Aluminum poisoning of humanity and Earth's biota by clandestine geoengineering activity: implications for India

J. Marvin Herndon

In response to an urgent call through an article in Current Science for assistance to understand the geological association of high aluminum mobility with human health in the Ganga Alluvial Plain, I describe evidence of clandestine geoengineering activity that has occurred for at least 15 years, and which has escalated sharply in the last two years. The geoengineering activity via tanker-jet aircraft emplaces a non-natural, toxic substance in the Earth's atmosphere which with rainwater liberates highly mobile aluminum. Further, I present evidence that the toxic substance is coal combustion fly ash. Clandestine dispersal of coal fly ash and the resulting liberation of highly mobile aluminum, I posit, is an underlying cause of the widespread and pronounced increase in neurological diseases and as well as the currently widespread and increasing debilitation of Earth's biota. Recommendations are made for verifying whether the evidence presented here is applicable to the Ganga Alluvial Plain.

Keywords: Aluminum poisoning, biota, clandestine geoengineering activity, coal fly ash.

IN their article entitled 'High mobility of aluminum in Gomati River Basin: implications to human health', Jigyasu *et al.*[1] state that 'Systematic multi-disciplinary study is urgently required to understand the geological association of high Al mobility with human health in the Ganga Alluvial Plain, one of the densely populated regions of the world'. The present article is intended in part to address that urgent call.

Life on Earth came into being and evolved under circumstances of extreme immobility of aluminum (Al), an element that comprises by weight about 8% of the crust. Consequently, the biota of our planet, including humans, failed to develop natural defence mechanisms for exposure to chemically mobile aluminum. Globally, for the past decade or more, with dramatically increasing intensity, our planet is being deliberately and clandestinely exposed to a non-natural substance which releases toxic mobile aluminum into the environment. Here I provide evidence on the dispersal and nature of the non-natural substance, describe its potential causality in a host of increasing human[2–11] and biota debilitations[12], and discuss the implications for India in light of recently published extreme levels of chemically mobile aluminum observed in water from the Gomati River, a major tributary of the Ganga River in the Ganga Alluvial Plain in North India[1].

The author is in Transdyne Corporation, 11044 Red Rock Drive, San Diego, CA 92131, USA
e-mail: mherndon@san.rr.com

The 'global warming' agenda had its beginnings in the 1980s, especially with the 1988 formation of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations. The first report by the IPCC in 1990 claimed that the world has been warming and that future warming seems likely; the supposed culprit being anthropogenic, additions to the atmosphere of carbon dioxide (CO_2), allegedly causing a 'greenhouse' effect. Then, along came the modellers, with grand climate models based upon the false assumptions that heat from the Sun and heat from within the Earth are both constant. With those predominant variables unrealistically held constant, the tiny greenhouse effect of increases in carbon dioxide might appear significant. The intended result of those climate models is to demonstrate that human activities are indeed causing global warming and that the consequences are dire, threating our entire planet and its very life-forms. Driven by political, financial and self-aggrandizement interests, the idea of anthropogenic global warming/climate change took hold. But there is another explanation that has nothing to do with human activity[13].

Since 1996, the IPCC in its reports has mentioned the possibility of 'geoengineering', the idea of emplacing reflectant substances into the upper atmosphere (stratosphere) to reflect a portion of the incident sunlight back into space to compensate for alleged anthropogenic global warming. The impetus for that geoengineering idea is the observation that, after a major volcanic eruption, ash can remain in the stratosphere, where little mixing occurs, for

a year or more, dimming incident sunlight and lowering temperatures globally.

There is much information and evidence on the Internet and in books that clandestine geoengineering activities have been taking place for years, perhaps going back to at least as early as the beginning of the 21st century. Notably and alarmingly, profound increases in geoengineering activity have been observed since early 2013 (refs 14–16). But there has been no public admission, no understanding, no academic investigations, no informed consent, and no disclosure as to the nature of the toxic substances being dispersed into the air. Instead, there appears to be a systematic pattern of disinformation, efforts to brand concerned observers with the pejorative moniker, 'conspiracy theorists', and to falsely imply that the observed geoengineering toxic chemical trails are simply the formation of ice crystals from the exhaust of commercial jetliners flying at high altitudes[17].

I have lived in the same house since 1977 and viewed the same area of the sky nearly every day. After the morning marine layer burns off, the sky in San Diego, California, USA, has been often cloudless; rain is infrequent here. The air is warm and dry, not at all conducive for the formation of ice crystals from high-altitude jet aircraft exhaust. Since the spring of 2014, I observed that the common occurrence of toxic geoengineering trails in the lower atmosphere (troposphere), which mixes with the air we breathe, was increasing in frequency (Figures 1 and 2). By November 2014, the spraying from tanker-jet aircraft had become a near-daily occurrence, sometimes to the extent of causing the otherwise blue sky to be completely overcast with artificial clouds (Figure 3). Disturbingly, the Mayor and Chief of Police, San Diego issued no health warnings, even to the most at-risk members of the community: children, pregnant women, the elderly, and those with compromised immune and respiratory systems.

If natural volcanic ash were used for geoengineering, which is not the case, it would not be without health risks; acute respiratory conditions such as shortness of breath, wheezing and coughing have been noted as well as irritation to the eye and nasal passage[18]. But to my

Figure 1. Clandestine geoengineering toxic chemical aerosol trails early in the daily emplacement activity in San Diego, USA on 8 August 2014. The trail from the tanker-jet dissipates, first forming wispy white 'clouds' as shown, and eventually forms a white haze.

Figure 2. Multiple clandestine geoengineering toxic chemical trails above a recognizable area of San Diego, Kearney Mesa, on 16 January 2015.

Figure 3. Heavy jet-tanker toxic chemical emplacement by clandestine geoengineering activity on 23 November 2014 over San Diego. Initially the sky was pure blue on that day, devoid of any natural clouds. The toxic material does not remain in the atmosphere, but contaminates the air breathed by the San Diegans, the rain and the soil.

knowledge release of mobile aluminum into the environment does not occur from natural volcanic ash. Mining and milling rock to produce artificial volcanic ash in sufficient quantity, 10–12 million tonnes/yr, to implement a full-scale geoengineering programme to cool the planet would be outrageously expensive. Artificially produced chemicals would likewise be prohibitively expensive, except for peripheral clandestine use in weather modifying/weaponizing experiments.

There is, however, a readily available, almost unlimited amount of an extremely low-cost waste product with proper grain size for aerosol dispersing, one that requires extra processing – coal fly ash, which makes up the second largest industrial waste stream of the US economy. Although details of the government's massive tropospheric geoengineering activities are secret, and even unacknowledged to date, as described below, there is reason to believe that coal fly ash is the principal ingredient used for geoengineering.

Coal burning by industries in the West, mostly electric utilities, produces heavy ash that settles out, as well as fly ash that earlier went up the smokestack into the atmosphere, but is now captured and stored because of its well-known adverse human health effects and damage to the environment. Coal fly ash poses danger as a stored waste because water leaches out toxic elements[19]. Leaching experiments on coal fly ash are typically aimed at understanding/mitigating chemical mobility caused by groundwater[20,21]. Moreno *et al.*[20] investigated laboratory leach behaviour of 23 coal fly ash samples from different European power plant sources. The selection covered most of coal fly ash types produced in the European Union. All except one were collected at electrostatic precipitators. The leach procedure employed required mixing 100 g of coal fly ash with 1 litre of distilled water in 2 litre bottles for a period of 24 h. The authors report the abundance of 38 elements in the leachate, including radioactive uranium and thorium and, of particular interest here,

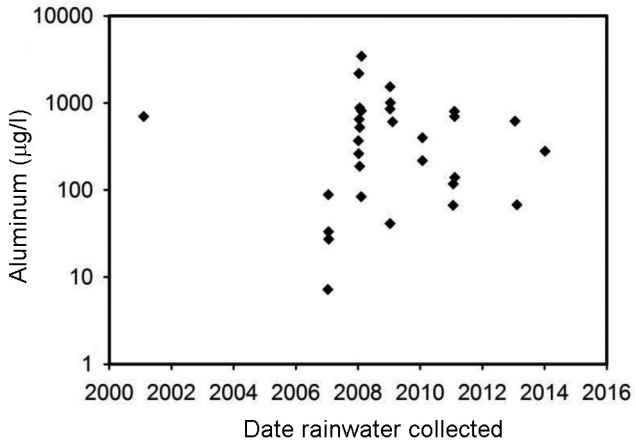

Figure 4. Aluminum content of captured rainwater samples as a function of date collected. The gap between 2002 and 2006 does not indicate an absence of clandestine geoengineering; numerous photographic data are available during that interval.

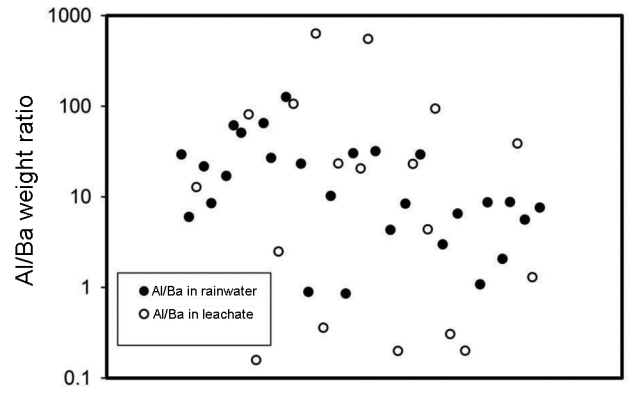

Figure 5. Fingerprint similarity in Al/Ba ratio range between post-geoengineering rainwater and coal fly ash leachate. Placement on the horizontal axis is arbitrary to spread out data points.

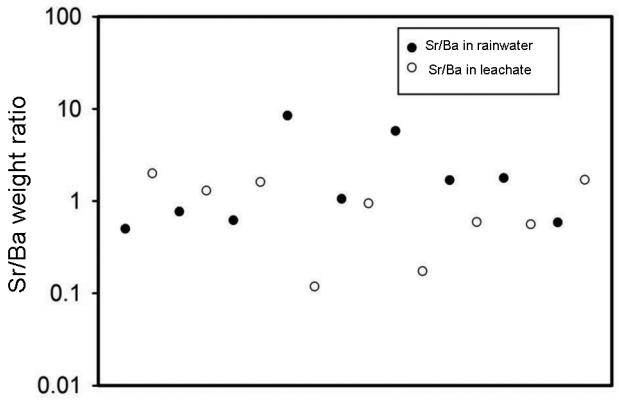

Figure 6. Fingerprint similarity in Sr/Ba ratio range between post-geoengineering rainwater and coal fly ash leachate. Placement on the horizontal axis is arbitrary to spread out data points.

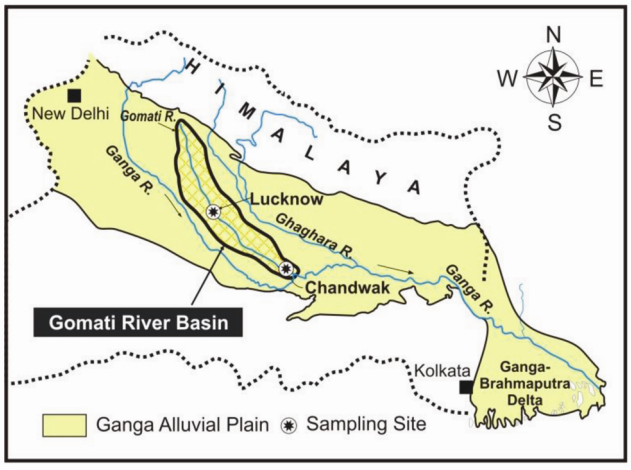

Figure 7. Location map of the Gomati River Basin (courtesy: Jigyasu *et al.*[1]).

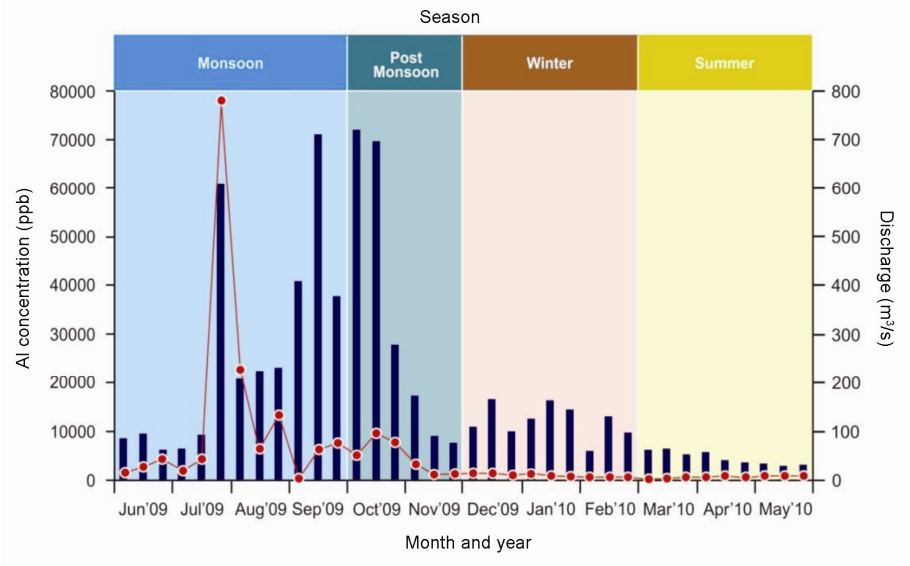

Figure 8. Seasonal distribution of dissolved Al concentration along with discharge in the Gomati River water at Chandwak (courtesy: Jigyasu *et al.*[1]).

aluminum, barium and strontium. Together, aluminum, barium and strontium appear to be the fingerprint of the principal clandestine geoengineering toxic substance.

During the period between July 2011 and November 2012, 73 rainwater samples were collected and analysed for aluminum and barium; 71 were collected from 60 different locations in Germany, 1 from France and 1 from Austria. Aluminum was detected in 77% of the rainwater samples, at an average concentration of 17.68 µg/l. The average barium concentration was found to be 3.38 µg/l. Strontium, with an average composition of 2.16 µg/l, was also observed in 23 rainwater samples[22].

To my knowledge there have been no leaching experiments on coal fly ash that has been exposed to conditions such as one might expect from atmospheric aerosol dispersal, like exposure to UV light, particle contact abrasion or electrostatic discharge. In one set of rainwater measurements in a non-industrial area of northern California, rainwater collected during an electrical storm contained 3,450 µg/l of aluminum, whereas similar sampling 10 days earlier yielded 850 µg/l of aluminum[16]; the difference may or may not have anything to do with electrical discharge.

Figure 4 shows measurement of aluminum content of collected rainwater samples from 2001 to 2014. Generally, the samples were collected by independent scientists who paid the analytical laboratory fees out of their own pockets, hence the paucity of data; government supported academic scientists either have not made comparable measurements or else have not published them. Rainwater evaporation concentrates the aluminum content. In one lined pond fed by rainwater and well water with undetectable aluminum content, the aluminum concentration of the pond water was found to be 375,000 µg/l (ref. 16).

Through the use of ratios it is possible to compare directly the composition of rainwater with the composition of coal fly leach experiments. Figure 5 is a side-by-side comparison of aluminum to barium (Al/Ba) weight ratios of rainwater[16,22] and coal fly ash leachate[20]. The range of Al/Ba values for the rainwater and coal fly ash leachate is virtually indistinguishable, even though the rainwater samples were collected at different times, in different locations, under different degrees of toxic aerosol emplacement, and the coal fly ash samples varied by location and composition.

Figure 6 is a side-by-side comparison of strontium to barium (Sr/Ba) weight ratios of rainwater[16,22] and coal fly ash leachate[20]. The range of Sr/Ba values for the rainwater and coal fly ash leachate is virtually indistinguishable, even though the rainwater samples were collected at different times, in different locations, under different degrees of toxic aerosol emplacement, and coal fly ash samples varied by location and composition.

The data presented above constitute evidence that coal fly ash is the principal material being employed in clandestine geoengineering activities for a period of at least 15 years in America and for unknown periods in Western Europe, New Zealand, and perhaps elsewhere.

Such clandestine geoengineering activities have exposed humanity and Earth's biota to highly mobilized aluminum, a toxic substance not generally found in the natural environment and one for which no natural immunity had evolved. During the period of coal fly ash utilization for clandestine geoengineering, aluminum-implicated neurological diseases showed explosive growth profiles, including autism, Alzheimer's, Parkinson's, ADHD and others[2–11], as well as manifold destruction of plant and animal life. Highly mobilized aluminum from the

geoengineering-dispersed coal fly ash, I posit, is the cause. How can that assertion be verified? In principle, one might show a correlation between the amount of coal fly ash emplaced into the atmosphere for geoengineering and the occurrence of aluminum-implicated neurological diseases. It is unlikely, though, that the clandestine coal fly ash geoengineering data will ever be forthcoming. After the US President Barack Hussein Obama was sworn in for a second term in office on 20 January 2013, geoengineering activities escalated sharply, becoming a near-daily occurrence in many parts of America[14–16]. If coal fly ash geoengineering activities are the principal cause of aluminum-implicated neurological diseases, then there will be a sharp spike in their occurrences after 20 January 2013; proof, albeit horrific proof, of crimes against humanity and Earth's biota of a magnitude and severity never before experienced.

The Ganga Alluvial Plain, as shown in Figure 7, abuts the Himalaya Mountains, a natural barricade to the passage of clouds. Seasonally, as discovered by Jigyasu *et al.*[1], rainfall delivers toxic quantities of highly mobile aluminum to the Gomati River Basin (Figure 8). I suggest that the primary source of highly mobile aluminum is aerosolized coal fly ash. This suggestion is relatively easy to verify by taking rainwater samples and analysing them for aluminum, barium and strontium. If aerosolized coal fly ash is indeed verified as the major source of highly mobile aluminum, then another more difficult question should be addressed: What proportion of the aerosolized coal fly ash derives from clandestine geoengineering activities and what proportion comes from industrial coal burning in India? One forensic approach that should be considered is direct sampling of the coal fly ash in the monsoon clouds and in the clouds before they enter the Indian airspace. These samples may then be compared with the Indian industrial coal fly ash samples. Although the above described forensic investigation may be difficult and expensive, the results might help India improve the health of its citizens.

1. Jigyasu, D. K. *et al.*, High mobility of aluminum in Gomati River Basin: implications to human health. *Curr. Sci.*, 2015, **108**(3), 434–438.

2. Bondi, S. C., Prolonged exposure to low levels of aluminum leads to changes associated with brain aging and neurodegeneration. *Toxicology*, 2014, **315**, 1–7.
3. Yokel, R. A. *et al.*, Entry, half-life and desferrioxamine-accelerated clearance of brain aluminum after a single (26) Al exposure. *Toxicol. Sci.*, 2001, **64**(26), 77–82.
4. Good, P. F. *et al.*, Selective accumulation of aluminum and iron in the neurofibrillar tangles of Alzheimer's disease: a laser microprobe (LAMMA) study. *Ann. Neurol.*, 1992, **31**, 286–292.
5. Prasunpriya, N., Aluminum: impacts and disease. *Environ. Res.*, 2002, **82**(2), 101–115.
6. Rondeau, V. *et al.*, Aluminium and silica in drinking water and the risk of Alzheimer's disease or cognitive decline: findings from 15-year follow-up of the PAQUID cohort. *Am. J. Epidemiol.*, 2009, **169**, 489–496.
7. Moreira, P. I. *et al.*, Alzheimer's disease: an overview. In *Encyclopedia of Neuroscience* (ed. Bloom, F. *et al.*), Elsevier, 2009, pp. 259–263.
8. Chandra, V., Incidence of Alzheimer's disease in a rural community in India. The Indo-US study. *Neurology*, 2001, **57**(2), 985–989.
9. Poddar, K. *et al.*, An epidemiological study of dementia among the inhabitants of eastern Uttar Pradesh, India. *Ann. Indian Acad. Neurol.*, 2011, **14**(3), 164–168.
10. Das, K. S., Pal, S. and Ghosal, M. K., Dimentia: Indian scenario. *Neurol. India*, 2012, **60**(6), 618–624.
11. Tripathi, M. *et al.*, Risk factors of dementia in North India: a case-control study. *Aging Mental Health*, 2012, **16**(2), 228–235.
12. Sparling, D. W. and Lowe, T. P., Environmental hazards of aluminum to plants, invertebrates, fish, and wildlife. *Rev. Environ. Contam. Toxicol.*, 1996, **145**, 1–127.
13. Herndon, J. M., Variables unaccounted for in global warming and climate change models. *Curr. Sci.*, 2008, **95**(7), 815–816.
14. http://stopsprayingcalifornia.com/
15. http://www.endgeoengineering.com/
16. http://www.geoengineeringwatch.org/
17. Oliver, J. E. and Wood, T. J., Conspiracy theories and the paranoid styles of mass opinion. *Am. J. Polit. Sci.*, 2014; doi: 10.1111/ajps.12084.
18. Bolong, R. J., *Volcanic Hazards: A Sourcebook on the Effects of Eruptions*, Academic Press, Australia, 1984, p. 424.
19. Izquierdo, M. and Querol, X., Leaching behavior of elements from coal combustion fly ash: an overview. *Int. J. Coal Geol.*, 2012, **94**, 54–66.
20. Moreno, N. *et al.*, Physico-chemical characteristics of European pulverized coal combustion fly ashes. *Fuel*, 2005, **84**, 1351–1363.
21. Cheng-you, Wu, Hong-fa, Yu and Hui-Fang, Z., Extraction of aluminum by pressure acid-leaching method from coal fly ash. *Trans. Nonferrous Met. Soc. China*, 2012, **22**, 2282–2288.
22. http://www.cielvoile.fr/article-concentrations-de-metaux-lourds-dans-l-eau-de-pluie-en-allemagne-118778899.html

Received 17 February 2015; accepted 23 April 2015