Binding Force Discussion, Vancouver Speech, 1961

The other item that I'm rather proud of resulted from a series of questions that we asked regarding accidental destruction or damage to our aircraft by flying into the vicinity of a flying saucer. We were informed that although a few of our aircraft had come to an unfortunate end by what they considered the colossal stupidity of our pilots for flying into a region where the aircraft was bound to get into trouble, they said that they are now taking corrective measures, and whenever they see one of our aircraft about to commit suicide, they just get out of the way and give him a wide berth. I asked them what happened, and they said, well, there are fields around the saucers in order to hold them up, in order to produce the gravity differential, the time field differentials, which were necessary to operate the ships. These sometimes produced field combinations which reduced the strength of materials to the point where they were no longer strong enough to carry the loads that the materials were expected to carry. Now as we know, aircraft, particularly the military type aircraft, are built with a rather small factor of safety, and if they fly into a region of reduced binding, the materials are no longer strong enough to carry the load and the craft simply comes apart.

We asked a series of questions about whether it were possible for our craft to detect these regions so that we would not fly into them, and they said it certainly was and they would give us the design of an instrument which would do this very thing. They told us also that we, ourselves, were creating regions which were much more dangerous than the regions which they established because we could detect the presence of their craft and give them a wide berth, but we could not detect without instruments the presence of these vortices which we ourselves have produced. They gave us the design of the instrument which was fundamentally this: they said to select two materials, one stronger than the other, and they said to arrange so that these two materials pull against each other in such a manner that the weaker material was very near its breaking point and the strong material was a long way from its breaking point. On that basis, we devised an instrument and we built quite a number of them and sent them around to various people that we knew did quite a bit of traveling. We asked them if they would investigate the regions through which aircraft must have passed just prior to breaking up in mid-air. We have, unfortunately, a large record of our aeroplanes having done just this.

One of these unexplained crashes occurred at a place called Issoudon which is about 20 miles south and west of Quebec City, and we investigated the region through which this BOAC aircraft must have passed just prior to the crash. Sure enough, big as life and twice as natural, we found a very large and very strong vortex. Our instruments showed it beyond a doubt. It was about a thousand feet in diameter and roughly circular with a rather sharp line of demarcation at the edge of it.

You will recall also that about two years, three years ago, possibly a little longer, a jet aircraft crashed into a nunnery at Orleans, just out from Ottawa. It killed a number of people and did a great deal of damage. The jet engine itself was finally dug out of the subsoil about 30 feet below the foundation of the convent. We investigated that one - again we found a very strong vortex of reduced binding. We had a number of reports come in from people in the field who found exactly the same thing. I wrote a very stiff memorandum to the appropriate people in my own department pointing out some of these facts. I did not state where we got the information. We told them we had instruments which showed the existence of these regions of reduced binding, and suggested that something be done about it. The letter wound up on the crank file. I'm afraid that is the fate of most of these things, they wind up on the crank file. However, that does not in any way change the fact that these regions of reduced binding exist. People topside told us they existed, they gave us the design of instruments, we built the instruments, we have confirmed the facts.

There's one other little point that I would like to make in connection with these regions of reduced binding. That is, that the people from elsewhere told us that we make them when we set off a nuclear explosion. We make two of them. We make one of them in the vicinity of the nuclear explosion and one on the opposite side of the planet. Any of you who have ever seen pictures or facsimiles of a nuclear explosion have probably noticed that there is a column which is approximately uniform in diameter extending upwards from the region of the explosion, and that is capped by a big mushroom-shaped cloud. That shape, that fact itself should have been sufficient warning to us that we were producing a very serious gravitational disturbance. I'll show you what happens. (Draws on board.) That circle represents the earth. Out from the earth there is emanating, for the sake of simplicity, lets call it a gravitational field. We have a nuclear explosion take place at some point. A nuclear explosion means that there is a sudden change of matter to energy. In other words,

we have a dMdT (mass-loss rate - Ed.) which is large, very much greater than unity. Now it is not difficult to show that if you have such a disturbance occurring in a gravitational field, there will be projected outwards a gravity wave which will be projected in the direction of the gravity field and with a velocity which is inversely proportional to the strength of the gravitational field. Therefore, if the explosion itself, if the conversion of mass to energy, lasts over a period of time which would permit the expanding material to move out say, a hundred feet this way and a hundred feet this way, we would have a region 200 feet in diameter in which mass was being converted to energy and which would be a virtual source of a gravity wave that would travel straight up, thereby producing the column that we see supporting the mushroom cloud. What we don't see is that penetrating downwards through the centre of the planet there is a similar gravity wave which comes to a focal point down here. And in this region, from approximately here on down, we have approximately the same mass all the way around so that the gravitational field in here is very low. So the velocity becomes very high and flares out this way, so that it comes out on the far side of the earth as a diverging cone. Now these things don't go away. We literally punch a hole in the field structure of the earth; we punch a little round cylindrical hole on this side and a big conical-shaped hole on the other side. They stay there for a long time. They're vortices and it takes them quite a while to dissipate. We don't know how long, but we have gone back to places such as Issoudon three months later, and we have found that the vortex has gone. Now maybe it has moved away, we believe that that is what happens because we actually caught one of them moving, or maybe it dissipates, or maybe both. But we did find one out over the North Atlantic that drifted, that was picked up first by a friend of mine who is an RCAF pilot who had the instrument with him. They located it on a reconnaissance flight just to the south and west of Iceland, and then again on a flight out about a week later. It was about half way between Iceland and Newfoundland and considerably weaker. At least that is the impression they got from the instrument indication. So apparently they do move around and I presume they do fade out. We haven't, incidentally, located any in the last year or so, I presume because we have not been exploding any bombs lately.

We believe that, as long as the elastic limit of the material is not overstressed, the effect is temporary, but if it is overstressed, the effect is permanent. Now we found a very peculiar thing. Things in the northern latitudes generally appear to be somewhat stronger than they are in the southern latitudes. We have one instrument which we took from The Pas, Manitoba, through Ottawa, Washington, D.C., and out to Oklahoma City. And since none of our instruments are calibrated in any kind of an absolute unit, simply because we don't know how to calibrate them in absolute units, they are merely scale indications. The scale goes around to 10. And we set them ordinarily about mid-scale, somewhere around five or six. At The Pas, it went up to about 7, assuming it was set at 5. When it got down to Oklahoma City it was down to 2. And when we took it back to Ottawa it came back to the 5. We had set it at 5 in Ottawa. Now that meant that there was not a permanent set in the nylon fiber, which was the weaker of the two opposing pulls. However, every time we take one of these instruments into Toronto, we find that it promptly goes from 5 down to 2. We have actually had several of the nylon fibers break when we've taken the instruments to Toronto. We came to the conclusion that Toronto was maybe good all right but it wasn't very strong (laughter). Incidentally, they have had an abnormal number of structural steel failures in Toronto when buildings have been undergoing construction. The steel has given way, bolts have given way. We believe that this is maybe a semi-permanent condition for Toronto because we find that we encounter it just as we hit the outskirts of the city, and as we proceed through the city and towards Hamilton, we lose it again about Port Credit. So this is a very large region and it seems to be permanent. I know it's been there for the four or five years now that we've been investigating.

Table of Contents