

EXTRATERRESTRIAL FORCING OF SURFACE TEMPERATURE AND CLIMATE CHANGE: A PARODY

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ABSTRACT: It is proposed that visitation by extraterrestrial spacecraft (UFO) alters the electromagnetic properties of the earth, its atmosphere, and its oceans and that these changes can cause global warming leading to climate change and thence to the catastrophic consequences of floods, droughts, severe storms, and sea level rise. An empirical test of this theory is presented with data for UFO sightings and surface temperature reconstructions for the study period 1910-2015. The results show strong evidence of proportionality between surface temperature and cumulative UFO sightings. We conclude that the observed warming since the Industrial Revolution are due to an electromagnetic perturbation of the climate system by UFO extraterrestrial spacecraft.¹

1. INTRODUCTION

Both land temperatures from station data and surface temperature reconstructions going back more than a century show strong persistent accelerated warming since the early 20th century (Munshi, 2017) (Morice, 2012) (IPCC, 2013). In the context of known paleo climate records going back millions of years, the observed recent sustained warming is an unusual phenomenon well beyond natural variability and it requires an explanation in terms of unnatural causes as well as methods for its control and moderation (IPCC, 2007) (IPCC, 2013).

At the same time and concurrently with the observed unnatural warming, the data show a rising trend in the visitation of our planet by alien extraterrestrial spacecraft normally referred to as Unidentified Flying Objects (UFO). These spacecraft contain no mechanism for flying known to man. The consensus among scientists is that the method of flight employed by these craft involve interactions with the earth's own gravitational and geomagnetic system. Analysis of artifacts retrieved from crashed UFOs as well as the study of the intensification of the Aurora Borealis in the presence of UFOs (Figure 1) reveal details of UFO propulsion dynamics that imply a massive and intense interference in the earth's gravitational and magnetic fields (Potter, 2016) (Mike, 2011) (Ensley, 2013) (LaViolette, 2008) (Sarg, 2009). These massive electromagnetic and gravitational effects alter the way the earth interacts with its sun (Potter, 2009). Based on these effects of UFOs on the atmosphere we propose that the observed warming is related to atmospheric perturbations of UFO activity. This hypothesis is tested against observations.

Figure 1: Northern Lights intensified by UFOs



¹ Date: March 2018. This parody demonstrates false interpretations of correlations between cumulative values of time series. Key words and phrases: global warming, climate change, climate action, UFO, extra-terrestrial, parody, correlation, proportionality, cumulative values.

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2. DATA AND METHODS

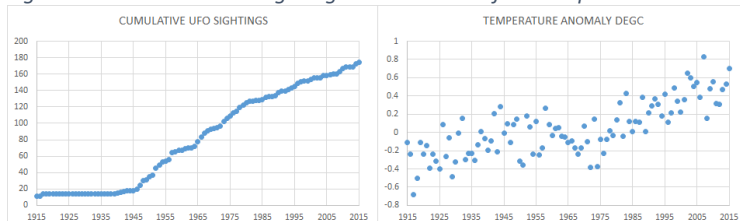
Global surface temperature reconstructions for the period 1910-2015 are provided by the Hadley Centre of the Met Office of the Government of the UK (Morice, 2012). The data are available as monthly mean temperatures for each calendar month in four distinct region and surface combinations. They are Land in the Northern Hemisphere, Sea in the Northern Hemisphere, Land in the Southern Hemisphere, and Sea in the Southern Hemisphere. Data for each calendar month in each of four distinct surface and region specifications are studied for a total of forty eight different statistical tests of the hypothesis that surface temperature in the study period 1910-2015 is driven by UFO activity.

UFO activity data are available from numerous sources for different regions and periods of time (Bader, 2017) (Donderi, 2013) (Hopkins, 1987) (Picknett, 2001) (Sheaffer, 1998) (Spencer, 1993) (UFO-Info, 2017). A convenient summary is also provided by Wikipedia (Wikipedia, 2018). The data are cross checked against the Wikipedia compilation for completeness. The sightings data are available as individual sightings and compiled into total number of UFO sightings worldwide for each year 1910-2015. It is noted that individual sightings are usually for a number of different spaceships that vary from sighting to sighting and in different reports of the same sighting. For the purpose of this study, UFO activity is defined in terms of sightings without consideration for the number of ships per sighting.

The annual sightings data are sparse in the first half of the study period with most years containing no sightings. The data are compiled into a cumulative values series along the lines of the CCR/TCRE procedure in climate science (Allen, 2009) (Matthews, 2009) (Matthews/Solomon, 2012) (Munshi, 2018). The proportionality π between cumulative sightings and surface temperature is computed both as a linear regression coefficient and also as a correlation coefficient and tested for statistical significance. The null hypothesis $H_0: \pi=0$ is tested against the alternate $H_A: \pi>0$ in a one-tailed test. Here π represents proportionality estimated as a combination of the strength of the linear regression coefficient and the correlation coefficient.

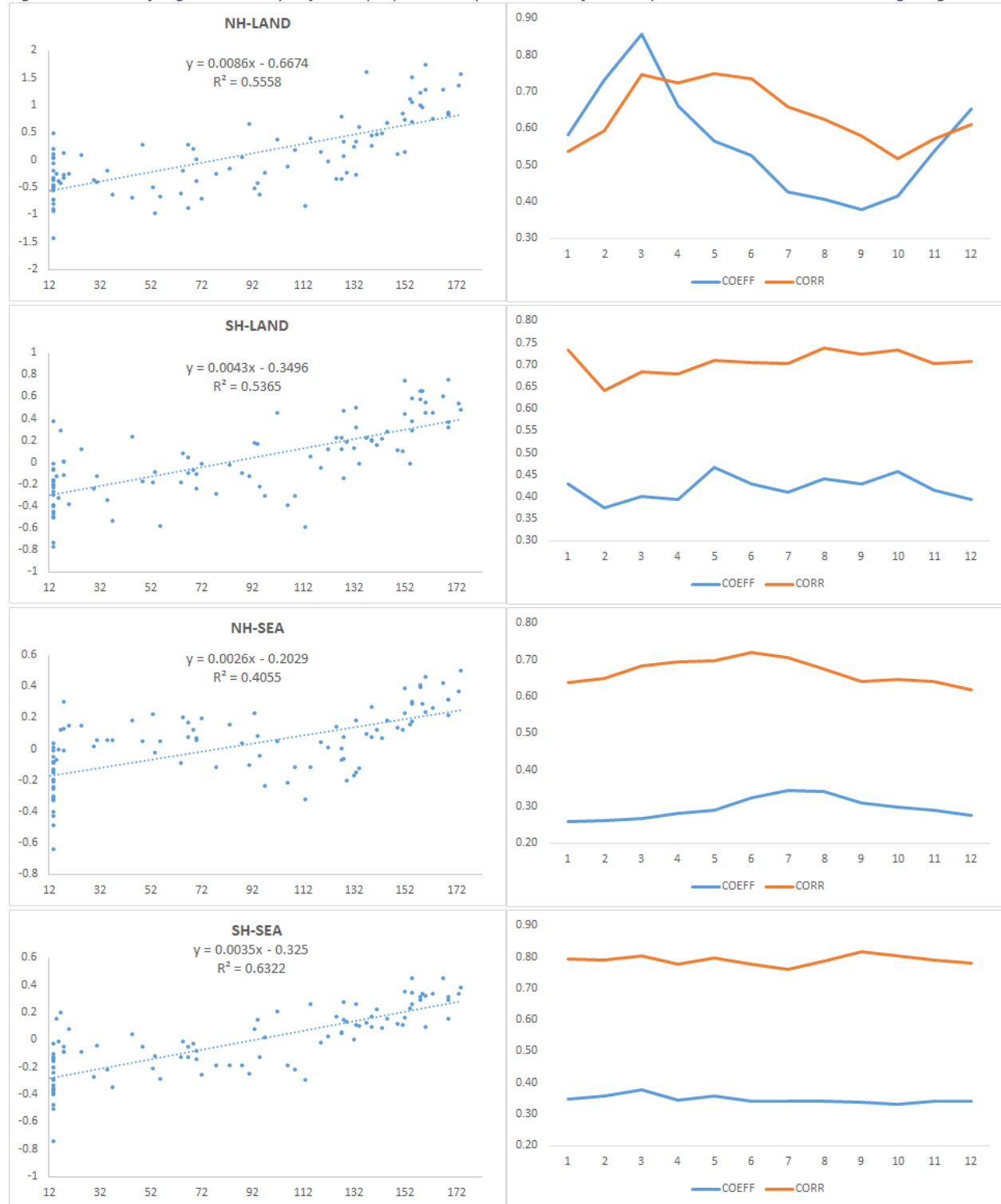
Hypothesis tests are carried out at $\alpha=0.001$ in accordance with Revised Standards for Statistical Evidence published by the NAS (Johnson, 2013). When multiple comparisons are made, the Holm correction is used and each test is then made at the appropriately lower level of α (Holm, 1979). In cases where we fail to reject H_0 the test is inconclusive and no conclusions are drawn from the test with respect to the relationship between UFO activity and temperature in the population from which the sample was drawn. However, when H_0 is rejected we conclude that the sample data provide sufficient evidence that temperature is responsive to UFO activity in a way such that UFO activity could cause warming. Correlation is a necessary but not sufficient condition for causation but the theory of causation cannot be refuted in the presence of correlation without evidence that the correlation is spurious.

Figure 2: Cumulative UFO sightings and Global surface temperature anomaly



3. DATA ANALYSIS

Figure 3: Results of regression analysis for the proportionality between surface temperature and cumulative UFO sightings



The results of linear regression analysis and correlation analysis for the proportionality between surface temperature and cumulative UFO sightings are displayed graphically in Figure 3. The graphic consists of four stacked panels one for each region.

Each panel consists of two frames – a left frame and a right frame. The left frame is a graphical display of the linear regression procedure that relates temperature to cumulative UFO sightings for a selected calendar month. The right frame is a graphical comparison of the regression coefficient (in blue) and the correlation coefficient (in red) for all twelve calendar months labeled as January=1 to December=12 along the x-axis.

Figure 3 shows that:

1. Some differences are observed among the calendar months with these differences are greater over land than over oceans and greater in the Northern than in the Southern Hemisphere.
2. Strong positive correlations are observed. They vary from $\rho=0.5$ (October in NH-LAND) to $\rho=0.8$ (for SH-SEA). The vast majority of the correlation values are between $\rho=0.65$ to $\rho=0.75$. The SH-SEA region is unusual in displaying a steady strong correlation of $\rho\approx 0.8$ for all calendar months. The NH-LAND region is unusual in terms of extreme differences in correlations among the calendar months ranging from $\rho\approx 0.55$ in January to $\rho\approx 0.75$ in March.
3. The regression coefficients are multiplied by 100 for the plot so that they would be in the same order of magnitude as the correlations. These values vary greatly among calendar months in the NH-LAND region but are fairly stable across calendar months at $\beta=0.0035$ to $\beta=0.0045$ in the other regions. The highest value seen in NH-LAND is $\beta=0.0086$. The lowest values are seen in the NH-SEA region, the only region where values less than $\beta\approx 0.0035$ are seen.
4. The regression coefficients imply that each new UFO sighting causes somewhere between 0.0035C and 0.0086C of warming on average. The units of the coefficient are degrees Celsius per sighting.
5. The results and their test for statistical significance are summarized in Figure 4.
6. In Figure 4, the null hypothesis of no proportionality $H_0: \pi=0$ is rejected in all cases at a $\alpha=0.001$ even when corrected for multiple comparisons (Holm, 1979). We find therefore that the data show strong statistical significance for proportionality between temperature and cumulative UFO sightings.

Figure 4: Statistical significance of the proportionality between surface temperature and cumulative UFO sightings

MONTH	NH-LAND	STDEV	TSTAT	PVALUE	PROP	SH-LAND	STDEV	TSTAT	PVALUE	PROP	NH-SEA	STDEV	TSTAT	PVALUE	PROP	SH-SEA	STDEV	TSTAT	PVALUE	PROP
JAN	0.537	0.066	8.18	0.0000	0.0058	0.732	0.053	13.82	0.0000	0.0043	0.637	0.060	10.61	0.0000	0.0026	0.795	0.047	16.84	0.0000	0.0035
FEB	0.594	0.063	9.48	0.0000	0.0073	0.642	0.060	10.74	0.0000	0.0037	0.649	0.059	10.95	0.0000	0.0026	0.790	0.048	16.57	0.0000	0.0036
MAR	0.746	0.052	14.37	0.0000	0.0086	0.685	0.057	12.07	0.0000	0.0040	0.683	0.057	12.00	0.0000	0.0027	0.804	0.046	17.37	0.0000	0.0038
APR	0.723	0.054	13.45	0.0000	0.0066	0.679	0.057	11.88	0.0000	0.0039	0.696	0.056	12.44	0.0000	0.0028	0.776	0.049	15.80	0.0000	0.0035
MAY	0.748	0.052	14.49	0.0000	0.0057	0.710	0.055	12.93	0.0000	0.0047	0.697	0.056	12.49	0.0000	0.0029	0.798	0.047	16.99	0.0000	0.0036
JUN	0.736	0.053	13.97	0.0000	0.0053	0.706	0.055	12.80	0.0000	0.0043	0.721	0.054	13.36	0.0000	0.0032	0.777	0.049	15.88	0.0000	0.0034
JUL	0.660	0.058	11.29	0.0000	0.0043	0.703	0.055	12.71	0.0000	0.0041	0.707	0.055	12.86	0.0000	0.0034	0.761	0.050	15.08	0.0000	0.0034
AUG	0.625	0.061	10.28	0.0000	0.0041	0.738	0.053	14.04	0.0000	0.0044	0.674	0.058	11.72	0.0000	0.0034	0.787	0.048	16.37	0.0000	0.0034
SEP	0.579	0.063	9.11	0.0000	0.0038	0.725	0.054	13.52	0.0000	0.0043	0.640	0.060	10.71	0.0000	0.0031	0.818	0.045	18.28	0.0000	0.0034
OCT	0.519	0.067	7.79	0.0000	0.0041	0.734	0.053	13.88	0.0000	0.0046	0.647	0.059	10.91	0.0000	0.0030	0.804	0.046	17.38	0.0000	0.0033
NOV	0.570	0.064	8.91	0.0000	0.0054	0.702	0.055	12.67	0.0000	0.0041	0.641	0.060	10.72	0.0000	0.0029	0.790	0.048	16.54	0.0000	0.0034
DEC	0.609	0.062	9.87	0.0000	0.0065	0.707	0.055	12.86	0.0000	0.0039	0.617	0.061	10.07	0.0000	0.0027	0.781	0.049	16.08	0.0000	0.0034

All data and computational details used in this study are available for download from an online data archive².

² <https://drive.google.com/open?id=1w9Gg9VQ595o3O-EbmYQzsWcgAKuF7Ub9>

4. SUMMARY AND CONCLUSIONS

It has been proposed that the flight mechanisms of extra-terrestrial spacecraft interfere with the earth's gravitational and geomagnetic fields and that such interference is an unnatural perturbation of the delicately balanced surface-atmosphere climate system that can cause unnatural and dangerous global warming. A testable implication of this hypothesis is that a statistically significant relationship should exist between UFO sightings and warming in the data. An empirical test with available UFO sighting data and surface temperature reconstructions 1910-2015 shows a strong statistically significant proportionality between temperature and cumulative UFO sightings. We conclude that the data are consistent with the proposition that the observed warming since 1910 can be explained as an effect of UFO sightings by way of their unnatural perturbation of earth's gravitational and magnetic fields.

These results are presented with a disclaimer³. It has been shown that the procedure for the construction of a time series of cumulative values reduces the effective sample size of the series of cumulative values and that this reduction in effective sample size must be taken into account in the evaluation of statistical significance of observed correlations and regression coefficients (Munshi, From Equilibrium Climate Sensitivity to Carbon Climate Response, 2018).

Our results and conclusions therefore carry the disclaimer that the sample size has not been corrected and that if corrected the observed statistical significance may not exist.

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³ This paper is a parody that demonstrates the spuriousness of correlations between cumulative values of time series data.

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