 through 4240, Appendix K, were designated, on the basis of concentration of reports in OBJECT SIGHTINGS in an area. No other interpretation of the tables or remaining charts was deemed necessary.

Advanced Study of the Data

It was recognized that the lack of any patterns or trends, as shown by the tabulations and graphs, provided an insecure basis for drawing definite conclusions. Accordingly, shortly before the sorting and tabulation program was concluded, a program of study of the data was developed to utilize statistical and other mathematical methods, which could lead to a more concrete interpretation of the problem.

Position of the Sun Relative to the Observer

The first thing that was done was to calculate the angle of elevation of the sun above the horizon and its bearing from true north as seen by the observer at the time of each sighting. With this information, it could then be determined whether there was a possibility that the reported object could have been illuminated by light from the sun. In addition, it could be determined whether an object could be a rock sun (sun disk) or whether there was a possibility of specular reflection from an aircraft at the position of the object, which would give the appearance of a "flying disc".

A program of computation was set up and carried out to obtain the angle of elevation and the bearing of the sun for each sighting. All information needed for this calculation was available on the deck of IBM cards.