24. Kuiper, G. P., "Origin of lunar surface features," *Proc. Nat. Acad. Sci.*, 1906, 1954, **40.**
25. —, *Exploration of the Moon*, *Vistas in Astronautics*, Pergamon Press, 1959, **2**, 273.
26. —, "The Moon," *Jour. Geoph. Research*, 1959, **64**, 1713.
27. Love, A. E. H., *Treatise on the Mathematical Theory of Elasticity*, Cambridge, 1927, p. 134.
28. Low, A. P., "Report on East Coast of Hudson Bay," *Geol. Survey of Canada, Report D*, 1900, **13**.
29. Meen, V. B., "Chubb Crater, Ungava, Quebec," *Jour. R.A.S.C.*, 1951, **44**, 199.
30. —, "Chubb Crater – A Meteor Crater," *Ibid.*, 1957, **51**, 137.
31. Millman, P. M., "Editorial Note," *Sky and Telescope*, 1951, **11**, 9.
32. —, Liberty, B. A., Clark, J. F., Willmore, P. L. and Innes, M. J. S., "The Brent Crater," *Pub. Dom. Obs.*, 1960, **24** (1) (in press).
33. —, "Profile studies of the New Quebec Crater, *Ibid.*, 1956, **18**, 61.
34. Reiner, M., "Rheology," *Handbook of Physics*, 1958, Chapter 3, Part 3. EDITOR: Condon and Odishaw, McGraw-Hill, New York.
35. Rohleder, H. P. T., "Steinheim basin and Pretoria salt pan, volcanic or meteoric origin," *Geol. Mag.*, 1933, **70**, 489.
36. Rose, E. R., "Manicouagan Lake, Mushalagan Lake area," *Quebec Paper*, Geological Survey of Canada, 1955, 55–2.
37. Sanford, B. V., 1959, Private communication.
38. Seeger, R. T., "Fluid Mechanics, *Handbook of Physics*, 1958, Chapter 2, Part 3. EDITOR: Condon and Odishaw, McGraw-Hill, New York.
39. Spurr, J. E., *Geology applied to Selenology*, Science Press, Lancaster, Pa., 1944; Rumford Press, Concord, N.H., 1948.
40. Taub, A. H., "Wave propagation in fluids, *Handbook of Physics*, 1958, Chapter 4, Part 3. EDITOR: Condon and Odishaw, McGraw-Hill, New York.
41. Urey, H., *The Planets*, Yale University Press, 1952.
42. von Neumann, J. and Richtmeyer, R. D., *J. Appl. Phys.*, 1950, **21**, 232.
43. Whipple, F. L. and Hughes, R. F., "On the velocities and orbits of meteors, fireballs and meteorites," *J. Atmosph. and Terrest. Physics*, Special Supplement, 1955, **2**, 149.
44. Willmore, P. L. and Scheidegger, A. E., "Seismic observations in the Gulf of St. Lawrence," *Jour. R.A.S.C.*, 1956, **50**, 21.
45. Wilson, C. W., "Wilcox deposits in explosion craters and their relation to the origin and age of Wells Creek Basin," *Bull. Geol. Soc. America*, 1953, **64**, 753.

NATIONAL PHYSICAL LABORATORY (ENGLAND): ANNUAL REPORT FOR 1959*

THE wide range of research topics in modern physics covered by the work of the NPL is described in the latest Annual Report of the Laboratory.

In the new Basic Physics Division the programme has been aimed at investigating different aspects of the Physics of polymers, by means of the most modern techniques for examining the atomic structure of matter. Success in understanding how the atoms are held together in plastics and other polymers, and how these arrangements of the atoms define their mechanical, electrical and thermal properties would have far-reaching consequences.

The programme of the Aerodynamics Division covers many aspects of research of importance to future aircraft and missile design and development. The phenomena of buffeting and aileron buzz, which decrease the safety and controllability of aircraft when they occur, have been studied. As a result means of suppressing these effects have been suggested.

The Standards Division has continued to foster international collaboration in several fields. Determination of the density of mercury has been completed by measurements on samples from the standards laboratories of Australia and the US. A start has been made on correlating UK and US time and frequency services. The scale of temperature between 10° K and 90° K defined by the platinum resistance thermometer has been related to the thermodynamic scale by means of a helium gas thermometer. Comparisons are being made with the US and Russia, with the intention of extending the International Temperature Scale below its present lower limit.

Spectro-radiometric methods have been tried successfully by the Light Division for the first time in the establishment of the standard scale of colour temperature.

The Metallurgy Division which is now equipped with some of the best modern research tools available for the study of metals (including an electron microscope, soft X-ray spectrograph, mass spectrograph and optical spectrograph), is bringing these modern techniques to bear on some of the problems associated with precipitation processes in iron. It is now possible, by using the electron microscope, to see dislocations (*i.e.*, the faults in the atomic planes which weaken metals by one hundred to a thousand times).

* Report of the National Physical Laboratory, 1959, printed for D.S.I.R. by H.M.S.O., Price 8*s*. 0*d*.