

*CDEE Programmes and reports on FP*

- 8.5.17 **Field Report No 514: The long distance travel of particulate clouds:** This further trial involving aircraft release was under Programme 1/57 and carried out on 25 April 1957. A long line source of FP (NJ 2266) (siliconised) was laid over 240 miles by a Valetta aircraft. A total of 303 lbs of FP was disseminated by hand-pouring from Kilner Jars to a funnel attached to a Venturi tube. The source strength was 1.26 lb/mile, estimated to provide  $6 \times 10^9$  particles/metre. The wind direction generally was  $024^\circ$ - $046^\circ$ . Some 37 fixed sampling points were established over most of England and Wales. The penetration of FP into a deep and narrow valley (The Nidd) in south Yorkshire was also examined. It was quite evident that extensive coverage of most of the UK was achieved. Interestingly, Field Report No 54 carried a typed annotation "Field Reports are issued to record the details of a field trial prior to full evaluation of results; formal conclusions are not drawn at this stage". It is essential that readers bear this in mind.
- 8.5.18 **Field Report No 515: The long distance travel of particulate clouds:** This was done under Programme 1/57 on 13 November 1957 and deals with the second trial of the series undertaken in conditions more likely to favour long distance travel and to remedy serious gaps in the distribution of sampling points especially by mobile sampling teams. The general arrangements were similar to those reported in Field Report No 54. The disseminating aircraft disseminated along a line starting SW of Cap Griz Nez, passing around north Foreland to a point off Cromer and then turning towards the Wash. A total of 49 sampling points were used covering England and Wales. The FP was made by the US Radium Corp (Lot H115) and treated with silicone at CDEE. A total 258 lbs of FP was disseminated from a Valetta aircraft. The area south of a line from Angelsey to north of the Wash was effectively covered with FP.
- 8.5.19 **Field Report No 516: Determination of particle size in a cloud of FP produced by a Venturi dispenser mounted in a Valetta aircraft:** This was done on 28 August 1957 under Programme 19/57. Here an attempt was made to measure the vertical distribution of particles and dosage, sampling at BDE Cardington and using two emissions over a 5.5-5.9 line, using 6 lbs of FP per run at a source strength of 1.01-1.06 lbs/mile and at a mean wind direction of  $310$ - $320^\circ$ . In some ways the trial was not completely successful and would need repeating.
- 8.5.20 Note that further trials were initially reported, not in Field Reports, which were discontinued with No 518 in 1958 but in Porton Notes which began in 1958 and which we now survey.