CDEE Programmes and reports on FP

8.6.14 **Porton Note No 188, 30 January 1961: The long distance travel of particulate clouds, Programme 10/58 carried out 18 August 1959:** This reports a continuing field trial investigating the feasibility of engaging a specified target area of 10^4 square miles. A line source of FP (US Radium Corp 2267, Lot H206; magnesol treated) was disseminated from a Valetta aircraft flying from a point off Cromer, south-west to the Straits of Dover and then westwards close inshore to a point south of Swanage. Some 279 lbs of FP (equivalent to 0.93 lbs/mile) were used. Sampling was at 63 stations and an Anson aircraft. A large area of England and Wales was covered.

8.6.15 **Porton Note No 203, 22 March 1961: Large area coverage by aerosol clouds generated at sea:** This Note covers Programme No 6/59 and refers to the FP trial conducted 7-10 November 1959 and report on earlier in Porton Note No 146 (q.v.). The detail on the FP omitted from that Note are essentially that it was the US Radium Corp product Type 2267, Lots H239 and H24, silicone treated at Nancekuke. This later Note provides detail on samples not included in the earlier Note and at its Appendix, details on the preliminary trial conducted with HMS GRAFTON on 7 October 1959 wherein 25 lb of FP (US Radium Corp 2267, Lot H239) silicone treated at Nancekuke was used. The ship was located near to a point 18 miles south of Portland Bill. Mobile sampling teams were located in Devon and Dorset and recorded FP 80 miles north of the source during this preliminary trial. The Note has photographs of the disseminating equipment.

8.6.16 **Porton Note No 218, 15 May 1961: The change of size spectrum of zinc cadmium sulphide particles with increasing distance of travel:** No Programme number is associated with the Porton Range-based trials commented on here but all involve FP dissemination from a Land Rover travelling an arc, with a radius of 80 km and centred at Porton. Derby Luminescent Ltd 1318/10, silicone treated by the makers, was used at a rate of 350 g/km. Sampling stations were located 15, 40 and 80 km downwind of the source line. The trials were done in 1961 on 13 January and 1 February. The results demonstrated that a change of size spectrum did occur with increasing distance of travel: the smaller particles gradually losing their fluorescence with increasing time of travel. On 13 January 1961 the disseminating vehicle moved from Corfe Castle, to Wareham, Dorchester, Crewkerne and thence to Somerton. On 1 February 1961 its route was Ilchester, Wedmore, Bishopworth and Newport. (The location of Newport is not stated but it cannot be the Newport in Gwent nor in Shropshire and is presumably a village.)

8.6.17 **Porton Note No 253, Undated: Experimental dispensers for fluorescent powder:** This Note is not related directly to any Field Programme but describes in some detail the devices developed at CDEE for FP dissemination and some useful detail on FP per se. Its Table 4 however tabulates performance during several aircraft trials identified only by date as on:

* This would mean that the particle count would be inaccurate irrespective of type of sampler