

Natural Radio

News, Comments and Letters About Natural Radio

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UFOs, Plasma & Meteors – Lighting, auroras, meteors and sprites – just about anything that lights up the sky are interesting to those bitten by the Natural Radio bug. Occasionally, other unknown lights appear, but unfortunately, all the hype, profiteering, and nut cases associated with UFOs has precluded any really serious study of the phenomenon and most professional scientists steer clear of the subject as any serious interest in it could irreparably damage their career. Part of the problem is the name – at least the “Flying Objects” part. This already presupposes that the “Unidentified” observation is a solid object. The British acronym is a little more helpful, UAP, “Unidentified Aerial Phenomenon”.

Along with the science and technology sites that I visit regularly, I tend to follow some of the fringe science sites, also. In between Bigfoot, conspiracy theories and alien abductions, sometimes a tidbit or two appears that gets ignored by the other mainstream media, and such was the case with the Condign Report, recently declassified in the UK

Note that this is a different document than the Condon Report. The Condon Report was prepared in 1968, under the direction of Dr. Edward Condon and in cooperation with the University of Colorado. This report debunked the whole UFO phenomenon. Supposedly, the similarity in names is coincidental, the word “condign” means deserved, or appropriate and usually refers to punishment, as in “20 years in prison was condign for his crime.” I’ll leave it to others to speculate on the similarity of the two names.

These two government reports come to very different conclusions although they both establish that the UFO phenomena are not extra-terrestrial space ships.

The following quote sums up the conclusions of the 1968 US Condon report:

“As indicated by its title, the emphasis of this study has been on attempting to learn from UFO reports anything that could be considered as adding to scientific knowledge. Our general conclusion is that nothing has come from the study of UFOs in the past 21 years that has added to scientific knowledge. Careful consideration of the record as it is available to us leads us to conclude that further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby.”

Sadly, they saw no value in continuing the study of an observed phenomenon where there were a significant percentage of unexplained reports. The conclusion seems to have been, “Since they aren’t alien spacecraft, they must be some other easily explainable known phenomenon.” It’s almost as if there was a pre-existing political agenda. Many disagreed with the conclusions, including the British and thus the Condign Report.

The seeds for the Condon report were planted in 1996 during a policy review into the handling of Unidentified Aerial Phenomena sighting reports received by the British Ministry of Defence (MOD). The study was undertaken to see if there was any potential value to the reports and of course if there was any evidence of a threat to the UK, and secondly, if the opportunity arose, to identify any potential military technologies of interest. The Condon report was completed in 2000 and is over 400 pages long. It consists of 3 numbered volumes (Volume 1, Volume 2, and Volume 3) plus an Executive Summary. The report is available on the MOD website. It's a really long address, so it's best to search for it in Google and then click on the site that begins with <http://www.mod.uk>.

After a series of "Freedom of Information" requests, the British Ministry of Defense (MOD) released the report entitled "Unidentified Aerial Phenomena in the UK Air Defense Region" (the "**Condon Report**") in May 2006. The Condon Report states that it is the "*first UK detailed and authoritative report [on UAPs] which has been produced since the late 1950s*"

Unlike the Condon Report, the authors felt that UAPs were worth study and investigation. MOD official [Nick Pope](#), who ran the department's UFO project in the 1990s said, "Whatever one may think of the study's methodology and conclusions, it adds significantly to our knowledge."

It seems that the British did their study without a preconceived notion of what the conclusions should be, and unlike the US, did find some scientific value in the study. (I probably shouldn't be too critical of the Condon Report, because Red Sprites, Blue Jets and Elves were also unknown in 1968, and the serious study of Space Weather was in its infancy.)

I have believed for a long time that it would be worthwhile to try and coordinate the unexplained UFO reports with geomagnetic activity. It always seemed likely that there should be some correlation. But the British found none. What they did find, however, was a correlation between UAPs and meteors. Here is an excerpt of paragraphs 11 & 12 of the executive summary of the report.

"Aerial phenomena of the type consistent with those reported as UAP, and with exceptional characteristics certainly exist – but the available evidence suggests that apart from those which can be more easily and satisfactorily explained, they are comprised of several types of rarely encountered natural events within the atmosphere and ionosphere. Some of these are still barely understood. It is clear that they have been reported as exceptional occurrences throughout recorded history, using the language of the times ... "

"Considerable evidence exists to support the thesis that the events are almost certainly attributable to physical, electrical and magnetic phenomena in the atmosphere, mesosphere and ionosphere. They appear to originate due to more than one set of weather and electrically-charged conditions and are observed so infrequently as to make them unique to the majority of observer. There seems to be a strong possibility that at least some of the events may be triggered by meteor re-entry, the meteors neither burning up completely, nor impacting as meteorites, but forming buoyant plasmas. The conditions and method of formation of the electrically-charged plasmas and the scientific rationale for sustaining them for significant periods is incomplete or not fully understood."

When we see a meteor streak across the sky we are not seeing the flames as it burns up. The dust particles that become a meteor shower impinge upon the atmosphere at a speed of several tens of km per second. As the dust particles collide with the atoms in the atmosphere, tremendous energy is released and some of the dust and the air molecules form plasma. The light that we see as a meteor trail is this glowing plasma. Although this was a mystery for a long time, it was finally discovered through spectral observation.

Currently, much study is being conducted on “dusty plasma bubbles.” Plasma bubbles are regions of low plasma density that move through the ionosphere like bubbles in a glass of soda. Search for “dusty plasma bubbles” on Google and you’ll find lots of references.

This report was not exactly received enthusiastically by the UFO community, as it found no evidence that UAPs were extra-terrestrial, and for that same reason, didn’t make a big hit in the mainstream media. Nevertheless, it should be received as significant news for those of us who “spend our time listening to static”.

A healthy skepticism is always good – a closed mind isn’t. Scientific arrogance is never an asset.

I’m only touching on the highlights of the report here; it goes into much greater depth and refers to other research that has been done on dusty plasmas. Much of it is speculative, but it gives us another trail to follow and either prove or disprove by scientific research.

Do these phenomenons have a Natural Radio signature? Perhaps. In the February, 2002 issue of *The Lowdown* I reported on a study by Price and Blum that heard spheric-like signals from meteors. <http://leonid.arc.nasa.gov/MS025.pdf>.

What would a Natural Radio signal from a plasma ball sound like? Since there hasn't been any research done I’m speculating here, but there is no Whistler Propagation Mode in the atmosphere so probably not very musical. A plasma ball probably releases a lot less energy than a lightning bolt, so don’t expect a very strong signal. In all likelihood it would sound like any other electrical discharge, but under spectral analysis, it might have a unique signature.

Of course we’ll never know for sure without scientific study. Here’s a place for the amateur scientist. We don’t have to worry about professional reputations or funding. (We fund ourselves.)

The common luminous phenomenon have pretty much all been discovered. We know about lightning, St. Elmo’s Fire, the Aurora Borealis, Red Sprites and Blue Jets. Now is the time to start studying for the more elusive ones. When you look at all the different electrical currents circulating above the earth and the complexity of the atmosphere, ionosphere and magnetosphere and earth-sun interactions, it’s likely that there are a few luminous phenomena that we haven’t really tied down yet. Maybe your name will appear on one of these undiscovered lights.