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is valueless and complex, and time is relatively unimportant, the Air Technical Intelligence Center utilizes the records of the Air Weather Service in exactly the same manner as that employed in obtaining weather balloon release data.

#### X. CAMERAS

In an effort to obtain technical information concerning UFO's, ATIC has underway a program for the distribution of a large number of stereo cameras equipped with a diffraction grating over one lens. The camera in question is called the "Vidcon". It contains two F2.5 lenses with focal lengths of 45mm. As supplied by ATIC, the shutter speed and distance settings will be locked at 1/200th of a second and infinity, respectively. The "Vidcon" utilizes standard 35mm cartridge film, and is extremely simple to operate.

The diffraction grating actually consists of a thin cellulose compound which contains 15,000 vertical "hairlines" to the linear inch. It is mounted between two sheets of optical glass and placed over one lens of the Vidcon by means of a filter adapter ring. The grating operates by precisely the same principle as a prism; it separates a light into its component parts which will appear as well defined spectrum bands upon the film. Since each chemical element emits a wave of characteristic length, and the grating, so to speak, "picks up" these characteristics and shows them as significant bands on the film, comparative study of the film is expected to reveal such data concerning the chemical composition of a given UFO. The Vidcon camera, equipped as described above, does not represent the epitome of scientific equipment, however, actual comparison with other models has revealed that it offers a good probability for success in accomplishing the stated purpose, and this factor, along with the economy and availability factors, was responsible for ATIC's decision to purchase and distribute these cameras.

Simultaneously with the experimentation involving ground cameras, ATIC issued diffraction gratings over the lenses of 16mm gas cameras of F-86 aircraft of the 97th Fighter-Interceptor Squadron, W-P AFB. These fighters then undertook air-air photography of known light sources, and the spectrum obtained were comparable to those obtained with the Vidcon; the smaller film surprisingly enough recorded equivalent definition and lens separation. Therefore, as a part of the long range program, ATIC is considering the possibility of equipping certain USAF fighter-interceptor aircraft with diffraction gratings for air-air photographic coverage of UFO's.

At present, ATIC is negotiating with SA ADC, a plan for the placement of a certain number of Vidcon cameras with 48th Bombardment. Similarly, Vidcon cameras may be distributed to tower operators of AEDS. Future plans allow for the procurement and placement of more Vidcon cameras and the placement of the diffraction grids in aircraft. However, these plans are entirely contingent upon the degree of success attained in present operations.

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