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to produce any physical effects, other than the one case in which a cloud was reported along the trajectory, it is not possible that the laws of mechanics, for instance, would be sufficient.

But suppose that mechanical laws alone are sufficient. Then the following example is sufficient proof that at least a length could, in principle, be determined: suppose a simple pendulum was observed suspended in the sky; then after observing its frequency of oscillation, we could deduce from the laws of mechanics its precise length.

This suggests that something could be deduced from the observed fluttering motion of some of the objects of Group II. Assume that we know the angular frequency and angular amplitude of this fluttering motion (they can be measured in principle from a motion picture). Then for purposes of calculation assume the object to be thirty feet in diameter, to be as rigid as a normal aircraft wing of 30-foot span, to be constructed of material of the optimum weight-strength ratio and to be a structure of most efficient design. It is now possible to calculate how heavy the object must be merely to remain rigid under the observed angular motion. Let the calculation be made for a circularity of assumed sizes 1, 3, 4, 9, 16, 32, 64 ----- up to say 512 feet, and let calculated mass be plotted versus assumed size. The non-linear character of the curve should indicate an approximate upper limit to the size of the object.

If, in addition, it is assumed that the flutter is due to aerodynamic forces, it is possible that more precise information could be obtained.

The required angular data can probably be extracted from witnesses most reliably by the use of a demonstration model which can be made to oscillate or flutter in a known way.

Summary -- PART II, Section A.

Theoretical calculations alone cannot yield the size of objects observed from a single station such as WRIGHTON and require with the assumption that the objects are essentially aircraft, can be used to set reasonable limits of size.

Section B -- The possibility of supporting and propelling a solid object by unusual means.

Since since witnesses have obviously colored their reports with talk of rays, jets, beams, space-ships, and the like, it is well to examine what possibilities exist along these lines. This is also important in view of the conclusions of PART II, Section A, of this report.

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