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Michael W. Burke-Gaffney and the UFO Debate in Atlantic Canada, 1947-1969

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Article abstract

This article offers a history of UFOs in postwar Atlantic Canada, as experienced by St. Mary's University astronomer Michael W. Burke-Gaffney, an academic who engaged with UFOs and the interested public at a time when the standard response from his colleagues was to deny and debunk the phenomenon. The article argues that Burke-Gaffney's efforts to explore UFOs with an open mind fit comfortably within Jennifer Hubbard's framework of an "ideal of service." However, by the end of his life and career, members of the public no longer admired Burke-Gaffney's commitment to public education and service, coming to see him instead as yet another intellectual who aimed to ridicule and dismiss claims of UFO sightings as nothing other than misidentified natural phenomena. Burke-Gaffney's work is important because it provides a means of tracking changes in the public's perception of and deference to scientific authority and expertise in Atlantic Canada during the postwar period.

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Abstract: *This article offers a history of UFOs in postwar Atlantic Canada, as experienced by St. Mary's University astronomer Michael W. Burke-Gaffney, an academic who engaged with UFOs and the interested public at a time when the standard response from his colleagues was to deny and debunk the phenomenon. The article argues that Burke-Gaffney's efforts to explore UFOs with an open mind fit comfortably within Jennifer Hubbard's framework of an "ideal of service." However, by the end of his life and career, members of the public no longer admired Burke-Gaffney's commitment to public education and service, coming to see him instead as yet another intellectual who aimed to ridicule and dismiss claims of UFO sightings as nothing other than misidentified natural phenomena. Burke-Gaffney's work is important because it provides a means of tracking changes in the public's perception of and deference to scientific authority and expertise in Atlantic Canada during the postwar period.*

Résumé : *Cet article présente l'histoire des ovnis dans le Canada atlantique d'après-guerre, telle que vécue par Michael W. Burke-Gaffney, un astronome de l'Université St. Mary's. À une époque où la réaction générale de ses collègues était de nier et de réfuter le phénomène, ce dernier s'est intéressé à ces objets volants ainsi qu'au public interpellé par ces manifestations. L'article soutient que les efforts déployés par M. Burke-Gaffney pour traiter de la question des ovnis dans un esprit d'ouverture cadrent dans un « idéal de service », concept développé par Jennifer Hubbard. Toutefois, à la fin de la vie et de la carrière de l'astronome, le public n'admirait plus le dévouement de ce dernier dans les domaines de l'éducation et du service public, le considérant plutôt comme un autre intellectuel cherchant à ridiculiser et à rejeter les signalements d'ovnis, alors considérés comme n'étant rien d'autre que des phénomènes naturels mal identifiés. Le travail de Michael W. Burke-Gaffney est important, car il permet de suivre l'évolution de la perception et de la reconnaissance du public en ce qui concerne l'autorité et l'expertise des scientifiques dans les provinces de l'Atlantique d'après-guerre.*

Keywords: UFO; Atlantic Canada; extraterrestrial hypothesis; ideal of service; skepticism

"TWO WHIRLING RED-AND-WHITE DISCS, trailing a tail of fire which 'seemed to light up the whole sky' whizzed low over the housetops in the South End before passing out to sea last night," reported the *Halifax Chronicle-Herald* on 21 September 1950.[1] Telephone calls from multiple witnesses claimed the two flying, saucer-shaped discs were visible for approximately two minutes, and for up to two miles, before disappearing into the water. These mysterious flying discs were the latest in a series of unusual sightings near Halifax, Nova Scotia, that were quickly becoming a topic of serious local and international attention. A month earlier, fifteen children playing baseball in a vacant lot spotted a similar disc-

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shaped object hovering in the sky above them.[2] The disc remained motionless for nearly three minutes before tilting upward and flying off over the Eastern Passage. To corroborate what the children reported, the *Chronicle-Herald* solicited information from the Royal Canadian Air Force, Halifax police, airline officials, and the RCMP. Their answers were the same: "no report had been received of the sighting of the disc last night."[3]

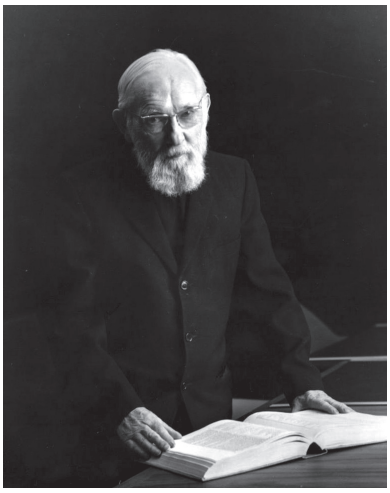

Figure 1. *Portrait of Reverend M.W. Burke-Gaffney, ca. 1970, photographer unknown. Photo courtesy of St. Mary's University Archives (Halifax, Nova Scotia).*

Despite reports from multiple witnesses, the newspaper was at a loss to explain the mysterious saucers. It turned instead to Father Michael W. Burke-Gaffney, an astronomer and Dean of Engineering at St. Mary's University in Halifax. [**Fig. 1**] When asked about the sightings of the two saucer-shaped discs, Burke-Gaffney was puzzled: "Queried last night, he said nothing in the astronomical world explains them. 'There seems to be no connection between them and the Heavens,' he said. 'I can only hazard a guess that they are something purely military.'"[4] He did, however, state what the objects were *not*: "he laughed off the suggestion that the low-flying, colored, revolving discs might have been directed toward Earth from another planet."[5] Whatever the objects were, he concluded, they would remain a mystery until scientists could obtain further information.

From 1947 until his death in 1979, Burke-Gaffney was regularly sought out by newspapers, local organizations and fraternal societies, as well as individuals, to provide expertise on a number of astronomy-related topics and issues, such as meteorite sightings or other, more unusual, encounters. Born in Dublin, Ireland on 17 December 1896, Burke-Gaffney completed an undergraduate degree in engineering at the National University in Dublin in 1917, as well as theological studies in Ireland, France, and Canada, joining the Society of Jesus in 1920. He completed his graduate studies in astronomy at Georgetown University, earning his doctorate in 1935.[6]

As both a Jesuit priest and university professor, Father Burke-Gaffney used media opportunities to educate the public about current findings and advances in astronomy, and in some instances, to clarify or correct what he perceived as errors of fact or interpretation. This included reports of flying saucers, later known as unidentified flying objects or simply UFOs. Burke-Gaffney was thus involved in the public discussion surrounding UFOs from the very beginning of what is now referred to as the "modern era of UFOs,"[7] and his public persona became increasingly connected to the debate surrounding the extraterrestrial hypothesis (ETH) that came to dominate discussion of UFOs and extraterrestrial life during the 1960s. However, UFOs were not one of his

major research interests, and as he became associated with the phenomena he also became uncomfortable and impatient with the insistence of many UFO researchers and enthusiasts, as well as the public more generally, that UFOs were extraterrestrial in origin.

Burke-Gaffney's efforts to educate the public about astronomy, and to willingly engage in the debate about UFOs, were unique. Throughout the history of Canada's involvement in the UFO phenomenon, no other academic took on such a prominent role. This article argues that Burke-Gaffney's work was an example of what Jennifer Hubbarb calls the "ideal of service." Unique to Atlantic Canada, the origins of this ideal are found in turn of the 20th century fisheries science, which played a significant role in Canada's "emergence as a scientifically based industrial society."[8] The idea that scientific work should benefit the public guided fisheries scientists, helping to establish a tradition of scientific service and education in the region. Burke-Gaffney's own work, in his case with the emerging discipline of astronomy and the public's interest in UFOs by extension,[9] comfortably sits within this framework. The particular conditions shaping the relationship between science and the public in Atlantic Canada significantly influenced Burke-Gaffney's public commentary about UFOs, and helps explain why he at all felt the need to publicly discuss UFOs, when few of his colleagues were willing to do so.

This article uses Burke-Gaffney's work as a way of tracking changes in the public perception of scientific authority in the region. In the early 1950s, Burke-Gaffney was cautious yet open-minded about the UFO phenomenon, advocating for patience at a time when many of his colleagues showed no scruples in debunking it. While he was fairly convinced that UFOs were not instances of extraterrestrial visitation, he nevertheless argued that it was impossible to know anything about them with certainty. Over time, however, Burke-Gaffney's views on the subject hardened and came more in line with the mainstream scientific opinion that UFOs were nothing other than misidentified natural phenomena. By the mid-1960s, despite his respected reputation and commitment to an "ideal of service," an emerging subculture of UFO enthusiasts, investigators, and witnesses interpreted this approach differently, as closedmindedness. Burke-Gaffney thus found himself in the midst of a public debate on the UFO phenomenon that we argue was indicative of broader social and cultural changes during this period. In his exchanges with the public, Burke-Gaffney exemplified the "ideal of service," diligently investigating sightings and communicating his findings. With UFO investigators and enthusiasts, however, he grew increasingly frustrated and confrontational. His patience, it turns out, had limits, and in the proponents of the ETH he perceived a potential threat not just to his own authority, but to that of science itself.

Flying Saucers and the Rhetoric of Patience, 1947–1960

"It has always been my case not to trespass on the fields of others,"[10] wrote Burke-Gaffney in a handwritten note from October 1957. Here he reflected

on his opinion about UFOs and the position he often expressed to the media: that the study of UFOs and UFO sightings did not belong to the science of astronomy. At the same time, given his belief in public education, Burke-Gaffney could not help but engage with the issue. Charles Harnett, a UFO researcher based in Springfield, Illinois, wrote to Burke-Gaffney as part of the research for a book he was preparing called "Science and the Flying Saucer." Harnett was looking to include comments from scientists, and the book, he claimed, would be "designed to present a case for the existence of UFOs, but on a semi-technical, scholarly basis, written in popular science style."[11]

In his response to Harnett, Burke-Gaffney claimed that most UFO sightings had already been identified as known phenomena, and as such, "A few, a very few, remained unidentified and unexplained— these are the so-called UFOs." [12] Turning to the issue of identification and classification, he took issue with both the terms "flying saucer" and "UFO" and proposed his own: *UPOFO* — unexplained phenomena or flying objects. He explained, "I would classify as a UPOFO the seeing of an object traveling at supersonic speed, suddenly reversing its direction. It has been reported that such objects were seen, and neither optics nor any other branch of physical science has come forward with an adequate explanation."[13] This, however, did not mean that an explanation was impossible or beyond scientific understanding. This was precisely why the terms "flying saucer" and "UFO" were problematic: "They have engendered the notion that UPOFO are objects and that they are objects totally different from any of which we have knowledge. Then, persons impatient to have explanation of these UPOFO have jumped to the conclusion that there must be space mice or men from Mars or beings from unseen planets."[14] From Burke-Gaffney's perspective, the public failed to heed William of Occam's dictum in their readiness to accept the extraterrestrial hypothesis. Patience, he argued, was essential: "I believe that there are UPOFOs. I do not know their explanation. They are unexplained phenomena or flying objects. They are at present unexplained; they are not necessarily unexplainable. We must have patience."[15]

Burke-Gaffney's unwillingness to provide an answer one way or the other was unusual. His colleagues in Canada— other astronomers working for the federal government in Ottawa, for instance— rarely displayed such patience and open-mindedness. The mainstream scientific view was simply that UFOs were either misidentified natural phenomena, such as meteorites or the planet Venus, or the products of delusional minds. In fact, it is at this same conclusion that Canada's official UFO investigation arrived. From 1952-1954, the Defence Research Board (DRB), Canada's post-war military science agency, ran Project Second Storey (PSS). A fellow astronomer, head of the Dominion Observatory Peter Millman, served as the Chairman of PSS, which also included another half-dozen members from various military bodies. The committee's goal was to research the UFO phenomenon and provide a clear answer to its mystery.

Millman firmly disbelieved the extraterrestrial hypothesis. In a letter to a colleague years after PSS was terminated, Millman expressed one aspect of his

continued disbelief: "I am afraid that the more I study this field, the more I realize how much hoaxing has occurred on the part of pranksters and publicity seekers."[16] Millman's attitude permeated the discussion in PSS meetings, six of which the DRB held over the project's two-year life. The committee concluded that UFOs simply did "not lend themselves to a scientific method of investigation," a conclusion that also echoed the views of their American counterparts. Thus, it was not unusual that a Canadian scientist would take an interest in UFOs during the 1950s. It *was* unusual, however, to depart from the "orthodox" line, as many ufologists would come to call it. By the mid-1950s, the expected attitude toward UFOs within the scientific community was at the very least a strong skepticism, if not outright hostility to the whole subject.

Burke-Gaffney broke this mold by maintaining an open mind about the possibility of origins other than misidentified natural phenomena, something he was able to do possibly because of his academic position within the university. Many of his colleagues worked with the federal government and so may not have had as much freedom to express their thoughts on the subject. Even though Burke-Gaffney did very much doubt the ETH, and thought that UFOs must be outside the realm of conventional astronomy, he nevertheless demonstrated a reticence toward a definite answer. Science did not, in fact, have the power to explain everything, and sometimes it was necessary to simply wait and see what would happen. A particular "rhetoric of patience," we argue, infused Burke-Gaffney's commentary on UFOs during his first decade of interest in them. He continually insisted that the appropriate scientific personnel must carry out a sober and careful examination of the available evidence on UFOs before arriving at any conclusion. This insistence, of course, was simply good scientific practice.

Burke-Gaffney first articulated his position on UFOs in July 1947 in response to a series of local UFO reports from Prince Edward Island during the weeks following the now famous Kenneth Arnold sighting. The term "flying saucer" entered popular parlance after Arnold reported seeing what he described as nine flat, reflective, saucer-like objects flying at high speed over Mount Rainier, Washington. Burke-Gaffney found himself inundated with calls from wire services in both Ottawa and Washington — including the Associated Press, United Press, Reuters, and the Canadian Press — asking about a similar flying saucer sighting in Prince Edward Island a few days after Arnold's.[17] The Sydney, Australia-based *Sun* quoted him as saying the objects were "outside the realm of astronomy," whereas the London *Evening Standard* incorrectly reported that Burke-Gaffney had himself seen one of these alleged flying saucers.[18] In a tongue-in-cheek letter to the editor published by the *Evening Standard*, he set the record straight:

> I never saw a flying saucer.
> I never hope to see one.
> There's one thing, note it, please sir.
> I'd rather see one than be one.[19]

However, if UFOs were not astronomical phenomena, what were they? Burke-Gaffney resisted attempts by reporters to nail down an origin, but they, however, demanded some kind of concrete answer to the mystery. His reluctance to oblige appears to have wavered in September 1950, when he told a reporter for the *Chronicle-Herald* that he "could only hazard a guess" that UFOs might be military in origin.[20] It was three years after the first major sightings in 1947, and so the persistence of the phenomenon may have convinced Burke-Gaffney that it warranted further consideration.[21] Whereas previously he brushed off the issue and advocated for patience, he now considered it more attentively. In his notes he constructed a hierarchical list of potential explanations.[22] These included balloons, flares, high-flying planes, kites, passing clouds, reflections from planes, and hoaxes. Initially, balloons and flares were his top two choices, but upon further consideration he moved "kite" from seventh to second position and moved up "reflection from plane" to make "hoax" the final, and least likely, option (in contrast to Millman's view). Faintly, in pencil, he also noted that the Korean War was ongoing at the time of the September 1950 sighting, perhaps indicating that the military explanation was indeed worth further consideration. Notably absent from his list of potential explanations was the possibility that the objects were extraterrestrial. As the reporter for the *Chronicle-Herald* stated, Burke-Gaffney "laughed off" the suggestion that the alleged flying saucers were anything other than natural or terrestrial. If flying saucers were indeed some kind of secret military aircraft or project, then they were still a non-astronomical phenomenon. Nevertheless, the press continued calling upon Burke-Gaffney because he was willing to talk about the possibilities without immediately shutting the topic down.[23]

On the evening of 25 May 1952, witnesses saw a bright flash in the sky near Halifax between ten thirty and ten forty-five. Frank Johnston of Spryfield, NS, who was in his car with three other men, stated: "I turned on the headlights of my car outside the house and just then I see this 'blue ball' rushing through the sky. It came out of the south and went straight north… it lit things up like a full moon. I thought it was a short circuit in my headlights at first. But that's what it looked like, a great big blue ball."[24] Johnston was just one of several witnesses who called the newsrooms of both the *Chronicle-Herald* and *Mail-Star* that evening, the majority of whom believed the object was a flying saucer.[25] According to the *Mail-Star*, an official at the Dominion Weather Office was unable to explain the sightings. Nevertheless, due to heavy cloud cover at the time of the sighting, the official discounted the possibility that the object was a meteorite and instead concluded that it was likely "man-made." The next day the *Mail-Star* ran another story about the sightings, adding Burke-Gaffney's candid comments to the mix: "Admittedly when a meteor falls, it some times [sic] shows a variety of colours, but I don't think this was a meteor, for the description doesn't fit."[26] Burke-Gaffney did speculate that there was a possible terrestrial explanation: "All I can say is that it may have been some giant rockets bought by someone in this area and left over from Victoria Day celebrations."[27]

Figure 2. *Reverend M.W. Burke-Gaffney with telescope on the roof of the McNally Building, St. Mary's University, July 1957, photographer unknown. Photo courtesy of St. Mary's University Archives (Halifax, Nova Scotia).*

However, it appears that Burke-Gaffney was not entirely satisfied with his response to reporters. Several days later, he offered another opinion on the sightings, this time claiming the object was likely a bolide, a meteorite that had exploded in the atmosphere at a height of 40,000 feet:[28]

> All meteors are small pieces of matter which come into the earth's gravitational field from outer space. They ignite from the intense friction of the earth's atmosphere. Usually they burn themselves out before reaching the ground. If they burn out while still very high, and looking small, they are called shooting stars. If they come low and look big, they are called fire-balls. Bolides are fire-balls that end their career with a bang.[29]

Providing readers with a simple, concise, and clear outline of the different kinds of meteors that Nova Scotians could expect to see in the sky, Burke-Gaffney took the sightings as an opportunity to educate the public. By explaining how he arrived at his conclusion that a bolide had caused the sightings, he demonstrated for readers the efficacy of a scientific approach. Speculation and unfounded theorizing were unnecessary. As long as the public remained patient and provided accurate data, experts would arrive at a sound conclusion.

Over the next few years, Burke-Gaffney solidified his position as an expert astronomer [**Fig. 2**] whom the public could trust. He did so through regular

media interviews, and by making two more identifications of meteors on 24 February 1955 and 9 December 1959.[30] However, to his chagrin and despite his best efforts to provide what he believed were sound, reasonable, and accurate explanations of otherwise mysterious sightings, Nova Scotians continued to report flying saucers. They also continued to consult Burke-Gaffney, expecting he would assess their reports with a reasonably open-mind. Of course, Burke-Gaffney was clear about his position on the ETH, but given that no other intellectual or government official was willing to express any doubt on record, he became the local media's favourite expert.[31]

Things were changing by the late 1950s. When Charles Harnett wrote to him in September 1957 requesting his opinion of UFOs, Burke-Gaffney's response to the letter indicates that his perspective, as well as his willingness to consider various explanations, was beginning to harden. He identified "impatience" as one of the underlying causes of the controversy and suggested that "persons impatient to have an explanation" readily jumped to the extraterrestrial hypothesis, undermining the scientific process. By the late-1950s growing public and media interest in UFOs now attracted attention to the deepening rift between sceptical scientists and proponents of the ETH. Popular UFO writers such as George Adamski and Donald Keyhoe did little to help. As astronomer and historian Steven Dick argues, their claims brought "new scientific disrepute" to UFOs, discouraging study of potentially credible sightings and strengthening the position of sceptics.[32] Burke-Gaffney's appeal to patience was no doubt a response to this increasingly polarized debate, as well as to the threat posed by UFO writers and investigators like Harnett to scientific authority. He admitted to Harnett that a satisfactory explanation had not yet been reached, but cautioned, "not all that is unexplained is unexplainable." If the public would be patient, scientists would reach an acceptable conclusion in time. As he explained, "Not all that defies the explanation of one generation defies the explanation of the next generation." The development of new technology and the continued advancement of scientific knowledge would, from his perspective, likely lead to an answer. The problem, Burke-Gaffney noted, was that the evidence simply did not exist to justify anything other than a prosaic explanation: "In 1947, I took the stand that the flying saucers seen in June and July 1947 were not extraterrestrial and therefore none of my business. But as each sighting was reported, I judged it on its merits. By 1950, I had not heard of any that gave evidence of being extraterrestrial."[33] It appears at first blush that Burke-Gaffney, given his insistence on patience and his trust in the scientific process, may have been willing to consider the possibility of extraterrestrial visitation via UFOs if supported by the available evidence. However, this is also unlikely, given that he was convinced that claims of UFO sightings simply lacked the necessary detail to make a proper scientific study of them. It is more likely that Burke-Gaffney, like many of his colleagues, simply believed that the phenomenon needed more time to resolve into focus.

This makes it even more interesting that by 1960 Burke-Gaffney began

embracing the idea that life exists on other planets, a theory that at the time had arguably no more evidentiary proof than UFO visitation. With more than a decade of research on the topic, Burke-Gaffney outlined his perspective on the possibility of extraterrestrial life in the *Halifax Gazette* in April 1960.[34] He advised his readers "space travel is just around the corner," and contemplated what humans should expect to find upon reaching the moon, and even Mars. Conditions elsewhere in the solar system, he argued, did not favour life. However, this might not be the case in distant solar systems. "It would be rash, even presumptuous to deny the possibility. The simple fact is that we do not know." Radio astronomy seemed to present new possibilities for discovery, but astronomers listening for alien radio signals seemed "far-fetched." Progress, however, was inevitable. New technology, new perspectives, and new ambitions would push the boundaries of astronomy, but it would require careful analysis and need to harness the full potential of the scientific knowledge currently available. He explained to his readers that there was both cause for excitement and a need for patience as new discoveries followed new advances in technology:

> Preceding from such dreams, and confining ourselves to what now seems possible, we see exciting prospects opening before us. Our horizons are to be widened. Our knowledge of the stars comes from the light and other radiations that we receive from them. These radiations come to us through a thick atmosphere, which is sometimes turbulent. The view which we get of the stars is somewhat like the view which a fish at the bottom of the ocean gets of a gull flying over the sea. This view is being improved upon. Already photographs have been taken from rockets high in our ionosphere, and from balloons high in the stratosphere. They show the sun as we have never seen it. When observations can be made from the moon, we shall delve more deeply into the mysteries of the universe.

Burke-Gaffney's words indicate his maturing attitudes toward UFOs and the ETH. In the late 1940s, he was adamant that UFOs were not extraterrestrial, but remained open-minded about possible origins and advocated patience until science could make sense of it. By 1960, advances in scientific technology had convinced him that life in outer space was, at least, possible, even if UFOs were still bunk.

Scientific curiosity and the thrill of discovery, however, could not alone fully uncover the wonder of the cosmos. As he explained in the same article, "The Lord God, who has planted in the heart of man an insatiable thirst for knowledge…. has entrusted to man the whole creation in order that he may penetrate it and come to understand, even more and more, the infinite intelligence and greatness of his Creator."[35] The commentary he first offered to reporters back in 1947, and throughout the 1950s, lacked any kind of explicit religious tone or theological perspective. His religious position as a member of the clergy would have been clear to readers as most news reports introduced him as "Rev. M.W. Burke-Gaffney," but in his public statements related to UFOs, he had never before felt it necessary or appropriate to address reports from a religious perspective. Why then did Burke-Gaffney choose to conclude this

latest article on the possibility of extraterrestrial life with explicitly religious comments? It seems to suggest that he saw the UFO phenomenon and the possibility of extraterrestrial life as separate concerns, each with its own scientific and intellectual merits. In the possibility of extraterrestrial life, he explained, "It seems that [humanity] is now offered the chance to breach the barrier, and to attain to new truths and to new knowledge of the things that God has spread in such profusion throughout the Universe." The possibility of extraterrestrial life appealed to his scientific and theological curiosity, connecting both his research interests and his religious vocation. UFOs and the ETH, however, he claimed to reporters, and again to Harnett in 1957, were not astronomical phenomena and thus "none of my business." This, it turns out, was not entirely true. Burke-Gaffney's involvement in the study of UFOs continued into the 1960s, and his involvement cannot be explained simply as the fault of reporters.

The Associate Committee on Meteorites and Waning Public Trust, 1960–1969

In the early 1960s, Burke-Gaffney's involvement in the federal government's UFO investigation formalized. Although Project Second Storey had run only from 1952 to 1954, various departments continued to take an interest, however weakly, in UFOs. There was never any central communication or instructions regarding the objects, leaving individual departments and agencies to construct their own policies around sighting reports, usually corresponding to their specific motivations or mandates. For example, various sections within the National Research Council (NRC), headquartered in Ottawa, maintained an interest in the tracking of meteorites and fireballs, although during the early post-war period there was no formal procedure in place to guide this task. This changed as the result of the fall and recovery of meteorite fragments north of Bruderheim, Alberta on 4 March 1960. This event catalyzed the formation of the NRC's Associate Committee on Meteorites (ACOM), a body comprising scientists representing each province and territory. While in operation, NRC's various associate committees served "as instruments to provide the opportunity to bring together experts for the study, coordination, and promotion of research on problems of national significance. When an associate committee studied a particular problem, it collected and collated pertinent information, delegated research problems, coordinated research, and suggested new avenues of research."[36] The NRC tasked ACOM with establishing a reporting procedure for meteorites in case its members could recover pieces from a future landing. The membership of this committee fluctuated over the years until its termination in the early 1990s, due to a shortage of personnel.[37]

In addition to chairing Project Second Storey, astronomer Peter Millman also became the chair of ACOM. While the purpose of ACOM was specifically meteorites and fireballs, not surprisingly the public also submitted UFO reports to the committee. In his role as chairman, Millman made it clear that the committee's primary interest was in the scientific study of the nature of

meteoritic objects and their rapid recovery when found. UFO reports might be useful under this umbrella as a contribution to tracking meteorites and fireballs, but "all sighting reports that do not seem to refer to fireballs or meteors will be placed on the non-meteoritic sighting file which will be unclassified, as in general we do not deal with classified material in our research program."[38] Millman was referring to a separate file that the NRC eventually established for the collection of UFO reports to keep them from intruding into the real business of the committee.

In practice, however, keeping meteorite and UFO reports separate was difficult. On and off for about fifteen years, Burke-Gaffney served as the ACOM representative for Atlantic Canada, and so was at the front line of reports of unusual things seen in the sky. In a letter to Millman on 12 April 1962, Burke-Gaffney provided an update on the status of his work and of the program in general. He informed Millman that a recent report of a "green falling star" by a woman in Purcell's Cove, NS might interest the committee. The woman in question contacted Burke-Gaffney's office and he duly investigated the sighting, looking for additional reports as well as data that might shed light on its trajectory and the likelihood of obtaining a sample. The RCMP confirmed that no report matching the date and time of the sighting existed. However, Burke-Gaffney did receive three newspaper clippings from the *Moncton Transcript*, as well as a Canadian Press dispatch, that he enclosed with his letter. Based on one witnesses' observation that the object was "as bright as the sun," and another's report that it was small, Burke-Gaffney concluded that the object likely broke up as it moved through the atmosphere. In addition to his evaluation of the meteor sighting, he also included a brief comment on the cooperation of the RCMP, RCAF, Army, and Navy with the committee's meteorite reporting program. "Of the program in general," he reported,

> From January 29 to March 27, I have received half a dozen reports from the RCAF, who are to be commended on showing a spirit of cooperation. (I presume you received copies of these reports.) I received one report from the RCMP (that dated April 5). I have received none from the Army and Navy.[39]

As a recommendation, perhaps to help increase the number of reports available for evaluation or to secure a more direct route to witnesses, Burke-Gaffney asked if it was possible to enlist the assistance of the press more directly. In his response, Millman thanked him for the forwarded information and noted that the committee would consider his recommendation at its next meeting.[40]

In his capacity as a regional representative of the ACOM, Burke-Gaffney conducted his research methodically, following up with both the police and the public when they submitted reports. In August 1962, he received a report from the RCMP about a potential meteorite sighting made by Aurele Doucet near his home in West Bathurst, New Brunswick. [41] Doucet told the police that he watched the object fly overhead and fall somewhere in the forest approximately one mile from his house. Intrigued, Burke-Gaffney wrote to Doucet for more

information, asking if the object was located or if locating it would be possible.[42] Doucet's response included a newspaper clipping explaining that a parachute flare released by local youth caused the sighting.[43] In another such incident in November 1965, Burke-Gaffney received a letter from Gordon Beattie of Pictou, NS in response to a newspaper report about a recent sighting on which Burke-Gaffney had commented.[44] Beattie had witnessed a bright flash of blue light broaden into a string of white lights or balls for approximately two to three minutes before they faded from view. He explained that he was not looking for publicity and, because of discussing the sighting openly, had become the subject of ridicule. Perplexed by the report, Burke-Gaffney began an investigation, appealing to the Smithsonian Institution Astrophysical Observatory for help. The Smithsonian confirmed that it was possible an object entering Earth's atmosphere caused the sighting.[45] In his response to Beattie, Burke-Gaffney confirmed that the Air Force had no planes near the location of the sighting and concluded that the cause was neither a meteor nor satellite re-entering the atmosphere.[46] Without a positive identification to offer, he thanked Beattie for his report: "I have no doubt that you saw what you have described, and I would like to assure you, that I am grateful to you for reporting your observations. Such reports can be of great assistance." He concluded by acknowledging the "kidding" Beattie suffered by reporting the sighting, noting that he too had suffered similar ridicule after seeing the Northern Lights for the first time while working as an engineer in Manitoba.

Burke-Gaffney was willing to cooperate with law enforcement and military personnel, and was responsive to the experiences and concerns of the public, fulfilling his ACOM role in a way no other representative in the country was able or willing to do.[47] In fact, his correspondence with Beattie demonstrates that he investigated reports from the public in a serious and professional manner, sharing with them the results of his investigations. It also shows that he was aware of the risks of reporting unusual sightings and sympathized with witnesses who suffered ridicule by speaking openly about them. It was because of this kind of candidness in his correspondence with others and in the media that the community had come to trust Burke-Gaffney and his opinions. Burke-Gaffney's efforts were unique among other academics, like Peter Millman and the Project Second Storey committee, who almost uniformly dismissed reports and refused to investigate.[48]

The attitude of Millman and other scientists like him reflected broader changes in the UFO debate and the public's attitudes toward expertise in the mid-1960s, exemplified by the Condon Committee. In October 1966, the University of Colorado accepted a contract from the United States Air Force to conduct a scientific study of the UFO phenomenon headed by respected American physicist Edward U. Condon. The committee worked through thousands of UFO reports, only to conclude in 1969 that all efforts toward solving the UFO mystery had been a waste of time. Historian David M. Jacobs argues that the beginning of the University of Colorado study marked a turning point in the

UFO controversy in the United States as the press, government officials, the public, and the scientific community renewed their interest in UFOs.[49] After the initial excitement of the late-1940s and early 1950s, public interest waned and the debate moved out of public view. Civilian UFO research groups such as the National Investigations Committee on Aerial Phenomena (NICAP), the Aerial Phenomena Research Organization (APRO), and, later, the Mutual UFO Network (MUFON), all of which were unhappy with the air force's near-monopoly over UFO data, became an important vehicle of the ongoing debate. This changed in 1966 as press coverage of UFOs increased and public debate resurfaced.

After the Condon Committee released its report in 1969 the debate intensified.[50] Civilian UFO investigators criticized Condon for his lack of neutrality and his skepticism of scientists who attempted to take the matter seriously. Despite Condon's efforts to finally debunk the matter, UFO sighting reports increased. As Jacobs notes, the United States Air Force received nearly 3000 UFO reports between 1965 and 1967, an exponential increase.[51] Similarly, UFO reports in Canada jumped from 55 in 1966 to 167 in 1967. Not only did Condon fail to convince the public that UFOs were a waste of time, he actually spurred even more interest in them, and contributed to a growing sense that scientists and experts might not have the public's best interests in mind. Burke-Gaffney had secured a prominent position in the early UFO debates of the 1940s and 1950s, but this status was quickly coming under fire.

This changing attitude is most visible in an exchange of letters with Wayne Wright, a high-school student from Summerside, Prince Edward Island, who identified himself as the Canadian Director of the Thada UFO Research Society. From March 1965 to January 1966, Wright maintained a regular correspondence with Burke-Gaffney related to local UFO sightings. In his first letter he noted, "It is the first time I could actually speak with a true scientist about UFOs although I have written to many other saucer 'authorities.'" Looking to establish the Canadian branch of Thada as a serious UFO research organization, Wright wanted Burke-Gaffney's support and, most importantly, access to both his expertise and his UFO files. Burke-Gaffney's response was thorough and succinct. After answering a series of questions Wright had posed, Burke-Gaffney provided a summary of his scientific opinion on UFOs, refined from the early days:

> Of phenomena which I have seen in the sky since 1947, I have identified 99.9% - the other 0.1% await explanation. I would deem it unscientific to have recourse to beings outside our solar system until we have exhausted all possible explanations to be found from phenomena within our Solar System. To invent unknown objects as the cause (- instead of saying that the cause is unknown-) is a regression towards the Greeks who invented a new god or goddess to account for what they could not explain. It is a going back further than medieval times, when they gave a cause a name and then rested comfortably.[52]

Wright was undiscouraged by Burke-Gaffney's response. He acknowledged that many sightings were the result of known phenomena but insisted that "true" cases of "metallic discs" seen by reputable witnesses suggested there was more to the issue. He illustrated his point for Burke-Gaffney with a hand-drawn diagram of a flying saucer, labelled "These are not fireballs."[53] Wright's five-page letter defending the UFO phenomenon and the testimony of witnesses elicited little response, in itself an unusual change for Burke-Gaffney, who had always been willing to engage. Burke-Gaffney answered Wright's request for information related to sightings in Prince Edward Island by noting he indeed had a file that included the 1947 sightings but provided no further information. He did, however, enclose a copy of the Canadian Air Force's standard fireball reporting forms for Wright to use if he ever saw one. His short, two-paragraph letter made no further reference to Wright's comments.[54] Undeterred, Wright wrote back four days later, reiterating his interest in the file and asking Burke-Gaffney if he would consider examining reports collected by Thada and share information he obtained from his "sources."[55] There was no response.

Burke-Gaffney did not respond to Wright for another four months. Now frustrated, and convinced that Burke-Gaffney had no serious interest in UFOs after all, Wright wrote to him again. Significantly, Wright accused the astronomer of failing in his professional duties as a scientist: "I think that you could be of greater service to your profession if you devoted your time to the [UFO] research instead of inconsequential meteorites and other heavenly bodies."[56] Perhaps prompted by Wright's forcefulness or the claim that he had never clearly stated his position on UFOs, Burke-Gaffney finally wrote back. Longer than his previous letters, the response included examples of allegedly anomalous sightings later explained as natural or physical phenomena. He reaffirmed his earlier position, which he also often stated to the press: there was no evidence that UFOs were extraterrestrial.[57] Wright responded three days later, reaffirming his own opinion that there were too many reports from reputable and high profile witnesses to discount the ETH. Burke-Gaffney did not answer and they exchanged no further correspondence until the following year, when Wright wrote to him to request information about a sighting in Cape Breton. In his response, Burke-Gaffney discussed a recent conference he had attended and provided the information Wright requested, exclaiming, "it is a mental jolt to come down to your low flying planes!"[58]

Wright's last letter to Burke-Gaffney built upon similar points expressed in his previous correspondence. However, it also revealed his frustration with what he saw as Burke-Gaffney's inflexibility and lack of objectivity. Wright now interpreted the astronomer's attitude as symptomatic of scientists' treatment of UFOs more generally: "I might be speaking out of line but was any mention made of any recent 'saucer' sightings during the symposium? If not I doubt the reality of the so-called 'scientific mind.'" A student at university by this point, Wright further explained, "It may seem impertinent for a college student to speak so but if you believe what you say it is wrong to remain silent."[59] Something

had clearly changed for Burke-Gaffney. Whereas before the astronomer was called upon as a respected source of authority, his correspondents now seemed to distrust his motivations.

In the ideologically charged climate of the UFO controversy of the mid-1960s, public interest and press coverage of UFOs in Nova Scotia followed a similar trajectory as it did in the United States. Burke-Gaffney's correspondence with Wright revealed the limits of his willingness to engage the controversy. As an ACOM representative, he was willing to elicit the public's help in identifying meteor sightings. He was even willing to investigate on behalf of witnesses and share his results, but collaboration with civilian or non-academic research efforts seemed out of the question. By invoking the history of science in his letters, he revealed that the proliferation of the UFO debate was a threat to normative science and human progress. However, he also indicated that he had not given up on his plea for patience either. As he told Wright, there are unidentified flying objects simply because there are objects that remain unidentified. Unfortunately, for Burke-Gaffney, the end of his correspondence with Wright did not end his involvement with the controversy. There was more yet to come.

On 4 October 1967, residents in the village of Shag Harbour, Nova Scotia watched a string of lights fly overhead before crashing into the Atlantic Ocean. When witnesses began telephoning the RCMP detachment in Barrington Passage to report a downed aircraft, a rescue party of local fishers went in search of survivors in the harbour. Three RCMP officers and at least a dozen residents watched the object disappear beneath the surface. The search party found no craft, no debris, and no survivors. There was, however, a patch of sulfurous-smelling yellow foam on the water's surface. A Canadian Coast Guard vessel stationed at nearby Clark's Harbour joined the search, as well as a navy dive team who took over operations and conducted an underwater search lasting three days. The events unfolding in Shag Harbour became front page news by the seventh of October when the *Chronicle-Herald* ran the headline "Could Be Something Concrete in Shag Harbour UFO – RCAF," quoting an air force squadron leader named William Bain. According to Bain, the air force was "very interested" in the crash and told the reporter, "We get hundreds of reports every week…but the Shag Harbour Incident is one of the few where we might get something concrete on it."[60] When the navy divers concluded their search on 8 October, they had nothing to report. According to Canadian Forces Maritime Command, the search turned up "Not a trace…not a clue… not a bit of anything."[61] Press coverage of the crash was extensive in newspapers across Atlantic Canada and included both of the main Halifax papers, as well as papers in Yarmouth and Moncton.

Unable to provide an explanation for the mysterious crash at Shag Harbour, the efforts of the RCMP and Canadian Forces to investigate and locate the allegedly downed craft appeared to lend legitimacy to the UFO phenomenon. Bill Fox, a reporter for *The Vanguard* based in Yarmouth, stated that local fishers,

despite the exhaustive search conducted by the divers, intended to conduct their own search for the object that they believed was a UFO.[62] An editorial in the Dartmouth *Free Press* expressed a similar sentiment, arguing that the events in Shag Harbour posed a challenge to skeptics.[63] Around the same time, two research scientists, Rupert MacNeill of Acadia University and R.C. Tennyson of the University of Toronto, stated to reporters they believed the Shag Harbour UFO to be a "prototype supercraft" under development by the United States Department of Defence. In addition to MacNeill and Tennyson's support for the "military craft theory," the report also claimed (whether erroneously or not) that many members of the ACOM, of which MacNeill was a member, also believed that some UFO sightings were likely experimental military aircraft.[64]

Burke-Gaffney was not so sure. He advised the *Chronicle-Herald* that the Shag Harbour sighting was neither an extraterrestrial vehicle nor a military aircraft. He gave the statement following a lecture he delivered at St. Mary's University addressing recent interest in UFOs. The newspaper reported that "Father Burke-Gaffney thought saucer speculation by astronomers did not do the science much good," arguing that while life elsewhere in the universe seemed probable, there was no evidence extraterrestrials had visited Earth. The *St. Mary's Journal* further reported that Burke-Gaffney claimed 94% of sightings were explainable, citing marsh gas, mirages, and meteorites as frequent causes of UFO sightings.[65] It is unclear how his audience received the lecture, but in mid-December, a letter to the editor attacking Burke-Gaffney's remarks indicates that some members of the public were questioning the skeptical line maintained by scientists like Burke-Gaffney. In his letter, John O'Brien agreed that scientists might indeed identify many sightings as known phenomena, but certainly not all of them. As he wrote, "If it was the intention of Father Burke-Gaffney to pacify the masses, then he has failed," arguing that even if the objects were terrestrial, they represented a serious threat to public safety and security. However, their flight characteristics and ability to disrupt electrical systems indicated, O'Brien argued, an extraterrestrial origin. He concluded, "Why this letter? To show, that with some of us, while we have our feet solidly on the ground, our heads are not in the sand."[66]

In the late 1940s and throughout the 1950s, when other scholars openly mocked the subject, the public had welcomed Burke-Gaffney's open-minded views about UFOs. Even though he was also skeptical, his calls for patience and his commitment to public education in the region were what the press and the public wanted to hear. By the mid-1960s, Burke-Gaffney was out of his element. His views had not much changed, but public sentiment certainly had. The community no longer received Burke-Gaffney's thoughts on UFOs with such enthusiasm, seeing him no longer as a progressive influence within the scientific community, but instead as just another cynical scientist intent on debunking the subject.

The public's attitude toward UFOs at this time was a reflection of broader trends in Canadian society. During the 1960s, Canadians began to depart from

a long tradition of deference to the state's authority.[67] As the baby boomer generation came of age, attitudes toward authority — and scientific authority and expertise specifically — started shifting. Previous generations had readily placed their trust in institutions like the state and the universities, assuming their benevolence and the power of their reason. But the experience of the Second World War and the technical rationality that underpinned its various horrors shook this belief in authority and expertise. This was especially evident, for instance, in the United States, where youth took to the streets to protest the Vietnam War and the ongoing threat of nuclear war with the Soviet Union. Whereas Burke-Gaffney was quick to express his faith in the progress of science and technology for humankind, others — such as Wayne Wright and John O'Brien — concluded that perhaps these institutions were not so benevolent after all.[68]

Conclusion

Burke-Gaffney's involvement in the UFO debate in Atlantic Canada waned after the 1960s ended. He had stepped into the spotlight almost immediately, only days after the infamous Kenneth Arnold sighting in 1947 that kick-started the modern era of UFOs. It was unusual for a university professor to speak so openly to the press about the phenomenon. When other scientists did so, they invariably strove to debunk the idea and attempted to assure the public that there was no mystery about it. Burke-Gaffney certainly shared part of this view, that UFOs were not extraterrestrial in origin. Yet, his ideas were more nuanced. He continually advocated for patience and trust in the scientific method, assuming that with time and more evidence, the answer to the UFO enigma would become clear. He was also willing to investigate credible sightings and give them their due diligence, in an attempt to provide clear evidence one way or the other. Burke-Gaffney's willingness to engage with the issue in a public forum, and through solid scientific investigation, endeared him to the community. Even if he would not admit the possibility of extraterrestrial visitation, at least he was discussing the topic. This article has argued that what historian Jennifer Hubbard calls an "ideal of service," something unique to Atlantic Canada, spurred Burke-Gaffney's public engagement.[69] The astronomer was committed to scientific education for the region, especially in Nova Scotia, given his position at St. Mary's University in Halifax. Even though he considered UFOs a strange departure from his normal work, he nevertheless thought they presented an opportunity to expand scientific literacy.

The respect that the media and the community had for Burke-Gaffney did not last. By the mid-1960s, understandings of the UFO phenomenon, and wider ideas about authority and expertise, had begun to change. Burke-Gaffney's personal views about UFOs remained mostly the same. He was always skeptical of the extraterrestrial hypothesis. Whereas his call for patience and his speculations about possible origins were welcome in previous years, by the time the U.S. military formed the Condon Committee the public found Burke-

Gaffney's views antiquated and just as stifling as they had always found those of his more conservative colleagues. In effect, the ideal of service to which Burke-Gaffney adhered became the very source of conflict in later years. At a time when deference to the benevolence of science and technology were waning, Burke-Gaffney continued to publicly engage with the issue and insist on patience, assuring the public of the power and scope of scientific knowledge. This put him at odds with UFO investigators and enthusiasts like Wayne Wright, who no longer thought that mainstream scientists had all the answers.

By the time of his death in 1979, the tenor of public opinion had changed, and the astronomer found himself at odds with the supporters of the ETH. This is ironic, considering Burke-Gaffney never wanted to study UFOs. In a sense, public interest forced him into the phenomenon in the first place. Yet, despite the changing reception his public statements received, and for all his skepticism and insistence on technical explanations of meteorological phenomena, he always maintained that what kept him interested in the topic was the never-ending mystery of the cosmos. As he said in April 1964, "In a deeper sense than ever before, the heavens declare to astronomers the Glory of God and the firmament proclaims to them the work of His hands."[70]

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Endnotes

1 "Mysterious 'Saucers' Seen Again," *Chronicle-Herald* (Halifax, NS), 21 September 1950.

2 "Children Report Seeing Flying Disc Over City," *Chronicle-Herald* (Halifax, NS), 25 August 1950.

3 Ibid.

4 Ibid.

5 "Mysterious 'Saucers' Seen Again."

6 "Teacher, Astronomer Dies at 82," *Chronicle-Herald* (Halifax, NS), 15 January 1979. The archival material used for this article is from the Burke-Gaffney fonds at the Saint Mary's University archives.

7 Many scholars identify antecedent themes, motifs, and descriptions of UFO-like phenomena prior to 1947. See, for example, Thomas E. Bullard, *The Myth and Mystery of UFOs* (Lawrence: University Press of Kansas, 2010), Jerome Clarke, "The Extraterrestrial Hypothesis in the Early UFO Age," in *UFOs and Abductions: Challenging the Borders of Knowledge*, ed. David M. Jacobs, 122-40 (Lawrence: University Press of Kansas, 2001), and David M. Jacobs, *The UFO Controversy in America* (Bloomington and London: Indiana University Press, 1975). However, many date the beginning of the UFO phenomenon to the Kenneth Arnold sighting on 24 June 1947. See Brenda Denzler, *The Lure of the Edge: Scientific Passions, Religious Beliefs, and the Pursuit of UFOs* (Berkley: University of California Press, 2001) and Steven J. Dick, *Life on Other Worlds: The 20th- Century Extraterrestrial Life Debate* (Cambridge and New York: Cambridge University Press, 1998).

8 Jennifer Hubbard, *A Science on the Scales: The Rise of Canadian Atlantic Fisheries Biology, 1898-1939* (Toronto: University of Toronto Press, 2006), 5.

9 See Richard A. Jarrell, *The Cold Light of Dawn: A History of Canadian Astronomy* (Toronto: University of Toronto Press, 1988).

10 Note, "Flying Saucers and the Atmosphere," 1957, Burke-Gaffney Fonds, Flying Saucers 1967, 17 October Astronomy Sub-Series, 1999.17E, St. Mary's University Archives, Halifax, NS.

11 Harnett to Burke-Gaffney, 26 September 1957. Burke-Gaffney Fonds, Academic Series, Astronomy-Sub-Series, UFO 1957, 1999.17E.

12 Burke-Gaffney to Harnett, 15 October 1957. Burke-Gaffney Fonds, UFO 1957.

13 Ibid.

14 Ibid.

15 Ibid.

16 Millman to S.B. Goddard, 17 April 1968. "Non-Meteoritic Sighting" File. RG 77, Vol. 306, Microfilm Reel T-1741, Library and Archives Canada.

17 Note, "First Flying Saucers, 1947 June 24," 3-4 July 1947, Burke-Gaffney Fonds, Flying Saucers 1967 October 17, Astronomy Sub-Series, 1999.17E, St. Mary's University Archives, Halifax, NS.

18 "On Origin of 'Flying Saucers,'" *The Sun* (Sydney, Australia), 4 July 1947.

19 Letter to the Editor, *Evening Standard* (London, UK), 22 July 1947.

20 "Mysterious 'Saucers' Seen Again," *Chronicle-Herald* (Halifax, NS), 21 September 1950.

21 It certainly convinced several other scientists involved with the phenomenon in the U.S., including J. Allen Hynek, the man responsible for the "Close Encounters" classification scheme. See J. Allen Hynek, *The UFO Experience: A Scientific Enquiry* (New York: Ballantine, 1972), Roy Craig, *UFOs: An Insider's View of the Official Quest for Evidence* (Denton: University of North Texas Press, 1995), and Mark O'Connell, *The Close Encounters Man: How One Man Made the World Believe in UFOs* (New York: Dey St., 2017).

22 Note, untitled, 1950, Burke-Gaffney Fonds, Astronomy Sub-Series, Flying Saucers 1967 October 171999.17E.

23 Other potential Canadian sources were not so generous. For instance, the Department of National Defence issued a decree forbidding its employees from speaking to the CBC about UFOs. See L.A. Bourgeois to DND Office of Information, 4 March 1965. Department of National Defence file on Unidentified Flying Objects. RG 24 vol. 17988, File HQC 940-105, Part 2, Microfilm Reel T-3291. Library and Archives Canada.

24 "It Looked Like A Great Big Blue Ball, He Says," *Chronicle-Herald*, 26 May 1952.

25 "Fiery Object Over Halifax Area Still Not Explained," *Mail-Star* (Halifax, NS), 26 May 1952.

26 "Flying Saucers? Even Experts Mystified by Objects Seen in Sky," *Mail-Star*, 27 May 1952.

27 Ibid.

28 "Believes Flash in Sky Was Bolide," *Chronicle-Herald*, 2 June 1952.

29 Ibid.

30 "Mysterious Light Said Stray Meteor," *Chronicle-Herald*, 25 February 1955; "Mystery 'Ball of Fire' Seen by Number Here," *Mail-Star*, 11 December 1959.

31 Like the DND's position, Peter Millman had earlier made it clear to the Project Second Storey committee that it was to make no contact with the press. See "Defence Research Board Project Second Storey, Minutes of the 2/52 Meeting," 19 May 1952. Department of Transport file on Sightings of Unidentified Aerial Objects." RG 97, Vol. 115, File 5010-4, Part 1. Library and Archives Canada.

32 Steven J. Dick, *Life on Other Worlds: The 20th Century Extraterrestrial Life Debate* (Cambridge: Cambridge University Press, 1998), 146-8.

33 Note, "Flying Saucers and the Atmosphere," 1957, Burke-Gaffney Fonds, Academic Series, Astronomy Sub-Series, Flying Saucers 1967 October 17,1999.17E.

34 Michael W. Burke-Gaffney, "Life on Other Worlds," *Halifax Gazette*, 13 April 1960.

35 Ibid.

36 Brian Wilks *Browsing Science Research at the Federal Level in Canada: History, Research Activities, and Publications* (Toronto: University of Toronto Press, 2004).

37 Martin Beech, "The Millman Fireball Archive," *Journal of the Royal Astronomical Society of Canada* 97 (April 2003): 72.

38 Millman to the RCMP Commissioner, 22 March 1968. National Research Council file on Sightings of UFOs. RG 18, Vol. 3779, File HQ-400-Q-5, Part 1. Library and Archives Canada.

39 Burke-Gaffney to Millman, 12 April 1962, Burke-Gaffney Fonds, Academic Series, Astronomy Sub-Series, Fireballs File 3, 1999.17C.

40 Millman to Burke-Gaffney, 17 April 1962, Burke-Gaffney Fonds, Fireballs File 3.

41 RCMP Moncton Detachment to Halifax Division, 15 August 1962, Burke-Gaffney Fonds, Fireballs File 3.

42 Burke-Gaffney to L. Ducet, 15 August 1962, Burke-Gaffney Fonds, Fireballs File 3.

43 L. Doucet to Burke-Gaffney, 24 August 1962, Burke-Gaffney Fonds, Fireballs File 3.

44 G. Beattie to Burke-Gaffney, 18 November 1965, Burke-Gaffney Fonds, Academic Series, UFO Records Sub-Series, UFO File 5, 1999.17A.

45 C. Ready to Burke- Gaffney, 17 November 1965, Burke-Gaffney Fonds, UFO File 5.

46 It is unclear if he is referring to the Royal Canadian Airforce or the United States Airforce in his letter; Burke-Gaffney to G. Beattie, 23 November 1965, Burke-Gaffney Fonds, UFO File 5.

47 In a letter to Peter Millman, Edward Leith, another ACOM representative, mocked one witness: "At our last meeting of the Meteorite Committee you mentioned [a particular sighting]. When I got home from Ottawa I found the local paper had an article on the latest or most up to-date account (??) of it and thought you might like to have a copy for your files. You can see that it must be an authentic "saucer" because of the drawing made a the site!!!!" Leith to Millman, 11 April 1968. National Research Council Non-Meteoritic Sighting File. RG 77, Vol. 310, Microfilm Reel T-1744. Library and Archives Canada.

48 Indeed, during the late 1960s, the Department of National Defence transferred its responsibility for the UFO investigation to the National Research Council. The NRC grudgingly took it on, and even officials within DND noticed their reticence. See E.W. Greenwood to DGOps, 8 November 1967. Flying Saucers File. RG 24, Acc. 83-84/167, File 3800-10-1, Part 1. Library and Archives Canada.

49 David M. Jacobs, *The UFO Controversy in America* (Bloomington: Indiana University Press, 1975), 193-224.

50 Edward U. Condon, *Final Report of the Scientific Study of Flying Objects Conducted by the University of Colorado Under Contract to the United States Airforce*, ed. Daniel S. Gillmor (New York: Bantam Books, 1969).

51 Jacobs, *The UFO Controversy*, 224.

52 Burke-Gaffney to W. Wright, 29 March 1965, Burke-Gaffney Fonds, Academic Series, Astronomy Sub-Series, Flying Saucers 1967 October 17. 1999.17E.

53 Wright to Burke-Gaffney, 30 March 1965, Burke-Gaffney Fonds, UFO 1965 March 29-July 13.

54 Burke-Gaffney to Wright, 1 April 1965, Burke-Gaffney Fonds, UFO 1965 March 29-July 13.

55 Wright to Burke-Gaffney, 5 April 1965, Burke-Gaffney Fonds, UFO 1965 March 29-July 13.

56 Wright to Burke-Gaffney, 7 July 1965, Burke-Gaffney Fonds, UFO 1965 March 29-July 13.

57 Burke-Gaffney to Wright, 12 July 1965, Burke-Gaffney Fonds, UFO 1965 March 29-July 13.

58 Burke-Gaffney to Wright, 13 January 1966, Burke-Gaffney Fonds, UFO 1966 January-February.

59 Wright to Burke-Gaffney, 15 January 1966. Burke-Gaffney Fonds, UFO 1966 January-February.

60 Ray MacLeod, "Continue Search Today," *Chronicle-Herald*, 7 October 1967.

61 "UFO Search Called Off," *Chronicle-Herald*, 9 October 1967.

62 Bill Fox, "There Is Something Down There," *The Vanguard* (Yarmouth, N.S.), 11 October 1967.

63 "Unidentified Flying Objects," *The Free Press* (Dartmouth, N.S.), 12 October 1967.

64 The report, originally written by *Chronicle-Herald* staff writer David Bentley, was picked up by a number of local papers: "Shelburne's UFO: Secret 'War' Machine From U.S. – Scientists," *Chronicle-Herald*, 13 October 1967; "UFO New Supercraft Under Test, Scientists," *Moncton Daily Times*, 14 October 1967; "Shelburne's UFO: Secret War Machines from U.S. – Scientists," *Mail-Star*, 13 October 1967. A response from the Canadian Department of National Defence, published alongside MacNeill and Tennyson comments, claimed they had no knowledge of a secret aircraft over Nova Scotia at the time of the Shag Harbour Incident: "DND No Knowledge of Secret Project," *Chronicle-Herald*, 13 October 1967.

65 "U.F.O. Topic for 'Bear Pit,'" *St. Mary's Journal*, 27 October 1967.

66 John B. O'Brien, Letter the Editor, *Mail-Star* (Halifax, N.S.), 20 December 1967. O'Brien claimed to be speaking on behalf of a public audience that had become increasingly skeptical of scientific authority, however, the number of those interested enough in UFOs to actually engage with scholars always remained very small.

67 Neil Nevitte, *The Decline of Deference*: *Canadian Value Change in Cross National Perspective* (Peterborough, ON: Broadview Press, 1996); Chris Dummitt, *Unbuttoned: A History of Mackenzie King's Secret Life* (McGill-Queen's University Press, 2017).

68 Joseph Heath, *Enlightenment 2.0: Restoring Sanity to Our Politics, Our Economy, and Our Lives* (Toronto: HarperCollins, 2014), 217.

69 Hubbard, *A Science on the Scales*.

70 M.W. Burke-Gaffney, "The Heavens Declare the Glory of God, and the Firmament Proclaims the Work of His Hands," lecture given to the Cathedral Laymen's Association, 26 April 1964, Burke-Gaffney Fonds, Manuscripts Series, 1999.17G.