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BALL LIGHTNING OVER THE RIVER  
SURFACE

Some remarkable characteristics of a ball lightning in relation to its diameter, velocity, life time, flight path, appearance etc as ob-

served over the river *Hooghly* in West Bengal is reported here.

2. During the last two decades there have been a considerable number of reports on ball lightning, yet it remains one of the most puzzling phenomena in the atmosphere (Bhattacharya *et al.* 1979). The present communica-

tion provides the results of a careful observation of ball lightning over the river *Hooghly* in West Bengal (India) in unusual circumstances.

3. The author stood near the front window of a passenger steamer at noon hours on 30 September 1980. A heavy precipitation associated with thundercloud was experienced just before its start. When the steamer started from eastern bank (Dobhigat) to western bank (Serampore), a path of five minutes only, the rainfall was practically ceased but the electrical discharges were continuing. At 1219 IST when the steamer was near the bank of Serampore a glowing ball was noticed in air over the river surface from which the author was only about one metre away inside the steamer. Remarkable characteristics of the observation are noted below:

(i) The ball was a luminous globe of 20 cm in diameter approximately, as assessed by eye, which was constant in size and shape and also in brightness, (ii) It moved at a low velocity of  $(1 \pm 0.5)$  m s<sup>-1</sup> in an almost horizontal path and last for a period of about 15 sec, (iii) It maintained a flight path of about 3 metres above the river surface, (iv) It had an almost round appearance with a reddish-white colour and disappeared suddenly with a loud explosion and (v) There was a sensation of heat radiation from the ball.

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4. In the present observation over the water surface, the diameter of the ball, its velocity and lifetime are well consistent with those observed by others over the land (Finkelstein & Rubinstein 1964, Silberg 1965, Umman & Helstrom 1966, Uman 1968, Singer 1971, Jennison 1973). However, a release of large energy from the ball during its movement has not been well reported.

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