

## Unidentified Anomalous Phenomena

Policy Implications for the Government of the United Kingdom

Helen McCaw, MA (Cantab)



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"This truth is incontrovertible. Panic may resent it, ignorance may deride it, malice may distort it, but there it is." Winston Churchill, Speech in the House of Commons, 17 May 1916

## **Executive Summary**

nidentified anomalous phenomena (UAP), previously known as unidentified flying objects (UFOs), are real physical objects that have been seen around the world for decades. They are a global phenomenon. Many governments have conducted UAP investigations and disclosed significant military and civilian encounters with them. UAP are advanced technological objects that have registered on calibrated military instrumentation that include radar, infrared, electro-optical, and weapon seekers. There are numerous incidents where UAP have been reported near nuclear weapons technology and capabilities. Furthermore, there is legitimate reason to conjecture that in the near future, the US government will publicly disclose that a technologically advanced non-human intelligence (NHI) is responsible for UAP and engaging with humanity and the planet. We refer to this as "UAP disclosure." Indeed, credible testimony from US Navy pilots and former high-ranking US government officials, along with recent legislation on UAP enacted through defence spending bills, strongly suggests that the US government is already in the process of disclosing information about UAP.

The UAP subject clearly holds enormous public interest. If UAP prove not to be designed by human beings, then we are dealing with unprecedented issues of existential consequence for humanity. We would have to acknowledge the existence and terrestrial presence of a technologically advanced non-human intelligence. Humanity would enter a new paradigm of greater significance than even the Copernican Revolution.

If there is verified information about NHI, it should not be the sole preserve of governments. Humanity has a moral right to know. Furthermore, concealing information of this magnitude is not a viable long-term solution, as it is likely to be revealed eventually. If this happens abruptly and in an uncontrolled manner, it could lead to significant societal disruption. This could occur through a variety of means, such as the government of the United States, an adversary, a scientific study, or even NHI themselves (should they exist). The UK government can manage the risk of uncontrolled disclosure by actively developing a careful plan to release and discuss information on UAP. This will take being proactive rather than reactive, engaging with our allies, and carefully planning for a post-disclosure world.

Whichever political party forms the next UK government after the general election on 4 July 2024, they must change the UK's current position on UAP. Despite engaging in the serious study of UAP in the past, the UK government is almost silent on the issue today. The Cabinet is responsible for policy decisions on UAP, but Parliament should be as well—due to its role in examining and challenging the government, as well as its responsibility to the entire UK population. The UK government will likely face myriad issues on the UAP topic, so it is critical the civil service is proactively engaged as well.

Where should the next UK government begin? The place to start is the UK's National Security Risk Assessment (NSRA), owned by the Cabinet Office. This is the UK government's principal tool for identifying and assessing national security risks faced by the UK and the

public, and it has an unclassified and publicly available counterpart in the National Risk Register. Unidentified anomalous phenomena or variants thereof, do not feature in the UK's National Risk Register nor an internal risk dossier drawn up by the Labour Party's Chief of Staff, and are unlikely to be dealt with in the National Security Risk Assessment.

Some office or agency in the UK government is likely to have knowledge of UAP because of the UK's membership in the Five Eyes intelligence alliance of the US, the UK, Canada, Australia, and New Zealand. Indeed, two senior members of the US Intelligence Community have publicly stated recently that the Five Eyes has been briefed on the UAP topic.<sup>3</sup> If the UK does have UAP knowledge, it likely resides within the Ministry of Defence and the Secret Intelligence Service (MI6), and perhaps the Cabinet as well.

This white paper implores the UK government to publicly treat the UAP topic with the seriousness it deserves. The policy implications pervade almost every area of government and society; they raise innumerable questions that need to be categorised and investigated. In this paper, we identify the policy implications for the UK government and discuss them as they relate to five broad areas of government and society:

- 1. Government and National Security: As advanced technological objects, UAP present a risk to national security and flight safety that must be expertly assessed by the military and Intelligence Community, irrespective of their origin. There is also the risk of the "technological surprise" that could result if some states are secretly attempting to emulate and weaponize the technological capabilities of UAP, and one prevails. If UAP prove not to be designed by human beings, then we may be forced to acknowledge the existence of a power and intelligence greater than any government. This presents risks to the legitimacy of existing anthropocentric governance structures, and these risks may be amplified by failures of the government accountability and a lack of public trust.
- 2. International Relations: UAP are a global phenomenon necessitating some degree of international cooperation and collaboration on information-sharing, investigation, and public communication. These actions may reduce the risk of rapid uncontrolled disclosure. Countries may want to consider new treaties to prevent the weaponization of UAP-related technologies and collective action through a supranational organisation such as the United Nations.
- **3. Scientific Progress and UK Competitiveness:** The scientific investigation of UAP may prompt new investment opportunities and enable extraordinary technological progress in many sectors of the economy, both at home and abroad. While that progress could be beneficial, it might also turn out to be disruptive to the economic status quo and require domestic and international policy responses.
- **4. Financial Stability:** UAP disclosure presents risks to financial stability because of the potential impact of disclosure and paradigm-changing UAP-related technologies on existing financial markets. The Bank of England should take action to address the UAP risk in order to avoid financial instability, particularly given the inarguably global nature of financial markets.

5. Social Implications: There would be "ontological shock" if UAP prove not to be designed by human beings. The government would need to think very carefully about how it communicates any such news to its citizens and what impact it might have on society, leadership, the economy, and the demand for mental health support services. The UK government should engage with and seek input from the Church of England and all other Christian denominations in the UK. An interfaith dialogue and eventually a council should be set up for the leaders of the Muslim, Hindu, Sikh, Jewish and Buddhist faiths in the UK.

We also make the following five recommendations for the UK government:

- 1. Establish the Facts: We recommend that the Cabinet and Parliament be provided with full briefings by the British Intelligence Community, Armed Forces, Civil Aviation Authority, and UK Space Agency on the UAP topic. We also recommend the Cabinet and Parliament pay serious attention to the (unclassified) history of government action, legislation, and investigations of UAP since 1947. We also recommend the Cabinet reaches out to our American allies to begin information-sharing on the UAP topic.
- **2. UAP Risk Assessment:** We recommend the Cabinet commissions a whole-of-government investigation into the policy implications of UAP, as set out in section 2 of this white paper.
- 3. Social Research: We recommend the Cabinet commissions social research such as surveys, statistical analysis, participant observation, and unstructured interviews to gauge the UK public's attitudes toward, and awareness of, the UAP topic, and the population's likely psychological and social response to UAP disclosure. Additionally, we recommend the Cabinet identifies the UK's critical workers, by occupation, in relation to UAP disclosure. We recommend two of these occupational groups should be executive government leadership and Bank of England core staff. Social research should be carried out on the identified occupational groups, to gauge, in similar fashion, their awareness of and likely reactions to the UAP topic.
- **4. Initial Public Engagement:** We recommend the Cabinet hosts an international summit on UAP in the UK, akin to the AI Safety Summit held at Bletchley Park in November 2023. The AI Safety Summit produced the Bletchley Declaration, a commitment from twenty-eight countries (plus the EU) to collaborate on policy relating to the topic of AI safety. Could the UK instigate similar international collaboration on all matters relating to UAP? We also recommend that the Cabinet, in consultation with Parliament, issues a public statement on UAP, such as

The UK Government acknowledges the legitimacy of unidentified anomalous phenomena (UAP). We are working with our international allies to investigate the causes and their implications.<sup>5</sup>

**5.** Quantify the Do-Nothing Scenario: We recommend the Cabinet, in consultation with Parliament, assesses and quantifies the risks and ramifications to the United Kingdom if the government continues the status quo of no policy response on UAP. In particular, the

government should consider the question: What happens if there is confirmation that the designers of UAP are not of human origin?

At the Sol Foundation's inaugural symposium at Stanford University in November 2023, Colonel Karl Nell, who served on the UAP Task Force (a previous US government UAP study programme), proposed a plan for the US government to take the global lead in the "controlled disclosure" of UAP information to the world.6 "Controlled disclosure" is the official public release, by government, of previously classified government information on UAP, carried out in such a way that the government is responsible for deciding when to selectively disclose UAP records to the public.

The UAP Disclosure Act was an attempt from inside the government of the United States to achieve precisely this goal. But in a world of radical uncertainty, there is no guarantee a controlled plan to disclose UAP information will succeed. As former Governor of the Bank of England Lord Mervyn King and economist Sir John Kay point out, "Beliefs are embodied in a narrative, and the prevailing narrative can change in an abrupt or discontinuous fashion when a sufficiently large number of people see evidence that leads them to change their view." It is therefore very important that the UK government plans for all scenarios, including one where it is suddenly confirmed that the designers of UAP are not human.

Finally, this white paper recommends that Andrew Bailey, Governor of the Bank of England, raises the UAP topic with the Financial Stability Board's Standing Committee on Assessment of Vulnerabilities (SCAV) so the SCAV, with its expertise and global purview, can materially assess the financial stability risks of UAP disclosure.

### Introduction

Unidentified anomalous phenomena (UAP), previously known as unidentified flying objects (UFOs), are real physical objects that have been seen around the world for decades. They are a global phenomenon: in May 2023, the US Joint Chiefs of Staff sent out an internal directive on UAP stating that the US government "has observed UAP in or near the territory and/or operating areas of the United States, of its allies, and of its adversaries" and that UAP demonstrate behaviors not readily understood by sensors or observers." Many governments have conducted UAP investigations and disclosed significant military and civilian encounters. UAP have registered on calibrated military instrumentation that include radar, infrared, electro-optical, and weapon seekers. There are numerous incidents where UAP have been reported near nuclear weapons technology and capabilities. According to some indications from both the legislative and executive branches of the US government, the data thereby gained shows that UAP have performance characteristics that include (1) instantaneous acceleration without apparent inertia, (2) hypersonic velocity with no thermal signature or sonic boom, (3) the ability to transition between different mediums, such as from space to the atmosphere or from the atmosphere to undersea (known as "transmedium" travel), (4) positive lift contrary to known aerodynamic principles, and (5) multispectral signature control or the ability to reduce visual or sensor detection. Although much information on UAP remains classified by governments, the reported shapes of UAP have included, for example, lenticular—the flying disk or flying saucer—triangular, spherical, a "Tic Tac" shaped object, and a grey or black cube within a clear sphere.

The US government began officially investigating UAP in 1947 when, following the first recorded observations of unidentified flying objects, the US Air Force established Project Sign. Several US investigations followed, including Project Blue Book, which ran from 1952 to 1969. The National Archives of Australia revealed an elucidating 1971 internal Australian Department of Defence memo, "Scientific and Intelligence Aspects of the UFO Problem" which stated that, upon retirement from service, several senior US government officials "publicly stated that the U.S. Government knew UFO's were extra-terrestrial but was withholding this fact from the public." The French government has officially investigated UAP since the mid-1970s. In 1996, the Committee for In-Depth Studies (Comité d'Études Approfondies or COMETA) was created, chaired by Major General Denis Letty. COMETA produced a report in 1999, regarding which Letty went on to say, "The COMETA Report shows, in a straightforward manner, that the extra-terrestrial hypothesis is the most rational explanation, although of course it has not been proven." The UK government has also investigated UAP in the past. A report titled "Unidentified Aerial Phenomena in the UK Air Defence Region" was made public in 2006, following a Freedom of Information Act request. Although the report was inconclusive, it stated, "That UAP exist is indisputable. Credited with the ability to hover, land, take-off, accelerate to exceptional velocities and vanish, they can reportedly alter their direction of flight suddenly and clearly can exhibit aerodynamic characteristics clearly beyond those of any known aircraft or missile—either manned or unmanned."12 The US Department of Defense (DoD) closed Project Blue Book in 1969 and only officially returned to investigating UAP in the mid-2000s, when "select members of Congress initiated and fund-

ed a program to study UAP, called the Advanced Aerospace Weapon Systems Applications program, under the direction of the Defense Intelligence Agency."<sup>13</sup> This information was not publicly known until December 2017, when the New York Times published groundbreaking revelations on the US government's investigations into UAP.<sup>14</sup>

Since then, much has happened. In April 2020, three leaked UAP videos were confirmed to be authentic by the DoD.<sup>15</sup> These videos, recorded by US Navy pilots, were of aerial objects whose flight characteristics were impossible to reproduce with modern military aircraft. In June 2021, the US Office of the Director of National Intelligence (ODNI) published an unclassified preliminary assessment, presenting UAP as a matter of national security and flight safety.<sup>16</sup> In December 2021 and December 2022, significant legislation on UAP was passed into law by US President Joe Biden with full bipartisan support.<sup>17</sup> This legislation established a permanent and fully funded interagency entity, the All-Domain Anomaly Resolution Office (AARO),<sup>18</sup> to study, collect data, and report on UAP. It also provided legal protections for government whistleblowers to come forward and report to Congress any secret government activities or programmes relating to UAP, including "material retrieval, material analysis, reverse engineering, research and development, detection and tracking."<sup>19</sup>

In July 2023, Senate Majority Leader Charles Schumer (D-NY) and other senators proposed a "Controlled Disclosure Campaign Plan" as part of the UAP Disclosure Act of 2023.<sup>20</sup> "Controlled disclosure" is the official public release, by government, of previously classified government information on UAP, carried out in such a way that the government is responsible for deciding when to selectively disclose UAP records to the public.

Although only a reduced version of the UAP Disclosure Act was passed into law in December 2023, further US legislation on UAP is expected.<sup>21</sup> In addition to all this, in the past few years US Navy pilots and former high-ranking US government officials have given stunning public statements on UAP. As a result of protections in the UAP legislation, whistleblowers have been providing UAP testimony to Congress, both publicly and privately.<sup>22</sup>

The Canadian government has recently begun sharing information on UAP with the US government, and in October 2022 Canada began its first officially known UAP study in nearly thirty years. <sup>23</sup> Dmitry Rogozin, the head of Roscosmos (the Russian space agency) has publicly stated that Russian scientists are studying UAP, and at a congressional UAP hearing in 2022 Scott Bray, Deputy Director of US Naval Intelligence, said the Chinese government has its own UAP study programme as well. <sup>24</sup> Science has also entered the stage. NASA and the Galileo Project at Harvard University are conducting UAP studies, and in its search for celestial objects that have vanished the VASCO Project at the Nordic Institute for Theoretical Physics is also considering the UAP explanation. <sup>25</sup>

The subject is undoubtedly of public interest. If UAP prove not to be designed by human beings, then we are dealing with unprecedented issues of existential consequence for humanity. We would have to acknowledge the existence and terrestrial presence of a technologically advanced non-human intelligence (NHI). Humanity would enter a new paradigm of greater significance than even the Copernican Revolution.

If there is verified information about NHI, it should not be the sole preserve of governments. Humanity has a moral right to know. Furthermore, concealing information of this magnitude is not a viable long-term solution, as it is likely to emerge one way or another. If it were to be released suddenly and without a plan, society could become destabilised. Such an "uncontrolled disclosure" could occur through the government of the United States, an adversary, or a scientific study. The UK government can manage the risk of uncontrolled disclosure by actively developing a careful plan to release and discuss information on UAP. This will take being proactive rather than reactive, engaging with our allies, and carefully planning for a potential post-disclosure world.

Whichever political party forms the next UK government after the general election on 4 July 2024, they must change the UK's current position on UAP. What is that position? The topic was discussed in the UK's House of Lords following publication of the ODNI report in June 2021. Baroness Goldie, Minister of State at the Ministry of Defence, said, "We are of course aware of the US assessment. The MoD has no plans to conduct its own report into UAP because, in over 50 years, no such reporting indicated the existence of any military threat to the UK." But how can such inaction be justified when the government of the United States, our closest ally, is treating UAP as a threat to national security and flight safety?

Some office or agency in the UK government is likely to have knowledge of UAP because of the UK's membership in the Five Eyes intelligence alliance of the US, the UK, Canada, Australia, and New Zealand. Indeed, two senior members of the US Intelligence Community have publicly stated very recently that the Five Eyes has been briefed on the UAP topic.<sup>27</sup> If the UK does have UAP knowledge, it likely resides within the Ministry of Defence and the Secret Intelligence Service (MI6), and perhaps the Cabinet as well.

UAP disclosure is very different from the search for extraterrestrial intelligence (SETI) scenario, where primitive or even advanced life may be discovered but remains reassuringly far away. The SETI scenario invites a psychological and perhaps a geopolitical reaction, but communication is likely to be absent or slow due to the distances involved. Furthermore, the SETI scenario does not invite the possibility of close observation, or possession, of advanced non-human technology. Under the SETI scenario, there would be little, if any, immediate material changes to life on Earth. These reassurances provided by distance evaporate in the UAP world—with UAP disclosure, there are many moving parts. What quantity and quality of information will be disclosed at first, and by whom? Will UAP disclosure occur rapidly in a single moment of mass societal realisation? Or can it be drip-fed through controlled disclosure, so that information permeates society gently over many years? Does this matter? How will society react?

Lastly, and, for our purposes, most important: What are the implications of UAP for the next UK government?

# 1. Chronology of Government Action, Legislation, and Investigations

#### Significant Government Investigations (1947 to Present Day)

AP have been the subject of serious government investigation for over seventy years. In a classified August 2023 US Department of Defense report titled "Evaluation of the DoD's Actions Regarding Unidentified Anomalous Phenomena" (with an unclassified summary published in January 2024), the DoD Inspector General concluded, "We determined that the DoD has no overarching UAP policy and, as a result, it lacks assurance that national security and flight safety threats to the United States from UAP have been identified and mitigated." In January 2024, Alain Juillet, former Director of Intelligence at France's foreign intelligence agency, the Directorate-General for External Security, said UAP posed "a huge problem for national security in every country."

In its report, the DoD Inspector General also said, "The DoD's first official UAP-focused activities occurred in December 1947, when the U.S. Air Force Chief of Staff established PROJECT SIGN to investigate the first recorded observations of unidentified flying objects." The DoD Inspector General also confirmed the existence of Project Blue Book, a UAP investigation that ran from 1952 to 1969 and was initiated by the US Air Force Director of Intelligence.

The French government has officially investigated UAP since the mid-1970s. The Committee for In-Depth Studies (Comité d'Études Approfondies or COMETA) was created in 1996 and chaired by Major General Denis Letty. The COMETA report, which was published in 1999 and submitted to the highest authorities in the French government, was written by thirteen retired French generals, scientists, and Andre Lebeau, former head of the Centre National d'Études Spatiales, the French space agency. Describing COMETA in Leslie Kean's *UFOs: Generals, Pilots, and Government Officials Go on The Record*, Letty stated, "All the testimony we retained for the COMETA Report is supported by tangible pieces of evidence: radar echoes, tracks on the ground, photographs, electromagnetic phenomena, and even the modification of the process of photosynthesis in plants. Many accounts given by totally independent witnesses confirm one another. It became clear that at least 5 percent of sightings for which there is solid documentation cannot be attributed to man-made or natural sources. Our experts examined all possible explanations for these cases." In conclusion, Letty said, "The COMETA Report shows, in a straightforward manner, that the extra-terrestrial hypothesis is the most rational explanation, although of course it has not been proven."<sup>32</sup>

The UK government has also investigated UAP in the past. Indeed, the abbreviation UAP comes from use of the term unidentified aerial phenomena in official UK government reports. Project Condign, the most significant known UK effort, was undertaken by the government's

Defence Intelligence Staff between 1997 and 2000 and produced a report, titled "Unidentified Aerial Phenomena in the UK Air Defence Region," that was made public in 2006 through a Freedom of Information Act request. Although the report was inconclusive, <sup>33</sup> it stated, "That UAP exist is indisputable. Credited with the ability to hover, land, take-off, accelerate to exceptional velocities and vanish, they can reportedly alter their direction of flight suddenly and clearly can exhibit aerodynamic characteristics clearly beyond those of any known aircraft or missile—either manned or unmanned." The UK report also said, "No attempt should be made to out-manoeuvre a UAP during interception." Files from the National Archives confirm the UK's Ministry of Defence closed its UFO Desk in 2009 because it served "no defence purpose" and was taking staff away from "more valuable defence-related activities."

According to the US DoD Inspector General report, the Department of Defense closed Project Blue Book in 1969 and "did not officially look at UAP again until mid-2000, when select members of Congress initiated and funded a program to study UAP, called the Advanced Aerospace Weapon Systems Applications program, under the direction of the Defense Intelligence Agency." This information was not publicly known until December 2017, when the New York Times published groundbreaking revelations on the US government's investigations into UAP. Times published groundbreaking revelations on the US government's investigations into UAP. These videos, recorded by US Navy pilots, were also confirmed to be authentic by the DoD. These videos, recorded by US Navy pilots, were of aerial objects whose flight characteristics were beyond those of modern military aircraft. These pilots subsequently provided eyewitness accounts to the media, including a segment on the CBS News programme 60 Minutes in May 2021.

#### Office of the Director of National Intelligence Report

In June 2021, the Office of the Director of National Intelligence published an unclassified preliminary assessment, presenting UAP as a matter of national security and flight safety.<sup>41</sup> The report said UAP are real objects and that the US military is encountering and seriously studying them. The classified full report was submitted to the intelligence and armed services committees of the US Congress and distributed within the relevant intelligence and defence organisations of the executive branch. The report looked at 144 UAP incidents and found no evidence that any were attributable to foreign government or classified US government research programmes. Of these 144 UAP incidents, eighty involved observations with multiple sensors. Commenting on the report, former Director of National Intelligence John Ratcliffe said, "Frankly, there are a lot more sightings than have been made public. Some of those have been declassified. And when we talk about sightings, we are talking about objects that have been seen by Navy or Air Force pilots, or have been picked up by satellite imagery, that frankly engage in actions that are difficult to explain, movements that are hard to replicate, that we don't have the technology for. Or travelling at speeds that exceed the sound barrier without a sonic boom."42 In a later interview, Ratcliffe also said "there are technologies that we don't have and frankly that we are not capable of defending against" and "it's an issue of national security."43

The UAP topic was discussed in the UK's House of Lords following publication of the ODNI report. Baroness Goldie, Minister of State at the Ministry of Defence, said, "The department holds no reports on unidentified aerial phenomenon but constantly monitors UK airspace to identify and respond to any credible threat to its integrity, and is confident in the

existing measures in place to protect it."<sup>44</sup> Baroness Goldie also said, "We are of course aware of the US assessment. The MoD has no plans to conduct its own report into UAP because, in over 50 years, no such reporting indicated the existence of any military threat to the UK."<sup>45</sup> However, someone in the UK government is likely to have deep knowledge of the subject, because the UK is a member of the Five Eyes intelligence alliance. Indeed, two senior members of the US intelligence community have publicly stated recently that the Five Eyes has been briefed on the UAP topic. <sup>46</sup> Most likely, UAP knowledge is held within the Ministry of Defence and the Secret Intelligence Service (MI6) and perhaps the Cabinet as well.

#### **Scientific Research**

In July 2021, Avi Loeb, a professor at Harvard University, founded the Galileo Project to "identify the nature of UAP and 'Oumuamua-like interstellar objects using the standard scientific method based on a transparent analysis of open scientific data to be collected using optimized instruments." In February 2024, Loeb attended the Munich Security Conference to talk about UAP, US government legislation on UAP, and the Galileo Project.<sup>48</sup>

Another scientific research endeavour is the Vanishing and Appearing Sources during a Century of Observations (VASCO) project, led by Beatriz Villarroel, assistant professor at the Nordic Institute for Theoretical Physics (NORDITA) in Stockholm. VASCO is searching for celestial objects that have vanished over a seventy-year period, using pre-*Sputnik* photographic plates captured by observatory telescopes around the world.<sup>49</sup> Intriguingly, the team have found multiple examples where sources of light on one plate disappear in the same field of view in plates photographed on later dates. Those sources cannot be satellites due to their pre-*Sputnik* provenance. One potential explanation for these "vanishing stars" is UAP.<sup>50</sup>

More recently, the Sol Foundation launched with a symposium at Stanford University and is undertaking UAP-related research in the natural sciences, social sciences, humanities, and public policy.

#### UAP Legislation, 2021-2022

In 2021 and 2022, groundbreaking legislation was passed into law by President Biden with full bipartisan support. The National Defense Authorization Act for Fiscal Year 2022 defined the term "unidentified aerial phenomena" as:

- (a) airborne objects that are not immediately identifiable;
- (b) transmedium objects or devices; and
- (c) submerged objects or devices that are not immediately identifiable and that display behavior or performance characteristics suggesting that the objects or devices may be related to the objects or devices described in subparagraph (a) or (b).

The legislation also defined the term "transmedium objects or devices" as "objects or devices that are observed to transition between space and the atmosphere, or between the atmosphere and bodies of water, that are not immediately identifiable." The National Defense Authorization Act for Fiscal Year 2023 redefined the term UAP as "unidentified *anomalous* phenomena." 52

This legislation established a permanent and fully funded interagency entity, the All-Domain Anomaly Resolution Office, to study, collect data, and report on UAP.<sup>53</sup> The National Defense Authorization Act for Fiscal Year 2023 required AARO to review all the US government's UAP archives going back to 1945 and produce a report detailing:

- 1. any program or activity that was protected by restricted access that has not been explicitly and clearly reported to Congress;
- 2. successful or unsuccessful efforts to identify and track unidentified anomalous phenomena; and
- **3.** any efforts to obfuscate, manipulate public opinion, hide, or otherwise provide incorrect unclassified or classified information about unidentified anomalous phenomena or related activities.<sup>54</sup>

The legislation also created a secure method for current or former government employees or contractors to report to AARO "any activity or program by a department or agency of the Federal Government or a contractor of such a department or agency relating to unidentified anomalous phenomena, including with respect to material retrieval, material analysis, reverse engineering, research and development, detection and tracking, developmental or operational testing, and security protections and enforcement." It enabled those bringing information forward to testify to the congressional armed services and intelligence committees without risking prosecution for breaking their security oaths and nondisclosure agreements. The legislation also included an antireprisal clause.

#### Congressional Hearing on UAP

In May 2022, the US Congress held its first congressional hearing on UAP in more than fifty years. <sup>56</sup> At the session, Scott Bray, then Deputy Director of Naval Intelligence (and now Assistant Secretary General of Intelligence at NATO), confirmed that US allies have seen UAP and that the Chinese government has its own UAP study programme. <sup>57</sup> When asked if some UAP were part of a classified US programme, Bray stated he was "quite confident that was not the explanation" and "we're not aware of any adversary that can move an object without discernible means of propulsion." <sup>58</sup>

#### Canadian UAP Study

Shortly before the first US congressional hearing on UAP in May 2022, Canadian MP Larry Maguire wrote, "We must strive to declassify [UAP] information in a responsible way to co-ordinate and collaborate with our allies when appropriate. All efforts should be done in an open and transparent manner." In June 2022, it was confirmed that the Canadian Nuclear Safety Commission would reach out to its US counterpart to share information regarding UAP and nuclear facilities. Natural Resources Canada also confirmed it had reached out to the US Department of Energy regarding the ODNI's June 2021 UAP report. 60

In October 2022, the Sky Canada Project was launched to "study how Unidentified Aerial Phenomena (UAP) reports from the public are managed in Canada and to recommend improvements." The project stated it would "prepare Canada for collaboration with other

countries on UAP reporting" and acknowledged the existence of the NASA UAP study, AARO, and the Galileo Project at Harvard University.

The Sky Canada Project is the first officially known Canadian UAP study in nearly 30 years. It is being conducted by the Office of the Chief Science Advisor, and a report is expected to be released to the public around autumn 2024. In February 2024, Mona Nemer, the Canadian government's Chief Science Advisor, told the Canadian Standing Committee on Science and Research that "we're taking this seriously" and "I think that there is room for improvement in terms of the gathering, reporting on the information, and also making it available to researchers and to the public." Nemer also confirmed that the Sky Canada Project had contacted counterparts in the United States and France as well as the Canadian Department of National Defence, Transport Canada, the Canadian Space Agency, and the Royal Canadian Mounted Police. 63

#### **UAP Investigations in Other Countries**

The Centre National d'Études Spatiales, the French space agency, has a small though long-standing scientific UAP study programme called the Group for the Study of Unidentified Aerospace Phenomena. 4 The Chilean government has a UAP study programme, the Committee for the Study of Anomalous Aerial Phenomena, which operates under the General Directorate of Civil Aviation and investigates UAP sightings reported by credible witnesses, including pilots and air traffic controllers. Feru houses a UAP study programme in its Air Force Anomalous Aerial Phenomena Research Department. The Brazilian government has studied UAP in the past. The Brazilian Air Force conducted Operation Prato in the 1970s, collecting and occasionally releasing reports on UAP incidents. There are no officially acknowledged UAP study programmes in India; however, in 2012 authorities reported over one hundred UAP sightings along the China—Tibet border, and Indian Army soldiers observed more UAP in 2013. Uruguay has an Air Force Commission for the Reception and Investigation of Complaints of Unidentified Flying Objects, which was recently reported to be investigating a UAP incident.

In 2020, Japan's Self-Defense Forces were issued new protocols for encounters with UAP that could potentially pose a threat to national security. In May 2024, Japan's former Defence Minister Yasukazu Hamada, now parliamentary affairs leader of the ruling Liberal Democratic Party, formed a group that will formally ask the Japanese government to create an organisation to investigate UAP and to cooperate on UAP with the US government.<sup>70</sup>

In June 2022, perhaps in response to the US congressional hearing a month before, Dmitry Rogozin, the head of Roscosmos, Russia's space agency, confirmed that the Russian Academy of Sciences was also conducting UAP studies.<sup>71</sup> Rogozin said that he did not rule out the extraterrestrial hypothesis. Note that Russia has a history of UAP investigations dating back to the Soviet era.<sup>72</sup>

#### **NASA UAP Study**

NASA launched its own UAP study in June 2022 and held its first ever public meeting on UAP in May 2023.<sup>73</sup> At this meeting, Sean Kirkpatrick, Director of AARO at that time,

revealed that metallic spheres, moving without any signs of propulsion or flight control surfaces, were being seen "all over the world." Kirkpatrick also confirmed that he had recently met with the Five Eyes intelligence alliance to discuss UAP data collection and collaboration. In September 2023, NASA produced a rather underwhelming report on UAP that lacked any NASA data but did conclude that NASA can "contribute to UAP studies within the broader whole-of-government framework led by the All-domain Anomaly Resolution Office (AARO)."

Regarding UAP detection in space, it appears much information has yet to be made public. In August 2023, Christopher Mellon, former US Deputy Assistant Secretary of Defense for Intelligence, said that multibillion-dollar automated air and space surveillance systems (NORAD and America's SSPARS radars) were "either failing to detect UAP or failing to report those incidents to [AARO] and to Congress." In a similar vein, Alain Juillet, former Director of Intelligence at France's foreign intelligence agency, the Directorate-General for External Security, recently commented, "We have an extraordinarily precise knowledge of what's going on in the air and in space. How come we can't spot any machines or planes that might be passing by?" Juillet added, "Ratcliffe has talked about it a little"—John Ratcliffe has stated publicly that UAP have been picked up by satellite imagery. "but no one has shown any images or informed of any measures that had been taken of UAP in space. And yet there must be some, there has to be, since we see them on the ground, we see them at altitude, there's no reason why we shouldn't see them in space. So this is yet another problem."

#### White House UAP Study Group

In February 2023, John F. Kirby, the US National Security Council Coordinator for Strategic Communications, announced that the White House was establishing its own UAP study group. Kirby said President Biden had tasked National Security Adviser Jake Sullivan to lead "an interagency team to study the broader policy implications for detection, analysis, and disposition of unidentified aerial objects that pose either safety or security risks." The group included Secretary of State Antony Blinken, Secretary of Defense Lloyd Austin, and Director of National Intelligence Avril Haines. Kirby said the group was tasked with engaging "their relevant counterparts to share information and to try to gain their perspectives as well."80 At a White House press briefing on 17 July 2023, Kirby said, "Some of these phenomena, we know, have already had an impact on our training ranges for—you know, when pilots are out trying to do training in the air and they see these things, they're not sure what they are, and it can have an impact on their ability to perfect their skills."81 At another White House press briefing, on 26 July 2023, Kirby also said: "If the President didn't believe that the sightings by pilots were serious enough to be – to be considered, he wouldn't have wanted the Pentagon to stand up an office to - to look at this, to analyse the data, to collect reports, and provide a system by which we can collate the information and better figure out what we've got here."82

#### **Second Congressional Hearing on UAP**

In July 2023, the United States held a second congressional hearing on UAP.<sup>83</sup> At this hearing, former Air Force and National Geospatial Intelligence Agency (NGA) intelligence officer

David Grusch testified under oath that during the course of his official duties he had discovered that the US government was in possession of compelling evidence that UAP exist and their designers are not human.<sup>84</sup> Grusch said that these allegations were based on interviews he had conducted with over forty highly credentialed witnesses over four years:

I was an intelligence officer for fourteen years, both in the US Air Force (USAF) at the rank of Major and most recently, from 2021-2023, at the National Geospatial Intelligence Agency at the GS-15 civilian level, which is the military equivalent of a full-bird Colonel. I was my agency's co-lead in Unidentified Anomalous Phenomena (UAP) and trans-medium object analysis, as well as reporting to UAP Task Force (UAPTF) and eventually the All-Domain Anomaly Resolution Office (AARO). I became a Whistleblower, through a PPD-19 Urgent Concern filing with the Intelligence Community Inspector General (ICIG), following concerning reports from multiple esteemed and credentialed current and former military and Intelligence Community individuals that the US Government is operating with secrecy—above Congressional oversight—with regards to UAPs. My testimony is based on information I have been given by individuals with a longstanding track record of legitimacy and service to this country—many of whom also shared compelling evidence in the form of photography, official documentation, and classified oral testimony. I have taken every step I can to corroborate this evidence over a period of four years and to do my due diligence on the individuals sharing it, and it is because of these steps that I believe strongly in the importance of bringing this information before you.<sup>85</sup>

It is noteworthy that Grusch's legal counsel was I. Charles McCullough III, who served as the first Inspector General of the Intelligence Community after being appointed by President Barack Obama in 2010. McCullough was present at the hearing, and he and Grusch were interviewed together a few days later by the BBC. Grusch asserted that UAP information "does cross into other countries and other allies to include the Five Eyes alliance."

Retired US Navy commanding officer David Fravor also testified under oath at the hearing. He described a 2004 UAP encounter he and his colleagues had with a "white Tic Tac shaped object" with "no . . . sign of visible flight control surfaces like wings" while he was attached to the USS *Nimitz* carrier group off the coast of California. Recalling the UAP incident, Fravor said, "The technology that we faced was far superior than anything that we had, and you could put that anywhere. If you had one, you captured one, you reverse engineered it, you got it to work, you're talking something that can go into space, go someplace, drop down in a matter of seconds, do whatever it wants and leave, and there's nothing we can do about it. Nothing." Rep. Nancy Mace (R-SC) asked Fravor, "Many dismiss UAP reports as classified weapons testing by our own government. But in your experience as a pilot, does our government typically test advanced weapons systems right next to multimillion-dollar jets without informing our pilots?" Fravor replied, "No. We have test ranges for that."88

Ryan Graves, retired US Navy fighter pilot and Executive Director of Americans for Safe Aerospace, also testified under oath at the hearing.<sup>89</sup> At the hearing, Graves stated that military and civilian pilots were frequently encountering UAP, and he estimated that only 5 percent of UAP incidents were being reported. Graves described some UAP as "a dark grey or a black cube inside of a clear sphere" and recounted an incident in which an object of that sort

with a five- to fifteen-foot diameter came between two F-18 Super Hornets and got "within 50 feet of the lead aircraft." Graves continued: "Right now, military witnesses to UAP have limited options for reporting UAP. But more concerning is that commercial aviation sector has not adapted to the lessons that the military has implemented. The military and Department of Defense have stated that UAP represent a critical aviation safety risk. We have not seen that same language being used in the commercial markets. They're not acknowledging this risk."90

#### **UAP Testimony and Whistleblowers**

In an interview with *News Nation* in June 2023, Senator Marco Rubio (R-FL), Vice Chairman of the Senate Select Committee on Intelligence, was asked about David Grusch's allegations that the US government was in possession of compelling evidence that proved both the existence of UAP and that the designers of UAP are not of human origin. Rubio said, "There are one of two things here that are true. Either what [David Grusch] is saying is partially true or entirely true or we have some really smart, educated people with high clearances and very important positions in our government who are crazy and are leading us on a goose chase." Regarding other whistleblowers with firsthand knowledge coming forward to Congress, Rubio said:

I will say that there are people that have come forward to share information with our Committee over the last couple of years. I would imagine some of them are potentially some of the same people that perhaps [Grusch] is referring to. I want to be very protective of these people. A lot of these people came to us even before these protections were in the law for whistleblowers to come forward. And a lot of them come . . . have firsthand claims of certain things. Some are public figures, you've heard from them in the past. Others have not shared publicly. So we're trying to gather as much of that information as we can. . . . . Some of these people still work in the government. And frankly a lot of them are very fearful. Fearful of their jobs, fearful of their clearances, fearful of their career. And some frankly are fearful of harm coming to them. And so I want to be very respectful of that because I don't want to discourage others from coming forward. 91

Rep. Mike Gallagher (R-WI), member of the House Permanent Select Committee on Intelligence, also stated in a June 2023 interview that the protections enacted by previous UAP legislation had resulted in "all sorts of [UAP whistleblowers] coming out of the woodwork." He said they were telling members of Congress that they were "part of this or that [UAP] programme" and this had resulted in "a variety of pretty intense conversations." 92

In a May 2024 public event in New York City, Colonel Karl Nell, who served on the UAP Task Force (a previous US government UAP study programme), gave a talk titled "The Real Black Swan Event: The Controlled Disclosure of UAP and Non-human Intelligence." At that event, he said "non-human intelligence exists" and "there are unelected people in the government who are aware of that."93

In an interview in December 2020, former CIA Director John Brennan said UAP "might constitute a different form of life." Referring to UAP in an interview in April 2021, CIA

Director James Woolsey said he hoped "we can be friendly and able to deal with a wide range of behaviours in terms of dealing with our fellow human beings or with other creatures if they exist." Republican Senator Mitt Romney (UT), one of many officials briefed on the classified version of the ODNI's preliminary assessment on UAP, told CNN in June 2021 that the objects were not from the United States, and he did not believe they belonged to any foreign adversary. "If they were, why that would suggest they have a technology which is in a whole different sphere than anything that we understand," he said. "And frankly, China and Russia just aren't there. And neither are we, by the way." In an interview in June 2021, Ben Rhodes, former Deputy National Security Adviser to President Obama, referred to the possible explanations for UAP, saying, "That leaves aliens, which we presume it probably is."

Bill Nelson, NASA Administrator and former Florida Senator, voluntarily brought up the subject of UAP toward the end of an interview at the University of Virginia in October 2021: "We hope it's not an adversary here on Earth that has that kind of technology. But it's something." Avril Haines, Director of National Intelligence, spoke alongside Nelson at an event at the Washington National Cathedral in November 2021. On the topic of UAP, Haines said, "Of course also there is always the question of, is there something else that we simply do not understand, that might come extraterrestrially?"

Former presidents have also commented on UAP. When questioned about the phenomena in an interview in May 2021, Barack Obama said, "There's footage and records of objects in the skies that we don't know exactly what they are. . . . We can't explain how they moved, their trajectory. They did not have an easily explainable pattern." <sup>100</sup> In an interview in June 2021, Bill Clinton said, "There are things flying around out there that we haven't fully identified yet." <sup>101</sup>

#### **UAP Disclosure Act 2023**

In July 2023, Senate Majority Leader Charles Schumer and other senators introduced the UAP Disclosure Act as an amendment to the National Defense Authorization Act for Fiscal Year 2024.<sup>102</sup> Prior to being modified before passage, the UAP Disclosure Act was to have established a review board that would review US government UAP records and determine how best to share its findings with the public, referring to this as a "Controlled Disclosure Campaign Plan." The legislation stipulated that the review board would have the status of a federal agency and the power to hold hearings, subpoena witnesses and documents, and request from other agencies any material relating to UAP. The review board would have consisted of nine people, including one economist, one social scientist, one historian, and three others with backgrounds, respectively, in national security, foreign service, and science or engineering, each of whom would have been appointed by the President and confirmed by the Senate. The board also was to have been given the power to "request the Attorney General to petition any court in the United States or abroad to release any information relevant to unidentified anomalous phenomena, technologies of unknown origin, or non-human intelligence that is held under seal of the court." Additionally, it proposed that the US Secretary of State should contact any foreign government that may hold material relevant to unidentified anomalous. phenomena, technologies of unknown origin, or non-human intelligence and seek disclosure of such material."103

The UAP Disclosure Act also contained a list of rationales, which include the following:

- 1. because credible evidence and testimony indicates that Federal Government unidentified anomalous phenomena records exist that have not been declassified or subject to mandatory declassification review;
- **2.** to restore proper oversight over unidentified anomalous phenomena records by elected officials in both the executive and legislative branches of the Federal Government;
- **3.** to afford complete and timely access to all knowledge gained by the Federal Government concerning unidentified anomalous phenomena in furtherance of comprehensive open scientific and technological research and development essential to avoiding or mitigating potential technological surprise in furtherance of urgent national security concerns and the public interest.<sup>104</sup>

The UAP Disclosure Act defined "non-human intelligence" as "any sentient intelligent non-human lifeform regardless of nature or ultimate origin that may be presumed responsible for unidentified anomalous phenomena"; and "unidentified anomalous phenomena" as "any object operating or judged capable of operating in outer-space, the atmosphere, ocean surfaces, or undersea lacking prosaic attribution due to performance characteristics and properties not previously known to be achievable based upon commonly accepted physical principles." 105

As for UAP themselves, the legislation described UAP as having the following observables:

- 1. Instantaneous acceleration absent apparent inertia.
- **2.** Hypersonic velocity absent a thermal signature and sonic shockwave.
- 3. Transmedium (such as space-to-ground and air-to-undersea) travel.
- **4.** Positive lift contrary to known aerodynamic principles.
- **5.** Multispectral signature control.
- **6.** Physical or invasive biological effects to close observers and the environment. 106

And UAP were defined as including:

- **1.** Flying discs.
- **2.** Flying saucers.
- **3.** Unidentified aerial phenomena.
- **4.** Unidentified flying objects (UFOs).
- 5. Unidentified submerged objects (USOs). 107

The UAP Disclosure Act defined a "legacy program" as any UAP retrieval or study programme originating inside or outside government, including the examination of "biological evidence of living or deceased non-human intelligence." It defined "technologies of unknown origin" as "any materials or meta-materials, ejecta, crash debris, mechanisms, machinery, equipment, assemblies or sub-assemblies, engineering models or processes, damaged or intact aerospace vehicles, and damaged or intact ocean-surface and undersea craft associated with unidentified anomalous phenomena or incorporating science and technology that lacks

prosaic attribution or known means of human manufacture." It gave the US government eminent domain over "any and all recovered technologies of unknown origin and biological evidence of non-human intelligence that may be controlled by private persons or entities in the interest of the public good." 108

The UAP Disclosure Act was passed by the Senate in July 2023, but most of its contents were removed or toned down by a House-Senate conference committee in December 2023. Reduced language was signed into law by President Biden as part of the National Defense Authorization Act for Fiscal Year 2024. 109 As a result, the National Archives is responsible for gathering UAP records from across federal government and has a legal mandate to release the UAP records to the public, if appropriate. 110 Following this, Senator Schumer and Senator Rounds entered into a colloquy. Schumer said, "The U.S. Government has gathered a great deal of information about UAPs over many decades but has refused to share it with the American people. That is wrong, and, additionally, it breeds mistrust. We have also been notified by multiple credible sources that information on UAPs has also been withheld from Congress, which, if true, is a violation of the laws requiring full notification to the legislative branch, especially as it relates to the four congressional leaders, defense committees, and the intelligence committee." He added, "It is really an outrage the House didn't work with us on adopting our proposal for a review board, which of course by definition here is bipartisan in the Senate. Now it means that declassification of UAP records will be largely up to the same entities that have blocked and obfuscated their disclosure for decades. We will keep working. I want to assure the American people that Senator Rounds and I will keep working to change the status quo."111

#### **Commercial Flight Safety**

Following the efforts of retired US Navy fighter pilot and Executive Director of Americans for Safe Aerospace Ryan Graves, Rep. Robert Garcia (D-CA) and Rep. Glenn Grothman (R-WI) introduced in January 2024 new bipartisan legislation, the Safe Airspace for Americans Act, for the reporting of UAP in the commercial aviation sector.<sup>112</sup>

A Freedom of Information request regarding UAP and flight safety was sent by British businessman John Priestland to the UK's Civil Aviation Authority (CAA) in August 2023; the CAA replied, "Following a review of held information it has been determined, on the balance of probability, that the CAA holds no information within scope of the above original enquiry." It appears the CAA is at present unable to acknowledge the legitimacy of the UAP topic.

#### **Non-governmental Organisations**

Given the official recognition of UAP in federal legislation by the US Congress, the Sol Foundation was established by Stanford University School of Medicine professor Garry Nolan and sociocultural anthropologist Peter Skafish in August 2023 to undertake "cutting-edge academic research into the nature of Unidentified Aerial Phenomena and their broad cosmological and political implications" and consider "the broad consequences of this for the future of science, technology, economy, politics, law, religion, culture, and all other human institutions and endeavors." The Sol Foundation's inaugural symposium took

place at Stanford University in November 2023, featuring presentations on UAP from university academics in the fields of astronomy, astrophysics, <sup>116</sup> materials science, <sup>117</sup> sociocultural anthropology, philosophy, <sup>118</sup> psychology, and religious studies, <sup>119</sup> as well as talks on policy by retired US government officials and a sitting Canadian member of Parliament.

The US-based New Paradigm Institute was also established in August 2023, dedicated to "advocating for the public release of information held by the government surrounding the issue of Unidentified Anomalous Phenomena." It was founded by Daniel Sheehan, a Harvard-trained constitutional litigation and appellate attorney.

## 2. Policy Implications of UAP

#### Introduction

The UAP subject clearly holds enormous public interest. If UAP prove not to be of human design and manufacture, then we are dealing with unprecedented issues of existential consequence for humanity. We would have to acknowledge the existence and terrestrial presence of a technologically advanced non-human intelligence. Humanity would enter a new paradigm as novel to us as the Copernican Revolution was at its emergence.

If there is verified information about NHI, it should not be the sole preserve of governments. Humanity has a moral right to know. Furthermore, concealing information of this magnitude is not a viable long-term solution, as it is likely to be revealed eventually. If it is revealed abruptly and in an uncontrolled manner, it could lead to significant societal disruption. This could occur through a variety of means, such as the government of the United States, an adversary, a scientific study, or even NHI themselves (should they exist). The UK government can manage the risk of uncontrolled disclosure by actively developing a careful plan to release and discuss information on UAP. This will take being proactive rather than reactive, engaging with our allies, and carefully planning for a post-disclosure world.

Whichever political party forms the next UK government after the general election on 4 July 2024, they must change the UK's current position on UAP. The Cabinet is responsible for policy decisions on UAP, but Parliament should be as well—due to its role in examining and challenging the government, as well as its responsibility to the entire UK population. The UK government will likely face myriad issues on the UAP topic, and it is critical that the civil service be proactively engaged as well.

This white paper implores the UK government to publicly treat the UAP topic with the seriousness it deserves. The policy implications pervade almost every area of government and society; they raise innumerable questions that need to be categorised and investigated. In this paper, we identify the policy implications for the UK government and discuss them as they relate to five broad areas of government and society:

1. Government and National Security: As advanced technological objects, UAP present a risk to national security and flight safety that must be expertly assessed by the military and Intelligence Community, irrespective of their origin. There is also the risk of "technological surprise"—that many nations are secretly attempting to emulate the technological capabilities of UAP, and that one nation might prevail over others in a competition to realise and weaponize UAP technology. If UAP prove not to be designed by human beings, then we will also be acknowledging the existence of a power and intelligence greater than any government. This presents risks to the legitimacy of existing anthropocentric governance structures, and these risks may be amplified by failures of the government accountability and a lack of public trust.

- 2. International Relations: UAP are a global phenomenon necessitating some degree of international cooperation and collaboration on information-sharing, investigation, and public communication. These actions may reduce the risk of rapid uncontrolled disclosure. Countries may want to consider new treaties to prevent the weaponization of UAP-related technologies and collective action through a supranational organisation such as the United Nations.
- **3. Scientific Progress and UK Competitiveness:** The scientific investigation of UAP may prompt new investment opportunities and enable extraordinary technological progress in many sectors of the economy, both at home and abroad. While that progress could be beneficial, it might also turn out to be disruptive to the economic status quo and require domestic and international policy responses.
- **4. Financial Stability:** UAP disclosure presents risks to financial stability because of "ontological shock" and the potential impact of disclosure and paradigm-changing UAP-related technologies on existing financial markets. The Bank of England should take action to address the UAP risk in order to avoid financial instability, particularly given the inarguably global nature of financial markets.
- **5. Social Implications:** It would be shocking if UAP prove not to be designed by human beings. The government would need to think very carefully about how it communicates any such news to its citizens and what impact it might have on society, leadership, the economy, and the demand for mental health support services. The UK government should engage with and seek input from the Church of England and all other Christian denominations in the UK. An interfaith dialogue and eventually a council should be set up for the leaders of the Muslim, Hindu, Sikh, Jewish, and Buddhist faiths in the UK.

We will now examine each of these policy areas before turning, in section 3, to some measures by which they can be addressed.

#### **Government and National Security**

#### **National Security and Flight Safety**

As discussed at length in the first section of this paper, the government of the United States, the UK's closest ally, is acknowledging UAP in legislation and publicly treating UAP as a risk to national security and flight safety. UAP are a global phenomenon. In May 2023, the US Joint Chiefs of Staff sent out an internal directive on UAP stating that the US government "has observed UAP in or near the territory and/or operating areas of the United States, of its allies, and of its adversaries" and that UAP "demonstrate behaviors not readily understood by sensors or observers." In February 2023, the US military was even forced to shoot down four unidentified objects in North American airspace—one was subsequently identified as a Chinese spy balloon, while the others remain unidentified. The US Office of the Director of National Intelligence report on UAP, published in October 2023, documented hundreds of intrusions by UAP into restricted US airspace and acknowledged significant gaps in the US military's domain awareness. "Many reports from military witnesses," ODNI states, "do

present potential safety of flight concerns, and there are some cases where reported UAP have potentially exhibited one or more concerning performance characteristics such as high-speed travel or unusual manoeuvrability."<sup>124</sup>

In the House of Lords in June 2021, Baroness Goldie said the Ministry of Defence "constantly monitors UK airspace to identify and respond to any credible threat to its integrity, and is confident in the existing measures in place to protect it" and that "the MoD has no plans to conduct its own report into UAP because, in over 50 years, no such reporting indicated the existence of any military threat to the UK." Does the UK government consider UK airspace to enjoy the same level of integrity now as it did in June 2021? Surely the UK needs a comprehensive practical framework for UAP encounter preparedness—for our military, and for commercial pilots. UAP may also be surveilling UK airspace and collecting sensitive data necessary to UK defence.

There have also been numerous instances where UAP have interfered with nuclear deterrent capabilities. <sup>126</sup> During the US congressional hearing on UAP in July 2023, Ryan Graves, retired US Navy fighter pilot, David Fravor, retired US Navy commanding officer, and David Grusch, former Air Force and NGA officer, were all asked if UAP show interest in US nuclear technology and capabilities. Under oath, all three witnesses replied yes. <sup>127</sup>

We also live in a low-trust global environment of technological change and geopolitical competition. The skies are crowded with drones and surveillance balloons and the possibility of hypersonic missiles. UAP could easily be misconstrued as new, unaccounted forms of enemy assets. They can travel at hypersonic speeds with trajectories and patterns that defy conventional flight, so unanticipated events involving genuine UAP risk accident, miscalculation, crisis escalation, catastrophic misunderstanding, and even war. "As more and more vehicles," states the Sol Foundation, "cross thresholds between territorially sovereign airspace and the commons of atmospheric and outer space, the potential for cataclysmic accidents and miscalculations caused by UAP increases." <sup>129</sup>

The UK government is not acknowledging the risks UAP present to national security and flight safety. Its position appears incongruous. In the words of former US Deputy Assistant Secretary of Defense for Intelligence Christopher Mellon, "When has ignorance ever been a good national security strategy?" 130

#### **Public Trust and Legitimacy of Government**

UAP secrecy undermines public trust. Some office or agency in the UK government is likely to have knowledge of UAP because of the UK's membership in the Five Eyes intelligence alliance of the US, the UK, Canada, Australia, and New Zealand. Indeed, two senior members of the US Intelligence Community have publicly stated very recently that the Five Eyes has been briefed on the UAP topic.<sup>131</sup>

If the UK does have UAP knowledge, it likely resides within the Ministry of Defence and the Secret Intelligence Service (MI6), and perhaps the Cabinet as well. How widely would such information have been shared within the UK government? If our former Prime Minister Bo-

ris Johnson is to be believed, either there is no such knowledge or it is extremely compartmentalised. "There is no evidence whatsoever," he stated on 22 December 2023, "that is available to the British government to suggest that alien life forms have ever existed." He added, "I have been through the papers, and I have listened to the best and most brilliant of our agents—and I am here to tell you that they do not have the slightest idea. On this greatest of all questions our intelligence community is totally dumb." <sup>132</sup>

There are, as previously discussed, indications in the United States that secret information on UAP is being held by small components of the military and Intelligence Community and not being shared with Congress, despite recent UAP legislation to restore congressional oversight of UAP. In June 2023, Senator Marco Rubio said about these claims, "If that is accurate then what you're basically saying is that within the government of the United States there's a group of people who believe that they possess something that they don't need to share with anybody, including elected officials, whom they view as temporary employees of the government." 133

Senate Majority Leader Schumer expressed (as noted above) similar concerns on the floor of the Senate in December 2023 when he said, "The US Government has gathered a great deal of information about UAPs over many decades but has refused to share it with the American people. That is wrong, and, additionally, it breeds mistrust. We have also been notified by multiple credible sources that information on UAPs has also been withheld from Congress, which, if true, is a violation of the laws requiring full notification to the legislative branch, especially as it relates to the four congressional leaders, Defense Committees, and the Intelligence Committee[s]." <sup>134</sup>

Alain Juillet, former Director of Intelligence at France's foreign intelligence agency, also expressed this curious sentiment about UAP secrecy within the French government: "It's true that if we told people—we don't know where they're going, we don't know where they're coming from, we don't know where they're going to. Maybe there's something else below us, on land, that is not us. Well, obviously, then people would panic. So we prefer not to say anything." He added:

What's happened over the last 20 years is that our measurement systems, our identification systems, our tracking systems have developed considerably with modern means. And so we have more and more identified and verified cases of unidentified flying objects. In other words, we have, if you like, more and more cases today where we say, yes, something did indeed happen, and here's the information we've been able to gather on it. This poses real problems. And it poses real problems because, obviously, the response at military level, or when the politician asks the question to the soldier and says, "Well, what do you do about it? And the other one says: "but I can't do anything because I don't know, I have no way of preventing it." 135

The French COMETA report also expressed some intriguing comments in an appendix titled "Reflections on Various Psychological, Sociological, and Political Aspects of the UFO Phenomenon." On the extraterrestrial explanation for UAP, its authors said, "The idea is ridiculed by much of the media. At the same time, in this spirit, most politicians and the vast majority of members of the intelligentsia state that humanity has better things to do than to

chase such rainbows." As for the position of politicians, the COMETA report said, "In fact, revealing a situation as novel as it is upsetting too quickly would perhaps be running the risk of social upheavals, accompanied by panic. . . . The loss of trust in leaders in power even could lead to their rapid ousting. Given such a problem, their normal reaction would obviously be to gain as much time as possible by continuing their denials, all the while continuing to work in secret and fervently hoping that their successors will take on the responsibility when the reality becomes manifest." <sup>136</sup>

If UAP prove not to be designed by human beings, then we are dealing with an unprecedented situation of existential consequence for humanity. We will have to acknowledge the existence of a power and intelligence greater than any government. This raises profound questions about the durability of government and presents risks to existing anthropocentric governance structures. These risks may be amplified if there have also been failures in the trust and accountability of government. Political scientists Alexander Wendt and Raymond Duvall argue that "anthropocentrism is of immense practical import, enabling modern states to command loyalty and resources from their subjects in pursuit of political projects." Wendt also postulates that in a worst-case scenario, UAP disclosure could bring widespread ontological insecurity and government distrust: "Eight billion people [could] start wondering individually what this means for their religion, their ideology, their economic wellbeing, wondering about everything, questioning everything that we thought we knew, that we could always take for granted." 138

It is noteworthy that the UK's Post Office scandal—the biggest miscarriage of justice in the UK to date—has recently been brought to public and official attention, although not through proactive government action but rather by way of a television programme broadcast into the homes of the nation. Does the UK government find it acceptable for citizens to learn about the UAP topic in a similar fashion?

#### **Technological Surprise**

UAP are real objects demonstrating advanced technology: they have been observed travelling at hypersonic speeds with trajectories and patterns impossible for aerospace technologies. It stands to reason that there have been, for many decades, unproven but serious allegations that the US government maintains secret programmes to observe and attempt to emulate UAP technology, and possibly even (if the allegations are to be believed) retrieve crashed UAP and reverse engineer them. There is also the risk of "technological surprise"—that many nations are secretly attempting to emulate the technological capabilities of UAP, and that one nation might prevail over others in a competition to realise and weaponize UAP technology.

Allegations that the US government was involved in a programme to emulate UAP technology can be found in the National Archives of Australia. An internal memo from the Australian Department of Defence in 1971, titled "Scientific and Intelligence Aspects of the UFO Problem," claimed that the US began to study gravity control in the 1950s in an attempt to emulate the technology of unknown objects the military had encountered. The Australian memo stated, "By erecting a facade of ridicule, the U.S. hoped to allay public alarm, reduce the possibility of the Soviet taking advantage of UFO mass sightings for either psychologi-

cal or actual warfare purposes, and act as a cover for the real U.S. programme of developing vehicles that emulate UFO performances." The memo also reported that upon retirement from service, several senior US government officials "publicly stated that the U.S. Government knew UFO's were extra-terrestrial but was withholding this fact from the public." It added:

Such an intensive onslaught on the gravity enigma was entirely irrational from the stand-point of conventional science and can only be rationalized within the context of a firm belief that UFO's were real and that the intelligences behind them knew how to control gravity. The drive to harness this power before the USSR could do so would be a strong incentive for the U.S. Government to fully support an anti-gravity programme. By 1966, 46 separate projects of this nature were being financially supported, 33 of which were under the supervision of the U.S. Air Force. 140

As for alleged programmes to retrieve UAP materials and technology, Alain Juillet of the French Directorate-General for External Security, had this to say in a recent interview: "Everyone wants to recover pieces [of UAP] . . . to see the alloys. Every country is looking for a disruptive weapon, one the others cannot stop. A country capable of building a UAP would have a tremendous advantage, as it would render all other aerial means obsolete. The hundreds of fighter jets that the major countries have—bombers, fighter planes—would be useless; it would be colossal, a revolution." <sup>141</sup>

Former US Deputy Assistant Secretary of Defense for Intelligence Christopher Mellon also discussed this issue in June 2023 when he said, "Since AARO was established, I have referred four witnesses to them who claim to have knowledge of a secret U.S. government program involving the analysis and exploitation of materials recovered from off-world craft. Other sources who, rightly or wrongly, do not trust AARO's leadership, have also contacted me with additional details and information about an alleged secret U.S. government reverse engineering program. Some have supplied information to the intelligence community's inspector general, others directly to staff of the congressional oversight committees." 142

Finally, former intelligence officer David Grusch testified under oath to the US Congress in July 2023 about an even more extensive US government UAP programme: "I was informed in the course of my official duties," he stated, "of a multi-decade UAP crash retrieval and reverse engineering programme." When asked by Rep. Robert Garcia if the US government was in possession of UAP, Grusch said, "Absolutely. [I know this] based on interviewing over forty witnesses over four years." Rep. Tim Burchett also asked Grusch if private corporations were directly involved in the UAP retrieval and reverse engineering programmes. "The specific corporations," Grusch replied, "I did provide to the committees."

Although unproven and in need of thorough substantiation, these allegations should be taken seriously because of the risk of technological surprise. If some states are in a secret competition to emulate and weaponize UAP technology, then one might prevail and gain an insurmountable military advantage over the others.

We cannot know how successful any such attempts at emulation have been, but it may be that hypersonic weapons are their fruits. These weapons, which already exist, are missiles capable

of travelling at speeds greater than five times the speed of sound (Mach 5) and manoeuvring en route to overcome defence systems calibrated only to predictable ballistic trajectories. The challenges posed by these "hypersonics" are threefold: (1) they compress the reaction window for a defensive response, (2) they can potentially evade interception, and (3) they potentially erode the doctrine that has long been the bedrock of nuclear deterrence, namely mutually assured destruction. The United States, China, and Russia are all developing hypersonic weapons, <sup>145</sup> and rumours abound that Lockheed Martin will debut a new hypersonic aircraft, the SR-72 "Son of Blackbird," for the United States Air Force in 2025. <sup>146</sup> The SR-72 is reputed to be capable of speeds of 4,000 miles per hour.

Imagine what other technological surprises could lie beyond the horizon if allegations of UAP recoveries are true. This risk is in principle recognised by the government of the United States in the mission with which AARO is tasked: "Minimize technical and intelligence surprise by synchronizing scientific, intelligence, and operational detection identification, attribution, and mitigation of unidentified anomalous phenomena in the vicinity of national security areas." Similarly, the UAP Disclosure Act stated that "legislation is necessary to afford complete and timely access to all knowledge gained by the Federal Government concerning unidentified anomalous phenomena in furtherance of comprehensive open scientific and technological research and development essential to avoiding or mitigating potential technological surprise in furtherance of urgent national security concerns and the public interest." 148

#### **Government Bandwidth**

We live in a low-trust global environment, rife with unpredictability and geopolitical tensions. There is the ongoing Russian invasion of Ukraine, war in the Middle East, and China's rise as a global superpower and its pursuit of modernisation across all dimensions of its military—including its strategic nuclear forces. If war escalates or begins elsewhere (such as a Chinese invasion of Taiwan), the UK government may find itself dealing with the policy implications of UAP disclosure at a most inopportune time, when it is preoccupied or incapacitated by all matters relating to war. It is surely a wise strategy for the UK government to begin engagement on UAP now, in case its bandwidth is even narrower in the future.

#### International Relations

#### International Collaboration

UAP are a global phenomenon that necessitates global cooperation and collaboration on a whole range of policy implications. What are the consequences for the UK if science or another government confirms that UAP are not designed by human beings? UAP disclosure emanating from the government of the United States would catalyse the UK government to respond. Until it acknowledges the UAP topic, the UK government cannot start a conversation with its own citizens, nor take part in international policymaking on UAP, nor collaborate with international allies on a controlled plan to disclose information.

The UAP Disclosure Act proposed that the US Secretary of State should "contact any foreign government that may hold material relevant to unidentified anomalous phenomena, technol-

ogies of unknown origin, or non-human intelligence and seek disclosure of such material."<sup>150</sup> Although this section of the UAP Disclosure Act was not preserved in the final bill, the fact that it was proposed suggests that similar legislation may be enacted in the future. The UK government should prepare for the possibility that it may be formally asked by the US government to cooperate on UAP in the future. What then? The UK is unprepared.

#### **Controlled Disclosure**

"Controlled disclosure" is the official release, by government, of previously classified government information on UAP, carried out in such a way that the government carefully decides how much information to share with the public and when. This process could occur through a variety of means, such as the government of the United States, an adversary, or a scientific study. Dmitry Rogozin, the head of Roscosmos (the Russian space agency), has publicly stated that Russian scientists are studying UAP. And at a congressional UAP hearing in 2022, Scott Bray, Deputy Director of US Naval Intelligence, said the Chinese government has its own UAP study programme. <sup>151</sup> Is there a risk that an adversary may release information on UAP first? Again, the UK government may find itself unprepared.

#### What Is Motivating the US Government on UAP?

The US government appears to be several years into a serious and possibly controlled UAP disclosure campaign plan. What is motivating this? Does the US government feel that it could benefit by asserting global leadership on the phenomena? Is secrecy simply starting to fail? Does the US government have any concerns about potential future actions from another nation, such as Russia or China? The UK government should raise these questions with the United States.

#### Treaties to Prevent the Weaponization of UAP Technology

The existence of UAP, irrespective of their ultimate origin, presents a need for international cooperation and possibly even new treaties to prevent the weaponization of UAP technology. Technological progress, or the sudden introduction of new technology, should not always be assumed to be beneficial for humanity. Philosopher Nick Bostrom's "vulnerable world hypothesis" envisages scenarios where new technology could destabilise or endanger our civilisation, and where the only real solutions are "extremely effective preventive policing" of the use of such technology or its "effective global governance." As discussed above, there may be competition among states to study and emulate UAP technology and materials.

#### The Five Eyes

The Five Eyes intelligence alliance of the US, the UK, Canada, Australia, and New Zealand has been briefed on the UAP topic. 154 Has the European Union been briefed? There is a risk of informational asymmetry on the UAP topic within the European Union, and between the European Union and its allies. This could result in EU anger being directed at the United States or at all members of the Five Eyes alliance. The UK, perhaps in partnership with Canada, could consider mediating between the US and the EU on the UAP topic.

#### The United Nations

The possibility that UAP prove not to be designed by human beings has in principle been recognised by the government of the United States. The term "non-human intelligence" appears in section 1841 on unidentified anomalous phenomena in the National Defense Authorization Act for Fiscal Year 2024, signed into law by President Biden in December 2023. <sup>155</sup> If this possibility does become manifest, it will require a global response. How should humanity collectively deal with confirmation that UAP are not of human origin? Such an existential question cannot be addressed by one nation alone; it demands international cooperation and collaboration, potentially through a supranational organisation such as the United Nations.

#### **Scientific Progress and UK Competitiveness**

It must again be emphasised that UAP are real physical objects. They have been reported by military pilots and other trained observers and registered by calibrated military instrumentation, including radar, infrared, electro-optical, and weapon seekers. As stated above, information from both the legislative and executive branches of the US government indicates that the witness and sensor data shows that UAP have performance characteristics that include (1) instantaneous acceleration without apparent inertia, (2) hypersonic velocity with no thermal signature or sonic boom, (3) the ability to transition between different mediums, such as from space to the atmosphere or from the atmosphere to undersea (known as "transmedium" travel), (4) positive lift contrary to known aerodynamic principles, and (5) multispectral signature control or the ability to reduce visual or sensor detection. Should this be accurate, knowledge in engineering, materials science, and physics beyond the state of the art would be needed to produce and operate these objects.

If the secrecy, classification, and stigma shrouding the UAP topic is removed, then the scientific study of UAP may prompt scientific breakthroughs, extraordinary technological progress, new investment opportunities, and sharp growth in many sectors of the economy, both at home and abroad. In a May 2023 public event in New York City, Garry Nolan, professor in the Stanford University School of Medicine and Executive Director of the Board at the Sol Foundation, urged the need for transparency on UAP because "the best people are not working on this technology, and we need them." Based on the observed characteristics of UAP, we might expect progress in propulsion and transportation (land, air and maritime), energy production and storage, materials science and engineering, and space travel and exploration. This is in addition to military and defence applications, where we would expect secrecy to prevail because of national security concerns.

UK government engagement with the UAP topic could make the UK a participant in and beneficiary of new UAP-related scientific discoveries in STEM (science, technology, engineering, and mathematics) subjects. The alternative is to acquiesce to the UAP stigma and fall behind the United States, Canada, and other countries that have begun to legitimise and encourage the scientific study of UAP.

UNIDENTIFIED ANOMALOUS PHENOMENA 34

In January 2022, under the leadership of Hakan Kayal, professor of space technology at Julius-Maximilians-Universität of Würzburg (JMU), UAP research became an official goal of JMU's Interdisciplinary Research Centre for Extraterrestrial Studies (IFEX). IFEX is a cross-institutional scientific institution of the Faculty of Mathematics and Computer Science, and its members "develop technologies to explore space, objects in our solar system, stars and galaxies." IFEX plans to carry out its own interdisciplinary research on UAP and "seek cooperation with relevant institutions and authorities, such as the Max Planck Society, the German Aerospace Centre DLR, the Luftfahrt-Bundesamt LBA, or the Deutscher Wetterdienst." 158

The UK should do all it can to encourage the scientific study of UAP in its universities and in the private sector. We might also direct the Defence Equipment and Support in the Ministry of Defence and the Defence Science and Technology Laboratory to engage in the scientific study of UAP.<sup>159</sup>

#### **Financial Stability**

#### **Financial Stability Risks**

If UAP prove not to be designed by human beings, then we may face risks to UK and global financial stability. These risks need to be given serious ex ante consideration, particularly by the Bank of England. Firstly, there may be widespread ontological shock among the population, leadership (including government and central banks), and financial market participants. How will people react? How will leadership react? Secondly, will these advanced technological capabilities demonstrated by UAP be successfully emulated? Confirmation, or even widespread speculation, that new technologies exist would be an exogenous shock to global financial markets. The human reaction could have immediate ramifications in these markets, whether due to speculation or new facts. Financial market participants might speculate that UAP-related technologies will have both transformative and disruptive effects on many sectors of the economy, such as military and defence, propulsion and transportation (land, air and maritime), energy production and storage, materials science and engineering, and space travel and exploration.

Lastly, there are questions raised by the allegations that private contractors within the aerospace and defence industries are involved in secret UAP programmes. Have any companies acted illegally and/or been given uncompetitive advantages? Have they colluded with any governments and/or their military or intelligence agencies? Are any other industries involved? What about private security, accountancy, and law? Are any financial market participants involved, such as hedge funds, private equity, or banks? What are the financial, regulatory, and legal consequences if some companies or industries are involved?

As former Bank of England Governor, Lord Mervyn King, and economist Sir John Kay expertly set out, we live in a world of "radical uncertainty," which they describe as follows: "Not just that we do not know what will happen. We often do not even know the kinds of things that might happen. . . . And it is that world which we mostly encounter." In the preface to *Radical Uncertainty* King and Kay state, "As we wrote this book, and discussed our ideas with friends and colleagues, we encountered very different reactions from general readers, on the one hand, and specialists, on the other. Most people find the concept of radical uncertainty

natural and indeed obvious. For them, the challenge is not to accept the existence of radical uncertainty but to find ways of coping with it. . . . Many people who have been trained in economics, statistics or decision theory, however, find it difficult to accept the centrality of radical uncertainty."<sup>161</sup>

How prepared are the Bank of England's economists and leaders to deal with the radical uncertainty of UAP disclosure? The economics profession might be quite unprepared, because economic models are based on risk (which has a probabilistic set of outcomes akin to roulette) rather than radical uncertainty, which is about the unimaginable. Furthermore, a financial crisis can escalate very quickly. As Kay and King opine, "The valuations in financial markets are for the moment. They change quickly, and sometimes violently, reflecting uncertain knowledge of the future." <sup>162</sup>

#### The Bank of England's Statutory Responsibilities

One of the Bank of England's main objectives is to maintain financial stability in the UK. The Bank has two statutory bodies responsible for this objective: the Financial Policy Committee, which is responsible for "identifying, monitoring, and taking action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system"; and the Prudential Regulation Authority, which "must take into account financial stability considerations when advancing its general objective to promote the safety and soundness of the firms it regulates." The Bank consults with HM Treasury on its overall financial stability strategy, as required by statute. 164

There are three "key elements" to the Bank's financial stability strategy, and one that appears particularly relevant to the UAP topic is a requirement for the Bank to "continue to identify risks to the economy that could emerge from the UK or global financial system, and take action where necessary." This element requires the Bank to (1) "identify and communicate vulnerabilities," (2) "proactively prepare for emerging risks in the system," (3) "take action to address systemic risks," and (4) "maintain the Bank's commitment to mutual international cooperation." 165

Financial stability is important because the financial system performs functions (the provision of deposit, payment, and settlement services) that are essential to our day-to-day lives. Like other utility networks such as electricity and telecommunications, lives would be disrupted if the payment system failed, even for just a few hours. As we saw during the coronavirus pandemic, critical workers in the UK kept the economy going, but this was supported by the smooth performance of the financial system's critical activities.

The Bank of England operates the real-time gross settlement service, which lies at the heart of all retail and wholesale payments in the UK. Commercial banks maintain reserves at the Bank of England to settle claims in real time across the Bank of England's books, in central bank money, which is the economy's final settlement asset. If the Bank of England allowed a commercial bank to fail in a disorderly fashion, it would put the solvency of the entire banking system at risk. The Bank would need to take emergency action, possibly through its lender of last resort function, in the event of severe turbulence caused by UAP disclosure.

#### **Central Banks and International Crises**

The Bank of England and other central banks are always on the scene of national and international crises, such as the US Federal Reserve in the wake of the 9/11 terrorist attacks, 166 the 2007–9 global financial crisis, 167 and the coronavirus pandemic. 168 As institutions for financial and economic emergencies, central banks arrive "at the scene of financial disasters" 169 and provide financial assistance and leadership, with access to private information and networks that are not available to other market participants. If the UAP risk crystallises, the Bank of England may be forced into action.

Former Deputy Governor of the Bank of England Sir Paul Tucker elucidates why, by drawing a parallel between the relationships that a government holds with its military and with its central bank in crisis situations "First, [there is] the potential for confusion or even panic in the field (in financial markets and among the public) through conflicting communications about objectives and actions; second, the risk of strategic incoherence undermining the execution of crisis management efforts; and, third, leaders (generals or central bankers) who are facing new personal tests." <sup>170</sup>

The crises that demand action from central banks tend to be international, as the financial stability conditions of one country can rapidly affect the financial stability conditions in others. For example, in September 2008 the Irish government guaranteed all deposits and debt instruments at six major financial institutions, including Allied Irish Bank, Bank of Ireland, and Anglo Irish Bank.<sup>171</sup> This caused deposit outflows from banks in the UK and elsewhere in Europe as investors sought the protection of the Irish government guarantee.<sup>172</sup>

With respect to a UAP-specific crisis, informational asymmetries between central banks on UAP may hamper cooperation and coordination between them. In such a situation, central bankers would need to draw on their expertise in international agreements, policy cooperation, and even policy coordination to develop solutions.<sup>173</sup>

## The Financial Stability Board and Extreme Contingency Planning

UAP disclosure may trigger a predictable financial crisis or an unimaginable one, for which no preparations exist.<sup>174</sup> Tucker describes such a crisis as a set of "highly adverse circumstances for which the machinery of the state is not *formally* prepared [and] lack[s] the powers or capabilities to cope [with]. Government is forced to innovate: taking new powers, using existing powers imaginatively, or declaring an emergency in order to activate some latent powers."<sup>175</sup>

Although such futures cannot easily be anticipated, there is an international institution that could prepare for a potential UAP-related crisis. The Financial Stability Board—whose members include central banks, government finance ministries, and national regulatory agencies from the G20 nations—promotes and assesses international financial stability and identifies the risks posed by "systemically important financial institutions." A "UAP risk" does not appear in the Financial Stability Board's 2023 annual report 78 nor the latest financial stability reports of the Federal Reserve 79 or Bank of England, 180 but such a risk assessment could be produced by

the Financial Stability Board. As Tucker points out, "The unenvisaged or unplanned-for does and will happen. What then? The question is pressing because even away from war, terrorism, and law and order, some types of crisis—for example in the financial system or the environment—could be so grave as to threaten the stability of the state or society itself." <sup>181</sup>

As a first step toward reaching the Financial Stability Board, the Bank of England should carry out an ex ante assessment of the risks to financial stability posed by UAP. The Bank of England should pay attention to the legislation, investigations, and credible testimony on UAP that has emerged in recent years. It should consider its crisis management relations with government and its ability to cooperate and coordinate on the UAP topic with international partners. The Bank of England has an armoury to deploy to maintain financial stability, but it should become forearmed and move the UAP topic into its Overton window.

Ultimately, the Bank of England may have to recognise that it also could inadvertently become responsible for reinforcing democratic principles and government if the UK, or some other government, finds itself overreacting to a real or perceived emergency brought about by UAP.

#### **Sociological Aspects**

#### **NASA Brookings Report Recommendations**

In 1961, the Brookings Institution prepared a report for NASA, "Proposed Studies on the Implications of Peaceful Space Activities for Human Affairs," often referred to as the Brookings Report. Braul sections of the report covered the social and economic implications of the discovery of extraterrestrial life, with the authors speculating that, "of all groups, scientists and engineers might be the most devastated by the discovery of relatively superior creatures." 183

The report speculated that the most likely discovery of extraterrestrial life would be through radio contact, and an individual's reactions to such news "would in part depend on his cultural, religious and social background, as well as on the actions of those he considered authorities and leaders, and their behavior in turn would in part depend on their cultural, social and religious environment." The report opined:

The discovery would certainly be front-page news everywhere; the degree of political or social repercussion would probably depend on leadership's interpretation of (1) its own role, (2) threats to that role, and (3) national and personal opportunities to take advantage of the disruption or reinforcement of the attitudes and values of others. Since leadership itself might have great need to gauge the direction and intensity of public attitudes, to strengthen its own morale and for decision making purposes, it would be most advantageous to have more to go on than personal opinions about the opinions of the public and other leadership groups.<sup>184</sup>

The Brookings Report recommended "historical and empirical studies of the behavior of peoples and their leaders when confronted with dramatic and unfamiliar events or social pressures. Such studies might help to provide programs for meeting and adjusting to the implications of such a discovery. Questions one might wish to answer by such studies would include:

How might such information, under what circumstances, be presented to or withheld from the public for what ends? What might be the role of the discovering scientists and other decision makers regarding release of the fact of discovery?"<sup>185</sup>

#### **Ontological Shock**

Ontological shock is defined as the state of overwhelm induced in us when a wholly unexpected fact or event forces us to question our conception of reality. If UAP prove not to be designed by human beings, then we are dealing with an unprecedented problem of existential import. We would have to acknowledge the existence and terrestrial presence of a technologically advanced non-human intelligence. Humanity might enter a new paradigm, one even more radically different than the Copernican Revolution was to what came before. This is very different from the scenario envisaged by scientists involved in the search for extraterrestrial intelligence, where primitive or even advanced life may be discovered in the galaxy but remains "reassuringly" far away. The reassurance of distance evaporates in the UAP world.

As already stated, the possibility that UAP will prove not to be designed by human beings has in principle been recognised by the government of the United States, as the term "non-human intelligence" appears in Section 1841 of the National Defense Authorization Act for Fiscal Year 2024, signed into law by President Biden in December 2023. <sup>186</sup> This possibility is so significant that it cannot be ignored, given the ramifications it could have for individuals, communities, and all of human society.

How should disclosure of any existing NHI be handled? Will it occur rapidly in a single moment of mass societal realisation? Or could it end up being drip-fed, so the idea that we are not alone permeates society gently over many years? Some proportion of the UK's population may suffer ontological shock regardless, and in a worst-case scenario UAP disclosure may exacerbate existing social tensions and distrust and affect national security, governance and, again, the economy.

#### **Communications Strategy**

The UK government must also decide on a UAP communications strategy: what information should be released to the public, how it should be communicated, and by whom? The British and global media would be involved. The UK government would also need to align its own disclosures with those made by the US government (and perhaps other governments as well). There would be a need for international cooperation and collaboration.

The Department for Education, and equivalents in the UK's devolved nations, would eventually need to establish an educational syllabus on UAP that would form part of the national curriculum and be taught in schools. Like adults, schoolchildren may have many questions and anxieties about UAP. Much of this may fall on parents, carers, and school staff, who may seek urgent guidance long before UAP forms part of the national curriculum. Who will provide such guidance for our schoolchildren and their parents, carers, and school staff?

#### Religion

The UAP topic may have profound implications for religious beliefs. <sup>187</sup> The UK government should engage with and seek input from the Church of England, the other Christian denominations, and all other religion in the UK. An interfaith dialogue and eventually a council should be set up for the leaders of the Christian, Muslim, Hindu, Sikh, Jewish, and Buddhist faiths in the UK. As Head of State and Supreme Governor of the Church of England, even King Charles III might be called on to provide guidance.

#### **Mental Health Services**

Lastly, it may also be that part of the UK population will need psychiatric and psychotherapeutic help to cope with ontological shock. Such mental health services should be provided and/or coordinated by the Department of Health, and the National Health Service, and the equivalents in the UK's devolved nations of Scotland, Wales and Northern Ireland. Professional bodies such as the Academy of Medical Royal Colleges, the British Medical Association, the British Psychological Society, and the British Association for Behavioural and Cognitive Psychotherapies will need to coordinate, along with mental health charities such as Mind and the Samaritans.

# 3. Recommendations for the UK Government

#### Introduction

s we have previously emphasised, UAP are real, physical objects that present risks to national security and flight safety—and they are being treated as such by our closest ally, the government of the United States. We also face the possibility that UAP do not originate with human beings but instead are manufactured and controlled by something or someone more technologically advanced than humans, and with unknown intentions. This prospect is of obvious public interest, but any disclosure of it will come with heavy consequences: it likely would be ontologically shocking, carry serious national security implications, present risks to global financial stability, and have implications for government, society, and anthropocentrism.

The Cabinet is responsible for policy decisions on UAP, but Parliament should be as well on account of its responsibility to examine and challenge the executive branch and to serve the entire UK population. The UK government will likely face myriad issues on the UAP topic, so it is critical that the civil service is proactively engaged as well. In 2016, the UK government was unprepared when just over half (51.9 percent) of the population voted to leave the European Union. Of relevance to the UAP issue, the House of Commons Committee of Public Accounts wrote in December 2020 that "EU Exit and the Covid-19 response have shown up critical gaps in the civil service's approach to planning, particularly for unexpected events or undesired outcomes." The Committee recommended that "the civil service has a duty to plan for multiple scenarios, even those which it or Ministers considers unlikely or undesirable. Civil servants should seek formal instruction if told not to plan by Ministers." 188

Whichever political party forms the next UK government after the general election on 4 July 2024, they must change the UK's current position on UAP. This white paper implores the UK government to publicly treat the UAP topic with the seriousness it deserves and assess the policy implications as they pervade almost every area of government and society. In the words of Richard Rumelt, professor at the UCLA Anderson School of Management, "A great deal of strategy work is trying to figure out what is going on. Not just deciding what to do, but the more fundamental problem of comprehending the situation." As King and Kay point out, "The question 'What is going on here?' sounds banal, but it is not. In our careers we have seen repeatedly how people immersed in technicalities, engaged in day-to-day preoccupations, have failed to stand back and ask, 'What is going on here?' We have often made that mistake ourselves." 190

Where should the next UK government begin? The place to start is the UK's National Security Risk Assessment (NSRA), owned by the Cabinet Office. This is the UK government's principal tool for identifying and assessing national security risks faced by the UK and the public, and it has an unclassified and publicly available counterpart in the National Risk

Register.<sup>191</sup> The Cabinet Office's strategic approach to resilience sits in the Resilience Directorate, under the Head of Resilience, and the Cabinet Office Briefing (COBR) unit is responsible for crisis response.<sup>192</sup> The Resilience Directorate and COBR unit work closely to "bring together the disciplines of resilience, risk and crisis management, to ensure that government works together with partners to get ahead of known risks."<sup>193</sup> Finally, the UK government has also produced "The Orange Book," a document that defines and explains the standards and methods for risk management in government. It includes a specific supporting principle (B4) that policymakers should use horizon-scanning and scenario planning "collectively and collaboratively to identify and consider the nature of emerging risks, threats and trends."<sup>194</sup>

When it comes to the high-stakes reality of UAP, let us not make any mistakes. UAP or variants thereof do not feature in the UK's National Risk Register, nor an internal risk dossier drawn up by the Labour Party's Chief of Staff,<sup>195</sup> and are unlikely to be dealt with in the National Security Risk Assessment.<sup>196</sup> This reality must change.

We make the following recommendations for the UK government:

#### **Establish the Facts**

The Cabinet and Parliament should be briefed by the British Intelligence Community, Armed Forces, Civil Aviation Authority, and UK Space Agency on whatever these government components know on the UAP topic. It is furthermore recommended that the Cabinet and Parliament pay serious attention to the (unclassified) history of government action, legislation, and investigations concerning UAP since the 1940s in not only the UK but also the US, France, Canada, Australia, Portugal, Spain, Brazil, Mexico, Peru, Chile, and Russia (and, before 1991, the Soviet Union). Lastly, the Cabinet and Parliament should reach out to their American counterparts to initiate more extensive information-sharing on the UAP topic than seem to be occurring.

#### **UAP Risk Assessment**

We recommend the Cabinet commissions a whole-of-government investigation into the policy implications of UAP, as set out in section 2 of this white paper and summarised below. This investigation should be followed by a thorough risk assessment of the policy implications.

#### **Policy Implications of UAP**

Government and National Security

National Security and Flight Safety Public Trust and Legitimacy of Government Technological Surprise Government Bandwidth International Relations International Collaboration

Uncontrolled Disclosure

What Is Motivating the US Government on UAP? Treaties to Prevent Weaponization of UAP Technology

The Five Eyes
The United Nations

Scientific Progress UK Competitiveness

Financial Stability Financial Stability Risks

The Bank of England's Statutory Responsibilities

Central Banks and International Crises

The Financial Stability Board and Extreme Contingency

Planning

Sociological Aspects NASA Brookings Report Recommendations

Ontological Shock

Communications Strategy

Religion

Mental Health Services

#### **Social Research**

Drawing from sections of the Brookings Report that covered the social and economic implications of the discovery of extraterrestrial life, <sup>197</sup> we recommend the Cabinet commissions social research such as surveys, statistical analysis, participant observation, and unstructured interviews to gauge the UK public's attitudes toward, and awareness of, the UAP topic, and the population's likely psychological and social response to UAP disclosure. Additionally, we recommend the Cabinet identifies the UK's critical workers, by occupation, in relation to UAP disclosure. We recommend two of these occupational groups should be executive government leadership and Bank of England core staff. Social research should be

carried out on the identified occupational groups, to gauge, in similar fashion, their awareness

Initial Public Engagement

of and likely reactions to the UAP topic.

We recommend the Cabinet hosts an international summit on UAP in the UK, akin to the AI Safety Summit held at Bletchley Park in November 2023. The AI Safety Summit produced the Bletchley Declaration, a commitment from twenty-eight countries (plus the EU) to collaborate on policy relating to the topic of AI safety. <sup>198</sup> Could the UK instigate similar international collaboration on all matters relating to UAP? We also recommend that the Cabinet, in consultation with Parliament, issues a public statement on UAP, such as

The UK Government acknowledges the legitimacy of unidentified anomalous phenomena (UAP). We are working with our international allies to investigate the causes and their implications. 199

#### Quantify the "Do Nothing" Scenario

We recommend the Cabinet, in consultation with Parliament, assesses and quantifies the risks and ramifications to the United Kingdom if the government continues the status quo of no policy response on UAP. In particular, the government should consider the question: What happens if there is confirmation that the designers of UAP are not of human origin?

## **Conclusions and Next Steps**

Good strategies for a radically uncertain world acknowledge that we do not know what the future will hold. Such strategies identify reference narratives, visualise alternative future scenarios, and ensure that plans are robust and resilient to a range of plausible alternatives. Lord Mervyn King and Sir John Kay, Radical Uncertainty

s we have previously emphasised, UAP are real, physical objects that present risks to national security and flight safety, and they are being treated as such by our closest ally, the government of the United States. We also face the possibility that UAP are not of human origin but are manufactured and controlled by something or someone more technologically advanced than humans and that has unknown intentions. Indeed, the testimony of US Navy pilots and former high-ranking US government officials, along with recent congressional legislation on UAP, strongly indicates that the US government is already engaged in the disclosure of information on the phenomena.

UAP disclosure would likely be ontologically shocking for many people. It is also fraught with national security concerns, presents risks to global financial stability, and has implications for government, society, and the anthropocentric state. However justified secrecy about UAP may therefore seem, it could lead to an uncontrolled disclosure of information by part of the US government, an adversary, or a scientific study, and this could have many negative effects. This white paper implores the UK government to bring the UAP topic inside the Overton window, formulate its political objectives and high strategy for UAP disclosure, and prepare for a continuing global conversation. The current "wait and see" or "do nothing" approach carries many risks and little, if any, benefit.

At the Sol Foundation's 2023 symposium at Stanford University, Colonel Karl Nell, who served on the UAP Task Force (a previous government UAP study programme), proposed a plan by which the US government can take the global lead in the "controlled disclosure" of UAP information. The UAP Disclosure Act was an attempt from inside the government of the United States to achieve precisely this goal. But in a world of radical uncertainty, there is no guarantee a controlled plan to disclose UAP information will succeed. As King and Kay point out, "Beliefs are embodied in a narrative, and the prevailing narrative can change in an abrupt or discontinuous fashion when a sufficiently large number of people see evidence that leads them to change their view." It is therefore very important that the UK government plans for all scenarios, including one where it is suddenly confirmed and then widely accepted that UAP are not of human origin.

Finally, we also recommend that Andrew Bailey, Governor of the Bank of England, raises the UAP topic with the Financial Stability Board's Standing Committee on Assessment of Vulnerabilities (SCAV). 202 SCAV, with its expertise and global purview, can materially assess the financial stability risks of UAP disclosure. Firefighters are not sent into harm's way without adequate training and equipment, and central bankers should not face the UAP risk without similarly high levels of preparedness. We recommend that the UK government position the Bank of England as a "field marshal" to cooperate and coordinate on UAP disclosure with domestic government and its agencies, as well as with other central banks and governments worldwide.

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The Sol Foundation www.thesolfoundation.org information@thesolfoundation.org

Executive Director of the Board: Dr. Garry Nolan Executive Director: Dr. Peter Skafish

Design: Marta Ricci, superhappy.design