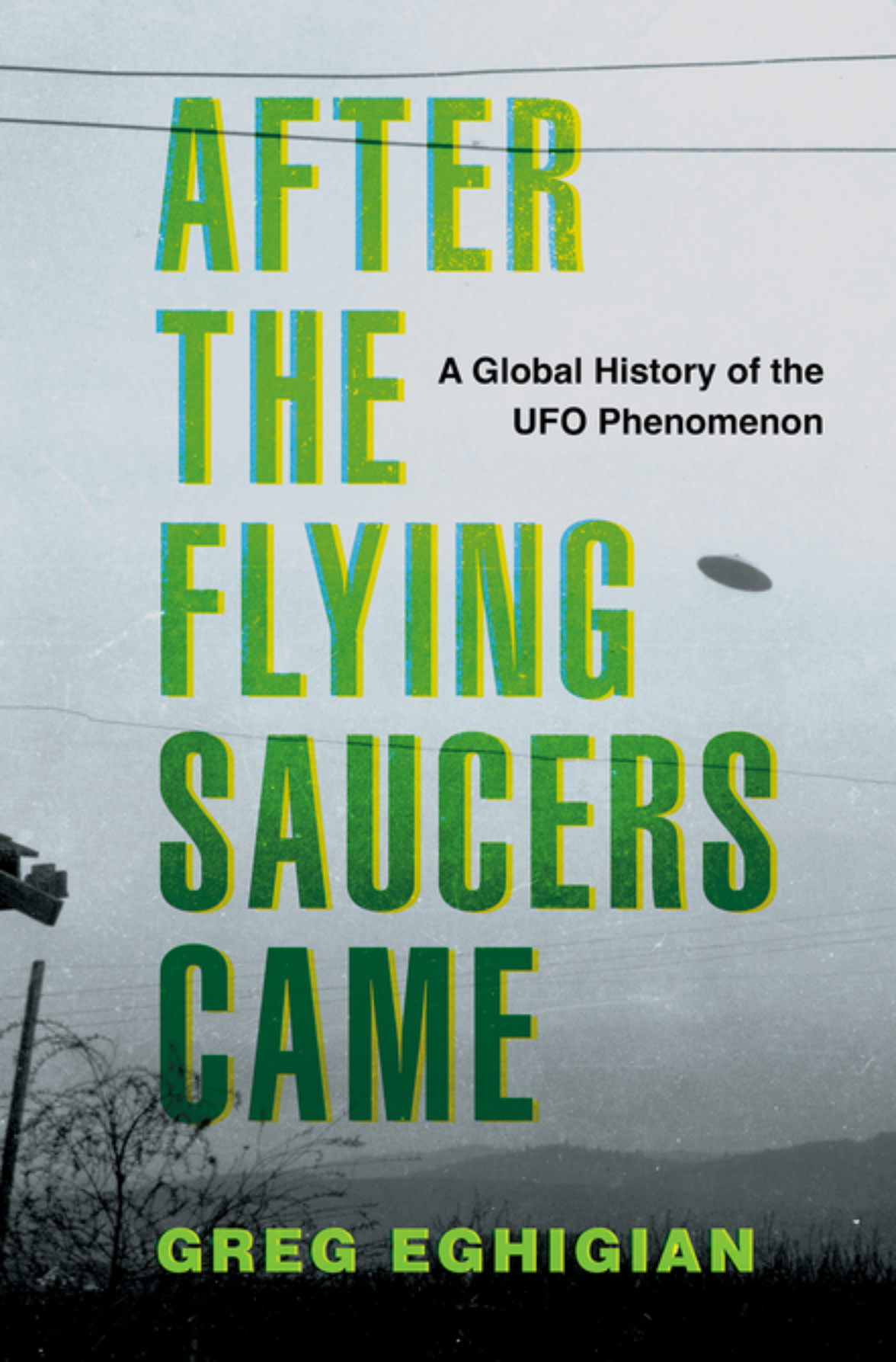
AFTER THE FLYING SAUCERS CAME
A Global History of the UFO Phenomenon
GREG EGHIGIAN

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For those donating their time and energy to preserving the records of the flying-saucer era

CONTENTS

ACKNOWLEDGMENTS

I think I first began looking seriously into the history of UFOs and alien contact in 2013, but it was hardly my first encounter with the subject. Growing up, I was fascinated with the topic. I spent a good deal of my childhood sickly—diagnosed with juvenile rheumatoid arthritis—and as a result of having to stay home a lot, I became an avid reader. Reports of flying saucer sightings and alien encounters were a regular part of my reading diet, and I devoured works by John Fuller, Allen Hynek, Charles Berlitz, Erich von Däniken, and Carl Sagan. By the time I entered high school and then college, my health had improved, and new interests led me in new directions. I eventually pursued a career as a historian, with a special interest in the history of medicine and psychology. Unidentified flying objects took a back seat to other matters.

One day at a conference, a colleague of mine was talking about a book she was editing on the history of the occult in twentieth-century Germany. I asked her whether she had come across any stories about Germans after the war spotting flying saucers, as had been the case in the United States. She didn't know but urged me to look into it. I balked. I was too busy, I said. But when I fell ill the following summer and couldn't travel to archives and libraries as I normally did at that time of year, I began scouring online databases of German newspapers from the late 1940s and 1950s for reports of flying saucers. Sure enough, there they were. I decided to write an article about them.

I had forgotten that people across the globe had reported witnessing UFOs. I wondered how many of my fellow professors of history had written books on the subject. I was dismayed to find out only one had: Temple University historian David Jacobs published his dissertation in 1975 (only to become part of the story himself, as I discuss in Chapter 8). The oversight was glaring. Although I thought I had moved on from the topic of UFOs, it seemed time for another visit.

Researching the history of UFOs and alien contact has been gratifying and fascinating. On the one hand, it's been a homecoming of sorts, as I have been reintroduced to people and events that are like childhood friends. On the other hand, I now see them with much older eyes and through the lens of a historian. When I undertook the project, I knew it would be involved, but I soon realized these were very deep waters. Without a doubt, working with the historical records about UFOs has been more challenging for me than any other archive I have encountered, pervaded as it is with secrecy, hype, distrust, rumor, innuendo, and acrimony.

I have tried to do justice to all these aspects and to all those who contributed to making the UFO phenomenon a part of world history. A book can only do so much, however. I know I have left out individuals, groups, locales, and events that others consider pivotal. I will leave it to them and future historians to bring their stories to a wider audience. This is not intended to be the final history of the UFO phenomenon but hopefully the beginning of a new phase in writing its tale.

I have so many people and institutions to thank for their assistance along the way. First, I need to thank those organizations that helped fund research for this project: the American Historical Association, the American Philosophical Society, NASA, Penn State University, and the Smithsonian National Air & Space Museum.

I could not have navigated the complex world of ufology without the invaluable help of prominent and talented UFO researchers and archivists who all welcomed me with open arms and gave me fabulous advice. Håkan Blomqvist, Anders Liljegren, and Clas Svahn at the Archives for the Unexplained in Sweden gave me full access to their holdings as well as to their insights. I am so very indebted to them. Isaac Koi has been an invaluable resource, and his efforts preserving UFO ephemera warrant special recognition. Will Bueche bent over backward in supporting my curiosity about the work of John Mack, while Karin Austin at the John E. Mack Institute has been remarkably generous in sharing her knowledge with me. Michael Swords has been all too kind in indulging my questions and including me in conversations with veteran researchers. Jan Aldrich, Eddie Bullard, Jerome Clark, Tom Deuley, Barry Greenwood, Bill Murphy, Dave Marler, Mark O'Connell, Mark Rodeghier, and Tom Tulien in particular have been a great help to me in my work. Just as generous have been a host of other remarkable UFO investigators and students of the field: Philippe Ailleris, Alejandro Agostinelli, Ignacio Cabria, Curt Collins, Tom Deuley, Pierre Charles Dubreuil, Luis R. González, Milton Hourcade, David Jacobs, Jeff Knox, Stephen Miles Lewis, Vicente-Juan Ballester Olmos, Edoardo Russo, Gene Steinberg, Paolo Toselli, and Diego Zúñiga. I cannot thank you enough.

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I owe a special debt of gratitude to my editor at Oxford University Press, Susan Ferber. Her initial encouragement helped me face down what seemed at times to be a hopelessly daunting task. At the same time, her insights and suggestions have helped bring greater clarity and vividness to my oftentimes awkward prose.

Finally, thanks to Natascha and the rest of my family and friends for having the patience to listen to my animated stories about UFOs and aliens over the past decade.

Introduction

Lyndia Morel got off work late that night.[1] For some time, she had worked as a masseuse at the Swedish Sauna in Manchester, New Hampshire, and on November 2, 1973, she left work at around 2:45 a.m. After getting in her 1964 Chevy Corvair, she stopped at Ben Roy's Restaurant, where she had some coffee and chatted with a co-worker for forty-five minutes. After they parted, Lyndia took the opportunity to get some gas from the station across the road.

She then headed off to her home in Goffstown, about twenty minutes away. As she went through Pinardville, traveling northwest on Mast Road (Route 114a), she noticed a large, bright yellow light that flashed red, green, and blue in the sky off to her left. She continued driving, and after about a mile, she looked again and saw that it seemed to be in the same position but appeared brighter. Upon reaching the intersection of Routes 114 and 114a, Lyndia lit a cigarette and noted that the light she had been watching had gone out. That seemed odd for a planet, she thought. For the first time she began considering the possibility that she was seeing one of those "unidentified flying objects" or UFOs people talk about. Soon after, the light appeared again.

As Lyndia drove on, she noticed the light continued its pattern of alternately going out and coming back on, all the while staying in the same position in the sky. And then suddenly, after crossing the intersection of Routes 114 and 13, there was the light, this time straight ahead down North Mast Road. Now it was larger, closer, and lower than it had been before, maybe 1,600 feet away from her car.

At this point, she could make out the contours of an odd-looking object: an orange and gold honeycombed globe, covered in hexagonal panels, with the exception of one oval window. She could see that the flashing, colored lights were actually beams coming from the center of the sphere. All the while, the object emitted a high-pitched whining noise, a sound that produced a tingling sensation throughout her body.

Until this moment, Lyndia mostly had been awestruck by what she saw. But then, events took a different turn. Without warning, she felt unable to remove her hands from the steering wheel, and her eyes seemed to be eerily and inexorably drawn to the UFO. Somehow, the sphere was taking control of her body. As far as she knew, Lyndia later recalled, she kept driving. But for around a half a mile, she experienced what she described as a "loss of memory," after which she realized she no longer had full control of the car as it sped down the road ever closer to the object.

When she came within about five hundred feet of the UFO, she could see that it was about the size of a three-story building. And then, something else caught her eye. In the window was a humanoid figure, standing behind what was perhaps a control board. Its round head was grayish, lacking a nose and ears, the face wrinkled like an elephant's hide with a slit for a mouth, completed by two large "egg-shaped" eyes dotted with dark pupils. As she stared at the creature, she had the distinct impression that it was telling her, "Don't be afraid."

If the being meant to put her at ease, it had the opposite effect. Lyndia became terrified, convinced she was about to be abducted. As she passed by the local cemetery, she noticed a house on the left-hand side of the road. Shielding her eyes from the bright lights of the sphere with one arm, she used her other hand to veer the car onto the lawn of the home of a couple by the name of Beaudoin. With her car engine running and headlights still on, Lyndia ran up to the house and pounded on the kitchen door, shouting, "Help me! Help me! Help me!"

Roused from their sleep, the couple stumbled downstairs. When Mr. Beaudoin opened the door, Lyndia fell into his arms, crying, "Help me! I'm not drunk! I'm not on drugs! A UFO just tried to pick me up!" The couple brought her into the house and phoned the police. It was 4:30 a.m. Goffstown patrolman Daniel Jubinville arrived ten minutes later and interviewed the agitated household. In his report, Jubinville noted that "the subject was quite shaken up, and this writer did not note any evidence of alcohol or drug influence."

Despite its astonishing nature, this account of an eerie encounter was not altogether out of the ordinary by the last third of the twentieth century. Elements of the story seemed to have been taken from a science fiction

movie: spacemen with superpowers traveling in an unusual craft chasing down a terrified woman for some unknown purpose. Disturbingly enough, the details were not penned by a Hollywood screenwriter but rather came from a hard-working New Hampshire resident whose daily life was suddenly interrupted by an extraordinary event.

Lyndia Morel was neither the first nor the last to report seeing an unidentified flying object and its strange occupants. Soon after the end of the Second World War, people all over the world began catching glimpses of unfamiliar things sometimes zipping across and sometimes hovering in the sky. As news spread about this odd phenomenon, it left witnesses, government officials, journalists, and the general public bewildered. Were these objects real? If so, what were they? Where were they from? Who invented them and why? Speculation soon turned to beings from another world, aliens. This marked the beginning of a new worldwide preoccupation. It was the dawn of the flying saucer era.

UFOs inspired both conjecture and controversy, and they continue to do so.[2] In December 2017, the *New York Times*, the *Washington Post*, and *Politico* all featured articles on the existence of a secret US government program investigating unidentified flying objects during the years 2007–2012. The Advanced Aerospace Threat Identification Program—AATIP, as it was called—appeared to have been charged with investigating sightings mostly by US military personnel and determining whether any of the reported objects posed a threat to national security. All told, as the early reporting had it, AATIP received around $22 million in funding over the life of the program.

Part of what made the AATIP news stories in 2017 and 2018 so compelling is that they were accompanied by two videos released to the media, with a third following months later. The footage purported to show US Navy jet encounters with unusually shaped, fast-moving aircraft. In addition, a charismatic career military intelligence officer named Luis Elizondo came forward to say he had run the program and believed the military was far too dismissive in its handling of these sightings by personnel of the armed forces. He soon became the heroic face of a movement demanding government disclosure about what had been and was still going on.

Skeptics raised questions about the video footage and witness reports, and subsequent reporting suggests that AATIP existed largely in name only and that the federal funds were almost exclusively used to explore various paranormal phenomena of interest to defense contractor Robert

Bigelow. Nevertheless, when several influential American politicians took up the cause and Harvard astronomer Avi Loeb raised the possibility that the first interstellar object ever seen to enter our solar system might be an alien spacecraft, talk of UFOs and alien visitors entered the mainstream. Government officials sought to distance themselves from the association of unidentified flying objects with aliens by adopting a new terminology: "unidentified aerial phenomena" (UAP). After the Office of the Director of National Intelligence released an intelligence assessment in June 2021 in which it stated that most of the objects reported were real and unexplained, however, the tone of public discussion changed. UFOs and those who had spent years insisting on their existence appeared to finally gain the official recognition many had sought. In the summer of 2022, the US government established an office dedicated to collecting and analyzing information about sightings—the All-Domain Anomaly Resolution Office (AARO)—and relabeled UAP "unidentified anomalous phenomena." UFOs were back.

In fact, they had really never gone away. Even if most media outlets hadn't been paying attention for quite some time, there were still individuals catching sight of inexplicable things in the sky. Few had encounters as disquieting as Lyndia Morel's. More common was the experience of a man in Sheffield, England, who described seeing some sort of triangle-shaped object overhead one day. He couldn't be sure when this happened—sometime in the 1990s—and it was all over so fast, but it left him wondering over the years. When he happened upon a picture of a similar thing someone else had seen, he began thinking maybe he hadn't imagined it after all. "I've got to say, I'm not obsessed by this. But I find it very, very interesting. I'm curious to try and think, try and work out what could this have been," he later recalled. "I still to this day think, could I have made a mistake? But having seen the second picture, I think not. If I did see this, it raises all sorts of questions, you know."[3]

What has consistently drawn people to unidentified flying objects is not so much UFOs themselves as the mystery behind them. Often opaque, unanticipated, fleeting, blurry, and weird, their qualities have roused generations to study them, look for them, read about them, talk about them, write about them, and speculate about them. Whatever they are, if these things have been trying to make a secret of themselves, they have been only partly successful.

Our responses to the UFO phenomenon are an integral part of that phenomenon. Take Lyndia Morel's encounter in 1973. She had a curious experience. But her experience only became widely known through the story publicizing it, one that has its own history. Lyndia's account was pieced

SOURCES: Presents data from NUFORC; Military OneSource, "Military Installations," webpage, undated; FAA, "Special Use Airspace," dataset, updated April 20, 2023d.
NOTE: IGRA weather stations and civilian airports are included in the analyses but not shown on the map because the number of points reduces map legibility. See Figure A.2 in the appendix for these locations.

Fig. I.1 Locations of Unidentified Anomalous Phenomena (UAP) Sighting Clusters, Military Installations, and Military Operations Areas (MOA), 1998–2022. Researchers found that reported sightings during this time tended to cluster within 30 km of airspace where the military engaged in activities like combat maneuvers, air intercepts, and low-altitude tactics. Marek N. Posard, Ashley Gromis, and Mary Lee, *Not the X-Files: Mapping Public Reports of Unidentified Aerial Phenomena Across America* (Santa Monica, CA: RAND Corporation, 2023). https://www.rand.org/pubs/research_reports/RRA2475-1.html.

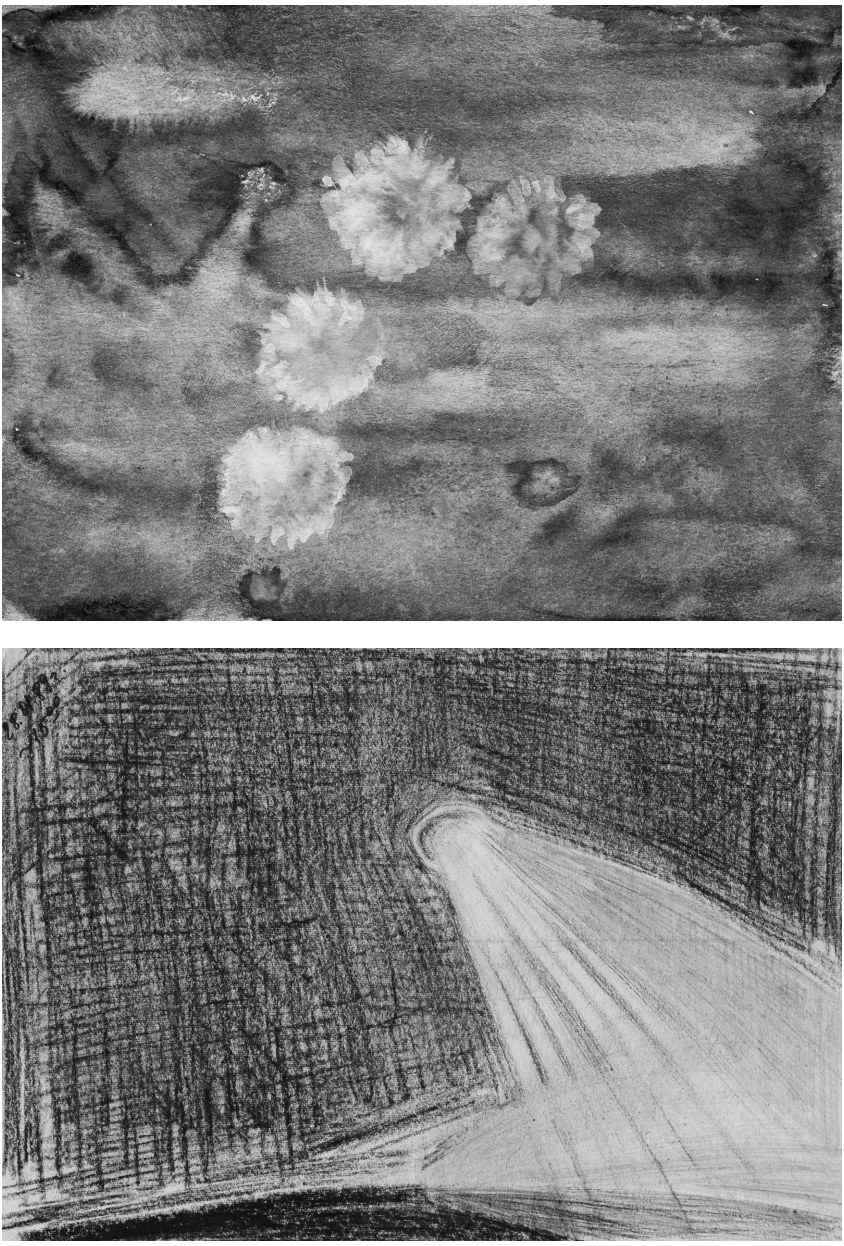


Fig. I.2 Sketches of UFOs made by witnesses in the Soviet Union, 1989. AFU.

together by Walter Webb, a man at the time dedicated to investigating UFO sightings. He collaborated with a good friend of Lyndia's, Betty Hill, who was already well known at that time for being one of the first women to claim to have been abducted by aliens in 1961. Webb in turn published his account in a UFO newsletter, and that newsletter was the product of an organization devoted to studying UFOs. So, behind the case of Lyndia Morel stood a lot of people and a lot of hard work that more often than not go unacknowledged.

UFOs don't make history; people make UFOs make history. This book chronicles that history. It aims to tell the story behind the story of unidentified flying objects and alien contact. And that tale at times proves just as strange, puzzling, and unsettling as UFOs themselves.

The aim of this book is not to prove that unidentified flying objects are from outer space and that aliens have been visiting us here on earth. At the same time, it does not set out to debunk UFOs and reports of alien encounters. Instead, it takes historical actors and what they say about their experiences seriously, but it does not always accept their description of things as offering a complete picture of events. This refusal to "pick a side" will no doubt frustrate some readers. However, examining the history of a topic that has inspired passionate, even nasty, debate in this way reveals a new and at times unexpected perspective on this baffling phenomenon.

UFOs and the way in which human beings have responded to them are part of human history. Whether they are the products of alien beings, secret military technology, natural phenomena, or optical illusions, and whether those claiming to have met extraterrestrials were lying, deluded, or describing a reality, it doesn't change the fact that human experiences, reactions, and speculations have been shaped invariably by the times and places in which these took place. Thus, this book tries to recover those backgrounds in order to get a better view of how they mutually shaped one another.

At an early stage in the history of sightings, it was evident that unidentified flying objects did not respect national boundaries. It was and still is a global phenomenon. For this reason, the geographical scope here extends to much of the world. That said, the reporting and study of UFOs have had hubs that have played a decisive role in the spread of international interest. At the heart of it all has been the United States. It was there that the first sighting and talk of "flying saucers" took off, and American reports, reporting, and investigations have disproportionately triggered and steered responses throughout the rest of the world. However, western Europe, South America, and Australia and New Zealand have also directed traffic in the international exchange of information about UFOs.

This book features a changing cast of characters and groups. No one person was ever in control of the direction that interest in UFOs—let alone the UFOs themselves—took. To be sure, many wanted to control the narrative and lead the movement in gaining acceptance of the phenomenon, but their hopes were always dashed. Yet while the UFO scene appears to have had a life of its own, certain pivotal figures and organizations consistently emerged to help stabilize and shift it in important ways. Some were dogged investigators, others were confused witnesses, still others were working journalists, aloof intelligence officials, dedicated scientists, engrossed engineers, and dubious academics.

Sociologist Arnaud Esquerre has astutely observed that what has made UFOs so mysterious has not been their appearance but rather their *dis*appearance.[4] Their fugitive nature has left uncertainty in their wake. The ambiguity surrounding sightings has repeatedly set in motion a cycle of bewilderment and speculation. While some have greeted reports of flying saucers and alien visitors with excitement and others with alarm, for most observers over the decades UFOs have left them in a state of suspense. What are they? Are they real? What will they do next? Should I believe the witnesses? What does the government know? Will the answers ever be revealed?

The suspenseful character of the UFO mystery is no accident. It is the result of the way in which the story of UFOs has unfolded. Much like true-crime podcasts, the UFO mystery has played out as a serial drama, with new cases popping up, new details about old cases gradually revealed, and those following every new development invited to contribute their own theories and even help in the investigation. Anyone can become part of history by helping to solve the ongoing riddle of unidentified flying objects.

Like other serialized dramas, the story of UFOs and alien encounters is often cast as a saga—a lengthy tale, marked by a successive series of startling events, replete with heroic crusaders and diabolical villains. For the very start, there has been a melodramatic quality to much of the lore surrounding UFOs. To be sure, many enthusiasts have been interested solely in the nuts-and-bolts of the objects or in collating data points. But both UFO researchers and the mass media have repeatedly presented sightings, encounters, and investigations in the form of human-interest stories, piquing our curiosity, eliciting our sympathy, and triggering our sense of outrage.

This book chronicles the rise and spread of the world's preoccupation with UFOs. It begins with a series of unsettling reports of unusual flying objects spotted soon after World War II that first sparked global interest in the prospect that extraterrestrials might be surveilling earth. Some had

already entertained this possibility decades and even centuries before, but outside of the world of science fiction, their musings never had the kind of impact that the postwar sightings did. It was only the flying saucers of the 1940s and 1950s that moved military and intelligence officials to collect and analyze data about them, that inspired the creation of local, national, and international organizations dedicated to their study, and that fueled widespread suspicions that governments knew more about these events than they were letting on.

This history traces the major players and developments in the UFO phenomenon from its beginnings in the late-1940s through the first decades of the twenty-first century. It follows the oftentimes surprising twists and turns in the fascination people had with the subject, as newspaper and magazine reports gave rise first to military investigations and civilian sleuths, followed by flying saucer study groups, bestselling books, crusading whistleblowers, and blockbuster films.

Reports of sightings often came in bursts. Concentrated over a small area for a limited period, these were dubbed "flaps," while a surge of sightings made over a lengthier period of time (usually months) across one or more countries became referred to as a "wave."[5] Not surprisingly, public attention toward UFOs also has tended to come in fits and starts. There have been times—like today, the mid-sixties, and the early fifties—when enthusiasts, news outlets, and politicians have eagerly followed events. And there have been other moments—like the early 2010s and early seventies—when veteran investigators and observers openly wondered whether the UFO craze had lost all its momentum and finally reached its end.

It is not only the attention paid to UFOs that has varied. The descriptions of the encounters people had with UFOs changed considerably over time and across regions of the world. For example, the first widely publicized cases of individuals claiming to have had contact with extraterrestrials popped up in the United States in the early 1950s, in the form of stories of attractive, benevolent visitors offering spiritual messages of hope. These reports, however, often diverged from those emerging out of South America and Europe during the fifties and sixties involving meetings with speechless and mischievous tiny men. By the 1980s and 1990s, both sets of narratives had been largely eclipsed by terrifying accounts of kidnappings at the hands of unfeeling intruders from outer space.

After the Flying Saucers Came details the evolution of these and other UFO accounts and sets them against the backdrop of ongoing political, social, technological, and cultural developments. Throughout, it remains anchored in the words and memories of those who were directly involved. Newspapers and magazines, government reports, and radio and television

recordings provide one set of important historical sources. Even more revealing, however, are the vast number of sources left behind by UFO researchers, debunkers, and organizations: personal papers, newsletters, periodicals, case reports, minutes of meetings, even tape-recorded phone calls. These have been supplemented with my own informal conversations, interviews, and correspondence with well over one hundred witnesses, contactees, and researchers.

It is said that we see things not as they are but as we are. Because the true nature of unidentified flying objects—in fact, even their very existence—remained an open question, UFOs functioned as a blank canvas onto which observers projected their decidedly earthbound desires and hopes as well as their anxieties and resentments. UFOs did not invite just any random set of aspirations and fears, however. Because conjecture centered on the anticipation that advanced extraterrestrial civilizations were piloting these objects, a primary focus of discussion was the scientific and technological capabilities of their inventors. As a result, the UFO presented a way for people to weigh and forecast the promise and pitfalls of modern technoscience, to see in alien achievements versions of our own potential futures.

The history of this speculation also assumes a prominent role in this book. Unidentified flying objects have raised questions about the trust being placed in some of society's most influential institutions. Science, engineering, medicine, organized religion, professional expertise, universities, government, mass media: UFO devotees have never tired of disputing the authority and integrity of each. If mystery stamped the UFO phenomenon from the very start, suspicion followed close on its heels. Present-day conspiracy theorists and science doubters have inherited a good deal of their rhetoric from this past. The fascination with UFOs did not create the "post-truth" world of today, but it has contributed to its making, and it has thrived in its online arenas.

The targets of distrust were hardly arbitrary. They, like UFOs, were part of the cultural landscape shaped by a looming presence of the second half of the twentieth century: the Cold War. For most of its history, the geopolitical conflict and arms race between the United States and the USSR relentlessly haunted the UFO phenomenon. The trappings of the Cold War turned up time and again in sightings, reports, investigations, and assessments: atomic bombs, nuclear energy, military secrets, espionage, counterespionage, the communications revolution, computing, missiles and rockets, experimental aircraft, satellite surveillance, space exploration, the threat of global annihilation. They fueled interest, shaped perceptions,

fed fears, and informed theories. The unidentified flying object as we know it is unimaginable without the specter and legacy of the Cold War.

UFOs are not just seen. They have made people wonder, fret, question, probe, and argue. In that regard, they have revealed more about human beings than about alien worlds. And that is a story worth investigating.

1

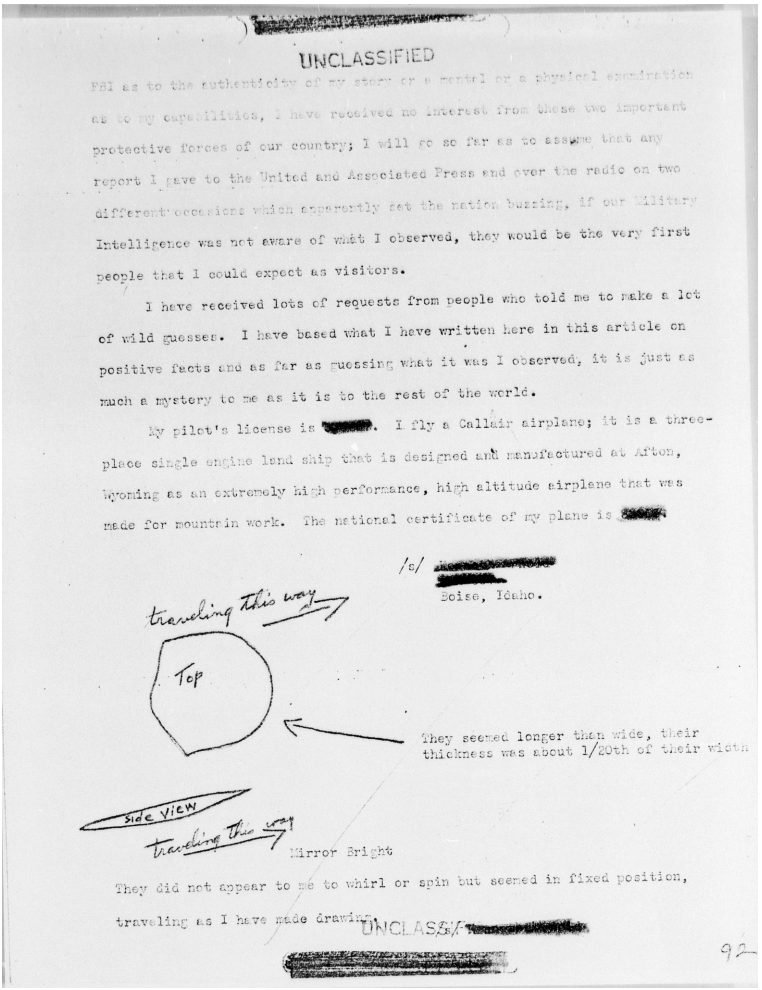
Arrival

It all began, so the story goes, on June 24, 1947. That was when Kenneth Arnold, a private pilot working in Chehalis, Washington, decided to take his airplane on a trip toward Yakima in the hope of spotting a downed transport plane and collecting a $5,000 reward. Taking off around 2 o'clock that afternoon, Arnold flew toward the high plateau of Mount Rainier, reaching an altitude of a little over 9,000 feet.

In the process of making a 180-degree turn, he was suddenly startled by a bright flash of light. Fearing he might be close to colliding with another aircraft, Arnold began scouring the sky for other planes. Another flash. Then he noticed what appeared to be nine bright objects flying in close formation at what he estimated to be around 1,200 miles an hour. As he explained later,

> What startled me most at this point was the fact that I could not find any tails on them. I felt sure that, being jets, they had tails, but figured they must be camouflaged in some way so that my eyesight could not perceive them. I knew the Air Force was very artful in the knowledge and use of camouflage. I observed the objects' outlines plainly as they flipped and flashed along against the snow and also against the sky. . . . They didn't fly like any aircraft I had ever seen before. In the first place, their echelon formation was backward from that practiced by our Air Force. The elevation of the first craft was greater than that of the last. They flew in definite formation, but erratically. As I described them at the time, their flight was like speed boats on rough water or similar to the tail of a Chinese kite that I once saw blowing in the wind. Or maybe it would be best to describe their flight characteristics as very similar to a formation of geese, in a rather diagonal chain-like line, as if they were linked together.[1]

Upon landing in Yakima, Arnold apparently told others what he had seen and later reported the incident to the Air Force. He then headed off to Pendleton, Oregon, on a business trip. There he visited the offices of the *East Oregonian* newspaper to described what he had witnessed. The way in which Arnold eventually came to describe the objects he observed quickly became as important as the experience he had in the skies over Washington state. The aircraft were, he said, "flat like a pie pan and somewhat bat-shaped."



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FBI as to the authenticity of my story or a mental or a physical examination as to my capabilities, I have received no interest from these two important protective forces of our country; I will go so far as to assume that any report I gave to the United and Associated Press and over the radio on two different occasions which apparently set the nation buzzing, if our Military Intelligence was not aware of what I observed, they would be the very first people that I could expect as visitors.

I have received lots of requests from people who told me to make a lot of wild guesses. I have based what I have written here in this article on positive facts and as far as guessing what it was I observed, it is just as much a mystery to me as it is to the rest of the world.

My pilot's license is [redacted]. I fly a Callair airplane; it is a three-place single engine land ship that is designed and manufactured at Afton, Wyoming as an extremely high performance, high altitude airplane that was made for mountain work. The national certificate of my plane is [redacted]

/s/ [redacted]
Boise, Idaho.

traveling this way

Top

They seemed longer than wide, their thickness was about 1/20th of their width

Side View

traveling this way

Mirror Bright

They did not appear to me to whirl or spin but seemed in fixed position, traveling as I have made drawing.

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Fig. 1.1 Kenneth Arnold submitted a report to the US Army Counter Intelligence Corps in July 1947. The officer who interviewed him described Arnold as "very outspoken and somewhat bitter" toward the Army and FBI "for not having made an investigation of this matter sooner." National Archives (HMS/MLR-A1-294E, NAID 28929152).

Pressed about how they moved, he noted that the objects "flew like a saucer would if you skipped it across water."

What Arnold did not do at the time was utter the phrase "flying saucer."[2] This term, it appears, was first used in an article sent out by the Associated Press wire service on June 25. Was the choice of wording a happy accident, or simply a logical shorthand? Cognitive psychologist and writer Gilles Fernandez has pointed out the term "flying saucer" had already been around for over a half century, used to refer to the clay pigeons used in skeet shooting.[3]

In any event, newspapers throughout the world rapidly adopted the expression. Just weeks after Arnold's sighting, a Gallup poll revealed that nine out of ten Americans were already familiar with the moniker. Within months, the phrases "flying saucer" and "flying disk" had become not only ubiquitous but virtually synonymous with sightings of unusual aircraft. To witness an unknown flying object in the sky meant seeing a flying saucer.

In the days following Arnold's announcement, the American press picked up the story and began reporting on more sightings along similar lines. "Don't sell those strange flying objects reported whizzing around Western Washington short," an Associated Press story on June 26 insisted, "until the reports are all in—a flyer claimed today he saw one flash over Oklahoma City."[4] A study of 140 newspapers in ninety cities done by UFO researcher Ted Bloecher in the 1960s found that there were seventy-nine UFO-related news pieces in twenty-five states over the six days following Arnold's sighting. The pace picked up considerably after July 3. The Fourth of July that year fell on a Friday, and Bloecher found that from Friday through Monday there were at least 481 reports of unidentified flying objects.[5] The flying saucer era had begun.

And yet often neglected by the attention paid to Kenneth Arnold's strange encounter that June is that it was not, in fact, the start of the postwar world's obsession with unidentifiable flying objects. That began about a year earlier and several thousand miles away, across the Atlantic Ocean in Scandinavia.

GHOST ROCKETS

On May 21, 1946, as they would later recount to police, two separate motorists witnessed a long rocket- or zeppelin-like object in the skies over Stora Mellösa in southern Sweden. While one of the witnesses claimed to have seen two wings on the aircraft, the other did not, but was able to track it with his family for some five minutes. Meteor sightings a few

days later then sparked the interest of local journalists, who reported that some witnesses said the shooting stars were reminiscent of the kinds of "flying bombs" they had seen during World War II. At first, the newspaper *Aftonbladet* referred to the objects as "rocket bombs," but then on May 28 it ran a story about the sighting of a silent and wingless projectile under the headline "Ghost Rocket Chased by Car Through Roslagen." Like American reporters would succeed in doing the following year, their counterparts in Sweden turned an experience—seeing something odd moving in the sky—into an object with a name. Over the next six months, reports of "ghost rockets" inundated Sweden. By summer's end, Swedish Defense Staff had registered almost a thousand sightings, with thousands more likely never even reaching its desk.[6]

It is not surprising that bright, moving objects in the sky might conjure up images of rockets for Swedes at the time. From the mid-1930s to the end of the Second World War, scientists and engineers in Nazi Germany successfully developed armed missiles—referred to as "*V-Waffen*" or "*Vergeltungswaffen*" (Vengeance Weapons)—that were intended to be released against enemy civilian populations. Conducting their work at a secret military base in Peenemünde on the northern coast of Germany, developers relied on the assistance of tens of thousands of slave laborers to create two lethal weapons. The V-1, an operational cruise missile dubbed the "buzz bomb" for the loud noise it made during flight, carried a one-ton, high-explosive warhead. It was followed by the V-2, the world's first long-range ballistic missile, with a maximum range of two hundred miles. First deployed against enemy targets in June 1944, more than twenty thousand V-rockets were eventually launched by the Third Reich before the end of the war.[7]

Though Britain remained the principal target for German rockets during the war, a number of V-1 rockets crashed in Sweden in 1943 and 1944. On the afternoon on June 14, 1944, a V-2 rocket inadvertently exploded over Bäckebo in the southern part of the country, scattering thousands of gleaming pieces of wreckage and creating a huge boom that blew out windows and felled trees. Local residents at first were both baffled and frightened. Many wondered if a plane had crashed. Some suspected it was the beginning of a German invasion, while others heard that the Soviets had bombed a nearby town.

Even decades later, the jarring nature of the event fueled wild speculation among the town's inhabitants. One theory held that the crash had been the result of a deliberate attempt by the Germans to test the rocket's capabilities. Speaking with archaeologists around 2004, some Bäckebo residents told of a mysterious hearse bearing a white coffin being spotted

directly after the crash—a sign, they said, that German agents were there on the scene to collect the wreckage for study.[8]

In any event, the Swedish Home Guard was quickly onsite to seal off the area near the rocket's impact crater and to organize the gathering of intact parts. The largest piece proved to be the combustion chamber of the projectile's motor, around five and a half feet in length. Curious residents, aware that their town had been visited by a marvel of modern technology, grabbed any available fragments they could as souvenirs. Calls by the police for people to place seized parts on their front steps for collection by authorities were only partly heeded. The remains gathered were eventually sent to Stockholm and then to London for the Allies to analyze.

When Swedes in 1946 reported seeing odd flying objects, the notion that they were witnessing rockets seemed well within the range of possibility. Throughout the summer, ghost rocket reports grew in number and detail. In August, for instance, a Swedish Air Force pilot, Gunnar Irholm, and his signaler encountered an unidentifiable aircraft during a training exercise. As Irholm described it decades later in an interview, "Just over the horizon I could see an elongated object without the typical features of an aircraft. It had no tail fin, for example. What we saw was the picture of a cigar, a torpedo." In the official report he filed that day, Irholm claimed that he attempted to follow the object, "but I soon realized that we were not able to catch up with the craft, whose speed I estimate to be between 370 and 430 miles per hour."

One of the most spectacular sightings occurred around Lake Kölmjärv, in the north. In an interview with journalist Clas Svahn in 1984, farmer Knut Lindbäck recounted being at work around noon on July 14, 1946, when he and others heard a humming sound above. "Since I thought it was an aircraft, I looked up. But instead, I saw a rocket-like object crash right into the lake," followed by what seemed to be an explosion. Frideborg Tagebo, at the time a fourteen-year-old girl cleaning at home with her mother, told Svahn a similar story. "Suddenly we heard a roaring thunder as from an engine. My mother yelled to me to close the windows. She thought it was a heavy storm coming. Then there was a loud bang as coming from an explosion, and I saw a huge splash of water out in the lake. . . . Afterwards there was a total silence, and we could see a lot of debris floating on the surface of the lake." Military and defense engineers were dispatched to the location to test for signs of metal or radioactive material, but none were found.[9]

Until early July, reports of ghost rockets garnered relatively little attention from the Swedish press and government. This changed following a flurry of sightings on July 9 and 10 and the appearance of an article the following day in the *Aftonbladet* claiming that the Russians were

responsible for conducting aviation experiments over Sweden. In response, the Swedish military issued a call to the general public to report any unusual aerial observations and to send any debris found to authorities for expert analysis. More than 250 reports came in and had the effect, as the British embassy in Stockholm put it at the time, "of opening the floodgates of publicity and given (sic) rise to speculation of a somewhat 'silly season' variety."[10]

July proved to be the busiest month yet for sightings. Reports of ghost rockets came in from Denmark, Finland, and Norway. Witnesses told of seeing "vividly shining balls of fire with tails," blue-white or blue-green in color, along with the more familiar "silver sparkling oblong items shaped like torpedoes."[11] Observations made in Finland indicated that the projectiles were flying dangerously close to Helsinki.

Reports, however, were not altogether consistent. Some claimed to see a wingless missile, others a ball, still others a cigar-shaped aircraft. Some witnesses described the machines as making a whistling sound, while others heard nothing. Observers in some locations reported the objects moving along a low, flat trajectory, yet other reports indicated the objects to be flying as high as thirty-two thousand feet.[12]

Among the Scandinavian public, the overwhelming consensus was that the rockets must be Soviet in origin. British and American observers at the time noted that residents in the region were awash in wild speculation about the Russians' intentions. Were these military experiments being carried out over neighboring countries for technical reasons? Were they a response to recent American nuclear tests in the Bikini Atoll? Or were they meant to send an intimidating message to the Scandinavians not to get too cozy with the Western allies?[13] Fearing that unbridled conjecture might provoke a massive war scare and upset relations with the USSR, Finland had already imposed a news blackout on all ghost rocket reports on June 10. Sweden and Norway followed suit just over a month later.

The government news bans reflected the extent to which European nations still remained on a war footing even a year after the end of the Second World War. The early reaction of Scandinavian authorities to ghost rocket reports was to downplay them before the public. Even privately, Swedish officials appeared to be surprisingly disinterested in the sightings through June. The rash of reports on July 9 and 10, however, led the Swedish government to commission investigations, request dedicated funding, and call on its citizens to aid in reporting incidents.[14]

Likewise, the British and American intelligence communities became especially concerned about the reports beginning in July. Sources at first appeared to confirm what public opinion was suspecting: the Soviets were

testing captured V-1 rockets. Launch sites in Estonia, Germany, and off the coast of Sweden were all considered possible points of origin.

By August, however, doubts were being voiced. The Intelligence Division of the US Naval Attaché in Stockholm wondered aloud whether the Swedes themselves actually might be behind the reports. It seemed odd that no military personnel had yet "seen any fragments, photographs, radar tracks, points of impact, or other evidence of any kind to prove that guided missiles have actually been seen over Swedish territory." American officials were getting the distinct impression that Swedish military and defense officers were being evasive when questioned. "Their contradictory and confusing communiqués," staff noted, "are not typical of those which an alarmed and alert military would issue in the event of an enemy threat." The report concluded that, while it remained likely that the objects were either hysterical responses to natural phenomena and conventional aircraft or of Russian origin, one option was that the Swedes themselves were experimenting with V-rockets or deliberately trying to encourage anti-Soviet sentiments.[15]

But a week later, the US Joint Chiefs of Staff advised President Harry Truman that the consensus of the intelligence community was that the rockets were in fact real and being launched by the Soviets from Peenemünde for the purpose of testing guided missiles.[16] For their part, British officials continued to be dubious. Staff surrounding Prime Minister Clement Attlee stated boldly that they found it impossible to believe that all sightings were of genuine missiles, since not a single one had ever crashed on land.

> We are not convinced that there have been any missiles over Scandinavian territory (or over Greece, France, etc) at all. A very high proportion of all observations are accounted for by just two meteors visible, one by day and one at sunset, in Sweden on 9 July and 11 August respectively. . . . The residue of observations are random in time, place, and country and cannot unreasonably be attributed to fireworks, swans, aircraft, lightning, etc., and imagination. Such mass delusions are in our experience not unusual in time of public excitement.[17]

From the fall of 1946 through the spring of 1947, there was a marked decline in ghost rocket sightings throughout Scandinavia. Every now and again, the press would report on some strange incident, like the case of an amateur astronomer in Helsinki in January 1947 who tracked a yellow- and red-lit object in the night sky that seemed to release something like a parachute just before it disappeared from sight.[18] By April, however, US intelligence officials in Sweden issued a final report on the subject, concluding "that the widespread press reports last summer were

not based on available factual evidence, that it is very doubtful if any of the reported missiles landed in Sweden." The matter, it was explained, "has in the past few months been allowed to die a quiet death, and Swedish officials prefer to dismiss it as an unexplained press sensation."[19] Attention shifted to gathering intelligence about Soviet efforts at developing guided missiles.[20]

In fact, there were more sightings over Scandinavia and the United States during the second half of 1947 and the summer and fall of 1948. Investigators from the US Air Force informed the Chief of Staff in October 1948 that in addition to cigar-shaped rockets and missiles and flat, saucer-like disks, witnesses were reporting seeing a "large, round ball-shaped object that could stop, hover, and go off at terrific speed."[21] The general view of American military and intelligence officials was that the objects were either Soviet guided missiles most likely for reconnaissance purposes or the figments of over-excited imaginations fueled by Cold War hysteria.[22] To this day, it remains a mystery who or what—if anyone or anything—was behind the ghost rocket scare of 1946.

SUMMER 1947

Back in the United States, in the immediate aftermath of Kenneth Arnold's "flying saucer" sighting at the end of June 1947, things played out much like they had in Sweden the previous year. Another July, another flurry of odd sightings, more intense media coverage, more head-scratching. So common was talk of flying saucers that newspaper cartoonists were already widely using their images to reflect on everything from the Cold War to higher taxes.[23]

By the end of the first week of July, almost every US state had at least one report of a flying saucer sighting. Witnesses described seeing flying disks that weaved and wobbled in erratic ways—some that even glowed—and that darted out of sight in a flash. Then came reports of some of the objects actually being recovered, the most famous coming out of Roswell, New Mexico, where supposedly a crashed flying saucer had been retrieved by the 509th Bombardment Group at the airfield there.[24]

Newspaper reports at that time turned to the same set of words to describe the objects: they were "eerie," "strange," "almost unbelievable." Very quickly talk turned to needing to find out what was behind "the mystery of the flying saucers."[25] The head of the Veterans of Foreign Wars Louis E. Starr spoke for many when he told an assembly soon after the Fourth of July, "Too little is being told to the people of this country."[26]

Fig. 1.2 Within weeks of Kenneth Arnold's sighting, the American press had widely adopted the term "flying saucers." And just as quickly, as one newspaper pointed out in late July, cartoonists across the country found the image a useful metaphor for taking on all sorts of political issues. *The Wilmington Morning Star* (Wilmington, NC), 19 (20 July 1947): 7. *Chronicling America: Historic American Newspapers*, Library of Congress, https://chroniclingamerica.loc.gov/lccn/sn78002169/1947-07-20/ed-1/seq-7/.

Reports and speculations about the disks spread so swiftly in large part due to the extensive reach of newswire agencies like the Associated Press and the United Press. With a national and international presence, both had been operating as news wholesalers for decades, feeding stories to local newspapers across the United States.[27] Scattered reports of flying saucer sightings were ideal for just this kind of coverage. Throughout 1947, American newspapers from coast to coast printed the same stories—often verbatim—time and again.[28] Readers in California, Idaho, and Texas therefore could share a common collection of descriptions, stories, and conjectures with readers in Connecticut, Illinois, and Massachusetts.

So what theories were being bandied about at the time? What did people think was going on? While the possibility that aliens from another planet were visiting us was raised, it was done very rarely and treated often as ridiculous.[29] One columnist wrote a spoof in which extraterrestrials carried him off into their flying saucer, mistaking him for Orson Welles.[30] Kenneth Arnold himself was said to have encountered a woman in an Oregon café, who, after spotting him, ran out shrieking, "There's the man who saw the men from Mars" and "sobbing that she would have to do something for the children."[31]

If it wasn't aliens, then who were considered to be the likely suspects? Kenneth Arnold, for one, was convinced the US Air Force was responsible, telling the commanding officer at Wright Field in Ohio, "It is with considerable disappointment you cannot give the explanation of these aircraft, as I felt certain they belonged to the government. They have apparently meant

no harm but used as an instrument of destruction in combination with our atomic bomb, the effects could destroy life on our planet."[32] Others shared the view that the disks were somehow linked to experiments with atomic energy.[33]

A number of war veterans guessed the saucers were actually radio-controlled "crystal balls" or "foo fighters," the same experimental weapons presumably used by the Germans during World War II to deter British and American bombers.[34] The United Press and most other observers, however, thought it likeliest that the Soviet Union somehow had a direct hand in the matter.[35]

To cloudy the picture still further, a new group of individuals appeared on the scene, ones who would come to play a prominent role throughout the history of UFOs—hoaxers. In these early days of the flying saucer era, hoaxers were looking to do little more than cause a mild scare or get a good laugh.[36] Four teenage boys in Idaho got more than they bargained for, however, after they planted a home-made disk—"replete with a plexi-glass dome, radio tubes, burned wires, and glistening sides of silver and gold"—on a neighbor's lawn one night.[37] Police, army intelligence, and the FBI were all called in the next day to investigate, eventually solving the mystery after one of the boys admitted it had all been part of a prank.

And then, just as quickly as it had gained momentum, the news coverage fizzled out. By the end of August, the media had begun to move on to other topics. To be sure, throughout the remainder of 1947, a steady trickle of flying saucer stories appeared in American newspapers. But by the end of the year, more often than not, they were no longer being featured on the front page, and the content was often retrospective in nature, reflecting on the events of the previous summer.

UFO enthusiasts have long pointed to the similarities in the reports coming out of Scandinavia and the United States to bolster their contention that weird, rocket- or disk-like objects were in fact flying overhead at high speeds and in unusual patterns at the time. But bearing in mind what we now know—namely, that this was only the beginning of the world's preoccupation with unidentified flying objects—it is equally striking how many elements present in 1946 and 1947 would later become a staple in reports about UFO sightings. Warm, summer days, a time when people tended to be outside. Seemingly credible witnesses. Flying objects shrouded in mystery. A widespread belief that they were high-tech, piloted vehicles. An eager press, on the lookout for captivating stories during slow news cycles.

Suspicions of a military involvement. Skeptical responses on the part of governments and intelligence agencies. Hoaxes. In a way that no one could have known at the time, the ghost rocket and flying disk episodes provided the building blocks for countless other reports that would soon follow in their wake.

The two events also reveal something else worth noting: flying saucers were born under the cloud of world war. Regardless of whether Scandinavian or American witnesses at the time saw something real or not, their experiences were instantly and repeatedly filtered through the lenses of World War II and the Cold War by those who reported and passed on their stories. When the first wave of reports of unidentified flying objects over northern Europe began circulating in May and June of 1946, observers turned to the recent past to cast the things as rockets akin to those encountered during the last stages of World War II. The popular consensus was therefore that the UFOs must be military in origin, the only question being to which military they belonged. An answer was readily at hand. Since the Soviets had captured Peenemünde, the launch site for V-rockets during the war, they had to be the source. Whether the objects represented a show of strength or an attempt at experimentation, the ghost rockets (many believed) were being used as chess pieces in the wider game of geopolitical dominance.

A year later, the same kind of guesswork was at play. Could the flying saucers be experimental weapons of the US Air Force, maybe atomic in nature? Or perhaps they were based on German technologies from the war? There must be a Soviet connection, still others reckoned.

One war had ended, and another—a cold one—was just beginning. Both gave reason for many to consider the existence of unidentified flying objects not only real but also potentially dangerous. The number and fleeting nature of sightings, combined with the lack of any concrete evidence of actual projectiles, lent an aura of mystery and eeriness to the reports of ghost rockets and flying disks. For now, few considered anyone other than earthly superpowers, mischievous kids, or overwrought hysterics responsible for their appearance. That would soon change.

2

Apparitions, Airships, and Aliens

Weird lights and curious objects in the sky. Reports of extraordinary, seemingly impossible flying machines. Speculation about their inventors and pilots. Suggestions of secret military projects. Even talk of visitors from outer space. A media frenzy, and a public both mesmerized and more than a little fearful. This was the scene in the United States and parts of Europe by the fall of 1947.

It all happened so quickly. The characters and events may seem to have come straight out of a Hollywood production meeting, but no one person or group directed the action. While newspapers certainly helped stoke the fire, they too were scrambling to catch up with the wave of reports coming from the general public. As Kenneth Arnold himself noted at the time, no individual had the ability to take control of the story. It seemed to have a life of its own.

The response to the reports of ghost rockets and flying saucers is as much a riddle as the unidentified flying objects themselves. Were there, in fact, odd new objects in the skies during the second half of the 1940s? Why did suspicion immediately fall on the militaries of the United States and the Soviet Union? Why did some draw the conclusion that aliens from another world were involved? What was it about these reports that so captivated the public and news media?

To find answers requires considering just how unusual all this was—not just the sightings themselves, but also how people reacted to the news and what were considered plausible explanations at the time. This means looking back, back before there were "ghost rockets" and "flying saucers," to earlier accounts of mystifying and fleeting objects.

THE HISTORY OF WONDERS

History is, in fact, replete with chronicles of awe-inspiring and sometimes downright alarming visions of what are commonly referred to as "celestial wonders." Longtime UFO researcher Jacques Vallee and his collaborator Chris Aubeck have compiled a sampling of around five hundred accounts of these apparent "wonders in the sky."[1] Ancient Roman and Chinese texts speak of contemporaries seeing fireballs, spears, soldiers, ships, and chariots floating above them.[2] Medieval and early modern sources from Europe, Asia, and the Near East depicted and wrote about apparitions of flying dragons and serpents, multiple moons and luminous globes, fiery crosses and soaring lanterns, battling armies, and gliding warriors. While some witnesses supposedly cowered in fear, others reported being amazed, like the Italian artist Benvenuto Cellini (1500–1571), who recalled that, once, "(o)n horseback, we were coming back from Rome. Suddenly, people cried, 'Oh God, what is that great thing we see over Florence.' It was a great object of fire, twinkling and emitting enormous splendor."[3]

For their part, Vallee and Aubeck dwell on the similarities between these descriptions and the flying saucer sightings and alien contact reports of the twentieth century. To be sure, combing over these descriptions one after the other, it's easy to wonder what this all adds up to. But that has as much to do with how Vallee and Aubeck present these tales as it does with the tales themselves. Their book offers these vignettes with little or no context surrounding them. Instead, they are set up alongside one another, leaving one to read them all the same way, each treated as a sort of journalistic account in its own right.

If a historical account of an event appears bizarre to us, however, this likely has something to do with the fact that the writer or artist was operating with a different frame of mind from ours. These figures lived in worlds with social relations, values, and expectations largely unfamiliar to us today. The whole point of their anecdotes often was not to dispassionately relate a series of events, but rather to attest to some timeless truth or to teach a lesson.

Histories of celestial wonders, unlike the work of Vallee and Aubeck, set depictions within their peculiar time and place, unpacking the purpose of their authors and the ways in which the stories circulated. What they reveal is as fascinating as the sightings themselves.

At least as far back as the ancient Babylonians (roughly 1500–1250 BCE), observers attempted to make out and recreate patterns in the movements of things in the heavens. But one of the things that distinguishes modern-day astronomy from its earlier predecessors was the latter's assumption

that those objects had a direct impact on events here on earth, indeed on the very health of individuals and the fate of communities. This was because it was believed that the gods or the one God used cosmic events to express themselves and intervene in human affairs. What we now refer to as astrology was for centuries inseparable from star- and planet-gazing.[4] In such a universe, celestial objects had not only movements but also meanings, and these meanings had to be deciphered. Ancient, medieval, and early modern observers, then, did more than track the skies; they read the skies.

When it came to aerial anomalies, arguably nothing drew more commentary than comets and meteors. While a firm distinction between the two would have to wait until the end of the 1600s, both learned elites and commoners since ancient times agreed they were portents of looming calamity. The Romans considered them monsters and harbingers of earthquakes, tidal waves, and bad harvests. Medieval chroniclers believed they could herald the death of kings and warn of imminent war. Theologians such as Thomas Aquinas and Martin Luther expected them in advance of the Day of Judgment.[5]

During the sixteenth and seventeenth centuries, pamphlets, chronicles, treatises, and broadsides in Europe regularly recorded sightings of mysterious celestial apparitions.[6] In a period beset by religious enmity, plague, and war, the visions were especially unsettling. While some observers believed the manifestations to be the work of Satan or warnings from God, many contemporaries thought it more likely they were optical illusions, symptoms of mental disorder, or simply natural phenomena misunderstood by the misinformed.

Amazing sightings have come in other forms besides airborne spectacles. Medieval and Renaissance mapmakers frequently drew all sorts of sea monsters on their maps, based less on actual encounters than on legend.[7] European travelers in the Middle Ages reported coming across marvelous creatures, such as giant snakes, sea serpents, and dog-headed humans. While it was believed that these remarkable species testified to some basic moral truth about God's order, the existence of monstrous prodigies was something else entirely. More often than not, Europeans considered the birth of a "monster"—a term often applied to an individual with a pronounced congenital deformity—to be a sign from God, who was communicating displeasure with some particular action or circumstance.[8]

Still another variation on the theme of strange observations comes from mariners, who have long shared stories of eerie, sometimes horrifying, experiences while at sea. Legends of phantom ships and of sailors being lured to their doom by strange underwater voices date back to ancient times

and are common among seafaring communities.[9] A Japanese author by the name of Hokusai (1760–1849), for example, recounted the unsettling tale of fishermen from Cape Kamagasaki near Osaka. Around the beginning of November, he recounted,

> the fishermen don't believe in throwing out any nets at all. If they do, as they pull their nets in, their boat is surrounded secretly underwater by naked men with ladles in their hands who circle the boat. They sing sad and reproachful songs, and with these ladles they fill the boat so quickly with water that it goes down. Then the strange men cry, "Come along with us! Come along with us!" and vanish in the sea. This is supposed to mean that those who have drowned in the sea near this spot are calling for more comrades. So they say.[10]

Folklorists point out that tales like these were meant to do more than strike fear in listeners. As stories that were shared over generations, they served as cautionary lessons, reminding seafarers to keep in mind their survival depended not simply on their own skills but on their fellow sailors and villagers as well.

Seamen weren't alone in reporting encounters with the spirits of the dead. Ghost stories appear to be universal, occupying a place in every society's lore. That said, haunting specters have been described in a variety of ways. Seventeenth- and eighteenth-century Europeans, for instance, referred to them interchangeably as "ghosts," "demons," "the returned dead," "apparitions," "phantoms," and "shades."[11] Some spirits are said to be fully formed, walking-and-talking entities, while others manifest themselves solely as a sound, a light, a movement, or a change in room temperature. Still, since ancient times, most accounts have accepted that these presences all bear a message for the living—typically a warning or an avenging truth.[12]

It is difficult, if not impossible, to tease out the religious aspects from the other elements in all these remarkable sightings and stories. By their very nature, wonders were divine, even if they were deeply troubling at times. Although less beholden to religious institutions and authorities, the modern world has also managed to find a place for holy apparitions.

Take for instance the so-called Marian cult. The phenomenon has been a form of reverence expressed toward the Virgin Mary, in which followers claim to have visions of the Holy Mother. According to one estimate, since the fourth century there have been around twenty-one thousand apparition experiences, with more than two hundred taking place between 1928 and 1975. Witnesses have described their encounters as "heavenly," "unearthly," "radiant." The encounter itself, however, typically has involved more than just a sighting of Mary. She is said to have conversations with

observers, in which she predicts future events, condemns popular vices, heals and comforts the sick, shows witnesses heaven or hell, issues calls for peace, and imparts secret knowledge.[13]

Celestial wonders, phantom ships, ghosts, marvelous animals, and saintly visions had much in common with the first flying saucer sightings. All were spectacles, arresting observations of amazing things. They weren't just extraordinary; they were rare and, in most cases, fleeting. Who knew when such a vision would appear and to whom? As a result, they inspired attempts to somehow capture them figuratively, in paintings, illustrations, engravings, photographs, and, most especially, words.[14] Wonders sparked stories, which were then passed on to others, who in turn would pass them on to still others. It wasn't necessary to see a marvel to know what one looked like.

On the other hand, in the ghost rocket and flying saucer reports following World War II, there seems to have been no religious or sacred element in the responses to the very first wave of UFO sightings. Like the missiles and disks themselves, the supernatural, too, left little, if any, trace. For that very first group of witnesses and trackers of the UFOs, it didn't occur to them that the flying objects were anything other than solid, manmade artifacts.

This would not remain the case. Within a few years of Arnold's sighting, flying saucers started provoking a very different reaction among some observers. But at the start of the flying saucer era at least, the speculation was decidedly earthbound. Why did people respond in the way they did? Or put another way, why didn't they respond like their ancestors had?

MODERN WONDERS

The status of the kinds of wonders that had captivated ancient and medieval observers began to change alongside the sciences of the seventeenth and eighteenth centuries. The so-called mechanical philosophy—one that treated the natural world as a machine whose parts could be broken down and measured in terms of size, shape, and motions—won over researchers and academic institutions and led natural scientists to increasingly turn their backs on religious, supernatural explanations of things like celestial marvels. Eighteenth-century philosopher David Hume, for example, spoke for many when he adamantly spurned belief in wonders as lazy and vulgar, a superstitious vice of the lower classes.[15] Before the French Revolution of 1789, even clergymen in an overwhelmingly Catholic country like France were voicing their skepticism about claims of things like miracle

healings: growing worries about fanatical witnesses, enthusiastic crowds, and new, popular religious cults helped lend credence to the view that miraculous experiences were best left matters of private faith.[16] By the beginning of the nineteenth century, the field of meteorology in Britain no longer saw the sky as a canvas for divine signs, but rather as a scientific object for chemical and statistical analysis.[17]

This process of secularization did not so much destroy interest and belief in grand marvels as it channeled them in new directions. And in the 1800s, industrial capitalism gave rise to one of these new outlets: technology. Industrialization relied on manufacturers using powerful, new machines to take on tasks in the factory. Industrialists didn't just make use of machines, however. They also made contraptions and innovations that accelerated life itself. Some, like the cotton gin, sped up production. Others, like the telegraph, sped up communications. But novelties such as the steamboat, the steam-powered locomotive, the propeller, the internal combustion engine, and the diesel engine made it possible to accelerate travel like never before.

Not everyone greeted these inventions with enthusiasm. The new railway journey, for instance, left some passengers bored with the experience of travel, finding it difficult to focus on the landscape as carefully as they had earlier by horse-drawn carriage. Others found the speed and size of locomotives terrifying. Highly publicized train crashes reinforced their fears, with some travelers complaining of suffering from nervous pains, paralyses, and fatigue due to the strain put on them during the trip.[18]

By the turn of the century, much of the talk about new technologies dubbed them "modern wonders," attributing to them almost supernatural properties. What had once been a regard reserved for God's creations was applied to things like ocean liners and motion pictures. News outlets and advertisers celebrated them as the culmination of technical innovation, confirming the public perception that one was living in a time of unprecedented progress.[19]

Nothing seemed to justify this excitement more than the attempts and ultimate success at mastering human flight. While the first untethered and manned hot air balloon took off in 1783, it was not until the 1880s that a successfully navigated flight was possible. Enthusiasts would have to wait until the first decade of the twentieth century for Ferdinand Graf von Zeppelin to successfully fly a long rigid-hulled dirigible and the Wright brothers to achieve the first powered flight of an airplane.

Yet even before these turn-of-the-century achievements, aviation captured the imagination of ambitious inventors and a curious public, especially in the United States. It started in 1822 with Philadelphian James