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the time of fall. Since we cannot assume complete stagnation of the air masses in the Socorro neighborhood for 145 hours, it must be supposed that such air motions as occurred were approximately compensating and resulted in the return of Dr. Crozier's tiny "five-micron particles" to the Socorro neighborhood in approximately 145 hours. Only a detailed study of air mass motions for the time interval involved can settle this point.)

(3.3) The long continued appearance of copper particles (however, as Dr. Crozier emphasizes, smaller and smaller in size) in the Socorro collections. (Precisely such a decrease in particle size has repeatedly been observed in connection with dust collections believed to be of meteoritic origin and is attributed to the slower and slower rate of descent of the particles as their average size decreases. Thus, L. Rudaux's results strongly indicate that particles from the Giacobinid shower of 1933, October 9, filtered down in smaller and smaller sizes for 100 hours or more. Furthermore, for the green fireballs of July 24th and August 6th, the nearly vertical real paths extended from altitudes of 100 miles or more down almost to ground level and therefore optimum conditions for long continued infall of dust particles were approached in these falls.)

(3.4) Failure of the airplane collection of August 8th to detect airborne copper particles definitely not of terrestrial origin. (However, the airplane collections were all made at great distances (hundreds of miles) from the Vaughn region in which the fireball of August 6th fell; and, as Dr. Crozier points out, at the moment it can not be determined "whether or not the flight did actually include air that should have borne particles from meteor trajectory." In this connection the results alluded to in paragraph 4, below, may be of considerable significance.)

(4) At the time the airplane collection of August 8th was planned the writer recommended not only that the flight traverse the area from Vaughn northward to Raton and then NW-ward into the Durango, Colorado region (a recommendation based on advice received from Mr. Paul Taft of the U.S. Weather Bureau) but also that simultaneously a ground search with the portable impactment dust collecting equipment rigged up on July 27th be run from Vaughn through Pastura to Santa Rosa. The latter part of this recommendation was followed by Dr. Crozier who reported on the results obtained in his letter to me under date of August 10, copies of which are hereto attached. Dr. Crozier's letter makes clear that ground collections in the subfinal regions of the fireballs of both August 6th and July 24th resulted in the detection of unusual aggregations of copper particles. Apparently the copper particle aggregate obtained in collection R - 104L, within the subfinal region of the August 6th fall was the only such aggregate found in Dr. Crozier's lengthy ground search of August 8-9. It seems particularly significant to the writer that Dr. Crozier suspects that the copper dust found in this particular collection R-104L may have been stirred up from the pavement on Highway 84 ----- a likely catchment surface for dust put down by the green fireball of August 6th, in view of the information given me by Mr. Taft in regard to the wind direction prevailing during the hours immediately following this incident.

(5) In spite of the critical comments made in paragraphs 3 and 4 above, the writer has no quarrel with Dr. Crozier's conclusion that the results so far obtained in the investigation of volatilization products possible put down by the green fireballs are negative or at best inconclusive. However, I do wish to stress most emphatically that if future more detailed work shows that the numerous copper particles found by Dr. Crozier and Mr. Seely are indeed floating down

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