

FLYING SAUCERS

from

outer space

Major DONALD E. KEYHOE

U. S. MARINE CORPS (ret.)

FLYING SAUCERS
FROM OUTER SPACE

By the Same Author:

THE FLYING SAUCERS ARE REAL

FLYING WITH LINDBERGH

M-DAY

**FLYING SAUCERS
FROM OUTER SPACE**

by Major DONALD E. KEYHOE

U. S. Marine Corps, Retired

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Dedicated with love to Helen and the twins,
Cathleen and Caroline

Foreword

Three years ago, in a book entitled *The Flying Saucers Are Real*, I reported the results of my first investigation into this world-wide mystery. At that time I stated my belief that the U.S. Air Force knew the answer and was hiding it from the public.

Since July, 1952, in a new investigation of the saucers, I have been privileged to cooperate with the Air Force. Because of my present understanding of their very serious problem, and certain dangers inherent in the situation, I have been given information unknown to most Americans.

Scores of impressive sighting reports by service pilots have been cleared for me, with the conclusions of Air Technical Intelligence—some so incredible they would have been ridiculed two or three years ago.

As a result of this close association, this book reveals, I believe, all that the Air Force has learned about the flying saucers. It also explains the contradictions that have come, from time to time, from

various Defense officials, as well as the reasons for official silence.

It is my hope that this book will help to prepare all Americans, whether skeptics or believers, for the final act of the saucer drama—an act that will have an impact on the lives of all of us.

In closing this brief foreword, I should like to thank all the officers and civilian officials—not only of the Air Force, but other government departments—who so generously aided me in this long investigation. Without their advice and guidance, when I ran into blind alleys, this book could not have been written.

Major Donald E. Keyhoe

U. S. Marine Corps, Retired

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CHAPTER I

Behind the Scenes

During the past year, behind the scenes at the Pentagon, I have watched the Air Force struggle with an explosive problem:

What shall the public be told about the flying saucers?

Since 1951 a selected group of high government officials has been secretly briefed on the saucers by Air Force Intelligence. More than one former skeptic, after these closed-door sessions, has emerged badly jolted by the Intelligence officers' disclosures.

In the last nine months I have seen most of the evidence used in these secret briefings. Confidential sighting reports, by Air Force, Navy, and Marine Corps pilots, have been cleared to me with the conclusions of Air Technical Intelligence. Other important clues, unknown to most Americans, have been released by Project Bluebook, the "saucer" investigating agency at Wright-Patterson Field. Little by little the curtain has been raised to reveal a sobering picture.

So far, there is no proof of hostility. But several times these weird machines have come dangerously close to planes—foreign as well as American. One such approach, the evidence shows, led to a tragic disaster.

The date was May 2, 1953. It was raining that night at

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Calcutta, as a British Comet jet-liner, with 43 aboard, took off from Dum Dum Airport. With its jets spitting flame, the ship climbed up and quickly disappeared.

Six minutes later, up in that somber night, something hit the Comet. Bits of the shattered airliner came flaming down through the rain. When it was over, the wreckage lay strewn across five square miles of ground.

The Dum Dum Airport tower heard no distress call. Whatever happened, it came too swiftly for the pilot to flash a message.

Carefully, Civil Air Ministry investigators gathered up the broken fragments. For days experts analyzed the strangely battered wreckage. Then the Air Ministry gave out a guarded statement.

The Comet had been hit by an unidentified flying body.

(In the United States the official term for a flying saucer is "unidentified flying object.")

Disturbing as it is, the Comet crash does not prove a hostile purpose. The collision may have been an accident, caused by an ill-timed "observation" approach on that dark and rainy night. But it could have been a deliberate test-attack by a flying weapon under remote control.

From the sighting patterns, the long saucer reconnaissance is possibly nearing its climax. The final operation may be entirely peaceful; if so, it could be of benefit to everyone on earth. But there are possible dangers, including one peril suggested by an Air Force Intelligence colonel.

Like many Air Force officers, I believe the American people should be told all the facts. An official admission that the flying saucers are real will startle many Americans. If it shows the conclusions of certain Intelligence officers, it will probably cause hysteria, until the first shock subsides.

But sooner or later the evidence must be made public, if not the final answer. If a crisis should come, knowing the facts now will help us to be prepared. It will also help

us to avoid any hasty steps that might change a peaceful contact into sudden, worldwide tragedy.

On the night of December 4, 1952, a frightened Air Force pilot landed at Laredo, Texas. Since actual names are deleted, in clearing Intelligence reports, I have called him Lieutenant Earl Fogle.

Twelve miles from the field, Fogle told air base officers, a mysterious, blue-lighted object had almost crashed into his fighter. It had been no accident—the strange device had raced head-on at his lighted F-51. At the last instant it had flipped to one side, streaking by at terrific speed.

Badly shaken, Fogle watched it flash up in a vertical climb. After a moment the blue-lit object turned, circling back as if for another pass. Fogle hastily switched off his lights, nosed down in a steep spiral.

The unknown machine dived to 2,000 feet. Apparently missing Fogle's plane in the dark, it circled toward Laredo Air Force Base, then swiftly turned away. Again climbing straight upward, it disappeared in the night.

Three years before, many Air Force officers would have scoffed at Fogle's report. He was not ridiculed now. For two hours Intelligence officers grilled him on every detail.

Did the UFO (unidentified flying object) seem to be piloted or under remote control? What was its size and shape, its speed compared with a jet? Did it oscillate in flight, or flutter when it climbed? Did the blue light blink or pulsate?

On and on went the probing questions, worked out by the Air Technical Intelligence Center to identify UFO types. Then secret reports were put on the wires, for the ATIC at Dayton and Intelligence Headquarters in Washington.

Several weeks later I learned the full details of the Laredo encounter. The Intelligence report was cleared for me by Albert M. Chop, the Air Force civilian expert on UFO's. Two years before, as acting press chief at Dayton,

Chop had learned most of the flying saucer story from Project Intelligence officers. When he transferred to the Pentagon, he had become the Air Force press specialist on the flying saucers.

It was the latter part of January when I saw the Laredo report. About noon that day Chop phoned me from the Pentagon.

"Don, can you get in here by 2 o'clock?"

"Why, what's up?" I said.

"Intelligence is ready to screen that saucer film—"

"You mean the secret one?"

"No, that's still under wraps," he said quickly. "I meant the South Carolina pictures—the ones you got McLean to send in for analysis. It'll be a private screening—you'll be the only one outside of Defense people."

"OK, Al," I said. "I'll be there by 2."

"You might drop in earlier," he suggested. "I've got some of those sightings you asked me to clear."

As I drove in to the Pentagon, I thought over the McLean report. The pictures had been taken near Landrum, South Carolina, on November 16, 1952. About 5 o'clock hundreds of people near Florence had seen a huge, gleaming disc traveling across the sky. An air-traffic controller at Florence Airport, who watched it through binoculars, reported the disc tilted up sharply before it climbed out of sight.

About six minutes later a group of round; glowing objects were sighted north of Landrum. Among

those who saw them were; J. D. McLean, David S. Bunch, and their wives. Using an 8-mm. camera with a telephoto lens, Bunch took 40 feet of film before the strange objects disappeared in the west.

After the film was developed, Bunch had turned it over to McLean's son, the editor of the *Ingalls Shipbuilding Corporation News*. Later, young McLean had asked me about submitting it to the Air Force. At first he was afraid the film would be confiscated. But after I got him a promise

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of extra copies, he sent in the original for ATIC analysis.

When I reached the Pentagon, Chop was away from his desk. It was 20 minutes before the screening, so I skimmed through the Intelligence reports which had just been cleared. With the sightings was an ATIC statement bluntly refuting the theories of Dr. Donald Menzel, a Harvard astronomer who had tried to debunk the saucers as mirages and other illusions.

Weeks before, I'd been told what most Air Force officers thought of Menzel's theories. But to make it official, I'd put some pointed questions to Project Bluebook. This was the ATIC answer.

"These explanations were known to the Project, and carefully considered, long before Menzel published his theories. They explain only a small per cent of the sightings ... At the request of ATIC, prominent scientists analyzed Menzel's claims. None of them accepted his answers . . . Dr. Menzel was invited by Project Bluebook to apply his theories to any or all of the unexplained sightings, using Project records cleared for this purpose. He has not availed himself of this offer.

There was a lot more, but that could wait. The new sightings looked important.

The first ATIC report was dated January 9, 1953. (As in all these official cases, witnesses' names have been changed in accordance with Air Force requirements.)

Early on the evening of the 9th, a B-29 bomber, with Captain George Madden at the controls, was flying over California on a routine mission. Lieutenant Frank Briggs, the copilot, had the right-hand seat.

It was a clear night. Looking down, they could see Santa Ana, some 16,000 feet below. Except for the B-29, the sky seemed to be empty.

Captain Madden was checking his instruments when a flash of blue light suddenly caught Briggs' eye. He stared out to the right. Coming toward them, at fantastic speed, was a V-formation of blue-lighted objects.

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Briggs gave a shout of warning. Madden took one look, hurriedly swerved to the left. For a split second the strange craft seemed to hold their speed. Then they abruptly slowed down, the V-formation twisting as if a few of the machines had overshot. Banking away, they slanted upward and vanished.

The entire sighting had lasted only five seconds.

The captain and Briggs stared across at each other. Now that the formation was gone, the whole thing was like a dream. But whatever they were, the blue UFO's had been real.

Though Madden knew of no supersonic test plane that could make such speeds, he cut in his mike and called Air Traffic Control. In a few moments the answer came back. No experimental aircraft—no planes of any kind—were known to be in their area.

After landing, both pilots were cross-examined, separately and together. From the wording of the report, it was plain that Intelligence did not question the truth of their statements.

The next sighting had happened back in October. At 2 o'clock, on the morning of the 29th, Lieutenants Burt Deane and Ralph Corbett were on an intercept mission over Hempstead, Long Island. Both pilots were flying F-94 jets, with radar operators in the rear cockpits.

Suddenly a fast-moving object, showing a bright white light, appeared a few miles ahead. Because of its brilliance, the shape behind the light was hidden.

Deane, the flight leader, signaled Corbett to "lock on" by radar and follow. Then he tried to close in. He knew at once they had been spotted. Whipping into a tight circle, the UFO cut inside the pursuit curve he had set up. At full power, Deane tried to tighten up, almost blacking out from the high-g turn. But the saucer still turned inside his orbit.

For eight minutes Deane and Corbett vainly attempted to match the machine's amazing performance. Finally, as

if tired of the game, the UFO climbed away at supersonic speed.

Both pilots were convinced the saucer was some kind of revolutionary device.

"Based on my experience in fighter tactics," Lieutenant Deane told Intelligence, "it is my opinion that the object was controlled by something having visual contact with us. The power and acceleration were beyond the capability of any known U. S. aircraft."

Below this, the Wing Intelligence officer had added:

"It is believed this report is based on reliable and verifiable observations."

The third Intelligence report covered the Laredo action, but I had time for only a quick glance. I read over Fogle's description of the object he had encountered. Apparently the blue-lighted UFO's were on the increase. But at least two other types had been seen recently, as previous reports showed, not only in America but by our pilots all over the world.

Though few of these recent military sightings were known to the public, several saucers had been seen by civilians—near defense areas or over various cities. It could be the beginning of a new cycle.

If the public sightings kept on, the Air Force might be in for another tense period, trying to stop hysteria. Six months before, in July, a wave of published reports, topped by the eerie happenings at Washington Airport, had almost blown off the lid.

It had taken a special Air Force press conference to debunk the saucers and ward off the rising panic. Even then, it had been close. The memory still haunted more than one Intelligence officer who knew the inside story.

Just as I was starting for the projection room, Chop came in. A quiet, blue-eyed, serious-faced man in his mid-thirties, he sometimes had a dead-pan expression that told exactly nothing. But today he had a look of suppressed excitement.

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"Something new?" I asked him.

He hesitated. "There's been another Intelligence conference on the 'U' pictures." This was the code letter for the secret saucer film. "I can't tell you anything definite—it's not settled yet."

That was all he would say. But I knew what the secret film showed, and what Intelligence was considering. If the plan went through, a lot of Americans were due for a big surprise.

"We'd better get upstairs," said Chop, "before they start that picture."

While we were climbing the stairs to the fifth floor, he told me he had a message from Captain Ed Ruppelt, the Intelligence officer of Project Bluebook.

"Ed's going to recommend that you go on active duty with the Project, for a couple of weeks anyway. You'd be able to see everything in their files, and it would save time clearing reports."

Three years ago this proposal would have amazed me. In 1949, after months of investigation, I wrote an article for *True* magazine, stating that the saucers were probably interplanetary machines. Within 24 hours the Air Force was swamped with demands for the truth. To end the uproar the Pentagon

announced that the saucer project was closed. The saucers, the Air Force insisted, were hoaxes, hallucinations, or mistakes.

Later, in a book called *The Flying Saucers Are Real*, I repeated my belief that the Air Force was keeping the answer secret until the country could be prepared. Several times officers at the Pentagon tried to convince me I'd made a bad mistake. But when I asked them to prove it by showing me the secret sighting reports, I ran into a stone wall.

Then suddenly, in August of 1952, the Air Force had changed its Sphinx-like attitude. In the last six months I'd seen the most baffling cases in the ATIC's secret files.

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At first I'd been suspicious of this sudden cooperation. But I thought I knew the reason now . . .

The Intelligence officers were just going in when we came to the projection room. Two of them were top UFO authorities—Colonel William A. Adams, a compact six-footer, and Colonel Wendell S. Smith, a solid-built officer with command-pilot wings above his rows of ribbons.

The rest of the group had already arrived. One was a former Naval Intelligence officer named Billingsley, now attached to the Office of Secretary of Defense. The others were PIO's—public information officers. I recognized Colonel James K. Dowling and Colonel William S. Boyd. Some months back Colonel Boyd and I had had a blunt discussion about keeping facts from the public. But since I'd seen the evidence, I realized the serious problem they faced.

On the first run of the McLean film the scene was blurred. When the screen was brought closer, five glowing oval shapes appeared against the clouds. It was a weird effect, especially on color film, but because of the fading daylight no details could be seen. The picture was run three times, the Intelligence men peering closely at the screen.

"That's enough, we don't want to scratch it," Colonel Adams said crisply. He turned to an Intelligence captain. "Have copies made as soon as you can, so we can start the analysis."

"How long will the analysis take?" I asked Colonel Adams.

"Weeks, maybe months, if they don't get an easy answer. Assuming the film's genuine, and I'm sure it is, those people certainly saw something queer. You can't tell much, though, until the prints are blown up and checked frame by frame. If they prove to be bona-fide UFO's—not some light phenomenon—then the hard work begins."

Someone called him aside, and I turned to Colonel Smith. We talked for a minute about the secret film.

"Of course, that's a lot different from this McLean film," I said, "especially the speeds and maneuvers."

Colonel Smith nodded.

"You think that film will ever be made public?" I asked.

"I believe so," he said slowly. "But when, I don't know."

"I wonder what the effect will be, if the Air Force puts out the analysis, too."

The Colonel soberly shook his head. "It's hard to say, but there's no—" he stopped as Chop came up. "Al will let you know the final decision on that. It shouldn't be too long."

Chop gave me a dry smile when we left the others.

"I wasn't trying to pump Colonel Smith," I said. "Unless you've been holding out, I already know everything about those pictures."

"You've got the works," Chop said. "But remember the film's still secret, even if we did confirm it for you."

On the way out of the Pentagon, I dropped in at the second-floor snack bar for a cup of coffee. A lanky Air Force captain with a lean, ironic face was just coming out. He looked familiar, but his black mustache stopped me. Then as he paused to light his pipe, he glanced up and I recognized Jim Riordan, a jet pilot I'd known for several years, along with his wife Sheila.

(At Jim's request I have changed his last name, though none of the information he gave me later was restricted in any way.)

"Are you stationed here, Jim?" I asked as we shook hands.

"No, thank God," Riordan said tartly. "I'd rather take the MIG's again than be stuck in this mausoleum. In fact, I'm out of the service. I just came over to see one of my old gang"

He saw me glance at his Distinguished Flying Cross and Silver Star ribbons.

"Haven't had time to get civilian clothes—only been out

a couple of days. The Air Force took so much fat off me my old civvies look like bags."

"When were you in Korea?" I said.

"Got back a couple of weeks ago. Why?"

"Did you see any saucers over there?"

He gave me a sidewise look.

"I heard about two or three sightings."

"Did you ever try to intercept a UFO?"

"I wouldn't tell you, of all people," growled Riordan. "The Air Force would hang me."

"Maybe not." I showed him the ATIC reports. Riordan's brows went up.

"What's the deal?" he said suspiciously. "After that book of yours, I thought you'd be pure poison to the Air Force."

"They've got a new policy. This thing may be out in the open before long."

"It's a little late," Riordan said grimly. "The way people are mixed up . . ."

He broke off, his black eyes flicking over the Santa Ana report. When he finished, he shook his head.

"Suppose the newspapers had got hold of that captain's story—you know some of them monitor airways frequencies, to get scoops on crashes. The way they'd have played it up, it would have scared a lot of people."

"They've been playing it down," I told him. "Probably they'd have tossed in one of the usual answers—like ground-light reflections on windshields."

"They must think pilots are fools," snapped Riordan. He hunted through the report, jabbed his finger at a paragraph. "See what this Intelligence officer says? 'Both pilots were familiar with the reflective characteristics of B-29 cockpits. These were checked to insure that the lights were not ground reflections.' That's the first thing we do if we see a strange light."

"Most people don't know that. If you're not a pilot, ground-light reflections sounds like a good answer."

"There've been too many good answers," Riordan retorted. "That's what makes it dangerous—people don't know what to believe. You remember that panic in '38, when Orson Welles put on a radio play about an invasion from Mars?"

I said I did; I didn't tell him the memory of that stampede still worried Defense officials.

"Well, people are more ripe for panic than they were then," said Riordan. "You take those blue saucers—suppose they'd swooped down over Los Angeles. Or make it right here. Just imagine what would happen if those things came streaking in over Washington, down low where everybody could see them. It'd make that Orson Welles deal look like a Sunday school picnic."

"I'm not so sure," I said. "Those people had it sprung on them cold, and the radio play built up the monster idea. Just seeing a saucer formation wouldn't necessarily cause a panic—"

"Unless somebody began yelling 'Invasion from Mars!' " Riordan said sardonically. "And you can bet some fool would."

He glanced at his wrist watch.

"I've got to run, but I'd like to hear more about this new setup. Let's get together."

"How about tomorrow night?"

"No, I'm meeting some of my old outfit—wait a minute, they'd like to be in on it, too. OK, let's say Bolling Field, around 7. These guys are flying in about then. Incidentally, I'll give you a tip on a Japan sighting by a fighter wing commander. There was a little AP item on it, so I won't be breaking security."

We agreed to meet at the Officers' Club, and I went out to the Mall parking zone where I'd left my car.

There was one angle Riordan hadn't mentioned, though I was sure he knew it—the saucers' effect on our radar-warning system. In the last two years hundreds of fighters had been scrambled to intercept UFO's. Blips from these

mysterious machines had shown up on many radar screens, here and at foreign bases. Until the blips were tied to saucers, there was always a chance of a surprise attack by enemy aircraft.

Usually the saucers' high-speed maneuvers were easily recognized by trained radar operators. But sometimes lower UFO speeds made them harder to identify. If this happened at a time of enemy air attack, it could cause serious trouble. Fighters badly needed for defense might have to be diverted from

enemy bombers, to make sure the saucers were not additional raiders.

When I got home, I read over the rest of the ATIC answers to Menzel's theories.

Several of Menzel's claims had startled me, in view of his scientific background. Most surprising of all were his easy solutions of the more baffling cases—sightings still unexplained by Air Technical Intelligence.

One of these was the puzzling case of Captain Thomas Mantell, who died when his fighter crashed during a saucer chase. The weird object he chased was also seen by thousands of people in Kentucky, including the commanding officer, several pilots, and the control tower operators at Godman Field.

Dr. Menzel's explanation was simple. Mantell, he said, was lured to his death by a "sundog"—a glowing mock sun caused by ice crystals in cirrus clouds. Though Menzel did not say so, he implied that all the other witnesses were likewise deluded.

Another unsolved Air Force case, which Menzel quickly explained, was the 1948 "space ship" sighting by Eastern Air Lines pilots. This strange-looking craft, which the pilots encountered near Montgomery, Alabama, was also seen earlier near Robbins Field, at Macon, Georgia.

Again, Menzel had an easy solution: All the witnesses were misled by a mirage caused by layers of hot and cold air.

A third sighting which Menzel quickly solved was the

case of Lieutenant George Gorman, who chased an oddly maneuvering light over Fargo, South Dakota. This, said the Harvard astronomer, was still another illusion. Gorman, he explained, had seen only a light reflection from a distance, caused by a whirlpool of air over the fighter's wingtip.

When I first saw Menzel's answers, I was frankly puzzled. Certainly he would not have tried to explain the sightings without all the Air Force records. But knowing the evidence in the three cases, I couldn't see how he could reach these remarkable conclusions.

To clear it up, I'd asked Project Bluebook several specific questions:

1. Question: "Does the ATIC accept Menzel's "sundog" explanation of the Mantell case?"
Answer: "No."
2. Question: "Does the ATIC accept his explanation of the Eastern Air Lines sighting, in 1948, near Montgomery, Alabama?" Answer: "No."

3. Question: "In the case reported by Lieutenant George Gorman, does the ATIC accept Menzel's light-reflection solution?" Answer: "No."
4. Question: "Did Dr. Menzel obtain all available ATIC records in these three cases?" Answer: "He did not obtain this information. In answer to a query, he was offered all Project data on these and other cases, through usual channels. We have heard nothing further from Dr. Menzel in regard to this."

In view of this last answer, I was a trifle baffled by Dr. Menzel's complaint about Air Force cooperation:

"Scientists who might have easily provided the key that would unlock the secrets of the saucers did not receive detailed information necessary for a serious study of the whole problem."

There were a few other surprises in Menzel's book. One was a sarcastic jibe at science-fiction writers—Menzel himself turns out science fiction in his spare time at Harvard.

At another point the astronomer admitted he was mystified by two discs he'd seen in New Mexico.

"Both discs shone with a slightly bluish light," he said. "I have long wondered what it was that I actually saw."

But even though he could not explain it, he was positive this was only some natural phenomenon.

In the end Menzel seemed to reverse his field. Though he insisted the present saucers were illusions, he admitted that future saucers from other planets were not at all unlikely. As a final step he even suggested ways to communicate with our future visitors from space.

In spite of all this, I believe Menzel was sincere even if not too careful in his investigation. But most of the other debunkers also had been sincere, or apparently so: Dr. Urner Liddel, with his "sky hook" balloon answer, Henry J. Taylor and his "good news" secret-weapon story, and all the rest who had misled and confused the public in the last four years.

Probably none of them knew they were pushing the Air Force into a tight corner. Each time, in slapping down a debunking answer, the Air Force had to say publicly what the saucers are not. Each time it was pushed closer to the fateful admission of what the saucers are.

To some in the Pentagon, silence still seemed the only safe course, until there was absolute proof that the saucers were not hostile.

So far, they had won the argument.

But they couldn't walk that dangerous tightrope much longer.

CHAPTER II

"Intercept—But Don't Shoot!"

It was almost 7, the following night, when I drove into Bolling Field. Looking across the Potomac, I could see the blaze of lights at Washington National Airport, the scene of those tense hours back in July.

Riordan was waiting just inside the club entrance. He told me his friends had been delayed.

"It'll probably be a couple of hours," he said, "so we might as well eat."

We went down to the dining room and found a table at one side.

"I just heard from Sheila," said Riordan. "She's all packed, ready to move as soon as I find an apartment."

"I didn't know she gave up her job here," I said.

"She decided it wasn't fair to young Jimmy—keeping him in a day nursery, and no real home life. They've been staying with my folks. Sheila and Dad wanted me to settle down back there, but after the last three years I can't see it. I'd just be sponging off the old man anyway, moving in on his real estate business."

"What are you going to do?" I asked.

"Try for a commercial flying job. If that's no go, then maybe electronics—I've picked up some of the dope, this last year."

After we ordered, I gave Riordan the reports he hadn't seen. The last one he read was the Laredo case, which I'd finished the night before.

Lieutenant Earl Fogle, the Intelligence report showed, was an experienced jet pilot. But on the night of December 4 he had been flying the slower F-51, which has a top speed of about 400 miles per hour.

At 8:49, after a two-hour practice flight, Fogle called the Laredo tower and asked permission to land. But since several jets were ahead of him, the tower told him to circle outside the traffic pattern.

Flying at 6,000 feet, several miles from the base, Fogle suddenly noticed a bright, fast-moving light. At first he took it for the after-burner of a jet. Then he realized no jet could make such a swift, tight turn. As he banked toward it, he saw that the light had a queer blue tinge.

The unknown machine rose quickly to his level, circling at tremendous speed. All that Fogle could see was its bright bluish-white glow. Whether it came from an exhaust, a light on the object, or some other source, he was unable to tell.

After a moment the strange device shot up in an odd, flitting ascent. Fogle watched it, astonished. In a few seconds, it climbed almost 9,000 feet. Then it dived back to his level.

Fogle went after it at full power. The UFO seemed to stop, or turn tightly, almost in one spot. Abruptly he realized it was coming straight toward him. The terrific closing speed gave him no time to turn. Paralyzed, expecting a head-on collision, he watched the thing streak toward him.

Three hundred feet away, the machine wavered for a split second. Then it flashed to one side, hurtling past his right wing, so fast it was only a blur.

Looking fearfully over his shoulder, Fogle saw it shoot up in another flitting climb. When it plunged back, as if for a second pass, he hurriedly cut off his lights. Afraid

that a straight drive would make him too easy a target, he threw his fighter into a screaming spiral.

For a moment he thought his unknown pursuer would follow him all the way down. But at 2,000 feet the blue-lit device swiftly turned away. Climbing sharply, in another flitting ascent, it vanished in the dark . . .

Riordan reread the description of the head-on pass.

"Close call," he muttered. "It looks to me like a practice attack."

"Maybe it was only a remote-control observer unit, and whoever was guiding it didn't mean to get that close."

"Whatever they're up to, I don't like it. Some day they're going to hit a plane—if they haven't already."

"Got anything definite on that?" I said.

"There've been some peculiar crashes the last few years. Take that Northwest Airlines DC-4 that

went into Lake Michigan—"

Riordan stopped as the waiter came up. While the man was putting down our orders, I thought back to the Northwest crash. It had been just before midnight, June 23, 1950. The DC-4, with 58 aboard, was flying over Benton Harbor, Michigan. It was a rough night, with wind and rain lashing the coast.

Suddenly there was a prolonged flash in the sky. Witnesses later described it as a ball of fire, lasting too long to be lightning. Whatever the answer, it was the end for the 58 aboard the big airliner. No last-second radio call gave any clue to how they had met their fate.

Next day a Coast Guard cutter crew found an oil slick offshore. For two days Navy divers tried to probe the thick mud, 150 feet down. Finally they gave up, leaving the DC-4 and its dead entombed in the deep silt.

Meantime, oddly shredded wreckage had come to the surface—bits of blankets, sliced in strips, similar fragments of clothing, seat cushions, and plywood. But no bodies, no wreckage large enough to analyze, were ever recovered . . .

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When we were alone, I told Riordan I'd been thinking over the crash.

"I know people who swear the plane was hit by a saucer," he said. "And there was a radio commentator, Frank Edwards, on Mutual—"

"I know Frank," I said. "I remember he dug into that case."

"Well, Edwards said there was something funny about the investigation."

"He thought the Civil Aeronautics Board should have kept on until they got the answer. I think myself they could have tried harder. But it would have taken a lot of dough—they might have had to dive for weeks."

"Did the CAB ever report on it?" asked Riordan.

"They said they couldn't figure out the answer. What bothers me is the way the blankets and plywood were shredded, as if something had hit the ship with terrific force. Of course, it may have been struck by lightning so that it dived in hard enough to do all that."

"And it could have been hit by the same kind of thing that almost got Fogle."

We were silent for a minute or two. Riordan ate absently, reading over the scanty description Fogle had given Intelligence.

"Too bad he didn't get more details," I said.

Riordan snorted.

"You sound like an Intelligence officer. A pilot comes down, jittery from a close one like that, and before he can even get a drink to quiet his nerves, Intelligence grabs him. 'Was it round or oval? Could you see anything inside? Do you think it was—'"

He broke off. Three Army officers at the next table had stopped eating and were obviously listening. Riordan went on in a quieter voice.

"I'll tell you this—Intelligence is dead serious about the saucers. But what gets me is the way some of the Pentagon people brush them off in public."

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"They had to, once that I know of—"

Riordan made an impatient gesture.

"Who are they kidding? If the saucers were bunk, why would hundreds of careful pilots keep on seeing them? And why would Intelligence have those special UFO report forms?* They ask you everything under the sun—get you to draw sketches—and end up asking what you personally think the thing was. Same thing for the radar operators."

"You sound as if you'd been through it."

"Oh, you hear that interrogation stuff at any field," said Riordan.

"Look, Jim," I said, "I'm not asking you to break security on any particular UFO intercept. But I'd like to know how a man feels, chasing a saucer—"

"You ought to be able to dope it out—you're a pilot."

"All I've flown lately are private planes. I've never even seen a saucer from the ground, except on a radar screen."

Riordan didn't answer.

It wasn't the first time a pilot had balked at this question. Many of them had talked freely about technical angles of an encounter, but few would discuss their emotions. The nearest I'd come was when Lieutenant George Gorman told me about his dogfight with the "saucer" light at Fargo.

During this weird night battle the fight came head-on toward Gorman's F-51. At a safe margin he dived under it, missing collision by several hundred feet.

"I'd half intended to ram it," he said. "But I guess I lost my nerve. The thing didn't scare me very

much—maybe it would have, if it'd been larger, or I'd seen a solid object back of the light."

Later, a captain on a major airline, who'd seen a saucer at close range, had given me his story.

"When you've got a ship full of passengers, it's no joke—even if you do kid about it later. One night a big orange-

* See Appendix III, p. 260.

red disc—it was glowing like hot metal—flew alongside and paced us for miles. Every time, when I tried to ease away, it would swerve in and follow. The same if I tried to climb away.

"At first I was just plain dumfounded. Then I realized we were helpless, if whoever controlled the thing wanted to attack. The copilot and I had a bad five minutes, before it pulled up and left us. Maybe the saucers are friendly—but I wish to heaven they'd stay off the airways."

For a long time I'd wondered about the effect of Captain Mantell's death on Air Force pilots ordered to chase UFO's. About six months before this meeting with Riordan, I'd gotten a hint from Major Lewis Norman, a jet pilot stationed at the Pentagon. He had been telling me the final steps in a UFO interception.

"First you prepare for combat—in case you're fired on. Then you try to ease in—at least I would—for a camera-gun shot."

"Suppose you got close and saw some strange machine—I mean really close. Would you signal for it to land?"

"How?" said Norman.

"Blink your lights, if it didn't answer your radio. Or maybe fire a burst to one side."

Norman eyed me. I had a feeling he thought I wasn't too bright.

"That's the last thing I'd do, unless it attacked me," he said grimly. "Cutting loose your guns might be suicide."

I asked Riordan the same thing now, expecting an even blunter answer.

"Suppose you'd been Fogle, and the ship had had guns, would you have fired when the thing made that head-on pass?"

"Not me," Riordan said curtly. "I'd have just sat there and prayed."

"But as a last resort—"

"Who knows what kind of weapons that thing had?" he demanded. "It might even have been a flying bomb. You'd

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fire on it, and the damned thing might blow up right in your face."

We finished dinner and headed for the Visiting Officers Quarters to see if Riordan's friends had checked in there. But they had not arrived, and Operations had no word of the plane.

"Might as well wait here," said Riordan. He filled his pipe and we found chairs in a corner of the lobby. After I got a pack of cigarettes from the vending machine, I tried again to get Riordan to talk.

"I wouldn't quote you by name, Jim. But the public ought to know its serious business, chasing a saucer. Right now, they read some newspaper story where the pilot says the object made a tight turn and came near his ship, but he couldn't tell much because the light was too bright. It sounds like a breeze. Even people who don't brush it off as a joke won't feel any need to worry—and I think it's time they did begin to worry."

Riordan turned and gazed out of the window. Then he looked back.

"They don't all feel the same. Some pilots never get very close—"

"What about the ones that do?"

"They're on edge—what the hell do you think?" Riordan glowered at me a second, then he said abruptly, "All right, I'll give you the picture, but it sounds kind of silly when you're on the ground, good and safe."

He rattled his pipe stem against his teeth, took a long drag.

"OK," he said, blowing out the smoke, "you're flying an F-94 jet, with a radar operator behind you. You're on a routine patrol. Ground Control Intercept calls you. They've got an unknown on their radar, which is a surveillance type, with a longer range than yours. Their tracks show the unknown is making tight turns and speeds too high for any aircraft. So they give you the word—it's a UFO."

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Riordan's black eyes jerked across at me.

"Right then, it stops being an ordinary intercept. Going after a MIG, it's different. You know what

you're up against. When you get him in your sights, you're ready to fire. With the saucers, you're on the spot. The orders are to intercept but not to shoot—unless you're sure they're hostile."

I knew about that. Major General Roger Ramey, chief of the Air Defense Command, had told me about the instructions.

"How're you going to tell if they're hostile or not?" Riordan said harshly. "Who knows what they—well, anyway, GCI vectors you in. All of a sudden you see a light, circling faster than any plane. Your radar picks it up, too, and you lock on, so you're automatically following the thing. About that time Ground Control calls and says they've got you both on their scope, and the UFO's right where your radar shows it. That does it. You know the thing's real—not a reflection or a set malfunction."

He dragged on his pipe for a moment, his lean face somberly looking into space.

"It's your job to get in close. Maybe you'll learn something Intelligence doesn't know. So you open up and go on in. The UFO is still circling, or perhaps it's hovering by now, or it's slowed down. If it didn't do one of those things, you'd never get within miles—even at 100 per cent power. Then it makes a quick turn toward you. You know you've been spotted, and you start getting butterflies in your stomach—"

Riordan broke off, looked at me ironically.

"Sounds pretty dopey, huh? A fighter pilot sitting behind 50-caliber guns and rockets and scared of a light in the dark."

"Go ahead," I said.

"You watch the thing start a tight turn around you. Nobody on earth could take all the gs in that turn. It's so fast you almost twist your neck off, trying to keep it in

sight. Maybe you see a shape behind the light, maybe not. Even if you do, you can't tell its size—you don't know if the thing's close or half a mile away."

Riordan's pipe had gone out. He sucked on it, made a sour face, emptied the ashes.

"One thing's sure," he said. "Something with intelligence is in control of the thing, the way it maneuvers. Even if it's remote-controlled, it must have a TV 'eye' or something like that—so you know you're being watched, maybe on a screen a long way off."

I waited as he refilled his pipe and got it going again.

"It's a queer feeling, knowing a thing like that," Riordan said slowly. "You'd give anything if it was suddenly daylight, so you could see exactly what the thing is. But all you really know is that you're a sitting duck, if whoever's watching you wants to let you have it. Then the saucer pulls away, so fast you

feel like you're standing still. You go back home and Intelligence pumps you. Then you make a big joke of it, so nobody in your outfit will get the idea you were scared."

Riordan shrugged, stood up.

"I told you it'd sound silly. I'm going to phone Operations again."

The trouble was, it wasn't silly. Fear of the unknown could get anyone, even a veteran combat pilot.

Riordan came back, swearing under his breath.

"I've got to get over to Washington Airport—those jokers came in on a MATS plane an hour ago. I just thought to phone my hotel, and they've been calling there every ten minutes."

"Got your car here?" I said.

"No—don't have one yet. I came down on a Bolling bus."

I told him I'd run him over; the airport was on my way home. Riordan was still growling as we rolled out through the main gate.

"Same old snafu. They swear they told me Washington Airport—I know blamed well they said Bolling."

We turned left, into the Bolling Field road to Washington. To get Riordan's mind off the mix-up, I asked about the sighting tip he'd mentioned. The report, he told me, was made by Colonel Curtis Low, commanding officer of the 86th Fighter Wing, in Japan. The sighting had happened around the last of December. Colonel Low and crews of two other planes had seen a unique type of UFO with revolving red, green, and white lights.

"There was a news item on it," said Riordan. "Tokyo Headquarters let it out. But the papers didn't come within a mile of the important part. You ask ATIC for Colonel Low's report—I know Intelligence in Tokyo took it pretty seriously."

We rode in silence for a while. The lights of Washington began to loom up, and in a few minutes we were rolling through the southeast section, taking the waterfront shortcut to Fourteenth Street Bridge. I was thinking of Riordan's somber expression as he talked back in VOQ, when he swung around in the seat.

"You're right—people should know all about those UFO intercepts. The way it is, too many of 'em think the saucers are some U. S. secret weapon."

"Not so many think so now," I said. "If we'd had anything with that power and speed back in '47, by now they'd be in operating squadrons. We wouldn't be building jets—they'd be completely obsolete. And those remote-controlled types would be perfect guided missiles. We'd be able to tell Russia where to head in, fast."

Riordan wagged his head.

"I know all that—but you still hear people say the saucers are our secret weapon, so we needn't be afraid of Russia."

"Yes, and you'll hear some others say they're Soviet weapons—"

That's even crazier," snapped Riordan. "The Reds were barely crawling out of the wreckage of World War II, back in '47. They couldn't possibly have produced the

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saucers in that short time, even if they'd stumbled on some new method of propulsion. And even if they could have, they wouldn't be shooting them all over the world, taking a chance one would crash and give away the secret."

"You don't have to sell me," I said. "I dropped that answer years ago, and I don't know anyone in the Pentagon who gives it a serious thought."

"Besides," said Riordan, "the Reds would own the world now if they'd jumped that far ahead in '47. At least they'd be holding a gun at our heads."

We swung off the bridge on the Virginia side. Over to the right the Pentagon's sprawling shape loomed in the darkness. Riordan glanced at it, looked back at me.

"I still think its queer, your getting those Intelligence reports."

"I told you it was a new policy."

Riordan eyed me sharply.

"Sure you're not back on active duty, for some kind of undercover deal?"

"I may go on active duty, but I'm not now." I told him about Ed Ruppelt's suggestion.

"What's back of all this?" said Riordan. "Why are you getting this inside stuff?"

"General Samford—Director of Intelligence—just decided to release the sightings."

Riordan frowned. "You can publish them?"

"All the ones they've cleared."

"You got any hotter cases than the ones you showed me?"

"Quite a few. And when you add them all up—"

"I'd like to see all of them," Riordan cut in.

"OK, come out to my place next week and I'll show you the works."

Riordan was silent until we turned into the airport road.

"These foreign sightings—how many have there been?"

"Hundreds, anyway. Probably as many as we have here, only we don't get all the reports."

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"How many countries that you know of?"

"Every country in Europe and South America, and most of the Far East. They've been seen in Canada, Mexico, Australia, Africa, Hawaii, the Bahamas, Greenland—practically everywhere, even the Antarctic."

"Somebody's certainly damn curious about this earth. Any foreign air force pilots report the things?"

"Plenty," I said. "And foreign airline crews, too."

"Any other countries investigating the saucers?"

"Five, at least—Canada, France, Norway, Sweden, and England. Probably more. Canada has two projects, one of them top-secret."

"Secret—secret!" growled Riordan. "They're all so blasted hush-hush. Even our own Intelligence people won't talk. In five years they must have found out something. But you ask them and they clam up. 'Don't worry, Captain, you're not crazy. We've got reports even stranger than this.'"

We pulled up in front of the MATS terminal. Riordan opened the door, then stopped and gave me a searching look.

"What have they told you? Do you know the answers?"

"I know part of the picture, Jim. I think maybe they'll show me the rest, but—"

A taxi honked impatiently behind us.

"Keep your shirt on!" Riordan snapped. He turned back.

"I'll tell you when you come out," I said. "Maybe by then I'll know what the Air Force is going to do about making all their evidence public."

Riordan climbed out.

"I hope they don't wait too long. But how they're going to break it without scaring people is beyond me."

When I got home, I typed out the details of what Riordan had told me. Then I put the latest ATIC reports in my sighting file. Beside the Air Force, Navy, and Marine Corps sightings, this file included reports by general

military personnel—radar men, guided missile trackers, crews of naval vessels, and members of ground combat forces. In addition, there were sightings by competent civilians: Civil Aeronautics airport traffic controllers, Weather Bureau observers, astronomers, Ground Observer Corps members, FBI agents, state, county, and city police, reputable private pilots, aeronautical engineers, and other specially qualified observers. The last group included veteran airliner crews—captains and copilots of American, United, Eastern, Pan-American, Northwest, Chicago and Southern, Mid-Continent, Western, Trans World, and many other lines.

It would have been hard to find a group better qualified to observe and report on the saucers. But time and again, since '47, these men had been publicly ridiculed.

Up in the front of one filing drawer was a bulky folder labeled, "Official statements on flying saucers." I took it out and ran over a few items.

"We have no experimental craft of that nature; we're completely mystified." (From a 1947 statement by an Air Force spokesman.)

"The mere existence of some yet unidentified flying objects necessitate a constant vigilance on the part of Project personnel and on the part of the civilian population." (From an Air Force report dated April 27, 1949.)

"The saucers are misinterpretations of various conventional objects, mild hysteria, meteorological phenomena, aberrations, or hoaxes." (From an Air Force public statement on December 27, 1949.)

"Such a civilization might observe that on Earth we now have atomic bombs and are fast developing rockets. In view of the past history of mankind, they should be alarmed. We should therefore expect at this time above all to behold such visitations.

"Since the acts of mankind most easily observed from a distance are A-bomb explosions, we should expect some relation to obtain between the time of the A-bomb explosions,

the time at which the space ships are seen, and the time required for such ships to arrive from and return to home base." (From a formerly secret Project report, released by the Air Force on December 30, 1949.)

"At the end of nearly every report tracked down stands a crackpot, a religious crank, a publicity hound, or a malicious practical joker." (Published statement by Colonel Harold E. Watson, Chief of Intelligence at Dayton, November, 1950, after an interview with Bob Considine, for International News Service.)

"These reports come from sincere people; they are not crackpots. They are seeing something; we have to find out what." (From a statement by an ATIC colonel at Dayton, published in *Look*, June 24, 1952.)

It was small wonder that the American people were confused about the saucers.

After the last few months the reason for these contradictions was fairly clear. The situation had changed several times. Individual opinions had changed with it. Some officials had retracted earlier statements—or their words had been offset by still other officials. But these five years of contradictions, along with the various "expert" explanations of the saucers, had put the Air Force in a difficult spot. It couldn't have been worse if they had deliberately planned it.

CHAPTER III

The Great Saucer Snafu

For a full understanding of the Air Force problem, and the evidence I later showed Riordan, it is necessary to go back to the start of the great saucer scare. Some of the facts I have learned throw new light on those earlier years. And tracing the investigation, on up into 1953, shows not only the strange incidents of the past year but the reasons for the present Air Force dilemma.

The first official reports came in '44. During World War II, hundreds of American pilots encountered mysterious round, glowing objects over Europe and the Far East. Dubbed "foo-fighters"—sometimes "Kraut fireballs"—these early UFO's appeared both singly and in formations. Apparently their purpose was a close-range observation of aerial-war operations. Time after time they paced our bombers and fighters, maneuvering around them at high speed.

Suspecting a Nazi device, Intelligence officers checked when the war ended. But they found no trace of any such secret machine. Both the Nazi and Jap pilots, too, had been baffled by the foo-fighters.

In the next year or so a few strange reports trickled in to the Air Force. Most of them were brushed off as illusions.

Then on June 24, 1947, an Idaho private pilot named Ken Arnold set off the saucer uproar.

While flying near Mount Rainer, Washington, Arnold sighted nine huge, gleaming discs, racing along in a column. He estimated their size at 100 feet in diameter, the speed at more than 1,200 miles per hour.

Unfortunately Arnold described the discs as "saucer like," and the ridiculous name was born. Had he called them "flying discs," or simply unknown objects, the whole story might have been different. But from the start the "saucers" have been a big joke, a handicap to any serious investigation.

Within a few days after Arnold's story hit front pages, weird objects were reported all over the country. There were a few hoaxes. Many reports were caused by hysteria. But mixed in with these were several serious accounts.

At Muroc Air Force Base, veteran pilots reported silvery discs circling at high speeds. A United Airlines crew, until then hardheaded skeptics, sighted two groups of discs over Emmett, Idaho. Other stories came in from competent, trained observers.

Even then, contradictions were the order of the day. At Muroc and other air bases, commanders worried by the thought of a Russian secret weapon kept fighters alerted. But when the United report came in to Washington, a Pentagon spokesman quickly debunked the story.

"No investigation is needed," he said. "The saucers are only hallucinations."

On that same day officers at Dayton admitted that the Air Materiel Command was seriously investigating the saucers.

On through '47 the excitement alternately flared and faded. By this time reports were world-wide. One small group of Intelligence officers urged the Air Force to set up a secret probe. Perhaps they would not have succeeded, but for the strange death of Captain Mantell.

Early on the afternoon of January 7, 1948, a huge, round,

glowing object was sighted by hundreds of people at Madisonville, Kentucky, and later by thousands throughout the state. State police, in warning Fort Knox, estimated the object to be at least 250 feet in diameter.

Thirty minutes later, the strange device appeared over Godman Air Force Base, not far from Fort Knox. As it hovered over the field, alternately glowing red and white, Captain Thomas Mantell and three other F-51 pilots flew past on a training flight. Mantell, a war veteran, was contacted by radio from the Godman tower and asked to investigate.

After a few minutes, climbing through broken clouds, Mantell called the tower.

"I've sighted the thing. It looks metallic—and it's tremendous in size . . . Now it's starting to climb . . ."

After a brief silence he called again.

"It's still above me, making my speed or better. I'm going up to 20,000 feet. If I'm no closer, I'll abandon chase."

Minutes passed. The tower called Mantell again, but there was only silence. Later that day Mantels' body was found near his wrecked plane, some 90 miles from the field. One witness said the F-51 seemed to explode in midair. There was no sign of fire, but the fighter had disintegrated before it struck the ground.

Next day, a few papers carried the story of the fatal "saucer chase." Rumors began to fly. In one story Mantels' body had been pierced by a mysterious ray. According to another, no body was found—Mantell had been spirited away for examination by unknown spacemen. The Air Force refusal to release any pictures of the wreckage or Mantels' body naturally heightened public suspicion.

Actually, as Intelligence has told me, this was out of respect for the feelings of Mantels' relatives. While his body was not badly mutilated, there was one detail the Air Force preferred not to make public, though there was nothing mysterious about the wound.

Soon after Mantels' death, Air Force Intelligence established Project "Sign," the first investigating agency. Beside Intelligence officers, several rocket experts, aeronautical engineers, an astrophysicist, and other scientists were put to work on the riddle. The project, at first, was top-secret.

On July 24, 1948, two Eastern Air Lines pilots, Captain C. S. Chiles and First Officer John B. Whitted, dumped a new mystery into the project's lap.

At 2:45 a.m., as they were flying near Montgomery, a brilliant cigar-shaped craft came hurtling toward their airliner.

"It was heading southwest," Captain Chiles said later, "and it flashed toward us at terrific speed. We veered to the left. It veered sharply, too, and passed us about 700 feet to the right."

Both pilots saw two rows of windows and noted an intense blue glow from inside—possibly caused by an unknown means of propulsion. The speed of the weird-looking ship, they estimated, was between 500 and 700 miles an hour. As it raced past, trailing a red-orange exhaust, it pulled up sharply. The propulsion blast rocked the DC-3 for a moment, before the unknown craft climbed into the night.

This strange UFO, called a "space ship" in newspaper stories, was also sighted at Robbins Field, near Macon, Georgia. Except for the windows, witnesses' descriptions tallied with those of the pilots.

Two months later, on October 1, the Fargo "saucer" fight report came in from Lieutenant George Gorman. When Project investigators flew to the scene, two airport tower operators confirmed Gorman's sighting of the eerie "flying light."

Then in November there was a sudden flurry of reports from our air bases abroad. On November 1, radar men at Goose Bay Air Force Base, in Labrador, picked up a strange object flying at 600 miles an hour. Five days later

Air Force radar men in Japan tracked two oddly maneuvering UFO's for over an hour. On the scope they

appeared like two planes, dogfighting. But there were no conventional aircraft in the area.

Three weeks later another radar case startled Air Force officers in Germany. On the night of November 23 an F-80 jet pilot was flying near Furstenfeldbruck when he sighted a circling object with a bright red light. At about the same moment the UFO was picked up by Air Force ground radar. It was tracked as flying in circles at 27,000 feet—the altitude where the pilot encountered it.

As the F-80 drew near, the red-lighted device swiftly climbed out of sight. But before it went off the scope, operators tracked it to 40,000 feet, circling at speeds estimated as high as 500 m.p.h.

On through '48 and in the winter months of '49, saucer reports steadily poured in. But few of them were made public, and the excitement had died down. In the spring of '49, Ken W. Purdy, editor of *True* magazine, began a private investigation which he later asked me to take over. One of the first Air Force officers I saw was Major (now Lieutenant Colonel) Dewitt R. Searles, a pilot assigned to the press branch.

Searles and I went over the first Project report, in which Intelligence admitted it had no answers for the Mantell, Chiles-Whitted, and Gorman sightings.

The possibility that the saucers came from Mars or Venus was also admitted; but it was more likely, said the Air Force, that they came from outside our solar system. In discussing nearby star systems, the Project Sign report stated:

"Outside the solar system other stars—22 in number—have satellite planets. Our sun has nine. One of these, the earth, is ideal for existence of intelligent life. On two others there is a possibility of life. Therefore, astronomers believe reasonable the thesis that there could be at least

one ideally habitable planet for each of the 22 other eligible stars.

"The theory is also employed that man represents the average in advancement and development. Therefore, one half the other habitable planets would be behind man in development, and the other half ahead. It is also assumed that any visiting race could be expected to be far in advance of man. Thus, the chance of space travelers existing at planets attached to neighboring stars is very much greater than the chance of space-traveling Martians. The one can be viewed as almost a certainty, if you accept the thesis that the number of inhabited planets is equal to those that are suitable for life and that intelligent life is not peculiar to the earth."

After discussing numerous sightings, the report ended by saying the saucers were neither jokes nor any cause for alarm.

"What do you personally think?" I asked Major Searles. He shook his head.

"You can't ignore the testimony of competent pilots. We don't know the answers, but we're making a careful investigation."

In my own check-up, I talked with pilots who had seen saucers, with rocket designers, aircraft engineers, flight surgeons, and Washington officers I knew personally from my days at Annapolis. Among the latter were Captain (now Admiral) Delmar Fahrney, who was then top figure in the Navy guided-missile program, and Admiral Calvin Bolster, another Naval Academy classmate of mine. Bolster, now the Director of the Office of Naval Research, was then in charge of the special design section of the Bureau of Aeronautics. Though he has since been fully briefed on the saucers by Air Force Intelligence, at that time he was puzzled by the sightings.

"Don, I swear it's nothing the U. S. is doing," he said. "I'm in on all special weapon programs and I'm sure I

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would know. Our big cosmic-ray research balloons may have caused a few 'saucer' reports, but they don't explain all the sightings—especially those by experienced service and airline pilots. I honestly don't know the answer."

When I saw Fahrney, I was already convinced that the saucers were not American guided missiles. But I put the question to him, anyway.

"We're years from anything like the saucers' performance," Fahrney told me. "And if we ever do match them, nobody'd be crazy enough to test the things near cities or along airways. If anyone under me ever tried it, I'd court-martial him—you ought to know that."

"Sure, I know it, Del. I was just relaying what some people think."

"Well, they ought to know better. All the services test their missiles over uninhabited areas or over the ocean. And even over water, we never fire a missile if a ship's near the danger zone. As for the saucers, I wish to heaven we did have something like that. We wouldn't have to worry about Russian air raids—the things would make perfect defense missiles."

"Back in '47," I said, "two or three Air Force officers said the saucers might be Russian. Not that I believe it—"

"It's impossible," Fahrney said flatly. "That was just a hasty reaction, before they thought it out. The Soviet couldn't possibly have gotten that far ahead of us in '47— or even now—no matter how many Nazi scientists they kidnapped. No, either the saucers don't exist—and those reports are hard to brush off—or else they're interplanetary."

It wasn't the first time I'd heard that idea. But from a practical man like Fahrney, it was a little startling. And yet it was ridiculous to think that the earth was the only inhabited planet in the whole

universe. Civilizations probably had developed on many planets, some of them ahead of us, some not so far advanced.

We ourselves were working hard for space travel; we'd

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undoubtedly reach the moon within the next 20 years. It was certainly possible that some higher civilization, perhaps centuries ahead of us, had already conquered space travel and was now exploring our solar system.

After weeks of checking, I was finally convinced it was the only answer. But saying so under my by-line was a lot different. It had taken me more than 20 years to establish myself with national magazines. If this article drew nothing but ridicule, it could set me back a long way. Yet the evidence all added up. Still a little uneasy, I decided to go ahead.

During the hubbub over the published article the Air Force took an unusual step after denying that the saucers existed. It was arranged for an INS staff writer to interview Major Jere Boggs, a Project Intelligence officer who served as liaison man between the Pentagon and Wright Field. During the interview Boggs was asked for definite answers to the Mantell, Chiles-Whitted, and Gorman cases — which I had said were still unsolved.

Captain Mantell, said Boggs, had been misled by the planet Venus; Chiles, Whitted, and the other witnesses in that case had seen a meteor flash by; and Gorman had chased a lighted weather balloon.

When I phoned the Pentagon, I was told that Boggs was preparing to leave for Germany and could not see me. But press officials finally gave in, and I met Boggs in the office of General Sory Smith, deputy director for Air Information. (General Smith is now the director.)

With General Smith and several press officers sitting in, I asked Major Boggs if he had been quoted correctly.

"Yes, I was," said Boggs. "Captain Mantell was chasing the planet Venus when he was killed."

"But Venus was practically invisible that day," I said. "And that's a flat contradiction of the April Project report. After checking for 15 months, they said it was not Venus— that the object was still unidentified."

"They rechecked after that," Boggs said calmly.

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"Why?" I asked.

But Major Boggs refused to be pinned down.

"There's no other possible answer—Captain Mantell was chasing the planet Venus."

It was the same in the other two cases. Boggs insisted that the Eastern pilots saw a meteor—a bolide (one which exploded in a shower of sparks). And Gorman, in chasing a lighted balloon, had been tricked into imagining the object's maneuvers. Each time I reminded him that the Project had investigated for months before calling the cases unsolved in its April report. When I asked him what new facts had been discovered, he admitted there were none. The Project had simply made a new analysis—and there, apparently to their surprise, were the answers.

After Boggs left, General Smith asked if I was convinced I was wrong.

"No," I said frankly, "I'm more certain than ever I was right. I'd like to see the complete files on those cases."

"I don't know why you can't see them," said General Smith. "I'll ask Wright Field." (It was this request which was later denied, after I repeated it twice.)

Before I left, General Smith told me that the Mantell case had shaken him at first. He had known Mantell personally, and the Godman Field CO., Colonel Hix, had been a West Point classmate of his. Neither one, said Smith, was the kind of man to have hallucinations. But when I asked if he believed the Venus answer, the general looked surprised.

"Well, I don't know the details—but if Wright Field says that's the answer, it must be right."

As it turned out, Wright Field—or rather, ATIC—hadn't said anything of the kind. Boggs apparently had been put on the spot at the Pentagon—someone had to knock down my three main cases, as quickly as possible. But unfortunately, in a mix-up of signals, Project "Sign" had sent on case summaries of these and other sightings—declassifying them from confidential and secret. Within an hour after

the Boggs interview these cases were in my hands—summaries which completely refuted all that he had told me.

In discussing the Mantell case, the Project analysis quickly let the cat out of the bag:

"Under exceptionally good atmospheric conditions, and with the eye shielded from direct rays of the sun, Venus might be seen as an exceedingly tiny bright point of light. However, the chances of looking at just the right spot are very few.

"It has been unofficially reported that the object was a Navy cosmic-ray research balloon. If this can be established, it is to be preferred as an explanation. [This was later proved false.] However, if one accepts the assumption that reports from various other localities refer to the same object, any such device

must have been a good many miles high in order to have been seen clearly, almost simultaneously, from places 175 miles apart ... no man-made object could have been large enough and far enough away for the approximate simultaneous sightings.

"It is most unlikely, however, that so many separated persons should at that time have chanced on Venus in the daylight sky . . . The sighting might have included two or more balloons (or aircraft) or they might have included Venus (in the fatal chase) and balloons ... Such a hypothesis, however, does still necessitate the inclusion of at least two other objects than Venus, and it certainly is coincidental that so many people would have chosen this one day to be confused (to the extent of reporting the matter) by normal airborne objects."

This was Major Boggs' proof that the UFO was Venus.

When it came to the Chiles-Whitted case, the summary at first backed Boggs, then cut the ground from under him. It was admitted that flight schedules of 225 aircraft had been checked by ATIC, and that no known plane was flying in the vicinity of the DC-3. Then the report went on:

"The sheer improbability of the facts, in the absence of any known aircraft, makes it necessary to see whether any

other explanation, even though farfetched, can be considered."

With this candid admission of his purpose, the Project analyst did his best to turn the "space ship" into a meteor.

"It will have to be left to the psychologists," he concluded, "to tell us whether the immediate trail of a bright meteor could produce the subjective impression of a ship with lighted windows." A bit lamely, he added, "Considering only the Chiles-Whitted sighting, the hypothesis seems very improbable."

To offset the confirmation from Robbins Air Force Base, an hour earlier, the Project investigator suggested a one-hour error in time. The reason: the airliner might have been on Daylight Saving Time. If this were true, he said, then observers at both spots saw a meteor, which was traveling so fast that it covered the distance between them in a very few moments.

But actually, as was proved later, there was no error in the reported times. And here is where the Project analyst tripped up Boggs.

"If the difference in time is real, the object was some form of known aircraft, regardless of its bizarre nature."

The summary did not try to explain the "bizarre" nature of the UFO, and the analyst shied away from even discussing the space-ship possibility.

In the Gorman case the Project report barely hinted at the balloon answer, carefully avoiding any definite claim. There was good reason to play it down. Though a weather balloon had been released at Fargo, the Weather Bureau observer, tracking it with his theodolite, recorded a course that took it away from the "dogfight" area.

I have detailed these old cases because they show the tendency, at that time, to explain away all sightings. All through the summaries of the first 244 cases I found such comments as these:

"It is tempting to explain the objects as ordinary aircraft observed under unusual light conditions, but the evidence

is strongly contradictory . . . despite these conjectures, no logical explanation seems possible . . . possibly fireballs, but unlikely. This investigator does not prefer that interpretation, and it should be resorted to only if all other possible explanations fail . . . this investigator would prefer the meteor hypothesis even though the evidence is entirely insufficient to establish it."

Two years later I was told the reason for this "explaining away" policy. But when I first saw the summaries, I was amazed that the Air Force had released them. For the determination to find some explanation in each case, no matter how farfetched, was impossible to miss.

Of the 244 cases in this first group, 210 were listed as answered, many on mere conjecture, some in spite of contrary evidence. The other 34 cases, the Project admitted, were unexplained. But reviewing officers in the Air Materiel Command refused to let this stand. In an appendix to the summaries, they quickly disposed of all but three cases.

The method used is illustrated by Case 1.

On July 8, 1947, two silver-colored discs had maneuvered over Muroc Air Force Base. After circling tightly at 8,000 feet, the discs had reached speeds which Air Force officers estimated between 300 and 400 miles an hour. When Project investigators confessed they were stumped, the Air Materiel Command tersely explained the report:

"The sightings were the result of misinterpretation of real stimuli, probably research balloons."

This answer was so incredible that I couldn't believe the AMC had meant it to be public. Aside from the fact that balloons do not maneuver in tight circles, it would have taken a 300-400 mile wind to move them at the reported speeds. Such a wind—which has never been known on earth—would have flattened Muroc and killed everyone on the base.

When I finished the Project report I was badly puzzled.

Why had the Air Force let me see these cases, the unbelievable "explanations," and especially the evidence wrecking Boggs' claims?

After weighing the possible answers, I came to these conclusions:

1. The Air Force was puzzled, and some officials were worried, when the discs were so widely reported in 1947.
2. The Air Force began to suspect the truth after Mantell's death, if not before.
3. Project "Sign" was created to investigate and also conceal the truth from the public.
4. In 1949 this policy, set by Secretary James Forrestal, was reversed at the Pentagon. It was decided to let the facts leak out gradually, to prepare the American people. This was the reason for the April 27, 1949, report, with its suggestions of visitors from space.
5. While I was preparing my first saucer article, it had been considered in line with the gradual-education program. But the public reaction frightened Air Force officials, causing their hasty denials that the saucers were real.
6. To prevent closer analysis of the Mantell case, Major Boggs had been told to publicize the Venus answer. Though it had been denied by the Project, the Air Force knew that most people had forgotten or had never known this. Having been pushed into this public explanation, Boggs was forced to stick to it, though he knew it was wrong and the case summaries would prove it. (Later I learned he had not known the summaries would be released.)
7. The case summaries were shown to a small number of Washington newsmen to continue planting the space-travel idea after the hysteria died down.

Including these points in a book, I added this paragraph, which has since been proved true:

"I believe that the Air Force is still investigating the saucer sightings, either through the Air Materiel Command or some other headquarters. It is possible that some

Air Force officials still fear a panic when the truth is officially revealed. In that case, we may continue for a long time to see the routine denials alternating with new suggestions of interplanetary travel."

Meanwhile, other answers had hit the headlines. The first came from Henry J. Taylor, radio commentator. The saucers, said Taylor, were American devices whose purpose he couldn't reveal. Some were guided, some just flew around aimlessly. Most of them were made to disintegrate in mid-air—even the big ones—but they were quite harmless. In size, they varied from a few feet to the length of a city

block.

"And that's very big," said Taylor.

Some Air Force officers' comments on Taylor's "good news" devices are not exactly printable. The ATIC, more restrained, recently told me:

"We have found no factual basis for the Henry J. Taylor belief that the saucers are Air Force or Navy weapons or devices. His material was not cleared with the Air Force."

Pentagon officers were still muttering about Taylor's broadcast when they got a second jolt. This one came from *U. S. News and World Report*, a fact magazine with a high Washington rating. The saucers, said this magazine, were secret Navy weapons, one a jet-propelled disc-shaped plane, the XF-5U.

Knowing the XF-5U was old stuff—and propeller-driven at that—I called up Admiral Cal Bolster.

"I'm afraid somebody sold them a joke," he said. "We had one model, as you know, without jets. But it was never produced. We're denying the Taylor and *U. S. News* stories."

Even the White House joined the services in blasting the secret-weapons claim. Some of the public believed the denials, some called them a cover-up. But regardless of anyone's belief, the sightings kept on.

For several months, since January, 1950, reports had increased steadily. On February 1, a strange machine had

streaked over Tucson, Arizona. Thousands of citizens saw it hover for a moment above the city, then race on westward, leaving a trail of black smoke. Three weeks later two glowing saucers sighted over Key West were tracked by Navy radar men and found to be 50 miles above the earth.

Just after this, a Chilean naval officer, Commander Augusto Orrego, reported that several mysterious devices had circled his Antarctic base.

"During the bright Antarctic night," he said, "we saw flying saucers, one above the other, turning at tremendous speeds. We have photographs to prove what we saw." (Later, when I requested copies from the Chilean Embassy in Washington, I was told the pictures were classified.)

By this time reports were coming in from Turkey, Mexico, Cuba, Peru—almost every part of the world. Most of them described silent, disc-shaped machines. On March 9 one of these gleaming discs was sighted over Dayton, and four fighter pilots were ordered to intercept it. But the saucer swiftly climbed out of range. Twelve days later a Chicago and Southern airliner crew had a night encounter with a saucer near Stuttgart, Arkansas. As the machine zoomed, at terrific speed, the pilots saw lighted ports on

the under side.

About this same time the Pentagon cleared an article by Commander R. B. McLaughlin, U.S.N., a Navy rocket expert. In this article Commander McLaughlin described three sightings near the White Sands guided missile base.

One large disc, tracked at 18,000 miles per hour, was found to be flying 56 miles above the earth. Two smaller discs, tracked from five observation posts, were seen to pace an Army high-altitude rocket. After circling the rocket for a moment, the discs speeded up and rapidly out climbed the Army projectile.

Just after midnight, on June 22, 1950, a mysterious device rocketed in over Hamilton Field, California. Trailing

a blue-green exhaust, it made three passes, flashing by the control tower. Before Intelligence officers clamped down the lid, the control-tower men estimated the machine's speed from 1,000 to 1,500 miles an hour.

That same month a new story broke, to some Air Force officers the most outrageous of all. This one, started by a small weekly bulletin, *Talk of the Times*, was "proved" by two photographs supposed to have been taken in Arizona. The first showed a huge disc flying at an angle. The caption read:

"Hit by flak rockets, the object exploded in a shower of fireworks. About 20 silvery capsules fell to the ground."

The second picture showed two men in trench coats, each holding an arm of a queer, shiny figure about three feet high. Two girls standing nearby seemed to be awestruck by the little man. The second caption ran:

"As one silver capsule broke, the first Mars man was captured. Eyewitness G-Man McKennerich, from Phoenix, reports: 'I was astounded by the importance of this great moment. For the first time I was seeing a being from another world. At the same time I was equally amazed by the desperation of this Aluminum Man. His body was covered with a shiny metal foil. The observatory in Phoenix presumes this is for protection from cosmic rays

How the Aluminum Man had survived his fall was not explained.

The "little men" story was not new; Frank Scully had started it in *Variety*, and later he built it up in his book, *Behind the Flying Saucers*. In this book Scully reported that two flying discs from Venus had crashed in the Southwest. In the wreckage, according to Scully's informants, investigators found the bodies of several little men. The Air Force, said Scully, had spirited the bodies and the discs away for secret analysis.

Apparently Scully was duped—he still insists he believes his sources. Regardless of that, his book gave the Air Force a new headache. Out in Dayton, Colonel Harold E.

Watson, chief of Intelligence for AMC, decided to end all the saucer talk.

"It's a lot of damned nonsense," he told Bob Considine in the interviews for INS. "There are no such things as flying saucers."

Then with a blast that included even high-ranking Air Force pilots, he branded most saucer witnesses as jokers, crackpots, or publicity hounds. A few, he admitted, might be honest—like airline pilots who, suffering from fatigue, mistook windshield reflections for space ships.

Watson's acid remarks drew some bitter comments from pilots I knew.

"To hell with him and the Air Force, too," one airline captain told me. "I wouldn't report a UFO now if they paid me."

"If we're that fatigued," said another captain, "we've got no business flying passengers. Maybe they'd better ground every pilot who sees a flying saucer."

That very night I received a special-delivery letter from a Navy pilot. On the evening of November 7, he and his radar man had sighted a UFO north of the Navy's base at Lakehurst.

"It played a cat-and-mouse game with us for 15 minutes," the pilot wrote me. "It was also seen by the pilot of an F9F-2 Panther jet. But of course you know all people who see saucers are liars or crackpots. So just throw this into your wastebasket."

In spite of this general reaction, a few pilots braved public ridicule. One was Captain Lawrence W. Vinther of Mid-Continent Airlines. On January 20, 1951, the control tower at Sioux City Airport asked Vinther to check on a strange, brilliant light above the field. As Vinther maneuvered toward the light, it suddenly dived toward his airliner. Flashing above the DC-3, the UFO abruptly reversed its direction, pacing the ship for several seconds. Vinther and his copilot described it as larger than a B-29, with no visible means of propulsion.

About a month later, after the public had been officially told the saucers did not exist, another expert took the floor. This one was Dr. Urner Liddel, of the Office of Naval Research. Yes, said Dr. Liddel, the saucers were real. But they were only the Navy's "sky-hook" cosmic-ray research balloons, huge plastic bags which often rise as high as 100,000 feet. Mantell, said Dr. Liddel, had been chasing a sky-hook balloon. He added:

"There is not a single reliable report which is not attributable to the cosmic balloons."

Liddel's claim brought a hot answer from a former Air Force scientist, Dr. Anthony O. Mirachi.

"The Navy report is erroneous," said Mirachi. "It lulls people into a false sense of security."

Describing the "maneuvered motion" of the saucers, he said they might be missile experiments by a potential enemy, and he urged a new investigation. Otherwise, we might be risking another and far more dreadful Pearl Harbor.

Though I knew both answers were wrong, I didn't get official statements until two years later. Then the ATIC told me:

"We have not the slightest evidence to indicate that the objects reported are foreign secret weapons.

"Relatively few sightings have been caused by balloons. The ATTC is aware of all sky-hook balloon launchings. In checking UFO reports, it gets maps showing sky-hook balloon tracks for comparison, also, the launching times and the tracks of small weather balloons, when sightings in the general area are involved. All these have very definitely been cleared in such cases, and all balloons, including sky hooks, have explained not more than 20 per cent of the sightings."

But long before this, Liddel's balloon answer had flopped; there were too many sightings it could not explain.

But Mirachi's solemn warning had not been forgotten. Though the Air Force knew he was wrong, the ominous

idea had been planted. In a crisis, Intelligence knew it could lead to a dangerous panic.

During all this time the Air Force had quietly continued the investigation it was supposed to have closed. The name of the ATIC project had been changed from "Sign" to "Grudge." Instead of sending Intelligence investigators from Dayton, the Project mainly relied on officers in areas where sightings occurred. Before, civilian experts had been under direct contract. Now the Project used scientists and expert analysts under general Air Force contract. There were other changes, but the machinery was there for following up any new clues to the saucers.

In the first part of 1951 there was a lull in reports from service and airliner pilots. Foreign sightings tapered off. For a while it appeared that the saucer survey might end without an attempt at contact.

Then, slowly, sightings began to increase. One new and important report came from the guided-missile tracking base near White Sands, New Mexico. On the morning of July 14, two radar operators

caught a fast-moving object on their scope. At the same time a tracker watching a B-29 with binoculars saw a large UFO near the bomber. Another observer quickly lined it up with his 35-mm. camera, then shot 200 feet of film. Because of the high altitude, the saucer showed only as a round, bright spot. But at least it was proof—this was no hallucination.

On September 11, an Air Force jet pilot spotted a gleaming disc flying over New Jersey at 900 miles an hour. Three days later, at Los Alamos, a saucer was seen maneuvering not far from the Atomic Energy laboratory. (Shortly before this, UFO-report forms had been distributed at Los Alamos, after saucers were sighted over several atomic installations.)

Later that month, on the 23d, two F-86 jet pilots were scrambled from March Field, California. Vectored by GCI, they spotted a round, silvery object flying a controlled orbit at 50,000 feet. The strange machine passed over the

jets, kept on circling above them. Four more jets were scrambled, but none of the pilots was able to reach the UFO's altitude.

One sighting which seriously impressed Project analysts was reported by a scientist on the Navy cosmic-ray study at Minneapolis, Mr. J. J. Kalizewski. When the incident occurred, Kalizewski and a Navy-General Mills engineer were flying near Minneapolis, checking on a cosmic-ray research balloon.

Suddenly they saw a bright object moving east to west at terrific speed. Crossing above and ahead of their plane, it slowed for a minute and circled. Then with a swift acceleration it disappeared in the east.

A few minutes later a second mysterious device flashed into sight. This time Kalizewski hastily called ground technicians at their airport. One of the ground men caught the machine in his theodolite telescope. He had a brief glimpse of a strange, cigar-shaped craft, but it was moving so swiftly he was unable to track it.

When an Intelligence officer investigated, all the witnesses told him the device definitely had been controlled.

"It is significant," he summed up the report, "that these very experienced reliable sources observed an object with which they were entirely unfamiliar."

Kalizewski, normally a calm man, was worried by the sightings.

"I can't say whether they were space ships, saucers, or what. I had never seen them before. They were strange, terrifically fast. I think the government should set up a 24-hour alert with radar, telescopes, sky cameras, and other instruments."

Though he didn't know it, Air Force Intelligence was already at work on this plan. The first step was to secure 200 special grid-cameras, to analyze the saucers' source of power and light. These cameras, a stereoscopic type using 35-mm. film, have a piece of finely etched glass, known as a defraction grid, fastened to one lens. By breaking

down an image into small sections, it reveals whether a saucer's glow is caused by radiant heat, an exhaust trail, or some other source.

Early in '52, the cameras were under contract, and plans were worked out to send them to strategic points—air bases, A-bomb plants, and other spots where UFO's have frequently been seen.

Other steps in the plan included the use of cine-theodolites, which photograph guided missiles as they are tracked, and modified sonar sound-detection devices to catch any faint propulsion sounds from the seemingly silent machines.

As if to date this new, stepped-up investigation, the project's name was changed to "Bluebook," and Captain Edward J. Ruppelt, aeronautical engineer and World War II bombardier, was assigned to coordinate the reports and, in special cases, make on-the-spot investigations.

For the first quarter of '52, another lull seemed in the making. Then several things happened in quick succession.

During a flight to Hawaii a plane carrying Navy Secretary Dan Kimball was buzzed by a flying saucer. Kimball's pilot hurriedly radioed a second Navy plane, some distance behind. In a few moments word came back. The saucer had just buzzed the second plane, so swiftly that no one aboard could make out its shape.

Shortly after this, Air Force instructors in New Mexico sighted a huge, shining, oval-shaped craft, about six times the size of a B-29. Since it was at an extremely high altitude, some witnesses estimated its size as even larger.

About this same time new foreign reports came in. Over in Norway a bluish-colored light appeared above an electric power plant. As it descended, witnesses could distinctly see the disc shape of the glowing device. A few days later, at Singapore, hundreds of people sighted a rocket-shaped UFO moving at tremendous speed.

In the midst of this, *Life* magazine hit the newsstands with its article, "Have We Visitors from Space?" In a serious

review of the evidence, *Life* stated its case for interplanetary saucers. Except for a few sightings which writers Darrach and Ginna had dug up to add to the official record, there were no points which I had not known back in '49. But that was unimportant. What counted was that *Life*, after seeing the evidence, had swung from amused skepticism to a serious belief in the saucers.

Another reversal, which went unnoticed in the United States, was headlined in Canadian papers on April 16. On that date the Canadian government announced an all-out investigation of the saucers, by Royal Canadian Air Force Intelligence and also by a secret project in the Defense Research Board. Until this time, as I knew from personal contacts, a small group of Canadian engineers had been trying—without much success—to convince their government that the saucer problem was serious. It was obvious that something unusual had happened to bring about this change.

In Washington, too, Defense officials suddenly took a new, serious interest in the saucers. On May 8, Air Force Secretary Thomas K. Finletter and his highest staff officers were secretly briefed by Air Technical Intelligence officers. After this long briefing, which covered the entire five-year investigation, it was left to Finletter to decide on a public statement.

Some Air Force officers, believing the facts should be told, were hoping for a break. But in the end, after weighing the possible dangers, Finletter—like others before him—carefully walked the tightrope. On June 4 he gave out this report on the briefing:

"No concrete evidence has yet reached us either to prove or disprove the existence of the so-called flying saucers. There remain, however, a number of sightings that the Air Force investigators have been unable to explain. As long as this is true, the Air Force will continue to study 'flying saucer' reports."

In making this public, the Air Force asked for detailed

reports and photographs of any strange objects sighted.

In April the sudden saucer activity had worried some officers who remembered the spring of 1950; during those months, saucer reports had almost swamped the Air Force. But now May had passed with no outbreak, and June seemed even quieter.

No one suspected it was the calm before the storm.

There were a few sightings; the saucer reconnaissance was still going on, and defense bases now seemed to be the chief interest.

On the night of June 19, 1952, Goose Bay Air Force Base, in Labrador, came in for a brief observation. Just as radar men picked up a UFO track, ground men outside saw a strange, red-lighted machine come in over the field.

The radar blip suddenly enlarged, as if the device had banked, exposing a larger surface to the radar beam. At the same moment the watching airmen saw the red light wobble or flutter. After a moment the light turned white and quickly disappeared. Apparently the unknown craft had gone into a steep climb, and its change of color had been caused by the sudden application of power. But in the dark the airmen could not be sure.

Just five days after this, an article called, "Hunt for the Flying Saucer," appeared in *Look* magazine. It was the first article prepared with Air Force help which emphasized the possible dangers.

Published with the story was a map showing saucer observations at many defense bases. It carried the caption:

"This map scared the Pentagon."

Under this a solemn blurb stated:

"Fearful of danger from the skies, the United States Air Force is launching a secret scientific search to discover once-and-for-all what is the mysterious, unbelievable thing Americans keep sighting overhead."

Backing up this idea was a quotation from General Hoyt S. Vandenberg, then Chief of Staff of the Air Force:

"Many of these incidents have been satisfactorily explained.

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Others have not. With the present world unrest, we cannot afford to be complacent."

In ending, the magazine let Captain Ed Ruppelt sum up the situation:

"The only conclusion we have come to so far is that 'flying saucers' are not an immediate and direct threat to the U. S. They have been around for five years and haven't struck yet. But that doesn't mean they are not a potential threat."

When this story appeared, the Pentagon "silence" group saw red. After the *Life* article, also written with ATIC aid, some of this group had demanded that Project officers be muzzled. The *Look* story clinched it. Once more, on-the-record interviews with Intelligence officers were forbidden, and ATIC files were again closed to the press.

Except for this, the saucer situation was quiet as June came to an end. The public, busy with the political conventions, had forgotten the mysterious discs. Even the Pentagon had no hint of what lay just ahead.

This was the situation when, almost without warning, the saucer scare revived, putting Air Force

Intelligence squarely on the spot.

CHAPTER IV

The July Crisis

During the first two weeks of July the saucers' reconnaissance of the earth was rapidly stepped up. Flying singly, in pairs, or in group formations, the strange machines were seen all over the world. But in the early stage there were few public sightings, at least in the United States. Most of the saucers were operating at night, and they seemed to be focusing on defense bases, atomic plants, and military planes.

From the 8th to the 12th, for some unknown reason, one saucer group took a special interest in our Midwest states. By the 11th, the Filter Center at Ypsilanti, Michigan, was flooded with reports. But since most of them came from Air Force pilots, Intelligence could keep them secret.

As the teletype accounts poured into Washington and Dayton, Intelligence officers watched with growing uneasiness. At first they had hoped it was only a brief flurry. But now the sighting curve was going up steeply.

No one knew the reason for the sudden mass operation. It might be a new, large-scale reconnaissance before some final decision. It could be the first step toward contact—perhaps even mass landings.

That thought was enough to give anyone cold chills. For five years silence had masked the intentions of those

who controlled the saucers. They might be planning a peaceful contact—or an all-out attack.

Even if the first contact began peacefully, no one could be sure it would end that way. Most Americans were totally unprepared, even for friendly visitors from space. Panic might lead to wild stampedes from cities. It could also set off violent armed resistance. What the visitors would do in that event was grimly easy to guess.

There was still a chance that the new operations would end before the public found out. So far, few sightings were known outside the Air Force. On July 5, one report had leaked out after several pilots saw a disc-shaped machine near the atomic-energy plant at Richlands, Washington. And from Korea a news dispatch had described a sighting by Canadian naval officers; for over an hour they had watched two discs maneuvering above their ship. But fortunately most reports were from service pilots, and these were confidential. Not even news correspondents at the Pentagon were aware of the growing tension.

On July 12 another teletype report came in from the Midwest, but this, too, was kept quiet. At 9 o'clock that night a lone saucer, glowing blue-white, flashed over Indiana. At Delphi it was seen by several civilians, among them an ex-Air Force jet pilot, Jack A. Green, who is now a flight test analyst for Northrop Aircraft Company. When Green went to the Delphi police station to report the sighting, state police were already on the wire, helping the Air Force collect detailed information. The same thing occurred at several other Indiana towns, but somehow the newspapers missed the story. Fortunately, from the Air Force viewpoint, the saucer had been too high to attract wide attention.

For 24 hours more, Intelligence officers kept their fingers crossed. But their luck was running out. On the following night the story broke wide open.

The scene was the city of Indianapolis. It was Saturday night, and the streets and parks were crowded. Suddenly

a bright yellow glow appeared in the sky. As startled citizens stared upward, a huge, oval-shaped machine raced out of the southeast and over the city. Barely 5,000 feet high, it was seen by thousands of people as it streaked overhead, trailed by a fiery exhaust.

In two minutes police, airport, and newspaper switchboards were swamped with calls from frightened citizens. Thousands more hastily spread the news to neighbors who missed the saucer. For a while a panic seemed in the making. Then, when the saucer did not return, the hysteria gradually died down.

While the strange machine was approaching Indianapolis, it had been seen by several airline pilots. One of them was Captain Richard Case, who was flying an American Airlines Convair. When he first sighted it, his airliner was 30 miles southeast of the city, cruising at 300 miles an hour.

"It was a controlled craft of some sort," he said when he landed. "We were flying at 5,000 feet when I first saw it. The saucer seemed to be at about 15,000, going three times faster than we were. Then it changed course and came toward us, losing altitude. It dropped to about our level, then took off northwest, over the city."

Five other pilots soberly told the same story. One was an Eastern Air Lines captain, another from the Air Force. Until that night all had been skeptics. Now they were convinced that the saucers were ominously real.

But it was the mass hysteria in Indianapolis that worried the Air Force.

For the first time a saucer had flown down over a large city, low enough to be seen by thousands. Until then, Intelligence could only guess what a close-range sighting would do to large groups of people. Now they knew.

Hours afterward the city was still tense from unanswered questions.

Where had the saucer come from? Who had flown it? Why had it come so low over Indianapolis?

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Because the weird machine had passed over so swiftly, there had not been time for fright to grow into panic. But had it dived lower, circled the city, or landed, it might have set off a stampede.

Even before the Indianapolis report reached the Air Force, they knew that some strange, high-speed craft was operating in the area. Just before the sighting, Air Force radar men at Kirksville, Missouri, had picked up a mysterious device flying with terrific velocity. Before the track could fade from their scope, they quickly computed its speed.

The unknown machine had been making over 1,700 miles an hour. From the size of its blips, the radar men estimated it was as large as a B-36 bomber.

Though this sighting was kept secret, by the next day the whole country knew the Indianapolis story. But this was just the beginning.

That very night, while the Air Force was still nervously watching the Midwest reaction, another dramatic sighting hit the headlines. This time the scene was the East coast.

At 9:12 p.m. a Pan American DC-4 approached Norfolk, Virginia, on its way to Miami. At the controls was First Officer W. B. Nash. Second Officer W. H. Fortenberry was acting as the copilot. Both men had been flying for more than ten years, with thousands of hours in airliner cockpits.

Cruising at 8,000 feet, the DC-4 was a few miles from Newport News when a red glow appeared ahead. The pilots saw six huge, disc-shaped machines racing toward them, but at a lower altitude. The discs, which were flying in the flat position, had a brilliant orange glow like red-hot metal.

As the formation approached, in echelon, the leader suddenly slowed, then flipped up on edge. As if on signal, the five other discs also flipped up edgewise. Almost reversing its course, the leading machine flipped back to the horizontal and streaked off to the west. Following through,

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the others also swiftly changed their direction, then again lined up behind the leader.

A second later two more discs shot out from under the DC-4. As they speeded up to overtake the formation, the pilots saw their color suddenly brighten. Apparently this was a clue to the strange machines' propulsion, for the first six discs had dimmed as they slowed for the turn, then had brightened again as they speeded up.

Amazed and disturbed at what they had seen, the pilots radioed Norfolk and reported the sighting in detail. By the time Air Force Intelligence officers met them at Miami, the story was already on the press wires.

Twelve hours later, near Newport News, a commercial pilot encountered two saucers with pulsating lights. Their speed, more than 600 miles an hour, gave him no chance to close in for a better look. That same night another saucer was sighted by naval officers at Miami and still more reports came in from Norfolk, the Bahamas, and Hampton, Virginia.

The ink was hardly dry on these stories when a sighting near Denver broke into print. On the night of the 17th, Captain Paul L. Carpenter, flying an American Airlines DC-6, received a radio warning from a flight ahead. A flying saucer formation had just raced past the leading plane. Cruising at 25,000 feet, Carpenter and his crew turned down their cockpit lights and stared into the night.

Then suddenly they saw four lights, moving at fantastic speed. The saucers' course took them to one side, too far to see any details. But by checking the time in sight, and the angle of sky traversed, Carpenter made a rough estimate of their speed.

It was 3,000 miles an hour.

For the third time in three days the saucers were front-page news. Beside Carpenter's report, the July 18 papers carried a saucer story from Veronica, Argentina. Within hours of the American Airlines sighting, six discs had been seen over the Argentine city. Hundreds of Veronica residents

had watched them maneuver and circle before they climbed into the night.

By this time reports were coming in from all over the United States. Some were caused by the growing excitement. People searching the sky for saucers were sometimes misled by balloons, by planes banking in the sun, or searchlights on clouds at night.

Some Defense officials, even a few Air Force officers who hadn't seen the evidence, believed most of the sightings were caused by the saucer hysteria. But the Intelligence officers knew better. Too many veteran pilots, both military and airline, were reporting identical discs, lights, and maneuvers. Many reports from the general public had also been confirmed, though with tension increasing it did not seem wise to admit it.

It was plain now that air bases, cities, key industries— every vital phase of our national life— were under close observation. At least three types of UFO's had been seen, one with colored, revolving lights, another with lights that blinked at intervals. It was possible the lights were some kind of signal, an attempt to communicate with the earth. But the radio silence made it seem unlikely. Intelligent beings who had mastered space travel would certainly be able to duplicate our radio transmission system. But no strange codes, or unfamiliar word-sounds, had been heard by our monitors.

There was nothing the Air Force could do but wait. All Ground Control Intercept stations had their orders. Saucers would be tracked as swiftly as possible. If there was any hope of an interception, jets would be scrambled instantly. The pilots had their orders, to get every detail possible in hope of a clue to the sudden increase in sightings.

But there was one thing for which the Air Force was not prepared—the insistent demands from papers that had formerly jeered at the saucers.

At first most of these newspapers had gone on scoffing. More than one Air Force officer prayed they would keep

it up; wisecracks might keep down hysteria. But now many papers had stopped joking and were demanding the answers.

On the morning of the 18th the United Press at Dayton asked for an interview with Captain Ed Ruppelt. Though General Samford's directive prohibited such interviews, Ruppelt was told to answer the questions—refusal to talk, at this time, would only increase suspicion.

"Does the Air Force think these sightings are just hallucinations?" the UP man asked Ruppelt.

"No," said Ruppelt, "We're convinced that people making these reports actually see something in the sky. But what the objects are is another question."

Answering another query, he admitted that jet fighters guided by radar had chased UFO's but had failed to catch them.

"Some of the objects," he said, "have been tracked at speeds up to 2,000 miles an hour."

These were honest answers. But Ruppelt's failure to identify the saucers led to new trouble. Several editors, worried by stories of Russian-built saucers, warned then-readers that this might be the answer. One foreign dispatch, which helped to bolster this fear, was based on an account in the Saarbrücken *Zeitung*. Published on June 28, 1952, it appeared to be a semiofficial report on a large disc found near Spitzbergen.

According to the *Zeitung*, six Norwegian jet fighters had been flying near Hinlopen Straits when their radio was jammed by a strange interference. As the jet pilots circled, looking for the cause, Flight Captain Olaf Larsen spotted an enormous blue-metal disc, wrecked on the snowy ground.

Accompanied by a rocket expert named Norsel, several Norwegian Air Force officers landed near the disc in ski-planes. No one was found aboard. The disc, said the *Zeitung*, was 125 feet in diameter and made of some unknown metallic substance. A plexiglass domed compartment

in the center contained a mass of remote-control equipment—it was one of the remote-control radio units which had caused the signal interference.

The disc, as described in the news story, was powered by 46 jets on the outer rim. When the jets were in operation, this caused the outer ring to rotate around the stationary control unit.

When the disc was dismantled and taken to Narvik, experts were supposed to have discovered these facts: The flight range was over 18,000 miles. The altitude range, 100 miles. The disc was equipped to carry high explosives.

Then came the line that, in the present tense situation, could easily be dynamite:

"The chronometers and instruments bear Russian symbols ... It is assumed the disc came from the Soviet Union and was grounded by receiver failure."

No one in the Air Force had believed the story, but a routine check had been made. As was expected, the Norwegian government denied any knowledge of the disc. But the damage had been done. Many Americans, unaware of Norway's denial, tied the report to Dr. Mirachi's warning of another, more terrible Pearl Harbor. And so the fear of the saucers grew.

The sighting curve was still rising. But even the confidential reports gave no hint of the reason for the nationwide reconnaissance. Only once, on the night of July 18, did a saucer maneuver as if preparing to land. Just before this, airmen at Patrick Air Force Base, in Florida, saw four of the strange devices circling near the field. Shortly after they turned away a fifth saucer came out of the west. Angling in over the base, it made a 180-degree turn, like a plane in a traffic pattern. Then, accelerating at terrific speed, it raced back to the west and vanished.

Until this time, no other case had matched the Indianapolis sighting in its effect on the public. With all the reports from defense bases, this was thin comfort to the

Intelligence men in Washington. But at least the hysteria had not gotten out of hand.

Then, on the morning of the 20th, even that thin consolation was snatched away, as Washington itself took the spotlight. The action covered a wide area, in and around the capital. But the most dramatic scenes took place in a strange, windowless room—the Air Traffic Control Center at Washington National Airport.

Although its operations dovetail with those of the tower, the Center is located in a separate building, a fourth of a mile away. In the tower, operators control only the final approaches, landings, and take-offs. But the men at the Center reach out by long-range surveillance radar to track planes 100 miles away. Heavy traffic, even in clear weather, must be carefully funneled in to the airport approach lanes.

After take-offs, airliners must be dispatched from congested areas to their assigned levels. In fog, storms, and when cloud ceilings are low, planes must be guided in by two-way radio, kept separated while pilots are flying blind, and "stacked up" when necessary, to wait their turn for landing.

It is a precision job. The Center controllers never see the planes they guide in, as they track them on the main scope. But thousands of lives depend on their quick, accurate tracking and split-second recognition of the various aircraft blips.

The radar room at the Center, where this night's action started, is a long dim-lit chamber, darkened so that scopes can be easily read. At midnight, as the 20th of July began, eight traffic experts, headed by Senior Controller Harry G. Barnes, entered this room and took over the watch. The night was clear, traffic was light, and the men settled down for a routine eight-hour duty.

For a few minutes Barnes bent over the main scope, a phosphor-coated glass 24 inches in diameter, with a pale lavender glow. Traveling around the glass, like a clock hand, was a purplish streak called the "sweep." As Barnes

knew, the sweep's revolutions, six per minute, matched the rotation of a huge parabolic antenna on a nearby hill. The compass bearing of the sweep showed the direction of the radio beam transmitted by the antenna.

At the time the Center was tracking a single airliner, several miles from the airport. As the rotating beam struck the plane, its echo or return was reflected to the antenna-station receiver. Highly amplified, it showed as a small round spot on the face of the cathode-ray scope. Every ten seconds a new purplish blip appeared, showing the airliner's changed position.

From the track made by these blips, it was simple to read off the plane's course—the phosphor-coated glass retained seven blips before the first one faded. Barnes' practiced eye measured the distance between the round purplish spots. Using the ten-second interval, he could tell the plane's speed at a glance. From measurements on the scope, he also could tell the plane's location, distance from the field, and its compass bearing.

When traffic was heavier, he and the other controllers could pencil in the tracks, marking each plane's position with a numbered plastic chip. But there was no need tonight; the sky was practically empty.

At about 12:30, Barnes went out to the supervisor's desk, leaving Controller Ed Nugent at the main scope. Two other controllers, Jim Ritchey and James Copeland, were standing a few feet away.

At exactly 12:40, seven sharp blips suddenly appeared on the scope. Nugent stared at the glass. The strange planes, or whatever they were, seemed to have dropped out of nowhere. There was only one possible answer. The unknown machines had raced into the area at terrific speed, between sweeps, then

had abruptly slowed, there in the southwest quadrant.

"Get Barnes in here—quick!" Nugent told Copeland.

The senior controller came on the run. Both console

scopes showed the strange blips. Barnes hastily buzzed the tower, got Operator Howard Cocklin.

"Our scope shows the same blips!" Cocklin said swiftly. "I can see one of the things. It's got a bright orange light—I can't tell what's behind it."

Now really alarmed, Barnes flashed word to the Air Defense Command. Then he turned back to the main scope. The unknown machines had separated. Two were over the White House, a third near the Capitol—both prohibited areas. Keeping his eyes on the glass, Barnes called Andrews Field, across the Potomac in Maryland.

"We're tracking them, too," a worried radar man told him. "We've got them the same place you have."

"Are you sending up interceptors?" Barnes asked quickly.

"No, the field's being repaired. Our jets are up at Newcastle."

Barnes hung up, looked at the other controllers.

"The interceptors will have to come from Delaware. It may be another half-hour."

For several minutes they silently tracked the saucers. Then Controller Jim Ritchey saw that one was pacing a Capital airliner which had just taken off. He cut in his mike and called the captain, a veteran named "Casey" Pierman. Giving Pierman the saucer's position, Ritchey vectored him toward it.

Until then, the saucer's tracked speed had been about 130 miles an hour. Suddenly, to all the controllers' amazement, its track came to an abrupt end. Where the next blip should have been was only a blank space.

A moment later Pierman called back.

"I saw the thing, but it streaked off before I could get close. It climbed out of sight in three to five seconds."

The controllers stared at each other. Here was the answer to the blip's disappearance. Incredible as it seemed, the saucer had zoomed completely out of their radar beam

between sweeps. That meant it had accelerated from 130 miles an hour to almost 500 in about four seconds.

A few minutes after this, Barnes and the others got a new jolt. One blip track showed an abrupt 90-degree turn—something no plane could do. Then as the sweep came around, another saucer suddenly reversed—its new blip "blossoming" on top of the one it had just made. From over 100 miles an hour, the mystery machine had stopped dead and completely reversed its direction—all in about five seconds.

On top of this uncanny discovery, a startling report came in from the tower. Operator Joe Zacko had been watching his ASR scope, which was built to track high speeds, when a saucer abruptly appeared on the glass. One look and he knew it was moving at fantastic rate. Fascinated, he watched its blips streak across the screen as the saucer raced over Andrews Field toward Riverdale.

When the trail suddenly ended, Zacko hastily called Cocklin. Together, they figured the saucer's speed.

It had been making two miles per second—7,200 miles an hour.

From the trail it was plain that the saucer had descended vertically into the ASR beam. It had leveled off for a few seconds. Then, climbing at tremendous speed, it had zoomed out of the beam again.

For some unknown reason, the jets had not arrived. (There were rumors later that another saucer alarm, near New York, had taken all available fighters. Though the Air Force denied this, the delay was not explained.)

The saucers now had been circling Washington for almost two hours, and controllers' nerves were getting taut. Until tonight, some had laughed off the idea of visitors from other planets. But now they were badly shaken. For the simultaneous radar tracks and visual sightings added up to only one answer.

Up there in the night some land of super-machines were reconnoitering the capital. From their controlled maneuvers,

it was plain they were guided—if not manned—by highly intelligent beings. They might be about to land—the capital would be a logical point for contact. Or they might be about to attack.

Being cooped up in this windowless room didn't help. The tower men and the airline pilots at least could see the strange machines' lights. Whatever happened, they'd have a few moments' warning. All Barnes and his men could do was track the machines and pray they were not hostile.

By now Barnes had an eerie feeling that the mysterious visitors were listening to his radio calls. Two or three times saucers darted away the instant he gave pilots directions for interception. Not once did a pilot get close enough to see behind the lights.

It was almost 3 o'clock when the Air Force jets reached Washington. Just before this, the saucers vanished. Apparently they had sighted the distant fighters or heard them call the Center. Five minutes after the jets left, the queer machines reappeared, swarming all over Washington. One of them, its shape hidden by a large white light, followed a Capital airliner close to the airport, then raced away.

As the sky began to lighten, the saucers ended their five-hour survey of Washington. But before they left, at least one witness distinctly saw the shape of the elusive machines. At about 5:30 a radio engineer named E. W. Chambers was leaving the WRC transmitter station when he saw five huge discs circling in a loose formation. As he watched, dumfounded, the discs tilted upward and climbed steeply into the sky.

Fortunately the saucers were gone before most people awoke. As it was, hysteria grew rapidly after the story broke. At first the Air Force tried hard to play down the Washington sightings. For several days officers denied that Andrews Field radar men had tracked the machines. One spokesman insisted the Control Center scope had been defective. Another officer, to prove the incident was

unimportant, said that no fighters had been sent to the area. But their attempts to reduce public fear were in vain.

Telegrams, long-distance calls, letters by the thousands poured into the Pentagon. Congressmen, under pressure from voters, demanded action. Newspapers, syndicates, and radio commentators began to insist on a press conference.

The demands put Intelligence on the spot. If they admitted the saucers were real, the fat would be in the fire. They would have to tell the country just what the evidence showed. All they could do was refuse to talk, and pray the cycle would end.

But as new sightings came, the pressure grew. From Texas a weather bureau observer reported a saucer racing by at 1,000 miles an hour. Civil Defense aircraft spotters told the press of circling discs in New Jersey, California, and a dozen other states. Scores of other reports, by private citizens, appeared in local papers and were picked up by the wire services.

In many cases the secret Intelligence reports backed up the published stories. On the night of July 23 a saucer showing a bluish-green light was seen over Boston. A few minutes later it was picked up by GCI radar. When Ground Control vectored an F-94 pilot toward the saucer, he saw the weird light and locked onto the object with his own radar. But the jet was swiftly outdistanced. In another case Intelligence officers confirmed a series of sightings at West Coast aircraft plants. Engineers at one plant, who watched the discs maneuver, told reporters the saucers were "definitely controlled machines."

This news story revived fears of a secret Russian weapon, as two or three radio commentators tied it to an article in the London Sunday *Graphic*.

According to the *Graphic*, a 50-foot metallic disc had been seen in a forest clearing near Hasselbach, Germany. Since this was in the Soviet zone, the story implied that it was a Russian machine.

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The details gave it an authentic sound. Two figures, witnesses said, had climbed into the conning-tower. The outer rim began to glow, then became bright red as the ring rotated. With the tower retracted, the saucer rose straight up, spinning like a top.

To make it worse, from the Air Force viewpoint, the chief designer of Vickers Aircraft had partly backed the report.

"If the description is accurate," said the Vickers expert, "it may be a military hovering craft. From the glow, it could house a jet plant to provide vertical take-off. The metallic suits (worn by the two figures) could be protection at high altitudes ... But I'd have to be shown a saucer to believe in it."

Several American commentators, in repeating this story, left an alarming question in many minds. Were the saucers a Soviet spotting device, now marking key American targets for later attack? Intelligence officers knew it wasn't true, but that didn't help the frightened people who were writing the Pentagon.

By the morning of July 23, even high Air Force officers were urging Intelligence to hold a press conference and relieve public tension. The Director, Major General John A. Samford, found himself in a hot crossfire. But he knew the dangers of a public discussion and he stubbornly held out.

When the next two days passed with no highly dramatic reports, Samford and his staff began to breathe easier.

Then, on the 26th, the dam broke.

The trouble began at Key West. Early that evening a red-lighted saucer flashed over the Naval Air Station. It was seen by hundreds of people. A destroyer escort hastily put to sea, following the course the machine had taken. Then official silence fell.

Shortly after this, at 9:08 p.m., a formation of saucers descended on Washington for the second time. Luckily, they were too high to be seen by most people in the city.

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But as before, jittery controllers at the Center tracked the strange machines. Again, Andrews Field and

Washington Airport tower men confirmed the saucers' maneuvers, pinpointing them simultaneously at spots where lights were seen by airline pilots.

Oddly enough, the Air Force jets were again delayed in getting to the scene. But this time, when the first fighters arrived, some saucers were still in sight. Flying at top speed, over 600 m.p.h., Lieutenant William L. Patterson tried to chase the nearest machine. But it quickly left him behind.

Meantime, Air Force Intelligence had gone into action. Major Dewey Fournet, Jr., the Pentagon's top investigator, had been rushed to the Center. With him were Albert M. Chop and an officer specialist on radar. For two hours they watched the saucer blips, Fournet and Chop quizzing Barnes and his men while the radar specialist checked the set.

Several newsmen, tipped off to the sightings, were waiting when Fournet and the others came out. The three men refused even to speculate on what the saucers might be, but they confirmed Patterson's report on the unsuccessful chase.

The new Washington story broke with a bang in papers all over the country. Within 48 hours newspaper editors from coast to coast were hammering at the Air Force. One demand for the truth, a typical editorial, came from the *Rocky Mountain News* in Denver.

"It is incredible—as well as a terrifying thought—that our Air Force, with all of its facilities, hasn't been able to identify these objects ... If these so-called saucers involve experiments cloaked by military secrecy, it is time to take off that cloak in the interests of national sanity. There are enough real dangers in the world without the unnecessary addition of imaginary ones.

"On the other hand, if they do not actually know what these objects are, then let there be no more boasting of our

scientific and military advances until they do come up with the right answer."

Even under the furious barrage from within and outside the Pentagon, General Samford still battled against any public discussion. But in the end he had no choice.

From somewhere higher up, General Samford was given an order. I have reliable evidence that it came from Lieutenant General Nathan Twining, now the Air Force chief of staff. Regardless of the source, Samford was told, in effect: "You will hold a press conference."

At no time in the five-year saucer scare was any man put in a tougher spot than the Director of Intelligence.

What could he say? What was safest, the best for the country?

Without actually saying so, he could let Americans believe the saucers were a secret U. S. device.

It was not true, and probably few papers would accept it, after all the denials.

Even if the public believed it, this could cause a dangerous complacency, and Congress was sure to cut badly needed appropriations. With a superior weapon like the saucers, there would be less need for new long-range bombers and conventional guided missiles.

So that answer was out.

There was only one safe step, in the nation's present mood.

The saucers would have to be debunked.

It was a hard step for General Samford to take. It meant reversing the new, sober approach which Intelligence was making. It was risky, too—this time the public might not believe the Air Force statements.

But it was the only way to stop the rising tide of fear.

CHAPTER V

The Powder Keg

Since 1947, as General Samford knew, the Air Force had frequently tried to debunk the flying saucers. Each time it had been more difficult. How could it be done now, with any hope of success?

It was impossible to go back to the 1949 statement, which explained away all sightings. For the Air Force was now on record that many were still unsolved. The latest figure, given out by Captain Ruppelt, was 25 per cent; some Intelligence officers privately made it much higher.

Even admitting that 25 per cent were unsolved was misleading, for it evaded the basic facts. Actually, the Air Force reports showed nearly 500 genuine saucer sightings. The excitement created by these authentic accounts had caused many erroneous reports. But this did not change the basic situation.

Instead of admitting this, a reverse approach had been used. The implication was plain: If the Air Force could solve 75 per cent of the cases, probably the rest could be explained, with a more scientific analysis.

Misleading or not, this reverse approach would have to be the foundation for debunking the saucers now. Samford's problem, then, was to explain the remaining 25 per cent. He could say that the saucers were probably some

strange phenomena, completely outside our present understanding. Even some Air Force officers, who didn't know the facts, believed this was true. But it ignored the sighting patterns and the proof of definitely controlled maneuvers.

How many shrewd newsmen would swallow this vague answer after the Washington sightings?

The high speeds and maneuvers, General Samford knew, had to have a specific answer. What made it harder was the simultaneous visual sightings and radar trackings, especially the accurate pinpointing by the Center and Andrews Field. There had to be some explanation, or the newsmen would be on him like hawks.

There was one loophole—the temperature-inversion theory publicized by Doctor Menzel.

Samford and his Intelligence staff already knew the theory. It was based on an effect well known to scientists. Ordinarily, air gets colder as altitude increases, but under certain conditions there may be layers of warm air with cool air underneath.

Since light rays move slower in a denser medium, they are refracted, or bent, as they pass from cold to warm air. It is this which causes mirages on deserts or on heated roads where motorists seem to see pools of water ahead. Like light, radar waves also move more slowly in a denser medium and are bent in the same way. When a temperature inversion is strong enough, it will cause a refraction effect.

According to Menzel, observers reporting saucer lights had been misled by reflections, either of ground lights or of the stars, tire moon, or the sun. In the same way he explained radar saucers as ground objects picked up by deflected radar beams, then re-reflected by the inversion layer to show on scopes as strange blips. The apparent high speeds and violent maneuvers, he added, were caused by reflections of moving objects such as cars or trains, or by turbulence in the inversion. In the latter case the agitated

air reflected the light or radar waves unevenly, creating false effects of motion even from fixed objects.

During July several prominent scientists had refused to accept Menzel's claims. But few of the public knew this. Even General Samford, at that time, did not have all the evidence against the astronomer's theory.

Regardless of its merits, it offered the only out. It did explain a small number of sightings, perhaps two to three per cent. Some Intelligence officers were afraid it might backfire; there was one key fact in the Washington cases which would blow it sky-high. But so far this fact had escaped the press. If no one brought it up, the answer might stick.

No one in Intelligence, from General Samford on down, wanted to take this step. But after the press conference order, they had no choice.

It was obvious that General Samford should not face the press alone. He would have to have help, not only in covering technical angles but in handling dangerous questions. With a large group, questions could be passed back and forth to give the Director a breathing spell.

When the details were worked out, the conference was set for July 29. The group would include several UFO experts from ATIC—Colonel Donald L. Bower, of the Technical Analysis Division, Captain Ed Ruppelt from Project Bluebook, Captain Roy L. James, Mr. B. L. Griffing, and other civilian specialists from the Electronics Branch. To cover the interception angles, Major General Roger M. Ramey, Chief of the Air Defense Command, would be on hand with some of his staff.

Up to the very last, the Intelligence officers hoped that the conference would be canceled. But the

sightings, instead of letting up, were still increasing.

That very morning Army officers and Indiana state police had watched a weird "dogfight" between several discs over Indianapolis. Three hours later a saucer had scouted the atomic energy plant at Los Alamos, racing off

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at high speed when Air Force jets went after it. Other Intelligence reports, coming in by teletype, hinted that the 29th would be a peak day in this July saucer cycle.

By noon the Air Force had still another headache. The night before a story by INS had reported a new Air Force order—if saucers ignored orders to land, pilots were to open fire. At Washington, Frank Edwards had picked up the flash and repeated it on the Mutual network. Telegrams protesting the order were now coming in from all over the country. One, typical of the rest, came from Robert L. Farnsworth, president of the U. S. Rocket Society. Also wiring the White House, Farnsworth gave United Press a copy of his message to help arouse the nation. It read:

"I respectfully suggest that no offensive action be taken against the objects . . . Should they be extraterrestrial, such action might result in the gravest consequences, as well as alienating us from beings of far superior powers. Friendly contact should be sought as long as possible."

Under this new barrage General Samford gave up his last-ditch attempt to postpone the conference. By this time no one could have stopped it without a disastrous flare-back. Many people would have suspected some frightening answer too terrible to make public.

It was nearly 12 o'clock when an Air Force officer phoned me that the conference would be at 4. Thinking it would be sooner, I'd planned to fly to New York at 5, to be ready for radio and television dates on the following day. On the way in, I stopped at the airport, switched my reservation to 7 o'clock, and then drove on to the Pentagon.

At 3:50 the conference room was half-filled. I recognized C. B. Allen, aviation man for the New York Herald Tribune; Gunnar Back, television commentator; Clay Blair of *Life*; Doug Larsen of NEA; and a dozen others from big-city papers and national magazines. By 4 o'clock the room was packed with top correspondents, wire-service

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men, and commentators. I hadn't seen a bigger turnout since the A-bomb story broke.

Promptly on the minute, General Samford came in, a stockily built man with whimsical blue eyes. His shrewd, pleasant face showed no hint of concern—it was not for nothing that he was Director of Air Force Intelligence.

Behind Samford came Major General Ramey, a florid-faced, serious-looking officer. Their advisers spread out around the platform—an impressive group of colonels, majors, captains, and civilian specialists. Only Ruppelt came near to matching Samford's unconcerned look. Most of the others were sober-faced, and with good reason.

For the next hour or so they would be sitting on a powder keg. Two simple questions would light the fuse. All they could do was pray that nobody thought to ask them.

In his opening remarks, General Samford set a pattern which he used later in answering difficult questions. Normally, Samford is not a verbose man: on occasion he can be as terse as a drill sergeant. But clipped words, short sentences, often give a dramatic effect, and the Director wanted no drama here. A dry, academic approach was the best answer, and Samford did his utmost to set the pattern.

"I think the plan is to have very brief opening remarks," he said in a slow, unruffled voice, "and then ask for such questions as you may want to put to us for discussion and answer. Insofar as opening remarks are concerned, I just want to state our reason for concern about this.

"The Air Force feels a very definite obligation to identify and analyze things that happen in the air that may have in them menace to the United States and, because of that feeling of obligation and our pursuit of that interest, since 1947, we have an activity that was known one time as Project Saucer (press name for Project Sign) and now, as part of another more stable and integrated organization, have undertaken to analyze between a thousand and two thousand reports dealing with this area. And out of that

mass of reports that we've received we've been able to take things which were originally unidentified and dispose of them to our satisfaction in terms of bulk where we came to the conclusion that these things were either friendly aircraft erroneously recognized or reported, hoaxes—quite a few of those—electronic and meteorological phenomena of one sort or another, light aberrations, and many other things."

The general's involved sentences could not have been better calculated to ease the tension. Already the saucers seemed a little less real. He went on in the same detached, academic manner.

"However, there have remained a percentage of the total, in the order of 20 per cent of the reports that have come from credible observers of relatively incredible things. And because of those things not being possible for us to move along and associate with the kind of things that we've found can be associated with the bulk of these reports; we keep on being concerned about them.

"However, I'd like to say that the difficulty of disposing of these reports is largely based upon the lack of any standard measurement or any ability to measure these things which have been reported briefly by some, more elaborately by others, but with no measuring devices that can convert the thing or idea or the phenomenon into something that becomes manageable as material for the kind of analysis that we know."

Several reporters looked at each other blankly. The man on my right leaned over to me.

"If he's trying to befuddle us, he's already got me," he whispered.

The general went on for two or three minutes.

"Our real interest in this project is not one of intellectual curiosity, but is in trying to establish and appraise the possibility of a menace to the United States. And we can say, as of now, that there has been no pattern that reveals anything remotely like purpose or remotely like consistency

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that we can in any way associate with any menace to the United States."

Here, I knew, Samford was skating on thin ice. Even before I saw all the ATIC evidence, I had enough reports that did show a definite pattern. But it was the general's job to dispel public fear, and admitting a pattern would only have increased it.

After mentioning reports of strange aerial objects back in biblical times, Samford threw the conference open for questions. In giving the questions and answers here, I have taken them verbatim from the official transcript. It is not a complete account—the conference lasted 80 minutes, and many questions were unimportant. But all the main points are included.

Since reporters did not identify themselves, the transcript shows queries as merely from "the press." In one or two cases I have identified men whom I recognized.

General Samford's preliminary remarks had, somehow, lifted the saucers into a distant, shadowy realm. But the first question briskly brought them back to earth. It came from Doug Larsen of NEA.

"Have there been more than one radar sighting simultaneously?" he asked. "That is, blips from several stations all concentrating on the same area?"

"You mean in the past?" said Samford.

"Yes, sir."

"Yes. That is not an unusual thing to happen to this sequence at all. Phenomenon has passed from one radar to another and with a fair degree of certainty that it was the same phenomenon.. . Now, when we talk about down to the split second, I don't know . . ."

"Enough to give you a fix so that you can be sure it is right in a certain place?"

"That is most rare," said the general.

"Has there been any?" persisted Larsen.

"Most rare. I don't recall that we have had one that gives us that kind of an effect."

Larsen and many of the others looked baffled, for this very point had been emphasized by the Control Center men. But before Larsen could go on, another man cut in with a safer question on ionized clouds. A minute later a redheaded correspondent down in front tried to pick up where Larsen was stopped.

"General, have you talked to your Air Intelligence officer who was over at National Airport when they were sighting all these 'bandits' on the CAA screen?"

"Yes, sir, I have."

"Have you talked with the Andrews Field people who apparently saw the same thing?"

"I haven't talked to them myself, but others have."

"Well, could you give us an account of what they did see and what explanation you might attach to it?"

This was getting closer, but Samford showed only a good-natured patience.

"Well, I could discuss possibilities. The radar screen has been picking up things for many years that—well, birds, a flock of ducks. I know there's been one instance in which a flock of ducks was picked up and was intercepted and flown through as being an unidentified phenomenon."

"Where was that, General?" asked the redheaded man.

"I don't recall where it was. I think it might have been in Japan."

In the next five minutes the reporter's question somehow was lost in the shuffle. Then Gunnar Back brought it to light again.

"General Samford, I understand there were radar experts who saw these sightings Saturday night or early Sunday morning. What was their interpretation of what they saw on the scope?"

"They said they saw good returns."

"Which would indicate that these were solid objects similar to aircraft?"

"No, not necessarily. We get good returns from birds."

"Well, you wouldn't get as large a blip from a bird as—"

"No, unless it was close."

"Did they report that these could have been birds?"

"No," said Samford. (In fact they had flatly denied it, as I learned later.)

At this point an Associated Press man broke in with a question on temperature inversions. Samford passed it on to Captain James.

"What sort of ground targets give these reflections?" the AP man asked.

"It depends on the amount of the temperature inversion and the size and shape of the ground objects," Captain James told him. I could see he was uneasy; this was getting close to one of the key questions.

"Would this reflection account for the simultaneous radar sightings and visual sightings which appear to coincide on the basis of conversations between the radar operator and the observer outside?"

"There is some possibility of that," James said cautiously.

"Why would these temperature inversions change location so rapidly or travel?"

"Well, actually," said James, "it can be the appearance or disappearance of different ground targets, giving the appearance of something moving when, actually, the different objects are standing still."

"Would these pseudo-blips cause any difficulties in combat?"

"Not to people that understand what's going on." James hesitated. "They do cause difficulty."

Shortly after this, another newsman came even closer to the danger point.

"Captain, was there a temperature inversion in this area last Saturday night?"

It jarred James; I could see that.

"There was," he said briefly.

"And the Saturday night proceeding?"

"I'm not sure—"

"Did any two sets in this area get a fix on these so-called saucers around here?"

"The information we have isn't good enough to determine that," evaded James.

The reporter looked incredulous. "You don't know whether Andrews Field and Washington National Airport actually got a triangulation on anything?"

"You see," said James, "the records made and kept aren't accurate enough to tie that in that close."

"What is the possibility of these being other than phenomena?"

This was too hot a potato for Captain James. General Samford quickly caught it.

"I'd like to relieve Captain James for just a minute," he said.

Confirming the query to guided missiles, Samford ruled them out in a long discussion that reduced the saucers to "something" with unlimited power and no mass.

"You know what no mass means," he added. "There's nothing there."

For the next ten minutes the questions led into safer fields. By this time I had changed my mind about questioning General Samford. It was obvious this was a deliberate debunking, a carefully worked-out plan to combat hysteria. There might be more reason for hiding the facts than I knew. I decided to wait until after the conference and ask my questions privately.

After several vain attempts the red-headed man down front finally got back to his original question.

"You had two experts over there last Saturday night. . . What was their opinion?"

He had put the query to Captain James, but again General Samford interrupted.

"May I try to make another answer and ask for support or negation on the quality of the radar operator? I personally

don't feel that is necessarily associated with quality of radar operators, because radar operators of great quality are going to be confused by the things which now appear and may appear in a radar ... I think that a description of a GCA landing has some bearing on that in which to get associated with the GCA you have to make a certain number of queries and do a certain number of things and then you become identified through the fact that you obey..."

This went on for a minute or so, during which the redheaded man began to look a trifle groggy. Then Samford finished.

"Would you address yourself to what I've just said?" he inquired.

"Yes," said the redhead. "What do the experts think? That was the question."

"The experts?" said General Samford.

"The ones that saw it last Saturday night. What did they report to you?"

"They said they made good returns."

The reporter, apparently a bit dizzy from the merry-go-round, gave up and sat down. But another correspondent jumped up.

"Did they draw any conclusion as to what they were, whether they were clouds?"

"They made good returns," said General Samford, "and they think they ought to be followed up."

"But now you come to the general belief that it was either heat inversions or some other phenomena without substance."

"The phrase 'without substance' bothers me a little," said Samford.

"Well, could you—" "Say what we think?"

About 50 of the press, in one voice, shouted: "Yes!"

General Samford smiled.

"I think that the highest probability is that these are phenomena associated with the intellectual and scientific interests that we are on the road to learn more about, but that there is nothing in them that is associated with materials or vehicles or missiles that are directed against the United States."

"The question whether these are hostile or not makes very little difference," said one reporter. "Are you excluding from consideration a missile, a vehicle, or any other material object that might be flying through the air other than sound or light or some other intangible? Somebody from this planet or some other planet violating our air space?"

This was the first direct mention of the space visitors answer. Instead of replying directly, the general brought in outside opinions.

"The astronomers are our best advisers, of course, in this business of visitors from elsewhere. The astronomers photograph the sky continuously perhaps with the most adequate photography in existence, and the complete absence of things which would have to be in their appearance for many days and months

to come from somewhere else—it doesn't cause them to have any enthusiasm whatsoever in thinking about this other side of it."

But this oblique answer did not tell the full story. Perhaps General Samford did not know it, but several astronomers had reported strange objects moving in outer space. On one occasion a distant, unidentified object was observed for two nights by astronomers at the Naval Observatory in Washington. Though they later decided it was probably a freak asteroid, one astronomer told a Washington science editor, before this decision, that a space ship could not be absolutely ruled out. In several other cases astronomers had seen mysterious objects moving across the face of the moon. And I had also heard reports, from two sources I believe reliable, that Palomar and other large observatories had sighted and photographed unknown,

controlled devices maneuvering near the earth. According to my informants, these sightings had been kept secret at the request of the Air Force. Even if this particular report was wrong, the others, I knew, were correct.

One reporter, not satisfied with Samford's answer, tried to pin him down.

"General, let's make it clear now you are excluding—if you'll affirm that—you are excluding vehicles, missiles, and other tangible objects flying through space, including the subhuman bodies from other planets."

"In my mind, yes," said the general.

The man on my right leaned over to me.

"Why '*subhuman*?' They'd have to be superhuman to be that far ahead of us. And I noticed Samford didn't make that an official answer."

A few moments later one of the press brought Samford back to the subject of simultaneous radar tracking. It was a touchy point. If the general admitted the triangulation, by absolutely simultaneous radar bearings, it would wreck the Menzel answer, as several scientists had already told ATIC. But this time he had a determined opponent.

"General, you said there'd never been a simultaneous radar fix on one of these things."

"I don't think I wanted to say that," replied Samford.

"You didn't mean to say it?"

"I meant to say that when you talk about simultaneously, somebody will say, 'Was it on 1203 hours 24 ½ seconds?' and I don't know."

"Well," said the reporter, "I'd like to point out this fact. The officer in charge of the radar station at Andrews Field told me that on the morning of July 20, which was a week from last Saturday, he picked up an object three miles north of Riverdale. He was in intercom communication with CAA and they exchanged information. The CAA also had a blip three miles north of Riverdale and on both radars the same blip remained for 30 seconds and simultaneously disappeared from both sets—"

"Well, their definition of simultaneous, yes," said Samford. "But some people won't be satisfied that that is simultaneously."

"It is pretty damned simultaneous for all purposes," the reporter said firmly.

But the general refused to be trapped.

"Well, I'm talking about the split-second people . . . they'll say your observations are delayed by half a second, therefore you can't say it was simultaneous."

Outmaneuvered, the reporter turned to Captain James.

"Does your inversion theory explain away that situation?"

"It possibly could, yes," James said warily.

"It possibly could, but could it?"

"We don't have the details."

"Is there any reason why it couldn't?" the reporter demanded.

James squirmed, looked at Samford, apparently in the hope of being taken off the hook.

"General," the reporter said tardy, "can we get this clarified?"

For the first time Samford ducked the issue.

"I'm trying to let this gentleman ask a question—" he looked down at the front row. "Excuse me."

For the next 15 minutes Samford and his advisers had an easier time. One reporter, quizzing Ruppelt, tried unsuccessfully to make him admit a concentration of sightings at atomic energy plants. Mr. Griffing and Colonel Bower, discussing the refraction-grid cameras, Schmidt telescopes, and plans for more scientific investigations, managed to avoid any pitfalls. So did General Ramey, when he explained a few of the interception details. Then one reporter, who'd tried for ten minutes to get the floor, tossed in a hot question.

"General, suppose some super intelligent creature had come up with a solution to the theoretical problem of levitation.

Would that not be mass-less in our observations, either by radar or by sight—no gravity?"

"Well, I don't know whether I can give any answer to that," said General Samford. "We believe most of this can be understood gradually by the human mind."

The reporter, balked, sat down. But later he tried another angle.

"General, did you notice in all of your, say, 20 per cent of the unexplainable reports, a consistency as to color, size, or speed—estimated speed?"

"None whatsoever," said Samford.

Like a chorus in Pinafore, several correspondents exclaimed in unison:

"None whatsoever?"

I almost expected Samford to come out with, "Well, hardly ever." Instead, he said very firmly, "No."

It would have been folly to admit that such patterns were known; it would immediately have nullified everything Samford had said. But such groupings did exist; even the Project report in 1949 had listed two distinct types and certain frequency periods. However, General Samford was not Director of Intelligence at that time, and he may not have known of this analysis.

By now the conference had run well over an hour. Some of the reporters were anxious to close it and get their stories filed. But one man made a last stubborn try to crack the simultaneous sighting angle.

"General, how do you explain this case? . . . The Senior Controller said whenever one of the unidentified blips appeared anywhere near Pierman's plane he would call Pierman and say, 'You have traffic at two o'clock about three miles,' and Pierman would look and say, 'I see the light.' This was done not once but three times. And then this past Saturday night Bames vectored at least a half a dozen airline pilots in to these things . . ."

"I can't explain that," said Samford.

The reporter looked amazed; he had obviously been expecting another evasion.

"Well, how do you explain ... is that auto-suggestion or—"

"I can't explain it at all," admitted the general. But a moment later, after a comment on mesmerism and mind reading, he compared it with spiritualism. "For many years, the field of spiritualism had these same things in which completely competent credible observers reported incredible things. I don't mean to say this is that sort of thing, but it's an explanation of our inability to explain."

Near the last, a correspondent asked him if the Air Force was withholding facts. The general replied that only the names of sighting witnesses were withheld.

"How about your interpretation of what they reported?" the newsman said bluntly.

Perhaps Samford's guard was down; it had been a trying 80 minutes, and he looked tired.

"We're trying to say as much as we can on that today and admit the barrier of understanding on all of this is not one that we break."

Knowing the service phrase "break security," I was sure this was what he meant. Later several service friends of mine agreed. But evidently none of the press took it that way, for no one followed it up.

As the conference broke up, I heard some of the newsmen's comments.

"Never heard so much and learned so little," one man said acidly. His companion shrugged.

"What did you expect? Even if they know the answer, they wouldn't give it out now, with all this hysteria."

Pushing through the crowd toward General Samford, I heard a press photographer jeering at a reporter.

"OK, wise guy, I told you there wasn't anything to the saucers."

"You're nuts," snapped the reporter. "Didn't you notice

the way Samford kept sliding around hot questions—and the way he kept taking Captain James off the spot?"

"I think you're wrong," said another newsman. "I believe it was on the level."

When the group around Samford thinned out, I asked him the two questions I'd had in mind.

"How big an inversion, General—how many degrees is necessary to produce the effects at Washington Airport, assuming they're possible at all?"

He looked at me with no change in expression. I would not want to play poker with the general.

"Why, I don't know exactly," he said. "But there was an inversion."

"Do you know how many degrees, on either night?"

"Excuse me, General," someone broke in sharply. I turned around and saw Dewitt Searles, now a lieutenant colonel, eying me suspiciously.

"You still on this saucer business?" he said. Without waiting for an answer—I had the feeling he had merely wanted to cut off my questions—he turned back to Samford. "Any time you're ready, sir; the newsreel men are waiting."

On the way out, I stopped to talk with Captain Ed Ruppelt, a broad-shouldered young officer with a disarming grin. I knew he came from Iowa, like myself. After I introduced myself, he told me he'd read some of my stories.

"I don't mean the saucer book. I did read that—in self-defense, in case I ever ran into you. But I mean those aviation yams, when you were writing fiction."

With a start like that, I hated to spring the two questions on him, but I did. Ruppelt looked at me thoughtfully.

"You were talking with General Samford. What did he say?"

"He didn't," I said. "Never mind, I can see you're on the spot."

We talked a little longer, on safer subjects, then I went out to my car and drove to the airport.

As the airliner droned north, I thought over the high points of the press conference. I was positive now it had been a cover-up, forced on the Air Intelligence men by the July crisis. Obviously they had acted for the good of the country, and I suddenly realized what an ordeal it must have been.

But all of this could have been avoided if the Air Force, back in the earlier stages, had taken the American people into its confidence. During a lull in sightings, Intelligence could have made a frank statement, perhaps like this:

"Evidence shows that the saucers are real, that they are some kind of revolutionary machines. There is no sign that they are dangerous or hostile. We don't know where they come from, but we are certain they do not come from Russia or any other nation on earth. It seems likely they come from another planet and are making a friendly survey of the earth before attempting contact."

Or, to reduce the impact, the Air Force could merely have said that this was a fair possibility.

It would have caused some alarm. But gradually Americans would have accepted the facts, even the possibility of a saucer attack—just as we now have accepted the danger of A-bomb attack.

Such a step would have ended all ridicule. Scientists would have felt less squeamish about aiding Project Sign, and Congress would have granted funds for an all-out investigation. Instead, secrecy had built up the mystery, and with it public fear.

When I reached New York, I checked in at the Commodore and then waited for the early editions. By this time presses all over the country were beginning to grind out the conference story. Ironically, even as the presses roared, Air Force jet pilots were chasing saucers over two Midwest states. One case, if it had been made public that night would have ruined the inversion answer and wrecked the debunking plan. But I didn't learn this until weeks later.

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Just before midnight, I saw the New York early editions. The *Times* piece, by Austin Stevens, carried a front-page two-column headline:

Air Force Debunks Saucers As Just Natural Phenomena

The *Herald Tribune* story, by C. B. Allen, followed the same line.

Next day, I called Washington. Neither the *Post* nor the *Star* had questioned the Air Force answers. The *Post* story-was headlined:

Saucer Blips Over Capital Laid To Heat

The Associated Press account was in the same vein. Though the *Washington News* and some other papers had hedged, it was clear that General Samford and his staff had put it over. And in an item from Harvard, Dr. Menzel assured the country that the saucers would disappear when the heat spell was over.

After all this, I wasn't too happy about my talks on television and radio. Perhaps I shouldn't be trying to knock down the Air Force defense. Though I'd tried to get all the angles in the last three years, there might be a serious one I didn't know—something that justified the Air Force debunking.

It was too late to cancel the programs. They had been set for a week, beginning with Bill Slater's "Luncheon at Sardi's" and going on up until late at night. But when they were over, I came to a decision.

When I got back, I would put it up squarely to the Air Force. If they convinced me, I would keep still from then on.

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CHAPTER VI

The Air Force Hands Me a Riddle

Shortly after my return from New York, I had a call from a TWA captain I'd known for some time.

"I suppose you read about that Air Force press conference?" he said. I told him I'd been there, and he went on. "It's made the airline pilots plenty sore. A lot of us thought the Air Force was on the level, asking for saucer reports. They'll play hell getting them now."

"The other night one of our ships was over Lake Michigan and a lighted disc buzzed it. It looked like the ones those PAA pilots reported. This captain was going to tell the Air Force and then he read what they said at the Pentagon. He told his crew if they said anything about it he'd deny the whole thing."

A few days later I had a letter from an Eastern captain.

"A while back," he said, "one of our crews sighted a disc shaped object that went from horizon to horizon in six minutes. All the passengers saw it, too, but the captain wouldn't report it. He'd wring my neck if I gave you his name, even off the record."

In the meantime I'd made my first attempt at a frank talk with the Air Force. In asking for ATIC cases, during the past year, I'd worked with Major D. E. Patterson, in

Defense Department public relations. I phoned him and explained what I had in mind.

"That sounds like a fair deal," he said. "Why don't you talk with Chop, over in the Air Force press branch? He can put it up to Intelligence."

While I waited, he called the press branch on another phone, but Chop was away.

"I guess he's at home, resting up," said Patterson. "He took it on the chin, the last week or two."

"How about my talking with an Air Force radar expert in the meantime? I'd like to get a couple of things straight."

"I'll see what I can do. By the way, that last request of yours, for ATIC cases, was turned down."

"That makes about the tenth time," I said. "But thanks, anyway, for trying."

An hour later Patterson called back. To my surprise, he had gotten me the radar interview. It was set for 1 o'clock.

"This man's an Intelligence colonel," said Patterson. "Kay Hampton, up in Colonel Boyd's office, will take you to him."

But a hitch developed the minute I saw Kay Hampton.

"The colonel said to make one thing clear," she told me "He'll explain all about radar and temperature inversions, but he won't discuss flying saucers."

"What's the use of seeing him, then? He must have known that's what I wanted."

"I'm sorry," she said, "but you can't even mention the saucers."

"Let it go," I said. "I should have known there was a joker in it."

On the way out, I stopped in at Colonel Boyd's office. Two other PIO's happened to be in the room.

"I wonder if you know how much harm this policy is doing," I said to Boyd. Then I told him about the airline pilots.

"You want those pilots to give you reports. General Samford said they'd like to have top scientists help analyze

the sightings, and you want people to trust the Air Force. Then you make a fool out of anybody who says he thinks the saucers are real."

The PIO's looked at each other. Nobody said anything.

"I know I've caused you people some trouble," I said. "But I told the Air Force—it was General Sory Smith the first time—that I'd stop writing about the saucers if they'd show me any reason for keeping still. I even offered to go on active duty, so they could show me the proof. That still goes."

"We're not holding out a thing," said Colonel Boyd. "I'm sorry you think so—you're the one person we'd like most to convince."

"It's a queer way to go about it. I've asked for ATIC reports nearly a dozen times, and I always get

turned down. If there's nothing to the saucers, why sit on the reports?"

"Well, of course, that's not in my hands," said Colonel Boyd.

"I'm not trying to get tough," I said. "But I think it's been badly handled. And that press conference—maybe you sold the newspapers, but a lot of people still think you're covering up.

"You going to write an article on that?" said one of the PIO'S.

"That depends—I'd rather not go on sniping at the Air Force. It seems to me an off-the-record talk might pay off, if there's some angle I don't know. Maybe I could even help, if I knew the whole picture."

"We're honestly not holding out," said Colonel Boyd.

"OK, Colonel," I said. "I'm sorry if I blew off steam. I know you don't set the policy."

Within an hour after I got home I had a call from Colonel Boyd's office, asking me to come in next day and talk with Chop. I wasn't too excited; it probably wouldn't lead to anything.

The first person I saw at the Press Branch was Lieutenant

Colonel Searles. Back in '49, he had seemed seriously impressed by reports from competent pilots, but he was now apparently an out-and-out skeptic. Whether he had changed, or this was an official front, I still don't know, but in the press branch he was known as "Death to the saucers" Searles.

Searles introduced me to Chop, and the two of us talked for about three hours. At first I had the feeling I was being weighed carefully—not just my beliefs, but whether I could be trusted.

"You honestly believe they're interplanetary?" Chop said finally. I told him I couldn't see any other possible answer. When I repeated what I'd said to Colonel Boyd, Chop listened without expression, then at the end he shook his head.

"This isn't an off-the-record talk. You don't have to keep still. I've been instructed to help you, and you asked for ATIC sighting reports. Exactly what do you want?"

The sudden offer almost caught me off guard.

"Simultaneous radar and visual sightings—the toughest cases you've got," I said.

I expected him to stall, but Chop only nodded.

"I know they'll explain them as inversions," I said, "but I want to see how they prove it. I might as well tell you I'll do my damndest to knock it down."

"We know that. Any specific cases in mind?"

"What about the Washington sightings?"

"They won't be analyzed for some time."

Here we go, I thought. The old runaround.

"What about that Dayton case a few days ago? The AP said two F-86 pilots chased a disc near Bellefontaine, Ohio. If they got the story right, the pilots both said it wasn't a mirage or a reflection. Right after that, the lid went on and reporters weren't allowed to talk to them."

"Yes, I know about that," said Chop. "I'll ask for it and call you back."

A little later I asked him how long he'd been on the

saucer assignment. He told me he'd seen most of the important cases when he was acting press chief at Dayton. Here at the Pentagon he'd seen the Intelligence reports as they came in, sat in on Intelligence conferences, and talked with top investigators like Major Foumet.

"You must have a pretty good idea of the answers," I said. "What do you think is behind this saucer survey?"

"I can't answer that," said Chop. "On this job I'm not allowed to express any personal belief."

He lit a cigarette, waited a moment, then went on, carefully measuring his words.

"The Air Force doesn't deny they may be interplanetary. But we have no concrete evidence to support it."

"What do you mean 'concrete?'"

"No wreckage—no bodies—no material objects."

"What about the pictures you've analyzed?"

Chop told me later my question had jolted him. For a moment, he thought I had somehow learned of the secret film. But his dead-pan expression didn't give me a hint.

"You've had some photographs," I said. "There have been ten or twelve in the papers. Maybe some were faked, but two or three looked genuine."

"So far, none of them has shown any details," said Chop. "No ATIC analysis has proved anything

definite."

Just before I left, Chop took a copy of my book from a desk drawer. He ran through it, picked out a few paragraphs.

"You seem sure the saucers are friendly. If they are interplanetary—and I said if—why all this long observation without any contact?"

"I don't know, there could be several answers." I watched his face. "Of course, if the Air Force thinks they're hostile, I can see why they've kept quiet."

Chop gave me a dry smile.

"*You* said that-I didn't." He stood up. "OK, I'll see what I can do on those cases. It may take a little time."

A week later he phoned me.

"Come on in," he said. "I've got three or four sightings cleared for you."

Still skeptical, I drove in. The Air Force, I was positive, wouldn't be giving me cases of any importance—certainly none that would upset General Samford's statements. Probably they'd be watered-down reports that didn't prove anything. But they'd be enough to block any claim that the Air Force was holding out.

"These may surprise you," Chop said dryly, when he gave me the sightings. I looked at the first, an Intelligence report which had recently come in from Oneida Air Force Base in Japan.

Just before midnight, on August 5, 1952, a saucer carrying a bright white light had slowly approached the base. Up in the control tower, Air Force operators quickly focused binoculars on the mysterious light. As it came closer, they could see a dark, circular shape behind the glow, four times the light's diameter. A smaller, less brilliant light shone from the round, dark undersurface of the strange machine.

By this time tower men had flashed word to a Ground Control Intercept station. For several minutes the saucer hovered near the tower, its dark shape clearly visible behind the light. Then it suddenly turned away, accelerating at high speed.

As GCI picked up its track, a strange thing happened. The mysterious craft divided into three units, as if two other saucers had been launched from the first. While the amazed Air Force men watched, the three machines raced off, keeping accurate intervals, at a clocked speed of 300 knots.

Calling a nearby C-54 transport, the tower men tried to vector it in toward the three saucers. But

with its slower speed, the transport had no chance. In seconds the strange machines disappeared from the area.

Incredulous, I looked at Chop.

"I can publish this?"

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He nodded.

"But this report proves the saucers are *solid objects*."

He gave me his dead-pan look.

"Read the next one," he said.

The second Intelligence report was barely a day old. It was dated August 20, and it came from Congaree Air Base, near Columbia, South Carolina.

On that morning radar men at a nearby Air Defense Command post were watching normal traffic when the blip of some unknown object suddenly appeared on the scope.

When it was first sighted, the saucer was 60 miles from the ADC post. Almost instantly the men could see that it was moving at fantastic speed. In a matter of seconds, as the sweep went around, a row of widely spaced dots appeared on the glass. While the operators were still staring at the track, it ran off the scope. Hurriedly, before the blips could fade, they figured the object's speed. Then they looked at each other, astonished.

The unknown machine was making over 4,000 miles an hour.

One operator hastily cut in his mike. Then he realized it was useless to flash an alarm. The strange craft was moving at 70 miles a minute—nearly ten times the top speed of any interceptor. Even if he flashed word hundreds of miles ahead, jet pilots would see little more than a blur if they got anywhere near the saucer.

In this report Air Technical Intelligence had made no attempt to gloss over the facts. The operators were experts, trained to recognize blips of solid objects. The radar was working correctly.

Something had streaked through the South Carolina skies that morning, but the ATIC frankly admitted it had no explanation.

"This is cleared, too?" I said. "Even this ATIC statement?"

"That's right," said Chop. "There's only one condition."

Here it comes, I thought.

"We want you to emphasize the fact that our pilots aren't shooting at these things. We've been catching hell from all over the country." Chop showed me some telegrams and letters. "They even wire the President, 'In the name of God, don't shoot at the saucers.' So anything you can do—"

"Sure, I'll include that," I said.

"I'll get you a statement from General Ramey. Go ahead, read the others. They're not quite so hot as those two, but they're important."

The third Intelligence report, dated July 23, covered an F-94 chase over Braintree, Massachusetts. Earlier, GCI had picked up a saucer circling at high speed, about the time that a bluish-green light was sighted from the ground. When the F-94 pilot was vectored in, he saw the machine's light, then locked onto the saucer with his radar. For a few seconds he tried to close in at full power. But the saucer swiftly pulled away and disappeared from his scope.

In this case, too, ATIC had found no explanation.

The next case, also unexplained, had occurred on the night of July 29. It had been only a few hours after the Air Force press conference.

At 9:30 p.m., Mountain Standard Time, a yellow-lighted saucer had abruptly appeared over Los Alamos. It was the second one to be sighted that day over the atomic energy base. When it was first seen, by an Air Force Reserve colonel, the machine seemed to be hovering almost over the base. As nearly as he could tell from the glowing light, its shape was round or oval.

After a minute the saucer streaked away, its color changing from yellow to white. From the way the light swiftly shrank in size, the machine's speed had been terrific. It disappeared within 15 seconds.

"Another color-change report," I said. "I guess you've had a lot of them—showing how these things change color when they speed up or slow down."

"Yes, it's nothing new." Chop eyed me a moment. "Any idea why they change?"

"I've heard one explanation. It was worked out by a Canadian government engineer; he happens to be in charge of one of their saucer projects. His answer explains all the color changes and the method of propulsion. Ever heard of it?"

"Maybe," said Chop. "Some of the Canadians came down to check things with Project Bluebook."

We've exchanged information."

Just then his phone rang. While he was talking, I looked over the last Intelligence report. This IR had come from an Air Defense Command unit near Osceola, Wisconsin. It was dated July 28, 1952.

About 2:30 a.m., GCI radar had picked up several UFO's. As in the Washington Airport sightings, the first tracked speeds contrasted strangely with the later maneuvers. Most of the saucers were idling along at 60 m.p.h. until jet interceptors took off. Shortly after this, one machine's speed jumped to more than 600 miles an hour.

When the nearest pilot reached 25,000 feet, he spied several rapidly moving lights east of St. Paul, Minnesota. The saucers coincided with the track which GCI had given him. At the same time they were also sighted by a plane spotter of the Ground Observer Corps.

At Osceola some one had tentatively suggested a meteor shower, obviously without knowing of the tracked speeds. But an astronomer at the Washington Naval Observatory later reported this was impossible. Even the 600 mile-an-hour speed recorded would be entirely too slow for a meteor, and the original reports of 60 made it ridiculous. The sighting remained unsolved.

"There'll be some more IR's later," said Chop. "Well probably have that Dayton report before you finish the article."

Trying not to show what I felt, I thanked him and left. Getting these reports had baffled me. It was less than a

month since General Samford had branded the saucers as phenomena with no mass. The Oneida report, describing a solid machine of some kind behind the light, was official proof to the contrary. And the other cases were a start toward wrecking the inversion answer.

Why had Intelligence released them—to me, of all people? Chop must have had the Director's permission; no one would dare release the reports against General Samford's wishes. Yet anyone could see they would give an entirely new slant on the press conference.

Next day I was still puzzling over it when I had a call from *True*, in New York. A short time back an Army physicist at Fort Belvoir had come out with a "bell-jar" experiment which produced miniature "saucer" lights. Though it had now been almost forgotten in Washington, John DuBarry, the aviation editor of *True*, wanted me to check on it with a scientist.

The leading authority on the ionosphere was Dr. George Ray Wait, of Carnegie Institute. When I talked with him, he quickly disposed of the Army physicist's theory.

"I don't know of any atmospheric conditions that would duplicate the 'bell-jar' saucers," he told

me. "You can do many things in a laboratory which you can't duplicate in nature."

While we were talking, he gave me a valuable guide in analyzing saucer reports.

"The question is, are they navigated?" he said. "If the reports of reversals, sharp turns, and descents are fully confirmed, then no natural phenomena, to my knowledge, would explain such sightings."

When I checked at the Pentagon, Chop told me that the Air Force also had investigated the bell-jar theory.

"They agreed with Dr. Wait—there's nothing to it," he said.

On July 29, I was sure; they would have welcomed this bell-jar story, to help them reduce hysteria. It was plain

that something had happened to cause this change, and especially this sudden cooperation with me.

Once I might have thought it part of a cover-up scheme linked with a secret American weapon. However, that answer was out long ago. The only logical solution was a new policy of gradually preparing the public. But why the abrupt turnaround with the July crisis still fresh in the public mind?

Whatever the answer, it could wait. I still had a job to do, disproving the inversion angle.

For the next two weeks I talked with Barnes, Ritchey, Copeland, and most of the other Control Center men. Though they had cooled off, some were still bitter about the Air Force inversion answer. For years they had been guiding airliners through fog, snow, and rain without an accident. When the weather turned sour, thousands of lives were in their hands. As expert radar men, they were proud of their record—a record that depended on their ability to analyze and track blips in a split second.

Then, overnight, they had been, in effect, called fools-deceived by a simple atmospheric condition they'd known for years.

"Every man in here knows temperature-inversion effects," Barnes told me. "When an inversion's big enough, it picks up all sorts of 'ground clutter'—water tanks, buildings, shore lines, and so on.

"But anybody here can recognize it. You'll see huge purplish blobs, but nothing like those things we tracked. In the six years I've watched the scopes, absolutely nothing—high-speed jets, storms, inversions, or anything else—has ever caused blips that maneuvered like that. And we've had identical weather many times."

We were watching the main scope as Barnes talked, with Copeland and two or three others standing nearby.

"The only other time," interrupted Copeland, "was that night we saw the 'saucer' on Red Airway."

"That's right," said Barnes. "I'd forgotten that—but it

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wasn't any inversion. That was something like these saucers we saw in July, except that it didn't maneuver."

"What happened?" I asked him.

"Jim and I were on duty together," replied Barnes. "That was before the Control Center was built; we had our M.E.W. set operating for tests, over in the terminal. All of a sudden this strange object came racing down Red Airway—it passed to the west of the field. Since we weren't in regular operation, we hadn't been paying close attention to the scope, and we saw it at the last moment. It was going a lot faster than any jet, but the blips faded out before we could measure the speed. I'd say, to be conservative, it was well over 800 miles an hour—probably a lot higher."

"Over 1,000 would be my guess," said Copeland.

Ritchey, Copeland, Nugent, and all the other controllers were positive the July saucers could not have been inversion effects. The technicians, too, backed up Barnes.

"Beside that," Chief Engineer J. L. McGivren told me, "there was no ground clutter either time, except the big blotch we always have at the center of the scope, where the bottom of the beam picks up the airport buildings."

When I checked at the Weather Bureau, I found the same answer. Vaughn D. Rockne, the senior radar specialist, had never heard of such blips as Barnes and his men tracked.

By now the trail was getting hot. To nail down the answer, I checked with Dr. John Hagin, the chief radio astronomer at the Naval Research Laboratory. Hagin took the inversion theory apart in about 30 seconds.

"Even with a heavy inversion," he said, "conditions would have to be very, very unusual to cause effects like that. I'd say it was impossible, with blips pinpointed by three radar stations and lights seen simultaneously at the same points."

"How much of an inversion is needed for ordinary effects?" I asked him.

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"At the very least, ten degrees Fahrenheit—to get really strong effects it would have to be much larger. Even then, it couldn't explain the simultaneous sightings."

As soon as I could get to a phone, I called Chop.

"I've got a request. It's the one that Intelligence turned down before—I want an interview with an Air Force radar expert."

"Maybe we can work it," said Chop.

"Wait a second," I said. "I want them to select a radar officer who'll give me the official opinion. I want to quote him. And I might as well tell you, I think it'll kill the inversion story."

There was a silence at the other end.

"Go ahead, knock my ears down," I said.

"I was just trying to think who'd be the right man," Chop said calmly. "Give me a couple of hours."

That afternoon he phoned me at my home.

"It's all set. Your man's Major Lewis S. Norman, Jr. He's in the Aircraft Control and Warning Branch, and he's made a special study of temperature inversions. Also, he's an interceptor pilot."

I hung up, puzzled. It was almost as if the Air Force wanted to throw the Menzel theory overboard. But that didn't make sense. Maybe Major Norman had an ace up his sleeve.

When I went into his office, I was braced for a repetition of the press conference arguments. I didn't get them. Major Norman, a quiet, friendly, competent man, made no wild claims for the Menzel theory.

"Inversions probably explain some saucer sightings," he said, casually. "How many, I don't know."

"Exactly what conditions would it take to explain the Washington sightings?" I asked him.

"Well, first, you'd have to have turbulence in the inversion layer. That could give an effect of high speed and sharp maneuvers."

"The Weather Bureau men at the airport said there

wasn't any turbulence," I told him. "But assuming there had been, how much of a temperature inversion would it take?"

"On the Centigrade scale, between five and ten degrees. If you used the Fahrenheit scale, between nine and eighteen degrees."

"Do you know what the inversions were on those two nights?" I asked him.

"No, I wasn't in on the investigation."

"The first night it was just one degree Fahrenheit. The second time it was barely two degrees."

If Norman was surprised, he didn't give any sign.

"Are those the official Weather Bureau figures?" he said.

"Yes, I double-checked them, and I also saw the inversion graphs. Would you still say inversions could be the answer?"

"No—they couldn't possibly explain the Washington sightings."

This was it. But it still seemed unbelievable that the Air Force would admit it.

"You realize I'm going to quote you as the official Air Force spokesman?" I asked Norman.

"Yes, I know," he said quietly. "They gave me the whole picture."

That evening I went over all that had happened, step by step, but I was more baffled than ever. A month ago the Director of Air Force Intelligence and his experts had done their best to explain the Washington cases as inversion phenomena. Now, an Air Force spokesman, furnished me with the help of Intelligence, had officially knocked that answer flat.

It was true this did not completely upset the inversion theory. The Air Force might insist that it explained other simultaneous sightings. But the claim would certainly be weakened by Major Norman's admission.

There must be some logical explanation for the Air Force action, even if I couldn't see it. Whatever it was,

there was no sense in pushing Chop for the answer. I was getting the facts; that was what counted.

Meantime, sighting reports were still coming in from many parts of the country. But the press conference had had its intended effect. Radio stations were putting psychiatrists on the air to debunk the saucers as figments of imagination. Many papers now gagged up sighting reports, making the witnesses sound like gullible morons. One of the most sarcastic was the *Republican Times*, at Ottawa, Illinois. In an editorial Managing Editor Herbert Hames told his readers:

"For five years, we've shrugged our shoulders and resigned ourselves to reading about deranged discs that flit from one end of the country to the other . . . The most exhaustive investigations have failed

to uncover a solitary substantial clue to their existence. We're not printing saucer stories any more. And we invite the other 1700 daily newspapers to join in a fight against feeding pap to the public."

Some of the public, however, had their own ideas. In all the letters I'd received since July 29, less than 20 per cent believed the Air Force statements. Many letters to newspapers showed the same disbelief as this one in the *Washington Star*:

"The Air Force states that the things are perfectly friendly heat inversions and that they are positively not holding out on the public. I'm greatly relieved. If I should happen to see a thingamajig in the sky, I'll just say 'not so' three times, throw some salt over my left shoulder and go on my way.

E. S. Walker."

The apparent brush-off by the Air Force had one unexpected result. Several groups of reputable civilians began private investigations of the saucers. One was the Delaware Flying Saucer Investigative Associates, which was organized by a National Guard general and included experienced pilots and aeronautical engineers. Another investigation

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was sponsored by Ohio Northern University, at Ada, Ohio. Labeled "Project A," this saucer research unit included the departments of mathematics, astronomy, chemistry, physics, electrical and mechanical engineering, and psychology.

"What do you think of these private outfits?" I asked Chop, when he called me in one day.

"We're not against them," he said, "but there's one bad effect. It gives the public the idea we're not taking the saucers seriously."

"After that press conference you couldn't expect anything else."

Chop looked unhappy.

"I know, but we are working hard on it. Sightings are being analyzed more carefully than ever—even some apparent hoaxes. The trouble is we've learned as much as we can until the saucers move into a new phase."

Two weeks before, newspapers had carried a new "natural phenomena" theory by two Chicago engineers. The saucers, they said, were only pockets of ionized air, caused by the recent A-bomb tests in Nevada.

Chop smiled wearily when I mentioned it.

"I wish to heaven it were right. We could stop scrambling all those jets, tell the public this was it, and close the project. But ATIC had scientists look into that long ago, though they knew it wasn't the answer—we had sightings before the first A-bomb blast. No, it's just another wild idea by people who don't know the evidence. If they'd seen Intelligence reports like these, they'd know better."

He took two new IRs from a folder.

"If you think Major Norman told you something, read these. Funny thing, this first one happened the very night of the press conference."

This UFO encounter, the report showed, had occurred just ten minutes before the "yellow saucer" sighting at Los Alamos. At 9:40 Central Standard Time, a GCI station in Michigan was tracking three F-94s which were

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making practice runs on a B-25 bomber. Suddenly a trail of saucer blips appeared on the radarscope. The unknown machine was making 635 m.p.h., flying a course of 350 degrees.

Seconds after the blips appeared, GCI called Captain Ned Baker, one of the F-94 pilots. Giving him the UFO's position, they ordered an interception.

Baker put the jet into a steep climb and his radar operator, Lieutenant Guy Sorenson, carefully watched the rear-pit scope. As the F-94 reached 20,000' feet, GCI vectored Baker into a left turn. A moment later Sorenson picked up the saucer's blips and locked on. The UFO was four miles away, flying at their altitude.

Calling Baker on the intercom, Sorenson gave him the bearing. Peering into the night, Baker saw the strange machine, its position marked by a flashing light. As he watched, the light changed from red to green to white, alternating at regular intervals. Opening up to full power, he tried to close in.

Back at Ground Control, fascinated radar men watched the chase on their scope. They could tell the F-94 was at its maximum speed. But the saucer, slightly increasing its speed, easily stayed ahead.

For 20 minutes Baker stubbornly kept on. By now they were over Sanilac County, at a point some 20 miles north of Port Huron. The lights on the saucer were still flashing red, green, and white and its blips were clear on Sorenson's scope—exactly where GCI had them on its screen.

Finally Baker gave up and turned back. Though he didn't know it, several residents of Sanilac County had also seen the saucer. Every night for the past week machines of this same type had been sighted over the county, identified by their red, green, and white lights.

When I finished the action account, I looked down at the ATIC conclusion. I read it twice to be

sure I was seeing correctly:

"The temperature inversion theory will not explain

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simultaneous visual and radar sightings when observers on the ground and in planes see a UFO at the same spot, when a plane's radar has locked on the object, and ground radar stations have both the plane and the UFO on their scopes at the same spot. Conclusion: Unknown."

I looked up, caught Chop studying my face.

"Al" I said, "what the devil goes on here? This absolutely contradicts—"

"I know," he interrupted. "But if you think that's hot, read the other one. You've seen the preliminary, but this is the final analysis."

It was the Bellefontaine case, the saucer chase which the AP had briefly mentioned before ATIC banged down the lid.

At 10:51 a.m., August 1, 1952, radar men at a GCI post had spotted a fast-moving saucer. Apparently it was observing Wright-Patterson Field, for the track showed it not far from the base, though at a high altitude. About this same time the strange machine was seen from the ground by several civilians near Bellefontaine. It appeared to be round, with a shiny, metallic gleam.

When the blips came on the scope, two F-86 jets were about ten miles from the saucer, on a GCI intercept problem. The two pilots, Major James B. Smith and Lieutenant Donald J. Hemer, were immediately vectored toward the UFO. (Since the AP got their names, I have been allowed to use them in this case.)

As Smith and Hemer reached 30,000 feet, they saw a bright, round, glowing object maneuvering above them. To make certain it was not a ground reflection, both pilots changed course, circled, and climbed, to view it from different angles. The saucer's appearance did not change. Positive it was a solid object; both pilots switched on their gun-cameras and climbed at full power.

At 40,000 feet the mysterious device was still above them. Pulling up at a sharp angle, Major Smith tried to get a picture. But his F-86 stalled and fell off. When

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Hemer nosed up for a camera shot, the same thing happened.

Then Major Smith, climbing again to 40,000 feet, made a second attempt. This time he was successful, and he clicked off several feet of film before the plane stalled.

As he began the camera run, Smith's radar gun sight had caught the saucer for a moment. (Hemer's radar sight was "caged"—inoperative—so he saw no radar blips.) From the range of his radar set, Major Smith knew the unknown device must be between 12,000 and 20,000 feet above him to cause such a weak blip.

To confirm his estimate he quickly checked with his telescopic gun sight and found it just covered the saucer. But before he could get a closer look, the machine quickly accelerated, disappearing at a tremendous speed. Later, using the radar and optical sight data, Smith carefully calculated the UFO's size. Apparently, it had been one of the medium-sized types. If it had been 12,000 feet above him, then it was about 24 feet in diameter. If it was at 20,000, its diameter was not less than 40 feet . . .

The Intelligence report on this case, which had been cleared for me, also included the ATIC analysis. To anyone who had been at the press conference it would have been a revelation.

"The ground radar squadron established two facts: Reaffirmation that the UFO moved at 400 knots (480 land miles per hour) and indications that the F-86s and the UFO appeared simultaneously on the GCI scope. It is obvious that all eyes and antennas put a fix on the same object.

"The object was obviously not a balloon, since the speed was too fast. (A radiosonde balloon was released at 1500 Zebra [10 a.m. Central Time] and moved off to the east. The object was sighted north-northwest of the base.)

"The object moved against the wind, its blip size that of a normal aircraft. The object was not a known aircraft because the altitude was too high. It was not astronomical, as the dual radar returns eliminate this."

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Then, as the statement continued, Air Technical Intelligence for the second time kicked the Menzel theory in the teeth.

"The electronic or visual mirage of meteorological phenomena is out of the question, as the radar set was on high beam and both would not occur simultaneously in the same place. The sighting occurred above the weather. Conclusion: Unknown."

I put down the report and looked at Chop.

"You know, of course, what this does to the press conference story."

"They didn't have all the answers then on temperature inversions. And remember, General Samford didn't say positively it was the explanation."

"But that's the impression he gave. Understand, I'm not criticizing the general. I know he was caught in the middle, and he was doing what he thought best for the country. What gets me is their

releasing these cases. It reverses everything Samford and James said."

"General Samford himself decided it."

"Why?"

"You'd have to ask him."

From Chop's manner it seemed best to let it drop.

"Can you say what the gun-camera pictures showed?" I asked.

"They showed a round object. You can't tell anything else because it's blurred—it was at least 12,000 feet away."

Later I saw several of the blown-up pictures. As Chop said, they showed only a blurred round shape. But that didn't lessen their importance. For the first time a saucer had been photographed during simultaneous radar and visual sightings, with the camera plane also locked on by radar. It was absolute proof that this saucer was a solid object, a controlled, disc-shaped machine.

The article I had written, with Air Force help, was already finished when the Michigan case and the Bellefontaine sighting analysis were given to me at the Pentagon. The Oneida case, describing the disc shape behind

the saucer light, also was left out because of a last-minute double-check on clearance. When the final word came, *True's* presses were already rolling.

As a result these important revelations have remained, until now, unknown to the general public.

Just before the article went to press, Chop asked me to come in to the Pentagon.

"I've got an insert the Air Defense Command wants you to use," he said when I saw him. For a moment I thought it might be some last-second joker, but it proved to be only the statement from Major General Ramey:

"No orders have been issued to the Air Defense Command, or by the Air Defense Command, to its fighter units to fire on unidentified aerial phenomena. The Air Force, in compliance with its mission of air defense of the United States, must assume the responsibility for investigation of any object or phenomena in the air over the United States. Fighter units have been instructed to investigate any object observed or established as existing by radar tracks, and to intercept any airborne object identified as hostile or showing hostile interest. This should not be interpreted to mean that Air Defense pilots have been instructed to fire haphazardly on anything that flies."

"Anything else you want in the story?" I asked Chop.

"No," he said. "All we ask is for you to try to see the Air Force problem and give a fair picture." He paused, then went on in a casual tone, "If you think of any other angles, when you finish this piece, come on back in. We'll give you whatever we can."

I went out, still wondering. What had caused this about-face, the sudden cooperation since July? It wasn't because of my talk with Colonel Boyd—I'd said the same thing for two years before that.

There must be some deep, underlying reason. But what it was remained a mystery.

CHAPTER VII

Jigsaw Puzzle

Strange as it was, the Air Force rebuttal of the inversion theory was not the only enigma I'd found. In the past two months there had been several contradictory incidents.

The first was the Air Force reaction to a new "little men" report, started by Joseph Rohrer, a Pueblo radio executive. Ordinarily the story might have been laughed off. But Rohrer was a respected citizen, president of the Pike's Peak Broadcasting Company, and he insisted he was telling the truth. His sober account, given in a chamber of commerce talk, was headlined by the Pueblo *Chieftan*, reprinted in other papers, and broadcast by several Western radio stations.

According to Rohrer, seven flying discs had fallen into the government's hands. Three of them, he said, had been forced down in Montana. Most remarkable of all, one saucer crewman—a man about three feet tall—had survived when his disc crashed. For two years he had been kept alive in incubator-type quarters at an isolated spot in California. At first, attempts to communicate with him had failed. But gradually he had been educated by means of pictures, and linguists had now taught him to read and write English.

From Rohrer's description, the saucers consisted of giant rotating discs with stationary cabins.

"I have been in one saucer," he told the chamber of commerce men. "It was 100 feet in diameter and 18 feet thick. The saucer was put together in five sections, and sleeping quarters for the crew are tubes with caps on the ends."

The cabins, he added, were pressured with 30 per cent oxygen and 70 per cent helium. (The oxygen-helium combination, in a different ratio, is now being considered by our own space-travel planners.) For propulsion the discs used electrostatic turbines, and the magnetic fields created by the rotating rings gave them tremendous speeds. Variations in the fields, at different speeds, explained the various color changes so frequently reported.

Because of their high voltages, said Rohrer, the discs usually avoided close approaches to cities

and planes. But on one occasion, in a section of Seattle, fuses were blown and electric appliances were burned out when a disc momentarily flew too low.

The government, Rohrer concluded, was keeping it secret because of possible panic.

When this report became public, some people tied it to the Aluminum Man story of 1950: the capped sleeping tubes sounded like the "silvery capsules" with little men, supposed to have fallen from a disc hit by anti-aircraft fire.

As Chop had expected, Rohrer's story brought a new crop of letters demanding the truth. He told me that ATIC knew nothing of the discs Rohrer reported.

"Why doesn't the Air Force publicly deny it?" I asked him.

"We'd rather not," said Chop.

"Why? Colonel Watson denied the Scully story, and this man's gone a lot farther. He claims he's been inside a saucer. I don't see how you can let it stand."

Chop shook his head dubiously.

"It'll cause more publicity if we make a statement."

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"Well, then make him retract the story without mentioning the Air Force."

"How?" said Chop. "We can't order Rohrer to retract it."

"Have General Samford get him on the phone and throw a scare into him. Put it to him point-blank—where did he see the saucer, what date, who were the officers that showed it to him? The general could tell him he'd have to retract it or the Air Force would blast him. Even if Rohrer meant it just as a joke, a lot of people will believe it, if you let it ride."

Chop rubbed his chin thoughtfully.

"It's an idea—about General Samford, I mean. I'll put it up to Intelligence."

Next day he told me it had been turned down.

"We'd have to go through channels—this way, it might offend the Area commander."

"That sounds pretty flimsy to me," I said. "I don't know of any regulation that keeps the Director of Intelligence from making a phone call."

"Anyway, local Intelligence men would have to check on Rohrer's story."

"If you know it's bunk, why bother to check?"

"That's the routine."

"What about the people who wrote in? You going to tell them it was a hoax?"

"No. Well just say we haven't any knowledge of what Rohrer claims."

Shortly after this the story of a sensational encounter by a West Palm Beach scoutmaster, hit papers all over the country. After the Rohrer case, I expected the Air Force to ignore it. But Intelligence surprised me.

The saucer encounter took place in a woods near West Palm Beach, on the night of August 19, 1952. About 9 o'clock that evening, Scoutmaster D. S. Desvergers and three scouts were riding home from a meeting when they saw strange lights in the woods. Leaving the boys in his

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car Desvergers went to investigate, carrying a machete and a flashlight.

Two minutes later one of the scouts saw a reddish-white ball of fire. It came from about the height of the trees and seemed to slant down toward the spot where Desvergers had last been seen. When the scoutmaster failed to return, one boy ran to the nearest house and phoned for the sheriff.

Just as the sheriff arrived, Desvergers came out of the woods, apparently badly frightened and on the verge of exhaustion. He had reached a clearing, he said, when he realized something was hovering above him. Pointing his flashlight upward, he saw a metallic disc-shaped machine about 25 feet in diameter. An instant later the saucer's turret opened. Then a fiery spray shot out at him, scorching his arm and burning his hat. When he got to his feet after lying dazed for a few minutes, the saucer was gone.

Many people took Desvergers' story seriously, and with good reason. The scoutmaster's arm was curiously reddened, his hat was burned, and when the sheriff searched the clearing he found a small scorched area. But later Desvergers refused to talk with reporters, holding his story for a magazine sale, and some people, like me, began to wonder.

However, there had been one other case where a saucer was said to have burned an observer. Two boys at Amarillo, Texas, had reported seeing a small disc land near them, its top section still spinning. When one boy touched it, the rotating part speeded up, throwing off a hot gas or spray. Then the disc took off with a whistling sound and quickly disappeared.

To back up this incredible story, the boy displayed some odd red spots on his face and arms. Later I was told that Intelligence had made no investigation; apparently they believed the story had been made up to cover some childish prank which had caused the burns. It sounded like a logical answer.

get the same treatment. Instead, I found that Ruppelt had been ordered to fly to Florida for an on-the-spot check. After quizzing Desvergers, Ruppelt took the scoutmaster's cap back to Dayton for analysis.

"What's the low-down on that case?" I asked Chop a few days later.

No final conclusion yet," he said. "Personally, I wouldn't waste time on it."

But even if there was nothing to the story, one fact stuck in my mind. The Air Force had ordered a special investigation by Captain Ruppelt, instead of a routine check by an Intelligence officer from Miami. At least they had not believed such an encounter impossible.

While I was thinking this over, a new "space ship" report came in, from the town of Pittsburgh, Kansas. There was only one witness, a musician named Squires, who worked at station KOAM.

Just about dawn, on August 27, Squires was driving into Pittsburgh when he saw something hovering above an open field. When he got closer he saw it was a machine composed of two huge discs, one above the other. Between them was a round cabin with three or four curved windows, through which he could see a bluish light. The discs, he said later, were about 75 feet in diameter.

The saucer, Squires reported, was hovering ten feet above the ground. He got out of his car, cautiously approached the strange machine. As he came nearer, he could dimly see movement inside the cabin. Though he was not sure, he thought he saw a shadowy, humanlike figure. At the same time he heard an odd, pulsating sound from some unknown type of machinery.

Before he could get any closer, the blue-lighted ship suddenly lifted. Taking off straight up, it swiftly climbed out of sight.

Since there were no other witnesses, the musician's story was ridiculed by some papers. At the Pentagon I found three different reactions. Though a check on Squires showed he had a reputation for honesty, Lieutenant Colonel

Searles gave his story the horselaugh. Chop took it more seriously, but he denied that Project Bluebook was making a special investigation. In view of this, I was surprised when an Intelligence officer gave me a tip on the case.

"Don't write off the Pittsburgh sighting," he said. "If I were you, I'd go out there and check on it personally. Also, I'd get all the facts on that Pan American sighting near Norfolk. It's one of the most

impressive reports we have."

A New York trip kept me from going to Kansas, but I put in a request for the two case reports.

"I can tell you right now about the Pittsburgh sighting," said Chop. "The Project's listed it as unexplained. They got some soil samples from the spot where the thing was hovering, so they could test for radioactivity. But the samples were broken up when they came in, so they couldn't make an accurate analysis."

While I was waiting for the Pan American report, I found myself faced with another puzzle—the case of the "Sutton Monster."

Of all the eerie saucer stories, this was the weirdest. There is good evidence that this was merely a case of autosuggestion and hysteria, but it has some peculiar angles.

The action took place near Sutton, West Virginia, on the night of September 12. Early that evening a glowing object was seen by thousands of people as it flashed over the state. Among those who saw it, near Sutton, were Mrs. Kathleen May, her three young boys, and a 17-year-old National Guardsman, Gene Lemon. Though they couldn't be sure, they thought they saw something land on a nearby hill.

It was dark when they climbed the slope, and Gene Lemon turned on his flashlight. The first thing they noticed was an unpleasant, suffocating odor. As they neared the spot where the object seemed to have landed, two shining eyes were reflected in the light. Thinking it was a raccoon on a limb, young Lemon caught it in the beam.

The light fell squarely on a huge figure, at least nine feet tall, with a sweaty red face and protruding eyes about a foot apart. As the light fell on it, the monster's body glowed a dull green, then with an odd hissing sound it started toward them.

Terrified, Mrs. May and the boys fled down the hill. While Mrs. May was phoning the sheriff, her mother noticed a queer oily substance on the boys' faces. Soon after this, their throats began to swell. Later it was suggested that the monster had sprayed the boys with some kind of gas; but in the excitement Mrs. May could not be certain.

When the sheriff arrived, a fog was settling over the hillside. Twice he tried to get his dogs to lead him to the spot where the monster had been seen. Each time they ran away, howling, and he gave up until morning.

During the night the Lemon boy became seriously ill, almost in convulsions. His throat, like those of the May boys, was strangely inflamed and swollen. Later, a doctor compared the effects with those of mustard gas.

Just after sunrise, according to a Sutton school-board member, a strange machine took off from the hilltop. When the sheriff and his men searched the area they found tracks on the ground, the grass mashed flat, and bits of what looked like black plastic. There was no trace of the fearful-looking creature Mrs. May and the boys had described.

Such was the Sutton Monster tale.

When the story first appeared, it gave none of the evidence found on the hilltop, and I put it down to hysteria. As a joke, I phoned Chop.

"How many Intelligence officers are you rushing down to Sutton?"

"You, too?" he said sourly. "We're not even bothering to investigate. Several astronomers said a meteor went over there. Those people must have dreamed up the rest."

But the Sutton story wasn't so easily downed. Radio commentators repeated it all over the country. A newspaper

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syndicate ran a series of articles. Then Mrs. May and the Lemon boy appeared on "We, the People" and retold their frightening experience. It was obvious they believed the monster was real, and a dozen papers and magazines sent staff writers to Sutton for new angles on the story.

"This could get out of hand," I told Chop. "Why doesn't the Air Force squelch it?"

"We've already said the object was a meteor," he retorted.

"A lot of people don't believe it. And the way this has built up, it's bad. It plants the menace idea ten times more than Desvergers' story did."

(About three months later, when the scoutmaster's story appeared in the *American Weekly Magazine*, Desvergers said he had seen a terrifying creature in the saucer's turret—so dreadful he would not even describe it. But in September, when the Sutton case broke, this was not widely known.)

"It'll die out," Chop insisted.

"But people will remember it later, if something breaks. Why doesn't Intelligence go down there and kill it? They sent Ed Ruppelt to Florida, and that thing didn't have half the potential danger."

"We didn't know the answer to that one. This time we do. All those people saw was a meteor—they imagined the rest. We can't send Intelligence officers out on every crazy report—Project Bluebook hasn't the people or the funds."

But that didn't stand up. Major Fournet and other investigators were available in Washington; a

plane from Bolling Field could get them there in an hour. A local Intelligence officer could have been sent from the nearest base, or the check-up could be made by the Air Force Office of Special Investigation, which had men in West Virginia.

Despite Chop's answer, the Air Force hands-off attitude seemed peculiar to me. For the monster story was having a serious effect, in addition to letters from worried

Americans. With the Air Force apparently refusing to act, some civilian investigating groups were now taking over at Sutton. One of these was the Delaware organization, which made a careful check at the scene.

"This monster story could very well be true," one of the Delaware group told me. "We've gone over all the evidence, and we're convinced those people aren't faking—they're absolutely convinced they saw the thing. And from what we saw, something did land on that hill."

Soon after this, I discovered that the Air Force had not ignored the Sutton report. To avoid public attention Intelligence had worked through the West Virginia state police, securing all the details. Later, from a source outside the Pentagon, I heard that Intelligence had followed this up by sending two men in civilian clothes who posed as magazine writers while interviewing witnesses. Even if this was not true—and the Air Force denied it—their check through the state police showed more interest than they had admitted.

There was only one reasonable answer, and I should have seen it before. If the Air Force had sent investigators publicly in the hope of killing the story, it might have backfired. Papers and magazines would picture the Intelligence officers as making a serious investigation. It might seem proof to some people that the Air Force was soberly impressed by the report—or at least that giants from space were considered a strong possibility.

When the time came to admit that the saucers were real, the slightest official hint of possible menace would be quickly remembered. From that angle the Sutton story was dangerous, with its picture of a fearsome creature intelligent enough to build and control space ships. It was far better to brand the whole thing as a hallucination—which Intelligence evidently believed was the answer.

It was not until months later that I found my guess was right. In January, 1953, I was told what Intelligence believed to be the basic facts.

First, the glowing object seen by Mrs. May and the boys

actually was a meteor; it merely appeared to be landing when it disappeared over the hill. Second, the

group did see two glowing eyes, probably those of a large owl perched on a limb. Underbrush below may have given the impression of a giant figure, and in their excitement they imagined the rest. Third, the boys' illness was a physical effect brought on by their fright. Fourth, the flattened grass and supposed tracks were caused by the first villagers when they came to investigate.

Civilian investigators who examined the hilltop refuse to accept these answers, especially in view of the doctor's report on the boys' inflamed throats. Whether or not the Air Force analysis is correct, one point is certain—Intelligence carefully avoided a public investigation in order to prevent hysteria.

But for months no one at the Pentagon would admit it.

"We're simply not bothering with monster stories," Chop repeated, when I asked him again in November. "We've got enough trouble with confirmed sightings."

By way of proof he gave me two Intelligence reports from ATIC.

The first sighting had been on August 3, at Hamilton Air Force Base in California. At 4:15 p.m., two huge silvery discs, flying at different altitudes, had raced out of the east. As jet pilots on the ground watched them, the higher machine dived to the other one's level. Then the two saucers began to circle the base, maneuvering like fighter planes in a dogfight.

The pilot who saw them first, Lieutenant D. A. Swimley, had always scoffed at the saucers. Still incredulous, he got a pair of binoculars and trained them on the strange craft. He could plainly see their round shapes, but the discs were too high for detailed observations.

By this time GCI radar had picked up the saucers' blips, and plane spotters were phoning in reports. While interceptor pilots were dashing for their F-86s, six more discs came into sight and joined the others. As Swimley and other pilots watched from the ground, the saucers took

up a diamond-shaped formation, heading into the west. Before the jets could reach their altitude, the machines had vanished.

When an Intelligence officer questioned Swimley, he estimated the discs to be 60 to 100 feet in diameter.

"And don't tell me they were reflections," he added. "I know they were solid objects."

The second sighting had been made by Colonel Carl Sanderson, another jet pilot who had also been a skeptic. In a coolly factual report he told Intelligence officers he was now convinced the discs were real.

"On the 24th of August," he said, "I was flying an F-84 at 35,000 feet, en route to Turner Air Force Base, in Georgia. At 10:15, Mountain Standard Time, I sighted two round silvery objects flying abreast

over Hermanas, New Mexico. One made a right turn, in front of my F-84. Both objects disappeared at very high speed, then reappeared over El Paso, Texas. I saw one climb straight up, two or three thousand feet. Then the second one came across in front of me and joined the other in close formation. In a few minutes they both vanished. From their maneuvers and their terrific speed, I am certain their flight performance was greater than any aircraft known today."

In both of these cases, and especially at Hamilton Field, there had been ample time for pilots or ground men to try to signal the saucers. But the reports made no mention of such an attempt.

At the end of the July press conference, I had asked Colonel Bowers about this. He told me the Air Force had never tried to communicate with the saucers, and Ruppelt had given me the same answer.

Now, after reading the two IRs, I brought it up again.

"Why didn't somebody try to signal those discs?" I asked Chop.

"Probably didn't think of it," he said.

"Are you sure the Air Force has never tried it?"

"Positive. Oh, some pilot may have blinked his lights

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or tried a radio contact—but there's no official plan for communication."

"Why don't they work out a program? It would be easy to set up a simple code system—the same one would work for radio and blinking lights. All the airliner pilots could be in on it, too."

Chop reached for a cigarette, took his time lighting it.

"We can't set up any public scheme like that. People would take it as an official admission."

"Of what?" I said as he stopped.

"That the saucers are interplanetary."

"It's pretty clear from all these reports that Intelligence thinks so."

"Even if the evidence did indicate it," Chop said carefully, "the Air Force would never admit it until they had absolute proof and knew all the answers."

"How much do they know? They must have most of the picture—except maybe the motive back of all this."

Chop silently shook his head, and I let it drop.

Once again I'd come up against the invisible wall. In talks with Air Force officers I'd met the same resistance. Time and again I'd been given proof that the saucers were real, that they were super machines capable of speeds and maneuvers no earth-made craft could attain. Beyond this, most of my questions had been neatly evaded.

Even so, I'd come a long way since July. The first riddle had been cleared up—I knew now why I was getting this close cooperation.

It was a curious situation. The officers and civilian officials involved in UFO policy decisions were divided, roughly, into three main groups. The first, which I'll call Group A, believed that sighting reports should be made public to prepare the country for the final solution—whatever it proved to be. Most of the men in this group had seen all the evidence and were convinced the saucers were machines superior to any known aircraft. The other two groups believed in silence, but for different reasons. Those in the B group also had seen the evidence, believed the

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saucers were real, but feared the effect of a public admission. Group C was made up of hardheaded nonbelievers. Most of them had never troubled to examine the ATIC evidence; the few who had, flatly refused to believe it.

Since the first part of '52, Group A had urged that ATIC files be opened to the press. At first the two "silence" groups stubbornly resisted. But there was one argument that carried weight. The Soviet might suddenly claim that the saucers were Russian weapons. With the country ignorant of the facts, many Americans might believe the lie, increasing the chance of nationwide stampedes if the Russians made a sneak attack.

Reluctantly the "silence" men gave ground. The first result had been the *Life* and *Look* articles, written with ATIC aid. Then the July crisis arose, forcing Intelligence to debunk the saucers. When the danger of a panic was over, Group A began to fight again, pointing to the July hysteria as proof for their case.

At this time, by sheer good luck, I had gone to the Pentagon and made my offer. By then the Menzel theory had served its purpose; some Intelligence officers felt it should not be allowed to stand as the official answer. Believing that I would give a fair picture of the Air Force problem, Intelligence had released the facts which wrecked the inversion story.

Some time after the article was written, an Intelligence officer gave me a new slant on Project Sign and the early investigation.

"I've read your book," he said. "You were right about the policy of explaining sightings, but you had the reasons all wrong. Back in those days most Air Force people were convinced the saucers didn't

exist. It seemed just too fantastic. Oh, there were a few in Project Sign who thought the saucers must be real, but the evidence wasn't so definite then and the majority believed each sighting must have a conventional explanation. So that was the guiding policy, to find the most likely answer. Some of them, I'll

admit, were farfetched, but the policy was based on an honest belief."

"What about the space visitor's suggestion?" I asked. "The one that said spacemen might have seen our A-bomb explosions and were investigating."

"That was only speculation. It would have been better if that hadn't been released—and that goes for those 'explaining-away' reports you quoted. You made a good case. No one could have come to any other conclusion, after digging into the evidence as you did. But we weren't trying to prepare the public because we just didn't know the answers. And that's the God's honest truth."

After this talk, I asked for all the old ATIC reports and rechecked the main cases. Though I wasn't completely convinced, I could see this new slant might be true—the Air Force might not have been hiding the answer, back in the early years.

But I was positive they knew a lot more than they were telling now.

By this time—it was mid-November—the Pan American-Norfolk report had been cleared for me. I could see why Intelligence had been impressed. This was one of the very few cases where pilots had flown above the saucers. Seeing the discs at a low altitude, with the earth as a background, the pilots had been able to make accurate estimates of their size and speed.

On that night, July 14, the weather had been CAVU—clear and visibility unlimited. In the darkness of early evening the pilots could see the distant lights of Norfolk and Newport News.

It was 9:12 by the cockpit clock when Nash and Fortenberry saw the strange reddish glow ahead. A split second later they could see the six discs. Glowing an orange red, like hot metal, the saucers approached at fantastic speed, a mile below the airliner. By comparison with ground objects, 2,000 feet below them, the discs appeared to be 100 feet in diameter.

The six strange craft were in echelon formation, the

leader at the lowest point. Apparently sighting the DC-4, the first disc abruptly slowed, its bright glow dimming noticeably. As it slowed down, the next two discs wobbled for an instant. To the pilots it seemed they almost overran the leader, as if his signal had come too quickly.

Then in unison all six discs flipped up on edge. From that brief glimpse, they seemed to be about 15 feet thick. Only the upper surfaces glowed; the sides and the bottoms appeared to be dark.

With a violent change of course—at least 150 degrees—the saucers streaked away. Flipping back to their original flat position, they again lined up in echelon, their glow brightening swiftly as if from an increase in power.

A second after this two other discs raced under the DC-4 and joined the six ahead. In the two or three seconds it took to catch up, these discs seemed to glow the brightest of all.

Suddenly all the saucers went dark. When their glow reappeared, the pilots saw that all eight machines were now in line. Heading west, the discs climbed to a high altitude and quickly vanished in the night.

After radioing the Norfolk tower, Nash and Fortenberry estimated the discs' speed with a Dalton Mark 7 computer. The distance covered, from the first sighting to the point of disappearance, was about 50 miles. The strange machines had traveled this distance in not over 15 seconds, at a speed of 200 miles a minute.

It was an unbelievable figure. Later, in talking with reporters, the pilots warily gave the speed as "something over 1,000 miles an hour." Even in their confidential reports to Intelligence, the two men hesitated in telling their true estimate. But to their surprise the Air Force men did not scoff, either at the incredible speed or the discs' fantastic reversal in course.

From the way the saucers abruptly lighted up when first sighted, the pilots suggested they might have been hovering near Norfolk. Perhaps they had been observing the city, the naval base, or the naval air station. Or they

could have been waiting to rendezvous with the two other discs.

Regardless of their purpose, both Nash and Fortenberry were convinced the discs were intelligently controlled machines from outer space. Whether they were under remote control, or guided by creatures inside, neither man would hazard a guess. But both agreed that no human being on earth could have stood the shock of the discs' violent maneuvers.

In the Intelligence report ATIC made no comment on the pilots' opinion. As usual, in unsolved cases, it ended with a terse: "Conclusion: Unknown."

Because of its precise details, the Norfolk sighting was later included in the secret briefings at Washington. With all the developments since July, I had forgotten about these briefings. Then, early in December, I heard that Intelligence officers had given a new report on the saucers to high Defense officials, among them Admiral Cal Bolster.

Though we were old friends, I knew Cal couldn't reveal what he'd been told secretly. But it gave me a new angle to try at the Pentagon, so I went in and saw Chop.

"How about putting some cards on the table?" I asked.

"Such as what?" he said.

"The lowdown on the saucer briefings."

"What do you want to know?" he said warily.

"Are they top-secret, secret, or confidential?"

"Let's just say they're classified."

"Who gets them?"

"I haven't any list. Secretary Finletter's was the only one announced."

"How about the Director of Naval Research Admiral Bolster?"

"Maybe. I can't say."

"Look, Al," I said, "you and everybody else keep telling me you're not holding out. I appreciate all that the Air Force has done for me, but these secret briefings are the key to the whole deal. It's obvious Intelligence knows something pretty hot—"

"They don't have all the answers," Chop said flatly. "They simply discuss recent sightings, like the ones you've got."

"For two or three hours—busy people like Cal Bolster? They must cover a lot more than that."

All that drew was silence. I tried another tack. "Does anybody but the military get these briefings?"

"Maybe a few top people in certain civilian agencies."

"How about the President?"

"If they did brief him, it would be through his Air Force aide."

"Well, have they?"

"Don, I can't answer that," Chop said doggedly. "You'd have to get it straight from Intelligence."

"They must think there's some real danger, if it's bottled up that tight."

"It's not that. If you were in on a briefing, you'd get just about what we've been giving you."

"Then why not give me a transcript of a briefing?"

Chop threw up his hands.

"We can't do that. It would show certain secret Intelligence procedures."

"OK, Al, I give up. Hope you don't mind the third degree."

He gave me a weary grin.

"No, I'm used to it in this job."

For the next day or two I tried to think of some new approach to the problem. Temporarily, at least, I seemed to have come to a standstill at the Pentagon, though they might tell me more later.

But there was another source I hadn't tried recently—the engineer in charge of the first Canadian saucer project, Mr. Wilbur B. Smith.

Since 1950, Smith had given me several valuable leads. The Canadian situation had changed, I knew; security could have muzzled him. But if not, I might get a clue that would lead to the final answer.

CHAPTER VIII

The Canadian Project

About twice a year since the fall of 1950, Smith had flown to Washington on official business. Each time, before he left, we had discussed the saucers and exchanged sighting reports. In the hope that he might be planning another visit, I wrote him at Ottawa. Then, while waiting for his answer, I went over the information I had on the Canadian investigation.

Two years before this, when I first learned of the Canadian interest in saucers, most Dominion officials and scientists had been openly skeptical. But early in '52, after a series of unusual sightings, their attitude had changed.

Though most of these recent sightings had been classified, a few were released to the public. Two of the published reports came from veteran airmen of the Royal Canadian Air Force.

On the night of January 1, 1952, an orange-red disc appeared over North Bay, where the RCAF has a new jet base. For eight minutes, flying at a high altitude, the machine circled, dived, and zigzagged over the field. From its estimated height in the stratosphere, the saucer was one of the largest ever sighted. Its maneuvers were made at supersonic speeds.

When the report was published, RCAF Intelligence

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refused to comment. Then a second saucer was reported, again over North Bay. Approaching from the southwest, it stopped directly above the base. After hovering for a moment, it swiftly reversed direction. Climbing at an angle of 30 degrees, it disappeared at tremendous speed.

Meantime, other disturbing reports had reached the RCAF. Until then, many top officers, taking their cue from the Pentagon debunking, had laughed off the sightings. But after the second North Bay case, a high-level conference was held at Ottawa.

Four days later RCAF Intelligence publicly admitted it was starting a serious investigation. At the same time the Defense Research Board announced a new project, now secret.

"We are carefully studying the information," said Dr. O. M. Solandt, chairman of the Board. "At the moment we are as mystified as anyone else."

Another official statement was given out by Dr. J. C. Mackenzie, chairman of the Atomic Energy Control Board and formerly president of the National Research Council.

"It seemed fantastic that there could be any such thing," said Dr. Mackenzie. "At first the temptation was to say it was all nonsense, a series of optical illusions. But there have been so many reports from responsible observers that they cannot be ignored. It seems hardly possible that all these reports could be due to optical illusions."

Dr. Peter Millman, a famous Dominion astrophysicist, also admitted he was baffled after studying the sighting reports.

"It is no good just laughing at these reports. We can't discover any conventional explanation which would cover the reported maneuvers of these objects."

Just four days after the new project was begun, a formation of orange-red discs was sighted over Toronto, flying high above the city. Then on May 1 a lone saucer, moving at terrific speed, flashed over the Canadian capital. In this sighting at Ottawa, the disc's speed was calculated

as 3,600 m.p.h. by government investigators from "Project Magnet."

Unknown to most of the public, this special project had been started three years before, by geomagnetic engineers and scientists in the Telecommunications Division, Department of Transport. Its originator, the engineer in charge, was Wilbur B. Smith.

Probably no one in Ottawa was better equipped for a saucer investigation than Wilbur Smith. As the official in charge of broadcast monitoring, he could direct his men to listen for any strange messages; as a geomagnetic engineer, with a government laboratory at his disposal, he could carry out research on certain propulsion theories; through the official ionosphere observatories he could keep a radar check on saucers flying at extremely high altitudes.

In addition to this, Smith was an electronics expert, with several inventions to his credit. One was a high-speed radio direction finder used in World War II. Another was a new type of voltameter, and a third was a regenerative noise filter. He was also an expert on electronic analysis of graphic charts.

When I met Smith, in 1950, he was in Washington to represent Canada at an international conference on wavelength allocation. For two weeks, between his committee meetings and at nights, we covered every angle of the saucer problem. A tall, quiet-voiced man with close-cropped black hair, Smith had the cool detachment of a typical scientist. In our first talk he told me of the analyses he and his men had made. Then he gave me his opinion.

"I'm convinced they're real—that they're machines of some kind. We've weighed three possibilities. One, they're interplanetary. Second, they're a United States secret device. Third, they're Russian. The last two don't stand up. From the weight of evidence I believe the saucers come from outer space. And I think their appearance is what suddenly increased your government's interest in space travel and an artificial satellite. Judging from our

own operations, I'm sure your government also is vitally concerned with learning the secret of propulsion."

"What do you think it is?" I asked him.

Smith laid a pad on the table—we were lunching at a downtown hotel. Then he sketched a rocket-shaped craft.

"First, let's consider the parent ship. From the high altitude sightings, I think it must be a type like this. For power it could use nuclear fission, mass conversion of energy, or some other revolutionary source, such as cosmic rays. But our experiments indicate that the true discs, which are probably launched from large parent ships, utilize magnetic fields of force. And it's possible that the parent ships also use this same source of power."

It wasn't the first time the electromagnetic field theory had been suggested. Before Scully used the idea, in his story of the little men, I'd checked it with two or three engineers. But when several well-known scientists ridiculed the theory, I'd lost interest in it.

The first hint of electromagnetic propulsion had come in '47, on the day of Ken Arnold's now famous sighting. About that same hour, an Oregon prospector later reported, several discs appeared over the Cascade Mountains. As they circled overhead, his compass needle went wild.

His claim drew a tart comment from Project Sign analysts.

"It is difficult to take this seriously. It would imply fantastically large magnetic fields."

There had been other hints of discs rotating to utilize magnetic fields. One report came from the Reverend Ross Vermilion, a former B-29 pilot. The minister and other witnesses had described a rotating saucer which hovered a few hundred feet over a Kansas highway. Also, I had found some scientific support in the experiments of Dr. Fernand Roussel, a Canadian physicist now living at Lasqueti Isle, British Columbia. In a privately published treatise called "The Unifying Principle of Physical Phenomena,"

Dr. Roussel explained his theory of universal electromagnetic fields, which he believed space ships could tap in traveling between planets. (This treatise, which is now out of print, has several points in common with Einstein's unified field theory.)

Quoting Doctor Roussel, I mentioned this propulsion theory in my 1950 book on the saucers. But after the storm raised by Scully's electromagnetic explanation, I'd stopped giving it serious thought.

Since then, several scientists have backed the theory. One who publicly advanced the idea was Dr. Franz Zwicky of the California Institute of Technology. In 1951, writing in the *Journal of the American Rocket Society*, Dr. Zwicky said that it may be possible to use the electricity of the ionosphere. In this upper atmosphere ions are stripped of some outer electrons by the ultraviolet rays of the sun. This ionization frees molecules which carry large electric charges.

"If we can tap this electric force," said Dr. Zwicky, "it may prove better than atomic energy for propulsion."

Recently the Carnegie Institute of Terrestrial Magnetism admitted new discoveries about the ionosphere. Until two years ago this layer, which begins about 50 miles up, was believed to be utterly still. Now, radio-echo (radar) tracking shows there are high-speed "waves" which reach speeds up to 540 miles an hour. Unsuspected downward velocities, as high as 275 m.p.h., also have been discovered. Future ionosphere research may give us the key to tremendously powerful magnetic forces now unknown.

Other reputable groups, including scientists of the British Interplanetary Society, have suggested space-ship propulsion by means of external fields of force. It is only the beginning, but it shows the changing attitude toward this once-derided theory which a more advanced race may long ago have put to practical use.

In 1950, however, Wilbur B. Smith and his little group

were the only government scientists I knew who took the idea seriously.

"Certainly the theory's been ridiculed," Smith said when I mentioned some scientists' reaction. "So were plans for the aeroplane, the helicopter, jets, the A bomb—practically all our modern developments. I'd have doubted it myself before our experiments."

At the start the Canadian project was unofficial, though the research was done in a government laboratory with official approval.

"If you publish any of this," said Smith, "I want you to make that clear. We're government engineers and scientists, but we are working on our own time. We've gone back to the fundamentals of electromagnetism and examined all the old laws. We know now it is possible to create current by a collapse of the earth's magnetic field. Eventually, I think, we can achieve enough current to power a flying

disc. And we plan to build such a disc."

"How much of this can I use?" I said.

Smith hesitated. "I'll give you the information, but it will have to be cleared with my government."

After his return to Ottawa, Smith rewrote my original draft and sent it to the Canadian Embassy in Washington. The revised report was cleared for me by Mr. Arnold Wright, Defense Research member of the Canadian Joint Staff, after a check at the Pentagon. The following is a verbatim copy of the most important statements.

"A group of Canadian scientists has been working for some time on certain problems connected with the earth's magnetic field. These investigations appear to point the way to a new technology in magnetics, and if the initial conclusions are correct, they offer a ready-made explanation for many of the striking features which have been reported in connection with the sightings of flying saucers.

"The basic premise is that it is possible to produce a magnetic 'sink' [the name arbitrarily chosen by Smith and his engineers] within the earth's field; that is, a region into

which the magnetic flux will flow at a controlled rate, giving up some of its potential energy in the process. Such a 'sink' would have many interesting properties, such as the following:

- "1. Electrical power could be obtained from the collapse of the earth's magnetic field into the 'sink.'
- "2. Powerful reaction forces could be developed in a conducting ring surrounding the sink and offset from it, sufficient to support a suitably designed ship and to propel it.
- "3. If the rate of flow of magnetic flux is modulated, the resulting magnetic disturbances could be used for communication purposes.

"It is curious to note that most of the descriptions of flying saucers are in accordance with the design which would be necessary to exploit the properties of a magnetic sink. For example, the saucers are described as consisting of a large circular disc, with a small central cabin. In this case, the sink could be located in the upper central part of the cabin. The collapsing field in cutting through the surrounding metallic ring would induce in it an electric current which would react with the magnetic field which induced it, producing a force that would have a substantial vertical component. Support and propulsion of the ship would then be a combination of this resultant force, the airfoil action of the disc, and the interaction between eddy currents induced in the disc by its rotation and the main fields.

"Rotation of the disc may be either deliberate, for the induction of eddy currents, or may be incidentally caused by the electron drag of the very large current circulating around the disc. In any case, there is good observational evidence that the disc appears to rotate.

"Since the lift on the saucer will be proportionate to the product of the earth's magnetic field and the field produced by the current induced in the disc, it follows that when the saucer is accelerating upwards a greater force is required, and hence a greater circulating current.

"If the circulating current is sufficiently large and the cooling of the disc is inadequate, it may become red or even white hot, which is in line with several reported observations. Also, under certain conditions of operation, a very high voltage may be built up between the center and the rim of the disc, which could result in a corona discharge through the surrounding air, if the saucer were at a sufficiently high altitude. Such a discharge would resemble the Northern Lights but would be very much more intense. This also seems to be confirmed by observations.

"Navigation of such a flying saucer," the report went on, "would be a very complex process indeed. In the first place, the earth's magnetic field makes all sorts of angles with the horizontal, depending upon geographical latitude and peculiar local conditions. Thus the direction of the force which results from the interaction of the earth's field and the field of the disc may be in almost any direction.

"Furthermore, the tilt of the saucer to get the reaction force in the wanted direction most probably will result in aerodynamic forces in some other direction. Navigation therefore will resolve into a determination of the field direction, comparison with the direction in which it is desired to move, and analysis of the aerodynamic forces which would result from such a motion—and, finally, a suitable correction in the initial tilt of the saucer and flow of magnetic flux.

"It is doubtful if a human pilot could manage to do all this at the speed which would be necessary to maneuver a saucer at the speeds and through the intricate motions which have been observed. It is therefore highly probable that the saucer control systems are semi- if not fully automatic. There are many reports of saucers hovering in one spot for some time. For a saucer designed to operate as described, this would probably be its easiest maneuver. It would be necessary merely to adjust the flux flow and the tilt until the resultant force exactly balanced the

weight of the saucer. There would be little or no aerodynamic problem in this case.

"There is no indication that the accelerations to which a saucer crew would be subjected would be any different from the accelerations experienced in any other type of aircraft going through the same maneuvers. Those authorities who have been consulted say that even Einstein's Unified Field Theory does not indicate that gravity can be neutralized or the inertia of matter overcome. Where saucers have been observed to execute close turns and other maneuvers which would result in large accelerations, it is most probable that such saucers are remotely controlled and do not contain living matter as we know it."

During our talks Smith had enlarged on several of the major points. One night, while we were

dining at the Roger Smith Hotel, I told him I was puzzled by the conflicting reports of the saucers' lights.

"If the reports are right," I said, "they're every color of the rainbow. And pilots say they sometimes appear suddenly, or blink out like a light bulb when it's switched off. It just doesn't make sense to me."

"I think I can clear it up," said Smith. "Most of the effects are caused by the disc's rotation, though sometimes a corona discharge is the cause. In the first place, probably many discs aren't seen at all, especially at night. If they're not heating up from rotation, and there's no corona discharge, you wouldn't see one unless it was caught in a searchlight beam or you saw its metal surface shining in the moonlight."

He stopped as I held out my cigarette case.

"No, thanks, I don't smoke." He waited until I had lit up, then went on. "Now let's assume a rotating ring begins to speed up, so that it overheats from its movement through the magnetic field. At first, out of the darkness, you'd see a pale pink—if the speed-up was not too rapid. Then the color would brighten to red, orange-red, through yellow to the glow of white-hot metal. If you slowly heat any metal you'll see the same changes."

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"That's right, I've noticed it," I said.

"Now if the ring's rotation was very swiftly accelerated," Smith continued, "the human eye couldn't catch the rapid changes. It would go from red to white too quickly. The same holds true when the rotation is reduced. If the slowing is gradual, you'll see the various stages as the saucer turns yellow, orange, red, pink, and finally becomes dark. But if the rotation were abruptly slowed or stopped, the cooling effect of the air, especially at high speed, would be very swift. You could get the impression that the light had actually been turned off."

"It sounds logical enough," I agreed. "It explains all but the blue and green combinations."

Smith paused while the waiter put down our dessert orders.

"Those colors come from the corona effect. Under certain atmospheric conditions you'll get the Northern Light colors. At different heights a certain shade would predominate. For instance, at relatively low altitudes, any corona discharge would be very short in length and you'd see more of a blue-white color. Somewhat higher, it would be green, or bluish green. Higher still, you might see all the normal corona colors—red, yellow, blue, and green."

"If the ring were overheating, could you still see a corona discharge?"

Smith nodded, then qualified the answer.

"Ordinarily a bright red or white glow would nullify it. But if the rotation speed was only moderate, you might get a reddish color tinged with blue. Higher up, you'd be more likely to see a red

shade, from heating, tinged with green or bluish green. It would most likely be a rather hazy effect instead of precise colors. In the majority of cases, however, you could expect just the red-orange-white range, and the reports bear that out."

"This certainly backs up the rotating disc answer," I told him. "It's the first convincing explanation of all the night sightings."

"It explains the daytime variations, too," said Smith.

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"It's fairly clear, from the reports, that the discs are made of some silvery-colored metal. In sunshine they gleam like conventional aircraft. But there are color changes in daytime, when the saucers maneuver or suddenly speed up. Many of them have been described as turning red or getting white-hot—also the reverse. However, in bright sunlight it's harder to detect the changes—and to recognize the disc shape, too."

"Come to think of it," I said, "Project Sign mentioned that in its 1949 analysis. I'll bring the report next time we get together."

Our next talk was at the Pan American Union, where the wave-length conferences were being held. Smith had an hour to spare, and we found an empty room. I had brought my copy of the final Project Sign report, which contained one section entitled, "Confidential Analysis of Intelligence Reports." Though it had been declassified, not many people knew the analysis details.

Together, Smith and I went over the main points.

"Group 1. The most numerous reports indicate daytime observation of metallic disc like objects, roughly in diameter ten times their thickness. Some suggest the cross-section is asymmetrical and rather like a turtle shell. Reports agree that the objects are capable of high acceleration and velocity. They are often sighted in groups, sometimes in formation. Sometimes they flutter.

"Group 2. Lights observed at night. These are also capable of high speed and acceleration. They are less common in groups. They usually appear to be sharply defined luminous objects.

"Group 3. Various kinds of rockets, in general like the V-2.

"Group 4. Various devices, probably cosmic-ray balloons.

"Group 5. Reports given little credence.

"In general, there are few if any indications of noise or radio interference. Nor are there many indications of any material effects or physical damage attributed to the observed objects."

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Smith carefully reread the last sentence.

"Not many indications," he said. "That could be taken to mean they do have a few. I didn't think any disc had come that close."

"What do you mean?" I said.

"There is an area of possible danger." Smith reached for a pencil, sketched a rotating disc, then roughly outlined a city beneath it. "With a disc 100 feet in diameter, for instance, there will be two fairly large fields of magnetic force around it while it's in operation. If it were to fly low over this city—let's say at 500 feet—eddy currents would be induced in power lines and metal surfaces. It could blow fuses, perhaps even burn out wires. The danger zone might even be larger; possibly it would extend for a thousand feet. I believe it's the main reason discs have avoided flying low over inhabited areas."

"How close could a plane come without danger?"

"Well—" Smith stopped, gave me a shrewd glance. "You're thinking about Mantell. Judging from the report, he never got near enough for any such effect. However, if a pilot did fly into a region where a magnetic field was collapsing, it would produce eddy currents in his plane.

"At a moderate distance it would merely throw off his direction finder and compass. If he were fairly close, it could affect his ignition and set up strong vibrations in his plane. It might even cause a fire. But the plane would have to be well inside the danger zone."

"Could the vibrations cause a plane to disintegrate?" I asked.

"Possibly," replied Smith. "But it would have to be extremely close with a 100-foot disc. A larger one, rotating at high speed, would have a greater danger zone, of course."

He looked back at the Project report.

"I see they recommended that the discs' flutter be analyzed. What ever came of that?"

"Nothing that I know of." I glanced at another section,

where Project analysts had discussed the saucers' shape and color, and checked several paragraphs for Smith:

"Color. Observers universally report light-colored objects . . . Seventy per cent said the objects were glittering, shiny, luminescent.

"Shape. Over half were reported as round, disc-shaped, spherical or circular. Very few

[observers] saw any distinctive shape . . .

"Individuals who see objects in daylight either look at the reflection of the sun on a shiny surface, or else directly at a light source of high intensity. In the war, camouflage experts placed bright lights on the leading edges of antisubmarine aircraft to conceal them from sub lookouts. So if observers in daytime actually see lights or the reflection of the sun on objects, it would account in large measure for their not identifying them."

"That also holds for the daytime difference in colors," said Smith. "On a sunny day a disc could be bright red from rotation, but seen close to the sun it would appear as just a brilliant object. Also, any corona effect would be much dimmer in daylight. The farther from the sun, the more of the true color you'd see."

"On a cloudy day people have seen the actual color changes. At first a disc which isn't heating up will look silvery—or gray, on a very dark day. Then increased rotation will give it a reddish tint, and on through orange to white. And of course the reverse, as rotation decreases."

"It all adds up," I agreed. "But what about the rocket-shaped types?"

It was getting close to Smith's next conference. He looked at his watch, hesitated.

"Let's cover that later. Call me tonight and we'll set a date."

Before our next meeting I listed a few points that still puzzled me. When we got together for dinner, Smith picked up the discussion exactly where we'd left off.

"You were asking about the rocket-shaped types. I think the large parent ships have that general shape. There may

be a smaller cigar-shaped type operating nearer the earth, but I'm not convinced. A disc seen at various angles will give all the effects reported."

He took out a half-dollar, poised it between his fingertips.

"Assume this is a disc-shaped saucer. Narrow your eyes, so your vision blurs a little and you don't see the sharp outlines. Now I'm holding it flat, edgewise to you—you see it looks like a long, extremely narrow cylinder." He tilted it slowly. "Now it's a narrow ellipse, the typical 'cigar shape.' As I tilt it a bit more, it looks more like a football, then egg-shaped. And finally it becomes perfectly round."

He laid down the coin.

"I believe many, if not all, of the saucers described as egg-shaped, oval, or cigar-shaped have simply been tilted discs, traveling at varying angles because of the local magnetic fields. And that brings

up another point—the reportedly sudden disappearances. Take the daytime sightings first. Suppose a disc seen as round or oval abruptly tilts so it's edgewise to the observer. At best, all he could see would be a very narrow cylinder-shape, little more than a line. Except at close range, the human eye couldn't resolve it—the disc would seem to vanish.

"Abrupt maneuvers may also explain some of the night disappearances. Some witnesses describe discs as glowing on top, but dark on the lower side. It may be that there is a stationary section under the rotating disc, and only the moving ring heats up. There may be some other explanation. But if the lower side remains dark, then any maneuver that turned the bottom toward an observer would give the effect of a sudden blackout."

During one of our talks Smith had sketched his idea of a flying saucer, showing a rounded, turret-like central cabin. It was possible, he said, that the turret might retract in flight, to reduce resistance. I got out the sketch and looked it over as Smith finished his blackout explanation.

"With all that heat," I said, "it's hardly possible the things could be piloted—unless, of course, they're creatures

who can withstand extreme heat as well as tie high gs."

"I agree," said Smith. "If they were humanlike beings, they'd have to avoid operations that would cause such heat and high g-forces. The cabin would need to be heavily insulated. They might also have special cooling systems, perhaps a non-conducting gas in hollow compartment walls. But I think most if not all of the disc-type saucers are under remote-control."

We had already covered some of the reconnaissance angles. Smith agreed with me that some of the discs undoubtedly carried television scanners and cameras. Others, he thought, would be equipped with devices like our tape recorders, to pick up broadcasts and code messages for later analysis aboard the mother ship.

Though he admitted it was pure speculation, Smith also had sketched his ideas of how discs could be berthed on the larger craft. Each mother ship could have small cup-shaped niches in its sides, into which the disc turrets would fit, with the rest of the saucers lying flat against the parent ship's side.

If the turrets retracted, it would be even simpler for the discs to attach themselves to the larger craft. They might be held in place magnetically, or by some mechanical lock.

Another angle which Smith had covered was the operating steps. To take off, he said, the revolving section would be rotated until the resultant cutting of magnetic fields caused sufficient upward thrust. Since less resistance would be encountered in edgewise flight, this was obviously the reason for the discs' tilting up at steep angles, during swift climbs.

The actual control was one point which puzzled me, and I asked Smith about it now.

"Even if they're remote-controlled from the mother ship," I said, "it must take some kind of robot to calculate all the forces."

"No doubt of it," Smith answered. "They probably use an automatic device which constantly analyzes the magnetic

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fields through which a disc is traveling. This robot would be in the disc itself—even if it were manned. I think it must be linked with the controls, so that it instantly changes the disc position, and the speed of rotation if necessary, to compensate for magnetic field variations. And the same would apply for maneuvers. For turns, climbs, hovering, and other maneuvers, the operator would have a series of push buttons—whether he was aboard the disc or on the parent ship. When he pushed a button for a turn, or to speed up, the robot would do the rest."

Another thing I had wondered about was the oscillation or flitting motion so frequently reported.

"They seem to waver before making a turn or climbing," I said to Smith. "Some pilots say they've seen the discs oscillate even in straight flight."

"That's to be expected," he told me. "Let's say a master-control button was pushed for a turn. There'd probably be a split-second delay while the robot-analyzer checked the resultant forces needed, then it would move the controls. This accounts for oscillation before any sudden change such as a steep climb or a sharp turn.

"In straight flight, oscillation would be caused by the disc's adjustment to changing magnetic fields. In a formation, you'll sometimes see individual saucers wobble in succession as they pass through different fields."

He looked at me quizzically as I glanced at my notes.

"I see you still have some doubts about electromagnetic propulsion."

"No, I think you're right. Some of the points are hard to grasp, that's all."

"When we do get all the answers," Smith said soberly, "it will be a tremendous thing—and we'd better get them before Russia does. Magnetically powered discs would be terrible weapons. Their range would be unlimited, and their speeds would be far beyond anything we've even dared hope for. They'd make perfect guided missiles, and they could easily carry A-bomb warheads—perhaps even the H bomb, when we get it."

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"And their being silent would make it even worse," I added. "You'd never hear them until they hit."

"Well, of course, that applies to even slower missiles," said Smith. "The people in London never heard the V-2s before they struck."

"Incidentally," I said, "that was the last question on my list. I don't understand why the saucers have never been heard, even at fairly low altitudes."

"A few people have reported hearing them," answered Smith. "But most sightings, I think, have been at altitudes higher than witnesses thought—so high that you wouldn't hear anything. In two or three cases, when discs passed overhead at a moderately low altitude, people have said they heard a swish. And of course if you were very near a saucer on the ground, or if it was hovering close to the earth, you'd undoubtedly hear a humming sound from the rotation. That is, unless other sounds—like a train passing by—drowned it out."

This was our last meeting before Smith left for Ottawa. It was two months after this when he sent back the revised version of the article I'd written. It had been intended for early publication, but was held up to include details of the Canadian disc experiments. Later in '51, Smith told me they had made laboratory tests with a rotating disc, but by that time Project Magnet had been classified. I decided to wait a while longer, hoping that the details, and pictures of the disc, would be released. But Smith had been unable to clear them, and the article had remained unpublished.

Now, as I read over the material, in December of '52, Smith's earlier explanations seemed almost uncanny in light of the recent sighting reports.

For a careful check I went through my entire file of sightings.

There were several which described the red-green-yellow-blue combination indicating a saucer's corona discharge at high altitudes. The most outstanding case was at

Phoenix, where hundreds of people had seen the so-called "jewel box" saucer.

In sightings at lower altitudes, case after case bore out Smith's explanations. During daytime periods, scores of metallic-looking discs had been seen to change color during maneuvers. One typical report, in 1950, described an encounter near Lewisburg, West Virginia. Two round, silvery devices had approached the city, then had swung into tight, fast circles. As the maneuvers began, both discs turned orange-red. When they straightened out, reducing speed, the orange hue quickly faded and the discs resumed their normal silvery color.

In detailed night reports, too, observers' descriptions backed up Smith's analysis. One carefully reported encounter, which I had personally investigated, was the dramatic incident near South Bend, on

the night of April 27, 1950. Because of this check-up, I was able to get the passengers' stories as well as the crew's account.

At 8:25 p.m., a Trans World Airlines DC-3 was droning westward over Goshen, Indiana. In the left-hand seat, handling the controls was Captain Robert Adickes, a stocky ex-Navy pilot with ten years' service in TWA. Over on his right was Robert F. Manning, also a four-stripe captain, who was acting as first officer on this flight to Chicago.

The DC-3, Flight 117, was cruising at 2,000 feet when a strange red light below and behind the airliner suddenly caught Manning's eye. Moving swiftly, it climbed up on the right, overtaking the plane.

Puzzled, Manning watched it close in. This was no wingtip light—the red light was too bright. The DC-3 was cruising at 175 m.p.h., but the mysterious object overtook it rapidly, the light steadily growing in size. It was now an orange-red color, like a round blob of hot metal sweeping through the night sky. Craning his neck, Manning looked down on a spherical shape which glowed brightly on top, its lower half in shadow.

"Look over here," he said to Adickes. "What do you make of this?"

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Adickes stared down through the starboard window, then told Manning to crank it open to make sure it was not some freak reflection. The saucer was still visible, now almost at the airliner's level. Over the top, the pilots could see scattered ground lights, cars moving on a highway. Adickes hastily called Air Traffic Control, but ATC had no record of any craft near their ship.

By this time the saucer was parallel with the DC-3. As they watched, it slowed down, keeping pace with the plane. To Adickes it looked like a huge red wheel rolling down a road. He banked toward it, but the disc instantly slid away, keeping the same distance. Again he tried, with the same result.

Calling the hostess, Gloria Hinshaw, Adickes told her to alert the passengers. To make sure he had plenty of witnesses, he went back into the cabin, watching the passengers' reaction. When he returned to the cockpit, he tried once more to bank in for a closer look. When the disc again slid away, he cut in sharply, at full throttle, for a direct chase.

Instantly the glowing disc dived, racing off to the north past South Bend. Adickes estimated its speed at nearly 400 miles an hour. Since it had been pacing the airliner at 175 m.p.h., this meant it had doubled its speed in about three seconds. For a few minutes more the weird light remained visible—a diminishing bright red spot. Then it faded into the darkness.

Before meeting the two pilots, I checked on them with TWA.

"Quiet . . . conservative . . . serious . . . careful," were the reports on both men. Nobody in TWA questioned that Adickes and Manning saw exactly what they described.

Captain Manning, the first one I saw, was an ex-Air Force pilot. He had flown six years for TWA, and his flight time was over 6,000 hours.

When he first saw the saucer, Manning said, it seemed a brighter color than when it flew alongside. Apparently the reduction in power, as it slowed to pace the DC-3,

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decreased the heating effect. He also agreed that the device had evaded attempts to get near it.

"It was like flying formation with another plane. The thing seemed to slide away when we turned toward it."

"How large do you think it was?" I asked.

"That's hard to say, because we could only guess at its distance," said Manning. "But it had to be fairly large. When I first saw it, the thing was near the horizon, perhaps ten miles away. Even then it was big enough to stand out."

He quietly spiked the idea that the saucer had been a jet plane's tail pipe.

"I've seen jets at night. If you're directly behind one, you'll see a round red spot. But this was huge in comparison. Beside, I saw it coming up from behind us—a jet's exhaust would be invisible from that angle. You wouldn't see much from the side, either."

Manning wouldn't speculate as to what the machine was.

"All I can say is that it definitely was there. And it was uncanny enough to startle anyone first seeing it."

Captain Adickes agreed with Manning on all the main points.

"Before then, I wasn't convinced by the saucer reports. Now I know they do exist. One thing, it wasn't cherry-red, as some papers said. It was about the color of hot metal."

Beside trying to close in on the saucer, Adickes also had attempted to get above it.

"Each time it veered away, as if it were controlled by repulse radar. And when I went straight after it, the thing was off in a flash. Manning and I estimated its diameter at 50 feet or more. When I tried to cut in toward it, it streaked away at twice our speed, but even then it took several minutes to fade out. So it had to be fairly big— maybe a lot larger than 50 feet."

As it speeded up to escape, Adickes said, he caught an edge-on glimpse of the saucer. It seemed to be about one tenth as thick as its diameter. Though he couldn't be sure

of its distance, while it was pacing the airliner, Adickes believed it was at least half a mile away. It had not been close enough to affect his instruments or radio.

Hostess Gloria Hinshaw had seen the disc from both the cabin and the darkened cockpit.

"It looked like a big red wheel rolling along," she told me. "It was certainly a strange-looking thing. If I hadn't seen it, I don't think I'd have believed the pilots."

Later, by long-distance calls, I interviewed 11 passengers. The first was S. N. Miller, manager of a jewelry company in St. Paul. He had watched the saucer, he said, for several minutes.

"The thing was the color of a neon sign—just a big red disc. I used to laugh at saucer stories—but not any more."

Among other passengers who confirmed the sighting were C. H. Jenkins and D. C. Bourland, engineers with the Boeing Aircraft Company, and E. J. Fitzgerald, vice-president of a metal equipment corporation in Chicago. Later several officials of the International Harvester Company also admitted they had seen the glowing disc as it paced their plane.

Though there were some variations in the passengers' reports, most of them were minor differences—estimates of size, distance, and speed. Their combined testimony left no doubt that some kind of controlled machine, a type unknown to the pilots and the Boeing experts, had been flown near the airliner for a careful observation.

As I read the details again, I checked them against Smith's explanations. The pattern fitted perfectly.

The more recent cases, too, seemed to prove that the discs were magnetically powered. One report, cleared to me by ATIC, described an unusual sighting by four astronomers at Greenville, South Carolina. On the night of May 13, 1952, the astronomers had seen four saucers flying in a diamond-shaped formation. Glowing a reddish yellow, the machines passed silently overhead, wobbling several times before they went out of sight. All four saucers,

the astronomers agreed, had an oval shape, like that of a disc flying on its side.

Several other Intelligence reports, from Goose Bay Air Force Base, gave similar evidence from pilots and ground men. The first was the sighting on June 19, 1952, when a glowing red disc approached the field at night. As already described (in Chapter IV) the machine wobbled a moment, then turned white and climbed out of sight at high speed.

On November 26 an F-94 pilot chased another disc several miles from the Labrador base. As it turned and climbed, the saucer's color changed from bright red to white. On December 15 he saw a second disc and tracked it on his radar. Again, he watched the color change from red to white, when the saucer swiftly maneuvered. The color changes were also seen by a T-33 jet pilot.

In the Pan American-Norfolk case, every point seemed to fit Smith's answer—the brief fading of the orange-red glow, as the discs slowed; the quick flipping on edge before the turn; their brightening glow as they speeded up. But the clincher, to me, was an incident at Camp Drum, on September 22, 1952.

For 30 minutes that night the duty officer and several soldiers watched a round, orange-red object circle above the camp. At least three times they heard what they later described as "the whine of a generator or rotating discs." During its half-hour observation of the camp, the strange machine hovered, accelerated for swift climbs, and descended again. Part of the time it was apparently operating at a very low altitude, for the humming sound was distinctly heard on the ground.

Though it still wasn't absolute proof, it looked as if Smith had been right from the start. If so, we now knew what the saucers were like, and how they were operated.

But where did they come from? What kind of beings controlled them?

And most important of all:

Why were they watching this planet?

CHAPTER IX

The Utah Pictures

It was a week later when Smith answered my letter. He told me he expected to be in Washington during the next two months, and he'd have time for at least one talk.

"As you know," he wrote, "my project is now classified. But I'll be glad to tell you what I can, within security limits."

In the meantime, I decided, it might be a good idea to ask the Air Force what they now thought of the magnetic theory. There was a chance that they might have reversed their stand after all the mounting evidence.

Since it was almost Christmas, I put off submitting the questions until later. During the holidays I met an old friend in Washington, a former service man whose contacts I'd often envied. Since I can't use his right name, for reasons which will be obvious, I shall call him Henry Brennard.

"I hear you're back on the saucers," he said. "How's it feel to have the Air Force helping you for a change?"

"It was hard to believe at first. But they've really given me the dope—at least on sightings."

I told him about some of the Intelligence reports, and Brennard nodded.

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"I knew it was getting hot. What have they decided to do about the Tremonton pictures?"

"Tremonton? I never heard of them."

"Oh-oh, I guess I talked out of turn. They must have a tighter lid on them than I thought." Brennard hesitated. "Well, since I've spilled it, if you promise not to use it without Air Force permission—"

"Don't worry; I wouldn't use any Air Force case unless it was cleared."

"OK. Well, these pictures were taken by a Navy warrant officer back in July. They're movies, and they show several saucers maneuvering near Tremonton, Utah—the Air Force calls them the Utah or 'U' pictures. The ATIC lab in Dayton and Navy Photo-Intelligence have been secretly analyzing them for months."

"How much do they show?" I asked quickly. This could be the break I'd been looking for.

"The discs weren't close enough for much detail," he answered. "The film shows a formation of round, bright objects going like a bat out of hell. They're also maneuvering in the formation, and at the end one of the saucers reverses its course and leaves the rest. But it's what the analysis shows that counts. It proves the things were round machines of some kind, making speeds and turns no plane on earth could duplicate.

"At first some of the Air Force skeptics wouldn't believe it. Even though they checked on this warrant officer and found he was OK, they still said it must be a fake. So the lab men tried to duplicate the pictures. They didn't have any luck, and the experts all agree—Navy and Air Force both—that the film's genuine."

"What does the analysis show?" I said. "I mean, beside proving they were actual flying discs."

"Well, first it tells the technical stuff, how they worked it out using the resolving power of the lens—formula stuff. Then it gives the speeds. If I got it right, the discs were

about seven miles away, making around 1,000 miles an hour.

"And maneuvering beside that?"

"That's right. Some of them were whipping around in tight circles. The experts figured no plane could possibly turn that fast—even if we had any in production that would make a thousand miles an hour. The film's raised ned at the Pentagon. I heard General Samford had it run for him three times."

"This explains a lot of things," I said. "It must be why they've changed their policy about giving out Intelligence reports."

Next morning I went in to the Pentagon and sprang it on Chop.

"Al," I said, "how much has ATIC learned from analyzing the saucer movies?"

It was the first time I'd seen him startled. But he covered up and gave me his dead-pan look.

"What movies? Oh, you mean those old Montana shots back in '50. They were only—"

"I mean the Tremonton, Utah, pictures," I said. "The ones ATIC and Navy Photo-Intelligence have

been analyzing."

He tried the blank look a second longer, then gave up.

"Who told you?" he said.

Without giving him Brennard's name, I explained.

"I'll have to tell Intelligence about this," said Al. "Come back tomorrow and we'll talk about it."

When I saw him the next day he told me Intelligence wasn't too happy about the leak.

"But since you already know," he said, "we'll confirm it. But please keep it under your hat."

"I won't use it unless you clear it for me. You ought to know that by now."

"Fair enough," Al said. Then he gave me a few more details on the Utah pictures. They had been taken by Warrant Officer Delbert C. Newhouse, during a trip he

and his wife were making. At 11:10 a.m., on July 2, Newhouse and his wife were driving along slowly, seven miles from Tremonton, when they saw a formation of bright objects—round, brilliant spots standing out against the blue sky.

Newhouse was familiar with aircraft—his station was the Aviation Supply Depot at Oakland, where he was assigned as a Navy photographer. But he knew these things weren't planes. They were round, unlike anything he had ever seen, and obviously moving at supersonic speed.

Getting out his Bell and Howell 16-mm. camera, Newhouse put on a telephoto lens and shot 40 feet of film. In the last few moments he trained the camera on one disc which had reversed its course, leaving the formation. By the time he turned back, the others had disappeared.

After developing the film, he sent it to Project Bluebook for evaluation. Then, for three months, the pictures were studied by experts of the Photo-Reconnaissance Laboratory at Dayton.

"Fraud was completely ruled out," said Chop. "They tried every trick method to duplicate the film, but it couldn't be done. They blew up separate frames, and made all kinds of tests—well, you got the dope, your tip was right."

"Al," I said, "this is it. You've finally got proof the saucers are interplanetary."

"The Air Force isn't admitting that. Remember, the film's still secret. We're waiting for the Navy report—it's due January 15. But we're pretty sure they'll confirm the ATIC lab analysis—in fact, they've already done so informally. We just want it in writing."

"What happens then?"

"It isn't decided. Some Intelligence officers want to show the film to a small group of the press." "Phew!" I said. "That'll really blow the lid off."

"There's a lot of opposition," Al warned me. "But if

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there is a press showing, well make it official, with a public statement."

"Saying what?"

"That there isn't any conventional answer—the things aren't planes, balloons, or any other known object."

"You can't stop there. The whole country will be on your neck."

Al shook his head.

"We can't say positively what the saucers are, because we don't have any proof."

"No proof? With this film, on top of all the sighting reports? What will it take before the Air Force will admit they're interplanetary?"

"I'd say we'd have to get one on the ground, see exactly what it was—and probably know why it was here."

"But you think people should see this film?"

"Yes, I think the public should know about it."

"What does General Samford think about showing it?"

"I can't speak for him," Al said guardedly. "My personal opinion is that he won't oppose it."

A little later I asked him if the Air Force had any other movies of flying saucers.

"The only other movie," said Al, "was the Montana one. You know, the picture that was taken by a ball-park manager in 1950. It shows what looks like two round bright objects. Colonel Harold Watson—he was Intelligence chief at Dayton then—said they were reflections from a water tower. But ATIC hasn't any official conclusion, though they did analyze the film. I do know they got out a copy and compared it with the Utah pictures."

"I noticed you said 'the only other movie.' Have you got any secret still pictures?"

Al shrugged.

"We have some stills, yes, but they're not secret. And they don't show anything important. Most of them show just a round or oval shape, too far off to be identified."

"Wait a minute," I said. "You have one picture, taken

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in Newfoundland—ATIC case 26. A saucer burned a big hole in a cloud, and Project Sign was going to have a meteorologist calculate the amount of heat required to do this. What did they find out?"

"Nothing definite," Al answered. "And the picture didn't show the saucer—only the hole in the cloud."

"How about the new grid cameras? Last time I asked, you said they hadn't been distributed yet. That was over three months ago."

Al looked embarrassed, but before he could answer, the phone rang. When he finished talking, he turned around with a sheepish grin.

"I know it'll sound suspicious, but we've had more trouble with those cameras. The grids weren't cemented on right, and they keep coming off."

I didn't say anything. Al's face got a little red.

"Oh, all right—I'll admit it sounds like a stall."

"It's OK, Al. I guess if the grid cameras had shown up something, it would be secret anyway."

"Maybe so. But I'm telling you the solemn truth. We haven't got a single grid picture."

Though he sounded sincere, I wasn't convinced. Even with my tip on the Utah film he'd denied its existence at first. But there was no use pressing him, so I switched to my questions on magnetically powered discs.

"Did ATIC ever analyze the discs' flutter? It was recommended in the last Project Sign report."

"Not that I know of," said Al. "If they did, they haven't told me."

"Do they have any new ideas on the magnetic-propulsion theory?"

He eyed me ironically.

"Don't tell me you're falling for Scully's story after all this time."

"No, but the rotating disc answer isn't impossible just because he tied it to the little men deal. I know his explanation was full of holes—or rather the way Silas Newton

told it to him. Just the same, I notice a few scientists have swung around—at least they admit it's possible to tap electricity in the atmosphere."

"All right, maybe it is the answer. But so far as I know it hasn't been proved."

"Then the Air Force hasn't built any test discs, like the Canadians?"

Al fiddled with his cigarette fighter before he answered. "Circular airfoils have been tested—you know that. There was the Navy XF5-U and—"

"I mean rotating discs using electromagnetic fields."

"It's possible. I couldn't say."

"What does ATIC say about that Camp Drum report, where they heard what sounded like rotating discs?"

"No conclusions," said Al.

"Can you get me the Intelligence report?"

"Not now, anyway. They're still analyzing the case."

It was the first time since July there had been any hint of a hold-up on reports.

"What about some 'mother ship' cases?" I said. It was a stab in the dark; I wasn't sure they had even one confirmed report, unless it was the Oneida sighting. And I didn't class that as a mother-ship case.

Al gave me a sidelong look.

"Another tip?" he said. "OK, I'll see what I can do. It may take time—the Project's shorthanded and behind in its work."

It could be true, but I began to suspect a stall. Later on, I found out that my radar article had caused trouble; some officers had objected to my getting the ATIC reports.

While I was waiting for word on Air Force cases, I read over several unofficial reports of mother ships.

The first came from Culver City, California. On July 23, 1952, several aircraft-plant workers had sighted a bright, silvery ship flying northwest over the city. One technician, who watched it through binoculars, described it as elliptical-shaped and flying with a rocking motion.

Apparently at a high altitude, the strange craft stopped and hovered. In a few seconds the aircraft men saw two small discs launched from the starboard side. For several minutes the discs circled over the area, in a precise pattern. Then the "mother ship" took them aboard. Climbing straight up, at tremendous speed, the cigar-shaped machine quickly vanished.

The next three incidents took place in Europe. On September 29, 1952, a large cigar-shaped ship was sighted over Denmark. Flying beneath it were several discs, all of them rotating at high speed. Both the parent ship and the discs were reported from various parts of the country.

Two weeks later, on October 10, another mother ship, also accompanied by spinning discs, was seen over Germany, Norway, and Sweden. One published report carried eyewitness accounts from 30 Swedish cities; at least 7,000 people were said to have watched the mysterious formation. Later that same day a single disc was seen over Copenhagen airport, by Danish air force officers.

On October 14 hundreds of Frenchmen at Lens and Oleron reported another cigar-shaped ship with a convoy of discs. Many of the observers were leading citizens, including several college professors at Oleron. The story had one fantastic detail which has all the earmarks of hysteria. According to a few Oleron citizens, one disc discharged hundreds of odd, fiber like threads as it zigzagged over the city. Afterward, one man insisted he had been caught like a fly in a spider web, and several witnesses confirmed this eerie tale.

Except for this, the Oleron-Lens sightings were identical with the other mother ship reports. In addition, this case had radar confirmation. Operators at the Mont de Marsan airdrome, reporting to official investigators, said their scope had shown a large image unlike any known aircraft.

Compared with these European cases, the lone unofficial

American report reads like science fiction, and not too good fiction at that.

The narrator of this weird episode was one George Adamski, who had previously broken into print with alleged pictures of flying saucers. His story, which appeared in the *Phoenix Gazette* on November 24, 1952, was told tongue-in-cheek by staff writer Len Welch.

In the *Gazette* account a friend of Adamski describes him as a professor, formerly of Palomar Observatory. Actually, Adamski operates a refreshment stand on the road up to Palomar, and his

astronomical experience seems to be confined to a small telescope mounted on the roof.

According to Welch, who advised his readers to take a firm grip on their chairs, Adamski and several friends sighted a large cigar-shaped ship over the Arizona desert. Later, the story goes, Adamski left his companions and took up a solitary watch some miles up the road. If anything unusual happened, he was to wave his hat or make some other signal.

During his vigil Adamski was amazed to see a round device, some 20 feet in diameter, descend near him. Climbing out of the saucer, a man from space quietly stepped to the ground. The visitor was about 23 years old, with a tanned, ruddy face, grayish-green eyes, and long sandy hair which hung down his back and blew in the wind. He was wearing a brown Eisenhower jacket, ski pants, and reddish-brown shoes, Adamski's friends later told Welch.

The man from space, it seems, spoke a little English, along with a gibberish that sounded like Chinese. Answering Adamski's questions mainly by nods, he said his saucer was interplanetary. It had come, he indicated, from the mother ship they had seen, which was now waiting for them, about 500 miles up.

When Adamski asked why they were visiting the earth, the spaceman waved his arms to describe A-bomb mushroom clouds. During this enlightening conversation, Adamski saw a young boy—or else a "very beautiful woman with

shoulder-length hair"—peeping from a porthole. Shortly after this, the spaceman called attention to odd marks on the ground, made by the soles of his shoes. Then he boarded the disc, which silently took off and soared away.

Examining the footprints, Adamski found some mysterious hieroglyphics and designs impressed in the earth. By good fortune one of his friends happened to have some plaster of Paris with him, and they carefully made casts of the spaceman's message.

For good measure, the *Gazette* had printed pictures of the casts, with the caption: "A Message from Space?" But to date, the meaning of the hieroglyphics remains unknown—unless, of course, Adamski knows the key to the riddle . . .

It was some time after New Year's when Chop phoned me about the reports I'd requested.

"We've cleared two cases for you. I think you'll find them interesting—they're along the lines you mentioned."

By then I'd heard about the objections to my getting official reports. But I didn't ask any questions. It was plain that the protests hadn't altered General Samford's decision.

The first case from ATIC went back to the critical days in July. The Intelligence report, I noticed, mentioned eight competent witnesses, one an ex-Navy pilot, now an aircraft engineer at a plant in California.

At 6:35 p.m., on July 27, the eight men had seen a large silvery ship, flying at terrific speed over Manhattan Beach. It was evidently fairly large—even at a high altitude; it appeared to be the size of a dime held at arm's length. The men heard no sound, and the ex-Navy pilot, watching through binoculars, could see no exhaust trails.

Directly over Manhattan Beach, the strange ship turned south. Then, to the group's amazement, it separated into seven round objects. Swiftly, three of the discs took up a V formation, the others following in pairs, flying abreast.

"It appeared as if a stack of coins had smoothly separated," the pilot told an Intelligence officer. "The entire

operation was very gracefully executed. The turns, too, were very smooth."

After circling for a few minutes, the formation took up a north-northeast heading and rapidly went out of sight. Later a careful Air Force check showed there were no known aircraft in the vicinity. From the wording of the report, I could tell the interrogating officer took the sighting seriously; he had emphasized that the pilot's background made him an unusually well-qualified observer.

In releasing the case, ATIC had given no hint of what it believed the answer. As usual in sightings with no conventional explanation, it ended the report with a noncommittal, "No conclusion."

Before going on to the second case, I tried to figure out the meaning of this peculiar sighting. It was certainly not a mother ship operation. And in spite of the accurate observations, it was possible the discs had not actually been attached to each other. They might have been flying in a vertical column, so close together that they appeared as one unit. But this explanation must have occurred to the pilot, the interrogating officer, and the Project analysts. And it looked as if ATIC had accepted the report at face value.

That raised technical questions I couldn't begin to answer. The discs might have been attached to each other magnetically until the break-up. Possibly they had all rotated as one. Or there might be some device that kept them slightly separated, so that each disc could rotate independently.

The reason for such a system was easier to guess. A remote-control operator, on a mother ship higher up, would find it far simpler to guide seven discs as one unit, than if they were flying separately. Until it was necessary to split them up, for different missions, this would be the most sensible way to control them.

Beach report put a new light on the Japan case. When the Air Force men at Oneida first sighted that saucer, it had appeared as a round, dark object visible behind a glowing light. Later it had split up into three units which kept accurate intervals as they raced away.

With the Oneida case to back it up, the "stack of coins" report took on more reality. Each of the incidents tended to confirm the other. I could see now why ATIC hadn't questioned the Manhattan Beach sighting. Also, they might have other parallel cases that conclusively proved this "stacking up" operation.

The second case which Chop had just cleared was even more dramatic. This strange sighting occurred over the Gulf of Mexico, as a B-29 bomber was returning to its base in Texas. It was just before dawn on December 6, 1952—less than 48 hours after Lieutenant Earl Fogle's near-collision at Laredo, Texas.

Approaching the end of a night practice flight to Florida, the B-29 was cruising in bright moonlight, at 18,000 feet. So far it had been a routine mission.

At 5:24 a.m. the big bomber, piloted by Captain John Harter, was 190 miles from Galveston and about 100 miles south of the Louisiana coast. A minute before, Harter had called the radar officer, Lieutenant Sid Coleman, and asked him to turn on the set, so he could check the coastline on the auxiliary scope in the cockpit.

At 5:25, back in the ship, Coleman was watching the main radarscope to see if the coast showed up. Suddenly the blip of some unknown object appeared at one edge of the screen. When the sweep made its next revolution, Coleman jumped.

In that brief moment the unknown craft had gone 13 miles.

A third blip leaped onto the scope as the oncoming object streaked toward the B-29. For an instant it seemed they would meet head-on. Then Coleman saw their paths

were diverging. He snatched up his stop-watch, yelled for the flight engineer.

"Bailey! Help me track this thing!"

Before the blips faded, Coleman and the staff sergeant swiftly computed the unknown's speed.

It was 5,240 miles an hour.

The two men gaped at each other, then Coleman grabbed his intercom mike and called the pilot.

"Captain—check your scope! We just clocked an unknown at over 5,000."

"That's impossible," snapped Harter. "Recalibrate the set."

As Coleman hurriedly went to work, Master Sergeant Bailey bent over the scope.

"There's another one—two of them," he exclaimed.

A second later Lieutenant Cassidy, the navigator, cut in on the intercom.

"I've got 'em on my scope, too," he said tautly.

By the time Coleman finished recalibrating, the blips of four UFOs were racing across his screen. Abruptly, Harter's crisp voice came through the intercom.

"I've got four unknowns at 12 o'clock [dead ahead]. What do you show?"

"They're on all three scopes," said Coleman. "I've recalibrated—it's no malfunction."

Up in the cockpit, Harter incredulously watched the swift-moving blips cross his glass. As one approached on the right, he called out a hasty alert.

"Unknown at 3 o'clock!"

Back in the B-29, Bailey sprang to the right waist blister and peered out into the night. Astonished, he saw a blue-lit object streak from front to rear. Moving so fast it was only a blue-white blur; the saucer vanished under the bomber's wing.

The strange machine had hardly disappeared when another group of blips came onto all three scopes. Like the other machines, the new group was making over 5,000

miles an hour. To make it worse, they were all coming from almost dead ahead. Though their course still diverged enough to miss the bomber by miles, the slightest change might put the crew in instant peril. At those terrific speeds they wouldn't have a prayer and every man aboard knew it.

Six minutes after the first sighting, there was a sudden lull. As the scopes cleared, Coleman drew a long breath. Apparently the nightmare was over.

A minute passed. The tense airmen were slowly beginning to relax when a third group of blips flashed onto the scopes. Coleman seized his stop-watch again, swiftly called off the times and distances.

Bailey figured the speeds, grimly nodded.

"Same as before," he muttered.

The radar officer bent over the screen. Two of the UFO's were rocketing by on the right.

"Unknowns at four o'clock!" he bawled into the mike.

Staff Sergeant Ferris beat Bailey to the waist blister. Open-mouthed, he watched two machines streak by—mere blurs of blue-white light.

Up in the cockpit, Harter's eyes were glued to the auxiliary scope. Forty miles away, five of the saucers were racing behind the bomber, cutting across its course.

Suddenly the saucers swerved, headed straight for the B-29. Harter froze. At their terrific speed they would close the gap in three seconds.

But before he could move the controls, an incredible thing happened. Abruptly the onrushing UFO's slowed to the bomber's speed. For ten seconds they kept pace behind it, while the pilot held his breath.

Then, swiftly picking up speed, the unknown machines pulled off to one side. At the same moment Harter caught sight of a huge blip—a half-inch spot on the scope. Amazed, he saw the most fantastic thing of all.

Still moving at over 5,000 miles an hour, the smaller craft merged with the large machine. Instantly, the huge

blip began to accelerate. Moving so fast that Harter sat stunned, it flashed across his scope and was gone.

A few moments later Coleman's awed voice came through the intercom.

"Captain, did you see that?"

"Yes—I saw it," said Harter.

"We clocked it," said Coleman. "You won't believe this—it was making over 9,000 miles an hour!"

"I believe it, all right," Harter said grimly. "That's just what I figured."

For the rest of the way he kept the crew on alert, but no more saucers appeared.

The meaning of what they had seen was inescapable. The discs had been launched from a huge mother ship for some type of reconnaissance mission. Probably it had covered parts of the United States, but at the discs' tremendous speed they could have been operating anywhere over the globe.

For a rendezvous, whoever guided the discs had chosen this point over the Gulf of Mexico. After the B-29 was sighted, one group of discs had been diverted for a brief observation or tracking. Then, flying at 5,000 m.p.h., they had been taken aboard the mother ship. And in a matter of seconds the huge machine had almost doubled its speed.

It was almost unbelievable. But the radar set had been working perfectly, and the visual confirmation, as Bailey and Ferris saw the machines flash by, was final, absolute proof. Three separate times during the operation saucers had been seen exactly where the three radarscopes showed them.

Captain Harter had radioed ahead, and Intelligence officers were waiting when they landed. Over and over the airmen were interrogated, separately and together. But nothing could shake their story, and statements in the report showed their firm conviction.

Captain Harter: "One group of blips was noted, after the set was calibrated, to arc about and swing in behind

us at about 30 miles, and maintain speed and distance for approximately ten seconds . . . Contact was broken off at 0535, after a group of the blips merged into a one-half-inch arc and proceeded across the scope and off it at a computed speed of over 9,000 m.p.h."

Lieutenant Coleman: "I noticed one UFO approach our aircraft at a terrific rate of speed. I timed it as best I could with a stop-watch over a known distance and the flight engineer computed the speed at 5,240 m.p.h. I alerted the entire crew to look for the objects visually, and flashes of light were noted. The closest the objects came was approximately 20 miles. I saw about 20 objects in all . . . I recalibrated the set and there was no change.

"The objects were small and possibly round, with the exception of one very large return shaped as follows, one-half-inch curved arc. I also noticed a large return come up to within 40 miles of our tail from behind and then disappear. To the best of my knowledge, I believe that this object was real and moved at an extremely high speed and was not a set malfunction or optical illusion."

Master Sergeant Bailey: "The radar operator clocked the object [the first one seen] and I computed the air speed of the object to average 5,240 m.p.h. Twice during the period, the radar operator reported an object to be passing at 3 o'clock. Upon looking out the window, I saw a blue-white streak travel front to rear and disappear under the wing."

Staff Sergeant Ferris: "After the radar operator reported objects approaching at 4 o'clock, I immediately looked in that position and saw two flashes of a blue-white nature for approximately three

seconds."

As was to be expected, neither Bailey nor Ferris could make out the shape of the saucers. At their great speeds they were naturally only a blur.

Of all the official reports I'd seen, this was the most astonishing. That it had been released to me seemed to mean only one thing. Clearly, Intelligence—or at least

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Group A—wanted the public to see this conclusive proof that the saucers were interplanetary machines.

Step by step they had shown me convincing evidence adding up to this answer. It had been like a revolving stage, each scene revealing some new, dramatic phase.

First, the simultaneous radar and visual sightings, which proved the saucers, were not temperature inversions or optical illusions. Then the Oneida case, official proof of solid objects behind the mysterious lights. After this, case after case with pilots' statements that the saucers were controlled machines, with speeds and maneuvers beyond the power of any earth-made aircraft. Fourth, the Utah pictures, which they had fully confirmed when they could easily have denied their existence. And now this mother-ship report, tying it all together into the space-ship answer.

Thinking it over, I remembered a discussion at the Pentagon several months before. It had been set off by Robert S. Allen's column, "Inside Washington."

"The Air Force has a breathtaking report on 'flying saucers,' " Allen had claimed. "The study, prepared by noted scientists and Air Force experts, expresses the belief that some of the mysterious flying objects are genuine and that they originate from 'sources outside this planet.' That is, these devices are interplanetary aircraft of some kind. . .

"The sensational study is the work of the Air Technical Intelligence Center, Dayton, Ohio. A number of top scientists are devoting their full time to analyzing reports on flying objects . . . Air Force authorities are considering publishing certain portions of the report. Chiefly deterring them is fear the sensational nature of the findings may cause undue public alarm. These findings were described by a high Air Force official as 'fantastic but true.'"

By the time I saw Allen's column, I knew there was a group in the Air Force that wanted to make the facts public. It was possible that one of this group had given Allen a tip.

In answering queries from the public, the Air Force

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PIO's denied Allen's story. Lieutenant Colonel Searles, I found, brushed it off as a mere rumor Allen had evidently picked up. Since his job was apparently to kill the saucer stories, I wasn't too much impressed. But Chop's denial had a genuine ring.

"It's on the level," he insisted. "There is absolutely no secret report saying the saucers are interplanetary."

Now, recalling the way he'd worded it, I realized it could have been only technically true. The report might have top secret. It might not have been in report form. There were several ways Chop could have slid around the facts by carefully wording his statement.

After seeing the B-29 report I was tempted to ask him again, but I decided against it. If they wanted me to know, they'd tell me. Trying to push them could upset everything.

It was now the middle of January, and the Navy's Photo-Interpretation analysis of the Utah pictures was expected any day. After that the Air Force would decide about the press showing.

Before I learned of the Utah film, I'd planned a long feature, or several articles, for *True*. But the editor, Ken Purdy, had told me to wait.

"From the way they're opening up," he said, "they may give you an official admission that the saucers are interplanetary."

A few days before I saw the B-29 report, I'd been given permission to tell Purdy and aviation editor John DuBarry about the Utah pictures, provided they wouldn't use the story without clearance. Both Purdy and DuBarry agreed that it was too late for an article. Before they could get it on the stands, the Utah picture details might be headlined from coast to coast. And that was almost certain to break the whole thing wide open.

Of course, if the public showing were turned down, I could still use all the material that Intelligence had released. But one thing bothered me. Even with all these

cases, I had no proof of where the saucers came from, what kind of beings controlled them, or why they were here, though I knew several possible answers. Perhaps Intelligence knew the truth, but all I could do was to weigh the various answers and decide which was most probable.

There was one step I hadn't tried lately that might yield some clues, a system I call the "reversing technique." Whoever controlled the saucers, they had solved all the tremendous problems of space travel. In comparison we were only on the threshold, but we'd come a long way in the last few years. Some of our space-travel planners had listed the complicated steps for exploration of our solar system and even beyond. And our motives for such exploration, of course, were known.

By reversing all this, I could at least get a picture of what the saucer beings had overcome, and probably how they had gone about exploring the earth.

It might even give some hint to the kind of creatures we'd face, when contact finally came.

CHAPTER X

Flight through Outer Space

When the flying saucer scare started, in 1947, few reputable astronomers publicly admitted a chance for interstellar space flight. But there has been a gradual change in the last two or three years. One proof of this came in February, 1951, when Dr. William Markowitz, a Naval Observatory astronomer, discovered a strange object in our solar system.

The day after the discovery Thomas R. Henry, the conservative science editor of the *Washington Star*, discussed the object with Dr. Markowitz and other Naval Observatory astronomers. In an article based on their views, Mr. Henry made this statement:

"Although highly improbable, the possibility cannot be denied that the new-found object is a space ship launched from some planet outside the solar system."

Later Dr. Markowitz concluded that the strange object was a peculiar type of asteroid with a unique orbit. But the fact remains that experienced astronomers and a careful science editor admitted the possibility of interstellar flight.

Other prominent astronomers have now publicly stated that the universe may hold many inhabited planets. One of these is Dr. Carl F. von Weizacker, noted University of Chicago astrophysicist.

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"Billions upon billions of stars," Dr. von Weizacker has said, "may each have their own planets revolving about them. It is possible that these planets would have animal and plant life on them similar to the earths."

Our progress toward space travel has changed the minds of many engineers and scientists who once called this a fantastic dream. We have made long strides since the pioneering rocket tests of Dr. Robert H. Goddard which began back in the twenties. Most of this progress has been made in the last five years. Perhaps it was only coincidence, but our intensive drive for space travel did not begin until after the first flood of saucer reports.

Within a few months the Defense Department mapped serious plans for a moon rocket and an

artificial satellite. In 1948 Secretary James Forrestal publicly announced the first steps.

"The Earth Satellite Vehicle Program, which is being carried out independently by each military service, has been assigned to the Committee on Guided Missiles for coordination. . . . Well-defined areas of research have been allocated to each of the three military departments."

Another hint of the government's interest was given by General Curtis Le May, when he asked Congress for Air Force research funds covering these items: "Flight and survival equipment for ultra-atmospheric operations, including space vehicles, space bases, and devices for use therein."

We are still several years from our first space flight. While a moon rocket could be built now, it would be a crude device compared with the space ships which have been planned. One reason is that we are waiting for atomic power. Also, rocket designers have almost outstripped the research scientists. This was frankly admitted last February by the chief of the rocket section at the Naval Research Laboratory.

"Present plans for space travel," he said, "and designs for space ships are based on a meager store of scientific

knowledge. Before we can attempt to transport human beings in a ship, we must produce a practical, reliable, unmanned satellite. To do this we need better, more efficient rocket power plants . . .

"We need more research on fuels, on high-temperature metals, and methods for cooling the inner walls of rocket motors and the outer skins of high-speed airframes."

However, we have learned some of the answers, using improved V-2s and other rockets. Powered by liquid fuels, a Wac-Corporal unit, fired at high altitude from the nose of a V-2, has climbed about 250 miles, reaching a speed of 5,000 m.p.h. Eventually rockets driven by atomic-powered jets, or perhaps a now-unknown propulsion system, will escape the earth's gravity and fly into free space.

In the frigid cold of the earth's shadow, space-ship cabins will have to be heated. But in sunlight, crews will have to be protected from the intense solar heat: even in our supersonic test planes, which fly at less than 100,000 feet, cockpits must be air-cooled. To safeguard crews in airless space, a balance must be found between the extreme cold on the shaded side of a ship and the tremendous solar heat on the exposed side. Methods now considered include combinations of black and white painting, and a slow, controlled rotation of the entire space ship.

Already, chemical air-purifying systems have been planned for crew compartments. Tests indicate that crews and passengers will breathe oxygen and helium, eliminating the danger from nitrogen bubbles.

After scores of rocket flights, engineers have developed complicated control and recording instruments which withstand the shock of terrific acceleration. The first crude inertial controls of the V-2 have been replaced by new devices which detect the slightest variation in speed. Gyroscopes a thousand

times more accurate than those used in aircraft are ready for space-ship use, and automatic navigation equipment designed for guided missiles is being adapted for space rockets.

To learn what human beings can stand in space, Air Force and Navy space-medicine experts have made hundreds of tests. One series, made with the Air Force decelerator sled at Muroc Air Force Base, shows that humans can stand far more gs than was once believed. (One g is the normal pull of gravity.)

In these tests the G-sled, driven by rockets down a 2,000-foot track, swiftly reaches a top speed of almost 200 miles an hour. Near the end of the track it is halted by a powerful braking system—or, in the latest type, by a scoop lowered into a trough of water. When stopped in the shortest possible time, the force produced is at least 50 gs.

Major John P. Stapp, Air Force medical officer in charge of the tests, has taken 45 gs, facing forward on the sled. An even higher number can be taken by a human guinea pig facing backward during the abrupt stop.

"The highest tolerance has not yet been reached," says Major Stapp. "I believe it is much greater than ordinarily thought possible."

More exact tests are now being made with a centrifuge—a cockpit like chamber whirled at the end of a long trussed beam. During these experiments a pilot's reactions are automatically photographed; they can also be relayed by television to a control room. By timing him as he works out various problems, at different rotation speeds, observers learn how many gs he can take without mental lag and confusion.

It has been found that a pilot lying prone in the centrifuge can take four to five gs for almost ten minutes, and this is the average force expected in a space-ship take-off.

More elaborate centrifuges, simulating control and navigation rooms of space ships, have already been planned. Crews will be trained, under varying gs, in every step from take-off to navigating in free space, before they make their first flight.

Actual tests with mice and monkeys have shown what our spacemen can expect during launchings and even in

free space. Some of the details have been supplied to me from the Aero Medical Laboratory at Wright-Patterson Field.

Monkeys, enclosed in "capsules" with an oxygen supply, were fitted with medical instruments to show blood pressure, heartbeat, and rate of breathing. During the upward flight automatic radio equipment

signaled all changes to Aero Medical men on the ground and no unusual effects were noted.

All the monkeys lived through the ascent to maximum altitude, but four were killed when their parachutes failed. The fifth landed safely, still enclosed in its capsule, but died from the desert heat before it could be found.

These experiments also showed Aero Medical men the effects of "zero gravity" or weightlessness, which spacemen will encounter when they escape the pull of the earth. One test, automatically photographed, showed the mice floating in their rotating drum, as the rocket started back to earth. For two or three minutes the rocket's downward speed equaled the pull of gravity, so that the mice were weightless.

When they were examined, after parachutes landed their drum, they showed no ill effects from having been "gravity free." Also, the photographs showed that a normal mouse was as much at ease inverted as when standing upright.

Probably humans will suffer no more serious effects, but there will be several odd complications, perhaps some uncomfortable sensations.

Once a spaceman is weightless, any careless movement may send him bumping into hard objects—falling upward, sidewise, or sailing the length of his compartment. If he raises his hand suddenly to scratch his nose, the lack of gravity resistance may result in a knockout blow—or at least a disconcerting jolt.

When he breathes, the exhaled carbon dioxide will stay in front of his face, to be breathed in again, unless the

air is constantly circulated. Because the human body is a closed system—unlike a plant—spacemen will be able to eat and drink without gravity. But drinking, for example, will not be simple. If a space-ship passenger spilled milk from an ordinary glass, the liquid would be suspended in mid-air. To prevent this, spacemen will probably use nipples bags.

Likewise, any loose object—a knife, fork, dish, or anything not fastened down—will float wherever it is placed. Frequently used equipment will have to be secured with clamps, or magnetized to cling to metal sections. Ordinarily sharp objects, like eating utensils, will have to have rounded tips or edges to prevent accidental stabs or cuts.

Just how long our future spacemen can endure the weightless state is a question. It may produce effects which will require designers to create an artificial gravity.

By putting jet planes into a "ballistics trajectory"—a course slowly but continually moving downward, like a falling shell—space-medicine researchers have been able to get "zero gravity" for up to

30 seconds. Pilots and crewmen in this weightless condition have described uncomfortable sensations, although they could think clearly.

On long space flights, this unnatural state may become mentally unbearable, even if it does not cause actual "space sickness."

There may be several ways of creating artificial gravity so that our spacemen will feel normal even in outer space. One way, suggested by Dr. J. C. Bellamy in 1950, would be to build a rotating space ship. Since then the same idea has been explored by Dr. Wernther von Braun, creator of the V-2, and also scientists of the British Interplanetary Society.

This type of space ship, which the English call the 'living wheel," would consist of a huge spoked device with crew's quarters in the hollow rim. The centrifugal force caused by rotation would provide an artificial gravity, so that crewmen would walk normally on a curved floor at right angles to the hub of the wheel.

Before large space ships can be built, we must produce some light-weight, heat-resistant metal. It may be an alloy combining the lightness of titanium, a silver-gray metal now mined near Quebec, with a heat-resistant metal similar to rhenium. Or some now-unknown alloy may be discovered before space ships go into production.

Judging from present progress, the first satellite will be launched in less than five years. It may be a two- or three-stage rocket, fired from a desert base, or it may be carried aloft by a giant jet transport, to give it an initial take-off speed with less fuel waste.

In either case it will be guided—by ground trackers or by robot controls—into its preselected orbit around the earth. As it circles the globe, automatic radio and television transmitters will relay information to Ground Control, showing various instrument readings and also pictures of the earth taken from the rocket.

After a time the satellite may be brought down gradually to lower altitudes, to see how slowly a space ship must reenter our atmosphere without dangerous overheating.

On a later test flight, if not the first, probably monkeys and mice will be sent up in capsules or drums, with automatic devices attached to signal physical reactions to Ground Control. During gravity-free flight, some animals might be released into a larger space, so that ground observers could watch the results of prolonged weightlessness.

When everything possible has been learned from these tests, the first manned satellite will take off.

For the first few minutes the crewmen will lie strapped on their G-couches, while robot controls

guide the space ship upward. At the selected altitude either the robot or the crewmen will turn the ship into its orbit, where it will coast endlessly until a landing is desired.

If von Braun's plan is followed, the satellite will circle the globe every two hours, at right angles to the earth's axis. On each circuit, radar and telescopes will be able to scan a strip about 1,000 miles wide. By circling at right

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angles to the earth's rotation, every spot on the globe will be observed during a 24-hour period.

In case of war, guided H-bomb missiles could be launched from this base and aimed by radar at any target on earth. The space base could also serve as a control-point for long-range missiles launched from the earth itself.

But the satellite's peacetime uses will be equally important. At this airless height astronomers will be able to see the stars more clearly; new discoveries about the universe will soon follow. Crews can warn the earth of approaching hurricanes and send data for accurate weather forecasting.

Living aboard for days, weeks, perhaps months, the crew will learn many things of value in planning long space flights. It will be a strange existence, even though radio and television programs will give crewmen a comforting contact with the earth.

There will be one danger—that a meteor might penetrate the sealed ship. Tiny meteors, speck-size, will vaporize on the "meteor bumper"—a thin, metallic nose shield—even though they hit at a speed of from 20 to 50 miles per second. The larger types, which are rare, would tear through the double walls—even a meteor half an inch in diameter could penetrate the cabin. Crews will be trained to throw emergency patches over such a hole and to rebuild cabin pressure swiftly, meantime using their space suits' oxygen supply.

However, astronomers have calculated that such disasters would be very unlikely—a space ship would probably travel for months without being endangered. Meteor showers will be plotted in advance to avoid extra hazard and once a space ship is in free space radar is expected to give warning of any dangerous object that may be approaching. It will take only an infinitely small change in course, probably automatic, to miss a collision.

After a satellite has been operated long enough to give crewmen experience, the next step will be a flight to the

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moon. A new type of propulsion may make it possible to launch a manned rocket directly from the earth. But at present, von Braun and other rocket experts expect to construct space ships at satellite bases, with

all the materials, fuel, and supplies carried up from the earth in three-stage freight rockets.

Actual construction will be done by engineers in space suits, already tested by the Air Force and the Navy. Floating in space, they will assemble the prefabricated ships, using reaction-flasks of carbon dioxide to push them from one spot to another.

Because of the moon's short distance from us, about 239,000 miles, the flight will be relatively easy. The first trip may be only a mapping expedition, by camera, radar, and visual observation. Or the crew may first make these checks and then land.

For the landing the crew will turn the ship around, descending stern-first. Once in this position, they will let down slowly, by a gradual decrease in jet thrust. Since the moon has no atmosphere, there will be no air resistance to heat up the ship.

Using space suits, the pioneers will set up a small base and make radio contact with the earth. Crews from other ships will later expand the base. Underground, air-conditioned shelters will be built as a protection against the daytime heat and the minus 214 degrees cold of the long moon night. Atomic furnaces will probably be used to supply heat, power, and light, as space-freighters bring in equipment, furnishings, and food from the earth.

The moon base will be doubly important. Guided missiles could be launched easily because of the moon's small gravity—only one sixth that of the earth. Once in free space, they could be guided by radar to any target on our globe. And because of the moon's small gravity, it will be a main take-off base for interplanetary flights. By taking on just enough fuel for a moon flight, space ships leaving the earth can carry larger loads of passengers and supplies.

When they reach the moon, they can take on a full fuel load, and still take off easily, with the moon's pull only one sixth that of the earth.

Unlike the earth-moon trip, flights to other planets will involve complicated navigation. Mechanical brains, like the present Goodyear L-3 GEDA, will work out the course, figuring when and where to intercept the target planet's orbit.

Probably Mars will be first solar planet to be explored. At its nearest approach, Mars is 35 million miles from the earth. Venus, at its nearest, is closer—25 million miles. But Mars, according to many astronomers, is the most likely to have intelligent life, and several peculiar incidents in the last three years seem to increase the probability.

The most important evidence is linked with the mysterious explosion on Mars in 1949. The strange blast was seen on December 9 by the noted Japanese astronomer, Tsuneo Saheki. Since Saheki has specialized in observing Mars since 1933, his report carried weight with world scientists.

According to Saheki, the explosion caused a brilliant glow for several minutes. This was followed by a luminous yellowish-gray cloud 40 miles high and 700 miles in diameter. After ruling out all other explanations, Saheki suggested it had been an atomic explosion.

Such a blast could be from two causes, Saheki said—a volcanic eruption or an artificial atomic explosion. If the latter, then it could only have been set off by highly advanced beings. In this case it could have been a test of some atomic weapon even more powerful than the H bomb—or it could have been an accident.

If it was an artificial explosion, there are three possibilities. It might have been caused by a Martian race; a race from another planet could have settled on Mars recently; or spacemen from outside our solar system might be using Mars as an operating base during their investigation of the earth.

Since the 1949 explosion, strange blue clouds have been seen above Mars by Walter H. Haas, director of the Society of Lunar and Planetary Observers—also by other astronomers. The cause of the clouds is a mystery.

Beside this recent activity, there are other unanswered questions about Mars. The most important concerns the long-disputed canali on the red planet, discovered by Giovanni Schiaparelli in 1877. Though Schiaparelli did not claim these "channels" were artificial, he did not deny the possibility that they were canals built to link the melting polar icecaps with water-starved areas on Mars.

Since then, many scientists have accepted this answer, among them Percival Lowell, who established Lowell Observatory in Arizona and studied the red planet for over 30 years. During this time Lowell discovered a precise network of over 600 canali—which he was convinced were waterways. Lowell's theory, stated in his three books,* was that Mars is a dying planet, with the melting icecaps its only remaining source of water. The Martians, Lowell believed, had built the canal network and a series of pumping stations in a gradually losing battle to perpetuate their race.

In addition to this, several astronomers have reported seeing odd geometrical symbols on Mars. To be visible from the earth, they would have to be gigantic. The most logical explanation is that the Martians were attempting to signal the nearest inhabited planet, perhaps in the hope of being saved from their slowly approaching doom. But even the existence of the symbols is denied by many competent observers.

However, the possibility that Mars is inhabited—at least temporarily—is serious enough to make it the first one explored.

During the flight robot calculators and automatic star-trackers will keep the ship on course. And by the time a

* *Mars and Its Canals; Mars as the Abode of Life; The Evolution of Worlds.*

Mars voyage is possible; a new method of navigation should be practical—radio astronomy.

In the last few years' astronomers using radio-telescopes —giant parabolic reflectors with amplifying systems—have been hearing mysterious radio "signals" from the Milky Way and beyond. Their source is unknown.

At first scientists believed the peculiar transmissions came from hot objects of great magnitude, which they named "radio stars." But astronomers have been unable to identify them with any luminous objects.

In a recent report Dr. Grote Reber, Bureau of Standards authority on cosmic radiation, stated that such powerful radio waves could not be caused by any star, or group of stars'. He admitted he was puzzled by the signals, which combine to form an odd hissing sound.

"These mysterious radio transmissions," said Dr. Reber, "are one of the biggest questions in science today. We're not sure of their origin or what they mean."

In England two British scientists, Drs. R. Hanbury Brown and C. Hazard, have tracked some of the signals to the galaxy Andromeda. But like Dr. Reber, they do not attempt to explain the meaning, though they believe some unknown phenomenon may be the cause.

Inevitably, it has been suggested that the signals may be "scrambled" messages between inhabited planets, or between some planet and its space ships. It is also possible that some of the signals come from interplanetary navigation beacons fixed in space, or located on small celestial bodies which our telescopes will not pick up.

Message-scrambling is a familiar practice here on earth, but though Bureau of Standards scientists have recorded the signals on tape, no one has been able to separate the strange hissing into code or intelligible sounds.

So far, about 200 signal sources have been located in space. Whether natural or artificial, their locations are so precise that they could be used for accurate cross-bearings. Our future spacemen will undoubtedly use the signals to

check their courses, especially on long flights such as the journey to Mars.

As our first space ship to Mars swings into the red planet's orbit, its crew will begin long-range observations with telescopes and radar. If it seems to be inhabited, they would have to make a cautious survey before getting too close.

Either the crew will launch one or more small manned craft, or they will send down remote-control devices with cameras and television "eyes," such as we now use in radio-controlled drones. Meantime, radiomen on the ship will listen in for voice or code transmissions from Mars. If any are heard, the crew will record them and try to decipher their meaning.

To avoid alarming the Martians, the explorers would at first keep their observer units at a fairly high altitude. If they were not fired on or chased by Martian aircraft, the crew would begin a lower-altitude survey. In this preliminary check they would naturally photograph or televise any aircraft or space-ship bases, the planet's defenses, cities, and industries.

If Martian pilots tried to intercept the observer units with ordinary aircraft, the units could be easily maneuvered out of danger by remote control. But if the Martians also had space ships, the earth crew would have to retrieve its units—or possibly abandon them—and escape into outer space. Later they might steal back for night observations by radar and infrared devices.

After this first survey, the space-ship crew might return to the earth, or they might remain in Mars' orbit and report their discovery by radio. If the Martians seemed to be a possible menace to the earth, other space ships might be sent for a check-up en masse.

Provided the Martians did not have space ships, the explorers from earth could land on Mars' two small moons and set up operating bases. The outer moon, Deimos, is about 10 miles in diameter, while Phobos, the nearer one,

is a little larger. Their small size and lack of gravity would create problems, but they might serve as temporary bases.

It might take a long time to survey all the important areas of Mars. Deciphering their radio signals—assuming there were any—might take even longer, especially if broadcasts were in several different languages like those on earth. Because of this, a steady surveillance might go on for several years, before we could be sure of the Martians' reaction to our space ships.

If the long survey showed they were not hostile and that they were beings of a type we wished to know, we would undoubtedly prepare for contact. The first step would probably be an attempt at communication by radio, light signals, or by dropping messages.

It could take months to make our aims understood, and it might be impossible. Even if normally peaceful, the Martians might be terrified by our space ships; fearing invasion, they could interpret our peaceful messages as trickery and resist any attempt at landing. Or, after landings, our possible difference in appearance might set off panic and cause a desperate attack. In the end we might have to give up all efforts at conciliation and leave the Martians to their own devices.

Our explorers, of course, might find the Martians a dangerously hostile race. If our civilization

were far ahead of theirs, we could still leave them alone, with safety. But if they had atomic weapons and space ships, or were nearing this stage, the earth governments would face a fateful decision.

They could try to avert interplanetary war by displaying our advanced space weapons, at the same time offering peaceful cooperation. If this were refused, they could bomb the Martian space bases and atomic weapon plants and end the threat.

The same program, with the same chances for peace or war, would apply to Venus, other solar-system planets, and possibly to planets of the nearest star systems.

How long it will take to fly to Mars, Venus, and other

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planets is still conjecture. The distances are known, but the propulsion method is not. With liquid fuels, now used in rockets, some space-travel planners figure on a speed of 25,000 miles an hour. High as this may sound; it is far too low for space travel on a large scale. A round trip to Mars would take about three years, including an enforced stopover—a space-ship crew would have to wait until the earth was in the proper position before taking off for the long trip back.

Eventually, atomic-energy propulsion, mass conversion of energy, the use of electromagnetic fields, or some now-unknown method will make it possible to accelerate to fantastic speeds. Once in free space, where there is no resistance, a space ship can—theoretically—approach the speed of light, which is 186,000 miles per second. A few scientists believe even this is not the limit; Blarney Stevens, in his "Identity Theory," presents a reasoned case for higher speeds. But most prominent scientists accept Einstein's formula which sets the speed-of-light limit.

Though it may take centuries, many space planners believe we—or rather our descendants—will some day get close to the speed of light in the longer space voyages. Even at one half this speed trips within our solar system would become amazingly short.

But flights to stars outside our solar system, even at almost the speed of light, would take many years—unless Einstein's theory of special relativity provides a loophole, as some scientists believe. Alpha Centauri, for example, is 4.29 light-years from the earth; a round trip, without stopping or allowing time to accelerate and decelerate, would take 8.58 years. A one-way trip to Wolf 359, which was mentioned in the 1949 Project Sign report, would take over eight years, including acceleration time. Even longer periods would be required to reach other "nearby" stars, including Sirius, 9.11 light-years distant; Alpha Canis Minoris, 10.22; and Kruger 60, which is 12.62 light-years away.

There are a dozen other bright stars within this time

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range. At least two, the binary stars 61 Cygni and 70 Ophiuchi, are known to have planets. Possibly one of them, or a planet revolving around one of the other stars, may have intelligent life equal—or even superior—to our own.

But the very thought of such long flights is appalling in terms of our life span. An earthling of 24 would return from Wolf 359 a middle-aged man, a stranger to his own globe. A traveler to Kruger 60 would spend over 25 years in space before he returned home.

Many years ago Magellan and his crew spent lonely years circumnavigating the globe. But they could break the monotony, dropping anchor in sheltered harbors. Few people on earth would accept unbroken years in space, even if they were sure of a safe return.

However, Einstein's theory of special relativity does provide a loophole. It is known as the "time dilatation factor." According to this theory, a space ship's travel time would shrink as it approached the speed of light, and the actual elapsed time would be far less than that at the point of departure.

Incredible as it may seem, the theory of time dilatation is accepted by numerous reputable scientists and space-travel planners. Other scientists, including Dr. Menzel, agree to the theory for one-way space flight, but insist that the return trip offsets the shrinkage in time.

One of the most thorough discussions of time dilatation may be found in the July, 1952, issue of the *Journal of the British Interplanetary Society*. It was written by Dr. L. R. Shepherd, the society's technical director and one of England's leading scientists.

After stating the formula involved, Dr. Shepherd adds that the time dilatation effect has been proved experimentally by observations on m-mesons passing through the earth's atmosphere.

To illustrate the principle, Dr. Shepherd assumes that a traveler, X, makes a round trip to Procyon, 10.4 light-years from the earth, while an observer, Y, remains here

to record the elapsed time. To simplify matters, Dr. Shepherd makes this a nonstop-trip and also disregards time for acceleration and deceleration—on such a long voyage they would not be important factors.

For this space trip Dr. Shepherd uses a travel velocity of .990 c (the speed of light). In this case, as he shows by the formula of special relativity, the time recorded by X is one seventh of that measured by Y, the earth observer.

As a result, says Dr. Shepherd, Y records X's return 21 years later, while to X the elapsed time is only three years. Unfortunately, as Dr. Shepherd admits, X's family and all his friends would be 18 years older than he was. Except for this, time dilatation would seem to be an encouraging factor leading to eventual long-range space travel.

Utterly fantastic though it may sound, time dilatation may be proved in some far-distant space flight—just as Einstein's much-maligned early formula, $E = mc^2$, was finally proved true that fateful day at Alamogordo, when the first A bomb was exploded.

If it proves a fallacy, then only a greatly increased life span will make it possible for earthlings to reach the far-distant stars. Journeys to our neighboring star system will not be impossible for determined explorers, but the long years involved would be a barrier to regular flights . . .

When I finished this summary of our own space-travel plans, one fact stood out clearly. If we had come this far in the ten years since the first V-2 rocket, some other race with an earlier civilization could long ago have passed this point.

Reversing the picture of our own space-travel plans indicated several obvious facts. This unknown race had solved all the technical problems of propulsion, heat-resistant metals, and cabin-conditioning of whatever atmosphere they breathed.

From the precise survey operations of the discs, it was clear that these space beings had perfected remote control.

There was also evidence that they had equipped the discs with some types of television scanners or cameras or both. And judging from reports by Controller Harry Barnes and other trained observers, whoever guided the discs could hear and understand our radio transmissions.

In navigation these outer-space creatures probably had developed radio astronomy to a high point, using the mysterious transmissions we had heard for accurate triangulations.

If by any chance the discs were piloted, then these beings were entirely different from earthlings—able to withstand tremendous g-forces that would kill a human. Regardless of that, it was plain they were highly trained, super intelligent creatures able to plan and carry out a long survey of a strange planet apparently without mishap. From the manner in which the survey had been conducted, perhaps they had had experience in exploring other inhabited planets.

Reversing the expected reactions of Martians indicated the probable thinking of these unknown space beings. If they used humanlike logic, they would make exactly this kind of reconnaissance. Their aims, like ours in any future exploration of an inhabited planet, would be to learn what the earth race was like, how far we were advanced scientifically, and whether or not we could menace them in any way. After that they would decide on the next step.

And there I began to run into a blind alley.

There were several possible motives for the saucer reconnaissance, but none stood out as the probable answer. To narrow it down I would have to dig deeper.

Since the Air Force denied any idea of the motives, the only way was to search for clues in all the authentic sighting cases. I had already analyzed them as to saucer types, methods of operation, and certain other items. But a new check, searching mainly for the purpose, might turn up something I'd overlooked.

The cases were laid out on my desk, and I was about to start work, when the phone rang. It was Jim Riordan.

"Have you read *See's* interview with General Samford?" he asked me.

"I saw the AP story on it," I said. "But the Air Force is a little sore about that article. Chop told me they didn't interview General Samford directly—it was supposed to be labeled a hypothetical interview based on public statements he'd made."

"Well," said Riordan, "it gives the impression the Air Force is starting to plant the outer-space idea."

"Some Air Force people think the evidence should be given out," I told him. "But they don't want it hung on Samford this way."

"I get it," said Riordan. "Look, you said you'd show me some other ATIC reports. When can we get together?"

"It just happens I've got them out on my desk. How about tonight around 8?"

"That's OK, I'll see you then," said Riordan.

After he hung up, I read over the AP story on *See's* article:

"The Air Force says it has no evidence that beings from some other world have visited this planet. But the Air Force also says it would be unreasonable to deny that such a thing could happen. The Air Force released its statement in reply to a question from the magazine *See* which wanted to know whether visitors from outer space had landed on the earth from flying saucers.

"The Air Force reply, in part, says:

"As limited as man is in his knowledge and understanding of the universe and its many forces, it would be foolhardy indeed to deny the possibility that higher forms of life existed elsewhere. It would be similarly unreasonable to deny that intelligent beings from some other world were able to visit our planet, at least to travel in our atmosphere.

"However, the Air Force desires to reiterate emphatically

that there is absolutely no evidence to indicate that this possibility has been translated into reality."

Picking up the phone again, I dialed Liberty 5-6700, the Pentagon's number. When I got Al, I mentioned the Air Force answer to *See*.

"That's hardly on the level," I said. "You've got plenty of evidence—and don't give me that 'no bodies, no wreckage' routine."

Al laughed; it sounded a little forced. He didn't bother to comment on what I'd said.

"I was going to call you later," he said. "I've a couple of ATIC reports in here for you."

"Any new angles?"

"Yes, in both of them. They're the two Japan sightings you asked me to clear."

I told him I'd be in; the reports might throw some light on the purpose of the saucer survey.

When I saw Al, I asked him the latest on the Utah pictures. He went through the cigarette trick, fiddling with his lighter, apparently making up his mind what to say.

"The Navy's confirmed ATIC's analysis," he finally admitted. "And the official showing is practically approved."

I whistled. "Al, I never thought it would go through. By this time next week—"

"Hold on," he said, "it'll take longer than that. We've got to work out the public statement."

"Why would it take that long? You said it was all set."

Al didn't look at me.

"Several people have to pass on it. You know, channels-service red tape."

"Oh, sure," I said. "But the showing is OK'd?"

"As of now, yes."

Maybe it was, I thought as I left, but that didn't mean it would stick. From Al's evasive manner it was obvious a first-class battle had developed over the showing.

The silence group might win after all.

CHAPTER XI

Clues to the Riddle

Before Riordan came that evening, I looked over the two sightings Al had cleared. The first Intelligence report covered the rotating lights report which Riordan had mentioned. Though the saucer had been sighted by several air crews and tracked by ground radar, the detailed report was made by Colonel Curtis Low, commander of the fighter escort wing in Japan. (As Colonel Low was mentioned in a news dispatch which briefly described the incident, I am using his right name.)

The Intelligence officer who interrogated Colonel Low had been seriously impressed by the wing commander's account.

"The pilot reporting," he said, "has held responsible command assignments for some time. The accuracy of his statements was consistent despite repetitive interrogation. His sequence of times, locations, and descriptions did not vary at any time. He is stable and thoroughly reliable. There were no activities of a meteorological nature or any inversion which could account for these sightings . . . This is a graphic description of an object falling definitely into the family of UFO."

The action began in the early evening of December 29,

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1952. At about 7:30 p.m. an Air Force radar base in northern Japan received a call from a B-26 crew.

"We've just sighted a UFO. It looks like a cluster of lights—red, white, and green."

Moments later the Air Force radar men picked up the UFO. But because of the B-26's low speed, no interception could be made. At 7:45 an F-94 pilot radioed in, reporting the same type of device. The call was overheard by Colonel Low, who was flying his F-84 jet fighter at 27,000 feet

Three minutes later the wing commander sighted the strange machine, easily identified by its red, white, and green lights. He called Ground Control and was asked to try an interception.

As he climbed, Colonel Low switched off his lights. The object's lights did not change—proof that it was no canopy reflection. Keeping his own lights off to avoid detection, Low climbed to 35,000 feet.

When he got closer, he saw that the saucer's lights were revolving in a counterclockwise direction—a steady rotation between eight and 12 times a minute.

Beside the shifting colors, Low could see three fixed shafts of white light shining outward. Apparently one part of the machine was rotating, but the change of colors was puzzling. At times the saucer was one solid color, white, green, or red. In between, the wing commander saw brief combinations—red-white, red-green, and green-white. But the three white beams remained constant.

After watching the device for a moment longer, Colonel Low opened his F-84 to full power. Racing in at over 500 miles an hour, he tried to close the gap. Apparently his unlighted plane was not seen for a second or two. Then the saucer increased its speed. Gradually pulling away, it disappeared in 30 seconds.

Five minutes later, circling at 35,000 feet, the wing commander saw the machine again. As before, it was at his level, but now moving parallel with the F-84. This time, as a test, Colonel Low left his fights on when he tried to

close in. Immediately turning west, the strange craft speeded up, so swiftly that it vanished in five seconds.

Eleven nights later, on January 9, 1953, another machine with similar rotating lights was sighted over Japan and tracked by radar. With the permission of Intelligence, Colonel Low mentioned both cases to war correspondents, withholding the details I have just given.

"Don't dismiss these as the reports of a few imaginative people," he warned the reporters. "These were corroborated sightings by trained pilots and radar operators."

When Riordan arrived, I showed him the report.

"I didn't know about the second case," he said. He read the description again. "These must be a new type—I never heard of them until Colonel Low reported this one."

"No, they're not new. One was sighted in 1950, over South Dakota. It was tracked by CAA control tower men, and a Weather Bureau observer got a good look with his theodolite. Also it was seen by the crew of an airliner. Then last July an Air Force jet pilot chased one over Michigan, and that same week people in two Michigan counties reported identical saucers—machines with rotating red, green, and white lights."

"I can't figure that," said Riordan. "What do you make of it?"

I told him about the rotating-disc theory.

"It may explain why the lights revolve," I added. "But they must be actual lights, and the same for

the fixed white beams—the machine Colonel Low saw didn't show the usual overheating effects. The first time it probably didn't speed up fast enough, and the second time it's possible it disappeared so quickly that he probably wasn't able to notice."

Riordan stopped to fill his pipe.

"You know, they might be trying to signal us," he said as he lit up.

"Maybe. But you'd expect the lights to blink if it was some kind of code."

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"Unless that combination had some special meaning they're trying to put over."

"This IR doesn't give any hint of that." I picked up the second ATIC report. "Here's another Japan case. See what you think of it."

The report, sent in as an IR, had been written in the first person by Lieutenant David C. Brigham, a young Air Force pilot from Rockford, Illinois. It read as follows:

"At 11:20 hours, March 29, 1952, I was flying a T-6 north of Misawa. GCI was running an intercept on me with a flight of two F-84's. One of them overtook me, passing starboard at approximately 100 feet, and ten feet below me. As he pulled up abreast, a flash of reflected sunshine caught my eye. The object which had reflected the sunshine was a small, shiny disc-shaped object which was making a pass on the F-84.

"It flew a pursuit curve and closed rapidly. Just as it would have flown into his fuselage, it decelerated to his air speed, almost instantaneously. In doing so, it flipped up on its edge at an approximate 90-degree bank. It fluttered within two feet of his fuselage for perhaps two or three seconds. Then it pulled away around his starboard wing, appearing to flip once as it hit the slipstream behind his wing-tip fuel tank.

"Then it passed him, crossed in front, and pulled up abruptly, appearing to accelerate, and shot out of sight in a steep, almost vertical climb. It was about eight inches in diameter, very thin, round, and as shiny as polished chromium. It had no apparent projections and left no exhaust or vapor trails. An unusual flight characteristic was a slow, fluttering motion. It rocked back and forth in 40-degree banks, at about one-second intervals throughout its course."

Riordan put down the report.

"That beats me," he said. "How the devil could an eight-inch disc fly, let alone maneuver like that?"

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"It could have been spinning and he didn't notice it. It had the typical flutter—"

"You mean the electromagnetic deal again?"

"It's the only answer I can think of. The thing must have been a small remote-control observer type."

"But that little!" protested Riordan.

"Well, you know we've built some pretty tiny remote-control units for drones and guided missiles. With these new transistors in place of vacuum tubes, they'll be even smaller. And anybody intelligent enough to build flying discs would be way ahead of us."

"Yes, I guess you're right."

"If that report gets you," I said, "take a look at these."

Riordan went through the most dramatic cases, ending with the Gulf of Mexico sighting. His eyebrows shot up when he read the mother ship's final speed.

"Wow—over 9,000 miles an hour! That's almost unbelievable."

"I just got another report showing the same thing. It's from an ionosphere observatory—" I showed him the name, which the officials had asked me not to publish. "They track the lower ionosphere layers by radar, and it records any changes on a chart. One night they were tracking the E layer, over 50 miles up, and suddenly the radar picked up a terrific disturbance. The needle jumped all over the chart. Some experts analyzed the tracing later and they said that a solid object, flying a straight course, had passed over the station at between nine and ten thousand miles an hour."

Riordan shook his head.

"What's more," I said, "it bears out Smith's theory. The chart showed the ionosphere in a violent commotion, apparently upset by some powerful electrical force. It didn't get back to normal for over 30 minutes, and any air turbulence from the thing's passage should have died down long before that."

"This business is beginning to worry me," muttered

Riordan. "I'm absolutely convinced the things are from outer space. But what are they up to?"

"If anybody knows, I haven't been able to find out. Until lately I've always believed they were friendly. I still think it's an odds-on bet."

"Just because they haven't attacked us is no proof," Riordan said grimly. "If they're friendly, why haven't they landed?"

An airliner roared over the house in a low approach to Washington Airport. I waited until it was quiet again.

"They may not think its safe," I said. "They see our jets trying to intercept the discs—maybe they think we're just naturally hostile."

"They could radio us and talk it over—say what they want. They must know our language by this time. You told me that this Washington Airport controller, Barnes, thought they heard him talk to the pilots and—" Riordan paused. "Say, I wonder why Barnes didn't try calling them one of those nights."

"I asked him that. He said there was so much going on he just never thought of it. He told me if he had called, and somebody answered him, his hair would've stood on end. Of course, they might not have wanted to reply. I think that's the logical explanation for their silence. Though it's possible they couldn't answer."

"What do you mean?" demanded Riordan.

"They may not even talk."

Riordan stared at me through his pipe smoke.

"You haven't fallen for that super insect idea? It was in some Englishman's book—"

"I know—Gerald Heard's *Is Another World Watching?* No, I don't mean that. But a humanlike race might develop without using audible speech. They might make sounds higher in the spectrum, so that we couldn't hear them. There are such sounds—dogs hear some we don't catch. Or their speech sounds may be so different that they can't

master our words, even though they might understand the language after studying it a long time."

There was a silence while Riordan thought it over. Then he grimaced.

"Somehow, all I can think of is those crazy-looking drawings of Martians. If we knew what planet they come from, it might give us a lead—you think they really could be from Mars?"

"They may be operating from there, without being Martians. I've collected some educated guesses as to what planet it might be, if it's in our solar system—wait a minute and I'll show you the stuff."

While I was getting the file, a boat whistle sounded hoarsely from out on the Potomac. Riordan swung his lanky frame around, looked down the hill at the lights of a tug and two barges. He turned back

somberly.

"Things like that make all this business unreal. There's a tug making, say, ten knots, and we sit up here talking about something flying over 9,000 miles an hour."

"And that 9,000 wouldn't be anything in free space," I said. "Well, here's one item on Mars—it's Project Sign's statement in their April, '49, release. It's short, but it covers the ground. I'll read you the main points.

“Astronomers are largely in agreement that only one member of the solar system beside earth is capable of supporting life. That is Mars. Even Mars, however, appears to be relatively desolate and inhospitable, so that a Martian race would be more occupied with survival than we are on earth..

Intelligent beings, if they do exist there, may have protected themselves by scientific control of physical conditions. This might be done, scientists speculate, by the construction of homes and cities underground where the atmospheric pressure would be greater and thus temperatures reduced. The other possibilities exist, of course, that evolution may have developed a being who can withstand the rigors of the Martian climate, or that the race, if it ever did exist, has perished.’”

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Riordan grunted. "In other words, they're guessing just like we are."

"It's all anybody can do. But you can figure the odds. Venus seems the next best bet—it might even be on top. In size it's almost a twin of the earth. It's always covered with clouds, so astronomers can't see the surface. But they've figured the cloud temperature at 140, in daytime, so it must get pretty hot on the ground."

Then I read the Air Force comment:

"The possibility of intelligent life also existing on the planet Venus is not considered completely unreasonable by astronomers. The atmosphere of Venus apparently consists mostly of carbon dioxide with deep clouds of formaldehyde droplets, and there seems to be little or no water. Yet scientists concede that living organisms might develop in chemical environments which are strange to us. Venus, however, has two handicaps. Her mass and gravity are nearly as large as earth (Mars is smaller) and her cloudy atmosphere would discourage astronomy, hence space travel."

Riordan brushed this last aside.

"If we can escape the earth's gravity, they could do it there, too. And they might use radio astronomy instead of telescopes. But what in hell would a man—well, call it a man—what would he look like, growing up in that atmosphere?"

"Probably a lot different from us. They'd almost have to be."

"You know that Sutton monster story?" said Riordan. "When I first heard of it—well, let that wait. What about the other planets?"

"Jupiter's not a likely prospect," I said, looking at the file. "Its temperature is around minus 220. Also, the planet's a lot larger than the earth, so its gravity pull is over two and a half times stronger. If you were on Jupiter, you'd weigh close to 600 pounds. You'd have a hard time lifting your feet. And a space ship would have to get up terrific

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speed to escape that gravity pull, though I suppose it's possible."

"There's one point there," Riordan cut in. "Anybody from Jupiter would be used to heavy gs. We can take up to 50 gs for a second or so. Maybe they could take 100 over a longer time, enough to stand those turns and climbs the discs make."

"Could be," I said. "But they'd have trouble if they landed on the earth. It'd be like a human on the moon—they'd have to be weighted down to walk normally. And that holds for Uranus, Neptune, and Saturn, too. From their size, they all must have strong gravity. But they're too cold for our kind of life—somewhere between minus 300 and 400."

Riordan started to thumb through the Pluto and Mercury folders.

"I can save you time," I said. "Pluto's nearer our size, but astronomers don't know much about it. It's so far from the sun it's always in darkness, and it's probably near absolute zero in temperature. Mercury is just the opposite. It's so near the sun that one side roasts. The other's always turned away, so it must be freezing."

"Don't some of those planets have moons?" asked Riordan, as I lit a cigarette. I flicked out my match and nodded.

"Yes, several of them. Jupiter's got two, Saturn nine, Uranus four—or maybe it's five—and Neptune and Mars have a couple apiece. But some of them are pretty small. Even the bigger ones probably wouldn't be any better than their planets—that is, to live on. That doesn't mean they—the planets, I mean—couldn't have intelligent life on them."

"You know any scientific background on that? Not this science-fiction stuff, but the big-dome guys."

There've been several books. I've got a couple—" I brought over my copy of *Life on Other Worlds*, by Dr.

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H. Spencer Jones, England's Astronomer Royal, and read a marked paragraph.

“It is conceivable that we could have beings, the cells of whose bodies contained silicon instead of the carbon which is an essential constituent of our cells, and of all other living cells on the earth. And that because of this essential difference between the constitution of those cells, and the cells of which animal and plant life on the earth are built up, they might be able to exist at temperatures so high that no terrestrial types of life could survive.”

"It sounds crazy," said Riordan, "but when you stop to think, the medicos have frozen some kinds of germs and it didn't kill them. Same for boiling them in water, too, I've heard. So I guess it could be true. But the idea of beings like that with brains like ours—it's hard to swallow."

I put down the book.

"There's one consolation. Creatures used to some queer atmosphere couldn't survive here without space suits."

Riordan gave me a questioning look.

"Oh, you think that's maybe why they haven't landed? I don't see that that helps much—they could use space suits to attack us or just hit us without landing." He hesitated. "I started to ask about that Sutton monster story. What was ATIC's conclusion?"

"They swear they didn't analyze it, but I'm positive they did check into it." I told him what I knew about the case, and Riordan shook his head dubiously.

"It sounds as if there was something to it. Not a monster—I still can't see that—but it might have been a robot of some kind, the way they described it. What about that other story—the Florida scoutmaster deal?"

"So far ATIC hasn't made any report."

"You think he really saw something alive in that turret, or just imagined it?"

"I don't know. If Ed Ruppelt's report was on the level, ATIC didn't seem to take much stock in it."

"I don't either," Riordan said bluntly. Then he added

with a wry face, "Maybe it's because I don't want to admit some freak from space could be smarter than I am."

"Sure, I feel the same way. Just the same, it's possible. And remember this; we'd look as queer to them as they would to us. But don't let the monster idea worry you. Whoever's back of the saucers may be

a lot like us—maybe even identical."

Riordan looked startled.

"How do you figure that?"

"Well, astronomers say there are millions of other suns. Some top men, like von Weizacker, think it's likely many of them have solar-system planets. Take our own system. Out of nine planets, one is inhabited—the earth. That's 11 per cent. Cut it down to one hundredth of a per cent, out in space, and there'd still be a lot of inhabited planets in the universe."

"That doesn't mean any of them would be like the earth."

"Why not? Astronomers say they're all made up of the same elements, maybe in different proportions. By the law of averages, some are bound to be like the earth, with the same atmosphere. Evolution would produce the same land of planets, animals, and people—or approximately the same. Maybe the only difference between us and the saucer people is that they're farther advanced, because their civilization began sooner."

"I hope you're right," Riordan said soberly. "At least we might be able to reason with our own kind. But wait a minute—think of the distances."

"Their planet doesn't have to be so far away." I told him about the nearest star system.

Riordan looked at me incredulously.

"But, holy smoke, the nearest one's over four light-years from us. You don't really believe anybody'd make a space trip that long?"

"Yes, if their life span was longer than ours. Some race on another planet may have wiped out all diseases—they

may live several hundred years. Our own doctors are predicting that we'll do it some day, and we've almost doubled our life span in the last two centuries."

Riordan knocked the ashes from his pipe. I could see him turning the idea over as he opened his tobacco pouch.

"That could be the answer," he said. "If they lived, say, 500 years, a trip of several years wouldn't seem so tough."

"It doesn't have to be the answer. There's another explanation."

"What's that?"

"Hang onto your hat," I said. Then I told him about the time dilatation theory.

"Brother!" said Riordan. "Now we've really gone off the deep end."

"OK, it sounds screwy. I'll admit I don't understand it. But other big scientists beside Einstein accept it. If you want to check the figures, I've got an article here by a British astrophysicist—"

"I'll take your word for it." Riordan swung around and stared out into the night. "I wish I hadn't heard all this stuff. Those Intelligence reports prove the things are interplanetary, but they don't give any idea why we're being spied on. I was better off when I thought the saucers were bunk, back in '47."

"That's what some Air Force officers think—that people are better off not knowing, at least until they find out the motive."

Riordan jerked around in his chair.

"But Intelligence must have a damned good idea what's back of all this."

"They say not. That's why I've got all these cases out here. I've already analyzed them for other angles, but I wasn't looking for motives. So I'm going to recheck—"

"Let me help you," Riordan said quickly. "I've got the next two days free."

"We can probably do it in one. It'll be a big help—"

"Never mind the thanks," said Riordan. "To be brutally

frank, this is for me and mine. I want to know what this thing's going to mean to us, while there's still time to do something about it."

After Riordan left, I thought over his last remark. Probably millions of Americans would feel the same way. There'd be some, of course, who'd rather not know, if the answer proved to be bad.

Next morning, before Riordan arrived, I got out my sighting map and the analysis of saucer types. In the type breakdown all the sightings had been divided into day and night reports, then subdivided according to shape, size, color, speed, and maneuvers, with radar reports serving as a double check on visual estimates of performance.

It was a long analysis, and to save time for the motive check-up I underlined the main points for Riordan to look over:

Daytime sightings:

Type 1. Mother ships, large rocket or "cigar-shaped" machines usually reported at very high altitudes. Sizes estimated by trained observers, from 600 feet to more than 1,000 feet in length; some indications they may be much larger. Color, silvery. Speed recorded by radar, over 9,000 m.p.h., with visual estimates of more than 20,000. No violent maneuvers reported.

Type 2. Disc-shaped machines of at least three sizes.

- A. Large discs, 100 feet or more in diameter.
- B. Medium-sized discs, with reports averaging about 50 feet in diameter.
- C. Small discs, estimated from eight inches in diameter up to several feet.

Color of all discs, metallic silver except when showing the effects of overheating. Radar-clocked speeds, over 7,000 m.p.h., with visual estimates of more than 11,000. Maneuvers: Abrupt turns, climbs, and reversals, with very swift acceleration.

Type 3. Rocket or "cigar-shaped" machines, much smaller than mother ships, reported at fairly low altitudes.

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Sizes estimated from 100 to 200 feet in length. Described as having a fiery exhaust, especially when accelerating. Color, metallic silver. Recorded speed, about 900 m.p.h.; visual estimates, over 1,500. Maneuvers: Less violent turns and climbs than the discs, and no reported reversals.

Night sightings:

Type 1. No positive visual reports, but accurate radar tracking of mother ships.

Type 2. Discs of various sizes, with estimates less accurate because of darkness and the blinding effect of the discs' glow when seen at fairly close range. Colors, from pink to white-hot heat, sometimes combined with corona effect; also, corona effects predominating, at high altitudes, apparently when discs were not overheating.

Type 3. Rocket-shaped machines, similar to the daytime Type 3, with the same fiery exhaust, speeds, and maneuvers.

Type 4. A machine with rotating red-green-white lights and fixed white beams. May be a rotating disc type. Recorded speed, well over 1,000 m.p.h. Speeds estimated by competent pilots, more than 1,500.

Type 5. Bright green "fireballs," reported mainly over New Mexico. Shape and size unknown.

Described as moving silently, at meteor speed, but—unlike meteors—on a straight course. Sometimes reported as exploding silently, over uninhabited areas of the Southwest.

For radar confirmation ATIC had given me their official analysis:

"In 35% of all radar tracking of UFO's, radar observations were confirmed visually as maneuvering objects or lights. Night radar trackings outnumbered day cases, 65% as against 35%. The analysis shows UFO speed from zero (hovering) up to fantastic speeds. In 60% of the cases, only one UFO was tracked; in 40%, there were several objects, sometimes sizable formations or groups. About 80% of the tracking was done by radar men at ground bases,

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or aboard ship. The remaining 20% was done by aircraft crews or pilots in flight."

When Riordan arrived, I was working on the map, marking points where saucers had recently been seen. He helped me finish, then looked over my type breakdown.

"What's the highest speed ever reported?" he asked.

"About 42,000 miles an hour," I said. "But it didn't have any radar confirmation."

"Must have been some wild guess," Riordan said skeptically.

"No, two CAA control tower men at Terre Haute made the estimate. They saw this saucer go streaking over the airport and they figured the arc it traveled in a given time. The 42,000 figure was what they worked out if the saucer was over 3,000 feet high—and they were sure it was. They got confirmation on the sighting. A private pilot and his wife saw the same thing when it went over the atomic energy plant at Newport, Indiana. Even if the CAA guys were way off, it's obvious the saucer was one of the fastest ever sighted. My hunch is that it was a lot higher than 3,000—probably a mother ship that came down lower than usual."

"This Type 3—the smaller cigar-shaped saucer—have you got many confirmed reports on that?"

"Well, there was the Eastern Air Lines case, near Montgomery, and the Indianapolis rocket ship last July. Another one was seen at Watsonville, California, by the town police and two deputy sheriffs. They said it was cigar-shaped, flying low and leaving an exhaust trail. Later some people saw it at a couple of other California towns. There have been several foreign cases, and the 1949 Project Sign summaries mentioned quite a few."

Riordan nodded.

"I guess it's definitely a separate type, then." He read over the night sighting list. "Those green fireballs—I haven't heard much about them."

has puzzled the astronomers—at least some have publicly admitted it's got them stumped. One of them is Dr. Peter Millman; he's Canada's top astrophysicist. Another is Dr. Lincoln La Paz, down at the New Mexico Institute of Meteorics. La Paz has been studying the green fireball deal, and he says they're not any kind of meteor he ever heard of."

"Why not?" said Riordan.

"For one thing, they don't make a sound. Also, they go straight, and meteors take a curved course. And La Paz says they wouldn't come that often if they were meteors— for a while, they were coming thick and fast. It's been going on since December, 1948."

"Just in New Mexico?"

"No, they've been sighted in the East, and down in the Caribbean. But the Southwest seems to get most of them. One funny thing, no fragments have ever been found. Ordinary meteors usually leave some trace when they explode, if you look long enough. But the Air Force search parties haven't found a thing."

Riordan's black eyes flicked over at me.

"Then the Air Force takes it seriously?"

"Enough to set up a special project—they called it 'Project Twinkle.'" I told him about the three theodolite stations established at Vaughn, New Mexico, to get accurate triangulations on the green fireballs. Oddly enough, the mysterious objects were never seen by the men at Vaughn, though they were constantly reported over the rest of the Southwest. But when the project was moved to Holloman Air Force Base, New Mexico, the investigators had better luck. Several of the bright green balls were tracked up to the moment of explosion, at a speed of about 40,000 miles an hour. But searches over a wide area, under the explosion points, all proved in vain.

"What did they finally decide?" Riordan asked me.

"I don't know. The report's still secret."

"That doesn't look very good," Riordan said slowly.

"They must have been pretty worried in the first place, to set up a special project. And then to sit on the answer—"

"There's something odd about it, all right. Project Sign investigated the green fireballs, too, but they omitted most of the cases in the 1949 summaries; I just happened to spot a reference to them in another section. And the red spray cases don't sound good, either."

"The red spray cases? That's a new one to me."

"They happened back in '48. The things came down to 200 feet and exploded—" I started to get out the Project Sign summaries, then changed my mind. "Let's wait on that until we finish checking the map. Seeing those cases now might give you a wrong slant on the whole picture."

Riordan eyed me narrowly.

"I don't like the way you said that. If you mean what I think, it's bad news."

CHAPTER XII

Friends or Foes?

It doesn't have to be bad news, I told Riordan. I think it may depend on us. Anyway, let's check the things the saucers seem most interested in. Maybe you'll spot some clue I've missed."

"Have you plotted any foreign sightings?" asked Riordan, as I spread out the United States map.

"No, but they show the same pattern."

Riordan bent over the map, which showed the following key locations:

1. Atomic energy plants at Los Alamos, Oak Ridge, Hanford, and smaller plants such as Newport, Indiana. The most frequent observations were over the Los Alamos area.

2. U. S. Air Force Bases as follows: Davis-Monthan and Williams, Arizona; Fairfield-Suisan, Hamilton, George, March, Muroc, and Travis, California; the Air Defense Command Headquarters, Colorado Springs; Patrick, Florida; Hunter, Moody, and Robbins, Georgia; O'Hare, Scott, and Chanute, Illinois; Andrews, Maryland; Westover, Massachusetts; Selfridge, Michigan; Keesler, Mississippi; Offutt, Nebraska; Grenier, New Hampshire; Holloman, Kirtland, and Walker, New Mexico; Mitchel, New York; Pope, North Carolina; Lockbourne and Wright-Patterson,

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Ohio; Tinker, Oklahoma; Greenville, South Carolina; Rapid City, South Dakota; Carswell, Ellington, Kelly, Randolph, Laredo, and San Marcos, Texas; Langley Field, Virginia; McChord, Washington.

(In addition to these, as I told Riordan, UFO's have been sighted over or near American bases in Alaska, the Canal Zone, Greenland, Germany, Hawaii, Japan, and Korea.)

3. Naval bases and Navy and Marine Corps air stations at: Alameda, El Toro, and San Diego, California; Jacksonville and Key West, Florida; Atlantic City and Lakehurst, New Jersey; Tongue Point, Oregon; Beaufort, South Carolina; Norfolk and Quantico, Virginia.

4. The high-altitude rocket-testing base at White Sands, New Mexico, where discs circled or

paced rockets in flight.

5. Aircraft plants in California, Kansas, Washington, and Texas, where most of the industry is concentrated.

6. Most of the major cities of the United States. The complete list is too long to use, but it includes important cities in almost every state, such as: New York, Boston, Philadelphia, Washington, Chicago, Kansas City, Minneapolis and St. Paul, San Francisco, Salt Lake City, Portland, Santa Fe, Des Moines, Baltimore, New Orleans, and Birmingham.

"There are some important sightings which don't show on that map," I told Riordan, "I didn't pinpoint all the spots where saucers have approached or circled planes, because it would look as though they were ground sightings. But there have been hundreds of those reports, as you know."

"Yes, and they've taken some close-range looks at the ground war in Korea, too. About the cities—what do the saucers seem to be checking?"

"There's been only one detailed report—the Washington case. When no airliners were near, the saucers flew over the White House, the Capitol, Andrews Field, the aircraft plant at Riverdale, and the Navy Yard. One or two circled

the airway radio beacons. Of course, they were all over the area, but those seemed to be the main points of interest. Whenever an airliner took off or approached the airport, several saucers would dart over as if for a closer look.

"Most of the cities where they've hovered or circled have defense industries, a big airport, or defense bases, so it's hard to tell just what they were looking at. One thing, they don't seem much interested in ground transportation; though there have been a few cases of saucers following trains. And several times I've seen unconfirmed reports of discs buzzing cars on highways. Some sounded like fakes, but there was one, last July, near Enid, Oklahoma, where the police said the driver was still shaking when he made the report."

"And I suppose his friends made a fool out of him," Riordan said tartly.

"Probably. Well, that's the general setup. Of course, saucers have been seen at dozens of other places, but these are the ones where they've made repeat visits or shown special interest."

Riordan stood up, moved restlessly around the room.

"Maybe I'm a pessimist," he muttered. "But with all those repeats at atomic plants, and checking on our planes and air defenses—well, it looks as if they're getting ready for an attack."

"I know it looks bad. But it's still just circumstantial evidence."

"Many a man's been hung on less," retorted Riordan. He took out his pipe, shoved it back into his pocket. "You say the pattern's about the same in other countries?"

"Except for the atomic energy angle and I couldn't check on that. Probably the saucers have looked over Russia's A-bomb plants, too, but only a few UFO reports have leaked through the Iron Curtain. I do know that two saucers circled the uranium mines in South Africa, some time back. And several were seen over Australia just after Britain exploded its first A bomb there. But there have

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been enough reports to show that foreign air defenses and planes have gotten a close going-over. It's worried several countries enough to have them start investigations."

"Yes, you told me," said Riordan.

"But they haven't given out any official case reports that I know of. I've got a few unofficially. In one British case, a rotating disc chased a Meteor jet over Topcliffe Airdrome. And down in the Belgian Congo an air service fighter chased two saucers that were looking over an air base. There've been dozens of foreign airliner reports. Around February of '51, an East African Airways crew and some of the passengers saw a long, rocket-shaped saucer—the pilots estimated the length at about 200 feet. There was another case, farther back, in Australia, where everybody on an airliner signed affidavits describing a rocket-shaped ship they'd seen."

"I guess it's world-wide, then. I thought at first they were concentrating on us."

"I think they are, now. Probably because we've got the lead in A bombs and we look like the strongest nation."

Riordan shook his head moodily.

"That's what bothers me, Don. It looks as though they're measuring us for a knockout. And those green fireballs— if they're not meteors there's only one possible answer."

"I know. Guided missiles launched from space."

"What else could they be? It would be simple enough to drop them from one of the big ships and guide them in by radar."

"You're not the only one who thinks it's the answer. I know one astrophysicist who says they may be warnings for us to lay off making A bombs—that's because most of them came in over New Mexico."

"That may be true. It's obvious they weren't trying to hit any bases or cities. With radar they wouldn't miss."

"No, they've already proved they can come as close as they want. Not with the green missiles—

"What happened?" said Riordan.

"It was a queer business. I was surprised that Project Sign let it get out—you'll find it listed as Case 225 in the 1949 summaries. One night, back in '49, a strange reddish light was sighted at Albuquerque, where they'd also been seeing the green fireballs. The saucer came in at about 500 feet, then it suddenly dropped down to 200 feet and exploded in a red spray."

Riordan sat up quickly.

"Did it hurt anybody?"

"No, just scared a few people. It wasn't directly over the city. A pilot told me later it was out near the airport."

"Lucky—it could have set off a panic."

"Here's the part that clinches it. This happened on three other nights—same place, same hour."

"This is the worst thing you've told me," Riordan said slowly. "It's bad—damned bad."

"I don't like it, either. The things were guided there and exploded by remote control—there's no doubt about it. Of course, they could have been flash bombs for UFO cameras higher up, but I can't see it."

"Neither can I," said Riordan. "I happen to know there'd been several daytime sightings at Albuquerque—so why should they bother with night pictures, and four times at that?"

"All right, I admit it was some kind of small flying bomb being used in a test."

"And if they can guide a small one in that accurately," said Riordan, "they could put a big one—probably an A bomb—over any place they wanted to hit. It's plain as the nose on your face—those were ranging tests, for close-up control. The Air Force must know it, too."

"Project Sign didn't give any hint of what they thought. In fact, they left the case out of the actual summaries. But when they released the report it carried a secret analysis by the Air Weather Service—a check to see if balloons could explain any of the flying saucer sightings."

"Don't tell me they tried to call this an exploding balloon—four times in the same place?"

"No, they admitted it couldn't be. But that's how I found out what Case 225 was—and also how I got my lead on the green fireballs."

"You say they omitted those cases, too, from the Project report?"

"That's right. Here, I'll show you."

I got out the copy I'd typed—the Air Force had released just one report. In the Project analysis section, six case numbers were followed by blanks—Numbers 223, 225, 226, 227, 230, and 231. Why the secret Air Weather Service analysis had been released, when it showed these omitted cases, had never been explained.

"That was right after my first article in *True*," I told Riordan. "They were in a hurry, trying to offset it, and I guess somebody slipped up."

"Just another snafu," he said. "What's AWS say about the green fireballs?"

"They called them green flares then. Here's Case 223—it says the object was definitely a green flare, seen near Albuquerque. The next one, Case 224, was listed in the Project section, but they don't say a word about any green flare. They just show that something was seen at Las Vegas on December 8, 1948, and then say to compare it with Case 223, which they omitted."

Turning to the Air Weather Service comment, I read it to Riordan:

"Case 224. Description exactly as that in 223, only at an altitude of 13,500 feet. Seen 2 ½ hours after scheduled balloon release time. Winds at levels from 10,000 to 15,000 feet, WNW, while flare was reported traveling at very high speed in WSW direction. Very accurate observations made by two FBI agents. Definitely not a balloon."

"Very bright deduction," Riordan said sarcastically.

"They had to say that, Jim, even though they knew the

balloon answer was ridiculous. I told you it was AWS's job to say yes or no on balloons."

"OK—it just sounded silly." Riordan picked up the report and silently read the other AWS comments, which were as follows:

"Case 226. Sighted one hour after release time at Albuquerque. Same green flare as in previous five or six cases, and moving into the wind from east to west. No balloon . . . Case 227. Read report of incident. Definitely not a weather balloon. Serves as a guide to interpretation of 223, 224, 225, and 226 . . . Case 230. Exactly as described in 223, etc. Definitely no balloon . . . Case 231. Another glowing green flare just as described above."

Riordan put his finger on the "guide to interpretation" line.

"That's the tip-off. Even then, they must have known those were guided missiles. That's what scared them into setting up Project Twinkle."

"It looks that way. But it still doesn't prove the saucer people are hostile."

"Are you crazy?" demanded Riordan. "It can't add up to anything else. You admitted the red spray things were ranging bombs under remote control."

"Yes, and I'm convinced the green fireballs are guided missiles. But those tests began four years ago. If an attack was all they had in mind, they'd have hit us long before this."

"What else could they possibly—"

The phone cut Riordan off. When I picked it up I heard a familiar voice.

"This is W. B. Smith. I've been here several days, but this is my first chance to call you about a talk. I know its short notice, but this is my last day in Washington."

"All right, I can meet you in about an hour."

"Good. I'm at the Shoreham Room 422-F."

When I explained to Riordan, he nodded.

"Maybe you'll get a new angle. Anyway, I've seen enough for one day. I still say its bad news."

"Well hash it over next time. There may be an out."

Riordan shook his head.

"I think you're kidding yourself—you just don't want to face it."

Driving out to the Shoreham, I thought over Riordan's remark. Maybe I was kidding myself. But there was one answer, which I'd just begun to see, that left a chance for a peaceful contact.

When I saw Smith, he looked the same as when I'd first met him, except for a sprinkling of gray in his black hair. But his manner was more sober as he told me the developments in Canada.

"My government is now taking the saucers seriously," he said. "The Defense Research project is secret, but I can tell you this. They're analyzing reports very carefully, and so is RCAF Intelligence. Several of our best scientists are helping on the technical aspects—they stopped scoffing after the

sightings early in 1952."

A little later he told me his own project was also analyzing saucer reports, passing on their conclusions to the Defense Research unit.

"Since your project's under wraps," I said, "you can't tell me what the conclusions are. But what about your private opinion?"

"The same as before," said Smith. "After seeing all the new evidence, I'm more convinced than ever."

A few days before, I had read a news story about a flying saucer which the AVRO Aircraft Company was supposed to be building. According to the report, it was expected to have a top speed of about 1,500 miles an hour. When I asked Smith about it, he nodded.

"Since the newspapers have the story, I can tell you it's true. AVRO is building a new type of plane—revolutionary, in fact. I think it will make present types obsolete, but that's all I can say."

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Then he suddenly saw what I had meant.

"It hasn't anything to do with our rotating disc experiments. It doesn't use electromagnetic propulsion." "Those disc tests are under security, I suppose?" Smith smiled apologetically.

"Yes, I'm sorry. We're still working on the disc problem, but that's all I can say. However, it might pay you to study Einstein's Unified Field Theory. You know it unites the forces of electricity, magnetism, and gravity in a single formula."

"It's just Greek to me. But I can see it may be the key to the discs' operation. By the way, are your radio monitors still listening for strange signals?"

"Yes, when they aren't busy with other work. However, they haven't caught any peculiar messages."

Smith opened his brief case and looked at some typed notes.

"Here's an experiment we tried. It explained something that puzzled some of our officials. You know how often a strange light will be reported by only a few people, out of thousands in a city? Naturally, some skeptics thought this proved such reports must be hoaxes. My group had a pet theory about it, so we made a test at Ottawa."

To carry it out, Smith said, they fastened a 500,000 candle-power aircraft flare inside an aluminum cone, suspending the cone under a large weather balloon so that the light would shine on the bottom of the gas bag. The flare itself would be hidden from the ground.

"We waited for a night when the wind would carry the balloon over a certain part of the city—an area where there was a night baseball game and two drive-in theaters. At 5,000 feet a delayed-action fuse set off the flare. All you could see was the glow on the under part of the balloon. The effect was striking, as if a lighted disc had suddenly appeared in the sky. We expected switchboards to be flooded with calls."

Smith paused and looked at me whimsically.

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"There wasn't a single call that we know of. It's obvious why so few people see the saucers. Very few ever bother to look at the sky."

"Maybe you Canadians are just less excitable. That Indianapolis sighting last July was at 5,000 feet and it raised the devil."

"But that had rapid movement to catch the eye," said Smith. "Our balloon was moving very slowly."

"Any other tests like that?" I asked him.

"No public ones, but we're considering a 24-hour radar watch."

When I asked where he thought the saucers came from, Smith hesitated.

"I'll give you this as my personal opinion. There's some evidence that they are operating from Mars. You know about the atomic explosion which Saheki reported, and the blue clouds seen since then?"

"Yes, I've seen the reports."

"There's another factor," said Smith. "The last time Mars approached the earth, I worked out a prediction. There were several sightings at the time I'd calculated. Of course, that's far from proof. But I think Mars will bear close watch. It may be the saucers' originating planet, or it may be serving as an operating base for some race outside our solar system."

"The moon could be another base," I suggested. "Some amateur astronomers have reported seeing lights in two or three craters."

I don't know of any official confirmation," said Smith. "It would be more logical to use the other side of the moon, which we never see. It would be an ideal operating base; they could reach the earth and return in a very short time."

For the next hour we switched to developments in the United States. I told Smith what I had learned, except for the Utah pictures.

"With all that evidence," he said, "your Air Force

Intelligence must be convinced the saucers are interplanetary."

"I think they are. How about RCAF Intelligence—and your other project officials?"

"I'm afraid I can't answer that. Of course, you can draw your own conclusions."

"They must have seen the same kind of evidence," I said.

Smith smiled faintly.

"From what you've told me, I think that's a safe deduction."

"What I was hoping for," I said, "was some opinion on the motive back of all this." I told him about the analysis Riordan and I were making.

"Now that I can answer," said Smith. "We haven't any conclusion as to the motives. It's my personal opinion that the saucer race hasn't made a final decision. I think it's obvious that all the survey data is being analyzed, so that they can decide what to do about us. Possibly it's being done by robot devices—the race must be far advanced in cybernetics. They could feed all the information to a robot predictor, so that it could indicate our probable future actions—whether we'd be dangerous to contact, or a menace when we get out into space. That's pure speculation, of course. The creatures may even be having difficulty in understanding the earth races—they might be super-intelligent in some ways and lacking in others."

"If we only knew what they want," I muttered.

"There's one hopeful thought," said Smith. "They may be so intellectually advanced that they consider war barbaric. In that case, if they decide we're not a menace but are too primitive by their standards, they may simply go off and leave us alone."

"Suppose, for instance, some of our pilots discovered a lost civilization down in the Amazon country. We'd investigate from the air to see how far advanced they were before risking direct contact. If they were a century or two behind us, with sectional wars going on, we'd possibly

leave them alone—unless they had something we wanted badly. But they might be only a decade or two behind us. In that event we'd at least keep a close eye on them in the future; I personally think we'd try to communicate with them, let them know there were other civilized nations, and start trading with them. But if for any reason they were a danger to the rest of the world, we'd have to bring them under control, by reason—or threat of force."

"It's an odd coincidence," I said as I stood up to go, "I used the same 'reversing' idea—but I applied it to Mars, figuring what we'd do if we found it was inhabited."

"It would be the same general situation," agreed Smith. "We're using human logic, however, and these beings may reason in an entirely different manner. They could be highly intelligent and yet coldly materialistic. In that event they would be ruthless in achieving their ends."

"Like the Communists," I said.

"Yes—perhaps raised to the nth degree. But I lean to the other belief, that they may have outlawed war except as a last resort. At least I fervently hope so."

At the door I asked him one last question.

"Do you know of any defense, if they should attack?"

Smith quietly shook his head.

"I think we would be quite helpless."

Going down in the elevator, I looked at my watch. It was almost midnight. We had talked more than three hours. Though I hadn't learned as much as I'd hoped, one thing seemed certain. The Canadian investigators must be convinced, like Smith, that the saucers were interplanetary. Smith had a scientist's religious regard for facts. If the RCAF and the two projects had unearthed any different evidence, he wouldn't hesitate to change his mind.

As I went through the Shoreham lobby I could hear a dance band playing in the Palladium Room. I glanced in at the gay crowd on the floor. What would they feel if they suddenly learned the truth about the saucers?

Maybe they'd take it more quietly than I expected. But

at best it would have a permanent effect on their lives . . .

The next morning about 10 Chop phoned from the Pentagon. He told me he had cleared some January cases I'd asked for.

"What's the latest on the Utah film?" I asked. Knowing the backstage fight against it, I expected to hear bad news. But Al surprised me.

"It's definitely settled. There's going to be a press showing."

"Boy, things will pop now! I'll be right in."

"OK. I may be tied up with Colonel Adams and the others for a while, but I'll leave the reports on my desk. If you're free, we can have lunch together."

When I got to the Pentagon, Al hadn't come back from the conference, so I looked over the ATIC reports.

The first was dated January 6, 1953. In the early-morning hours a saucer with red, green, and white lights had been sighted at Dallas. A CAA tower controller, a Weather Bureau observer, and other witnesses had given Intelligence detailed reports, but none of them had seen the lights rotate. Occasional blue and orange color effects made it hard to classify the saucer as any distinct type. Apparently it had been at a high altitude, where corona effects could be expected. Since ATIC had not finished its analysis, there was no final conclusion.

Clipped to this first Intelligence report was a memo Al had written:

"Note that Air Force pilots in Japan sighted a UFO with red, green, and white rotating lights, on January 9. This was also the date when the V-formation of blue-white UFO's was sighted over Santa Ana. The attached news items may interest you; I'm asking ATIC if they looked into the sightings."

The news stories showed five saucer reports. Two had occurred on January 11. Near Canton, Ohio, two gleaming discs had been sighted by civilian witnesses, and at Kerryville, Texas, an oval-shaped device, glowing orange-red,

had caused a peculiar interference with local television reception. From the 22d to the 24th, saucers had been seen at three places in California. Two brightly glowing UFO's had flown swiftly over Richmond; a formation of silvery discs had been sighted at Pomona, and an oval-shaped metallic-looking saucer was reported by pilots at Palmdale.

On January 29, the ATIC reports showed, there had been two military sightings. One was at Santa Ana, where a Marine Corps jet pilot vainly tried to intercept an orange-red disc. The second, another fruitless chase, took place near Millinocket, Maine, where the crew of an F-94 spotted a silver-gray oval-shaped machine flying at 23,000 feet. After they gave up trying to catch it, the saucer was sighted by two jet pilots from another squadron. By then it was at a higher altitude.

Without reporting it to GCI, the two pilots debated, by radio, whether they should try to intercept the strange machine. Unknown to them, part of their conversation was taken down by a radioman at a nearby Air Force base.

"Do you see that thing above us?" one pilot asked. "It sticks out like a sore thumb."

"If I were going to chase it," said the other pilot, "I'd drop my wing tanks first."

Evidently the two men had decided against an interception. The listening radioman didn't catch all their discussion, but he heard one revealing remark.

"I'll never admit I saw the thing," one pilot said emphatically.

Plainly, some airmen remembered the "crackpots and bars" blast by Colonel Watson, though the Air Force had tried to offset it. I wondered how many other sightings had gone unreported.

When Al came back from the conference, he seemed a little tense.

"We've been working on the statement," he said. "Some of the PIO's and Intelligence are getting jittery."

"I don't blame them. When s the showing?"

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"In about a week."

We went out to the main cafeteria, and after we sat down Al told me about the statement.

"The wording's just about set. It starts something like this— 'The color film you are about to see was taken by Warrant Officer Delbert C. Newhouse, seven miles north of Tremonton, Utah.' Then it tells how he saw 12 to 14 bluish-white objects and knew they weren't aircraft—well, you know the rest."

"Does it give the analysis details?"

Al nodded.

"It tells how ATIC and Navy worked out the speeds, using the resolving power of the lens and other tests—also that the maneuvers are too tight for any known aircraft. It follows the original draft pretty closely—the one Dewey Fournet wrote."

"Then it ought to be straight dope, since he's the top UFO investigator here."

"He was." Al hesitated. "He's been put on inactive duty."

"Why?"

"Oh—his time was up, I guess."

"It sounds queer to me. Didn't he start this press-showing deal?"

"Well—he fought for it. Dewey's always wanted to give the public the facts."

"What's been changed from Fournet's draft?"

"Just a few words here and there," Al said evasively. "It ends up saying the Air Force won't speculate on what the things are, but the analysis shows they weren't conventional objects like aircraft, balloons, or birds. Naturally, with those speeds and maneuvers, they couldn't be."

"What else?" I said.

"That's all."

"Good Lord, Al, the Air Force can't leave it at that. The press and everybody else in the country will be howling for the answer."

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"I know that," Al said unhappily. "Well just have to say we don't know."

"You do, and the Reds will probably jump in and claim the saucers are theirs. Then you'll be in a sweet mess."

"They could have done so long ago, if they wanted to."

"But the Air Force kept saying the saucers weren't real. Once you admit they are real, and also say you don't know what they are, you're practically inviting the Soviet to claim they're Russian weapons."

"We could knock it down if the Reds said that. We could have some top engineers and rocket people go on the air and prove they couldn't be Russian. If necessary, we could give them the Gulf of Mexico and Oneida cases and anything else they'd need—"

"Then why not come right out and admit the saucers are interplanetary?"

"That's absolutely out. There's enough opposition even to showing the film."

On the way back to the press branch, I asked Al if he would clear the Utah sighting for me, including the basic facts on the film.

"I'm doing a book, using the ATIC cases," I told him.

"All right, I'll clear it, since you already knew about it."

"Can you give me a memo? I don't have my clearance list* with me—I'll add the Utah case later, and you can initial it."

"OK, if you want it that way."

On the way home I kept thinking of the Air Force statement. I felt sure it wouldn't work. The press showing would be dramatically played up in radio bulletins and in papers all over the country. In a matter of hours the Pentagon would be under tremendous pressure. Even if the Soviet didn't claim the saucers as a secret weapon, using the Norwegian story as proof, public demands for an explanation would be overwhelming. In the end the

* See Clearance List, Appendix II, pp. 255-259.

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Air Force would have to admit what the evidence showed—that the saucers must come from outer space.

Regardless of any initial hysteria it was bound to have an impact on many phases of life—religion, business, the struggle with Russia, and even the smaller things in our daily lives.

On the religious effect, I already had some opinions.

"It would strike at the heart of Christianity," one minister had told me. "What would we tell our people—that these other races had their own religions, or were also Christians? If we say the latter, they will ask if Christ was born and crucified on these other planets, so that those races also could know God. The very idea is grotesque—Christ's life here would lose all its divine meaning."

There was no doubt that some fundamentalists would have their faith shaken. But other ministers had told me the effect would not be so serious.

"There are many ways in which other planet races could learn of God," said one of them. "The truth could be brought to them without repeating Christ's sacrifice on earth."

The Catholic Church, too, accepted this possibility. The doctrine had been stated by the Very Reverend Francis J. Connell, Dean of Catholic University's School of Sacred Theology, in Washington.

"It is well," said Father Connell, "for Catholics to know that the principles of their faith are entirely reconcilable with even the most astounding possibilities of life on other planets."

Enlarging on the doctrine, Father Connell had even listed four types of creatures which might exist on other planets, ranging from near-divine to evil geniuses.

The effect on our military program was easier to guess. Under public pressure, Congress was sure to rush huge appropriations for space-travel research, with emphasis on weapons against a possible saucer attack. The struggle between Russia and America would probably be reduced,

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if the Politburo were convinced the saucers were a threat. The Soviet might even join us in world-wide

defense measures.

The effect on business was less predictable. Realtors might be swamped by people anxious to move from cities or away from defense areas. There might be a wild buying splurge, a boom in night-club and amusement business, with the hysterical slogan of "enjoy life while you can." If scare buying got out of hand, banks might be closed until public fear died down.

On the other hand, the news might cause only a few days' excitement, especially if the government hammered away at the saucers' lack of hostility. Even if the spacemen's motives were admitted as possibly hostile, eventually we would accept that danger as we have accepted the risk of being A-bombed.

But the initial impact, when the news first broke, was still a question. If there was a panic, it would probably come in those first few hours.

When I reached home, I got out some sighting reports which showed witnesses' reactions. One hint came from Mrs. L. G. Planty, a plane-spotter who saw a saucer at Massena, New York.

"It was eerie red in color and frightening," she told reporters. Other Massenans had seen the red disc as it passed above a drive-in theater. Most of them were merely curious; only two of three had been alarmed.

In Indiana a state policeman had described a "dogfight" between several saucers. "It was so weird I hesitate even to talk about it."

Another comment came from W. B. Harris, a fire department radio dispatcher who saw a UFO at Dallas.

"I wish I'd never seen it," said Harris. "It was too fantastic."

E. W. Chambers, the WRC engineer who saw the Washington discs, used almost the same words.

"I'm sorry I ever saw them. I keep worrying about what it means."

There were a few witnesses who had felt no fear. One was Saul Pett, an AP writer who sighted an orange-red saucer over New Jersey.

"I wasn't frightened at all," said Pett, "because the thing looked so peaceful and serene. There wasn't any appearance of menace."

Letters from readers of my book and articles gave me another cross-section. Most of those who had seen saucers were soberly concerned, though only a few admitted any fear. Some showed the effect of certain scare stories published since '47. One of these stories reported that a nurse and a salesman,

driving along a desert road, had been kidnapped by spacemen. Another described how a private plane had been stopped dead, suspended in mid-air, apparently under study by a saucer crew. A third fear-provoking story was built on the theory published by AMPRO Laboratory Associates, which suggested that spies from Saturn were circulating on earth, working for our downfall after a saucer invasion.

It was plain the foundation had been laid for nationwide hysteria. It might have been avoided—but that was water over the dam. The only hope now, it seemed to me, was to trust the American people and quietly tell them the facts.

For over five years they had heard suggestions that the saucers came from space. If they were not prepared now, they never would be.

There would be some hysteria, no matter how and when the news was broken. But after the first alarm, probably most of the country would settle down and soberly face the problem.

Maybe I was wrong—but somehow I felt the American people could take it.

CHAPTER XIII

Exodus from Space

The big question—the purpose of the saucer survey—was still unanswered. It was likely to remain a mystery until our unknown visitors chose to reveal it. But in a few days everybody would be clamoring for the most probable answer. What could they be told?

1. As a start I put down two suggestions that had been published since '47.

The unknown planet race—perhaps more than one—may fear an eventual invasion when we achieve space travel. Our success with atomic weapons may have increased this fear, and our high-altitude rocket tests would indicate that we are not far from journeys in space. This is one possibility suggested by Project Sign.

2. The spacemen may fear the effect of more powerful atomic explosions, especially if this race comes from a solar-system planet. Several atomic scientists have said that simultaneous H-bomb explosions might speed up the earth's rotation or even change its orbit. One of these was Dr. Paul Elliott, a nuclear physicist who worked on the first A bomb. Others have said that a mass explosion of H bombs might tear a large chunk out of the earth, or that a violent chain reaction might even destroy our planet.

Any of these effects, particularly destruction of the

earth, might have serious results—or at least unpleasant reactions—on Mars, Venus, and other solar-system planets. According to some astronomers, including Dr. George Gamow of George Washington University, the earth's ice ages were caused by certain unknown changes on Saturn and Jupiter. A violent explosion which altered or destroyed the earth might have even more disastrous results. If some other solar-planet race knew this danger from its own atomic discoveries, it would have good reason for alarm.

Using other suggestions I'd heard and ideas of my own, I added the following alternate motives:

3. If the unknown race uses atomic energy, it may be exhausting its supply of uranium. In this case our A-bomb explosions would reveal a new source of supply. This would explain the saucers' interest in

our atomic plants and uranium mines. It would be simple for remote-control units to locate uranium deposits—our own Geological Survey has developed Geiger counters for planes used in such searches. It would also explain the saucers' concentration on the United States, the most advanced nation in this field.

4. The saucer race may intend to invade us as part of a program to conquer inhabited planets.

5. They may have some unknown plan for the earth beside plain conquest.

6. Our planet may not be considered a menace, and it may not hold any material interest leading to an invasion. The surveillance then could be for one of two reasons:

A. To survey the earth with the intention of contact, once the saucer race has convinced us of its peaceful intentions and is sure we will not attack them.

B. To catalogue the earth as just another inhabited planet, with no plans for immediate contact. The survey might then subside into a periodic check until we seemed far enough advanced for acceptance, unless meantime we developed into a threat to space nations.

There was one factor which might have an important

bearing. For almost 200 years before the 1947 sightings, strange objects and lights had been reported all over the world. Many of the stories were undoubtedly old wives' tales. But a few reports, by astronomers, sea captains, and various reputable observers, sounded remarkably like the present sightings.

This was especially true of the sightings within the last 80 years. On September 26, 1870, the London *Times* reported a strange elliptical object which was seen to cross the face of the moon. A year later, on August 1, 1871, citizens of Marseilles, France, sighted a large, round device moving slowly across the sky, apparently at a very high altitude. At Kattenau, Germany, on March 22, 1880, several bright, luminous objects were sighted just before dawn, moving westward as they climbed. (This report was published in the British *Nature* magazine, Vol. 22, p. 64.)

In 1885 the Bermuda Royal Gazette described a mysterious round object which had flown over the islands, and that same year, on November 1, an astronomer and other witnesses reported sighting a huge, round machine over Adrianople, Turkey.

On March 19, 1887, two unknown aerial objects were reported to have fallen into the sea near a Dutch barkentine. According to Captain C. D. Sweet, one object was dark, the other luminous. He was positive they were not meteors.

About a year after this an oval-shaped disc was reported over New Zealand, speeding at a high altitude. And in 1890 several large aerial objects were sighted over the Dutch East Indies. Similar devices were later seen over England and Scotland. One report, which came from a British admiral,

described a large disc with a projection like a tail.

Since there were no airplanes or dirigibles at this time, it is difficult to explain away the sightings, unless they are all termed hallucinations.

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During this period there were similar sightings in the United States. One typical disc report came from Denison, Texas, where the observer compared the device with a large saucer. The story was carried in the *Denison Daily News*, January 25, 1878.

In 1897 a strange aerial machine with red, green, and white lights was sighted by astronomers and thousands of Americans in several Midwest states. Newspaper accounts were published in Chicago and many other cities.

On February 24, 1904, a mysterious "flying light" was seen above the Atlantic by crew members of the USS Supply. The report, attested by Lieutenant Frank H. Schofield, U.S.N., described the object as moving with great speed, apparently at a high altitude. (A detailed account appears in the March, 1904, issue of *Weather Review*, an official publication of the U.S. Weather Bureau.)

Another sighting listed in the *Weather Review*, in 1907, occurred near Burlington, Vermont, where a weird torpedo-shaped machine was reported as circling the area. During this sighting a round, glowing object fell from the machine, exploding before it reached the ground. Still another *Weather Review* report described a peculiar shadow seen on some clouds at Forth Worth, April 8, 1913. The shadow appeared to be caused by a large machine hovering above the cloud layer. As the clouds moved, the shadow remained in the same position. Then it suddenly diminished in size, as if the machine had risen vertically, and quickly disappeared.

If these reports were to be believed, I could see only one conclusion—that the earth had been observed periodically, in a systematic patrol of inhabited planets, but until recently had not been of great interest to advanced races.

The present sightings, then, might be only a new phase of a long surveillance, though they could be observations

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by some planet race which had discovered the earth in the last few years. It was even possible that both answers were right—there might be more than one race involved in the saucer survey.

If it was an entirely new operation, it wasn't hard to see how the unknown race had discovered the earth. Though it could have been an accident, during a space exploration, there was a more likely explanation.

For some years now, our radar and high-frequency radio messages had been traveling through space. Radio astronomers on some other planet undoubtedly must have heard them and set about deciphering the messages. Even if they hadn't learned their meaning, the unknown race would know they were intelligent symbols, coming from another world. Monitoring the wave lengths, locating their source, and following the signals to the earth would be a simple matter for a race that had conquered space travel . . .

That evening, after dinner, I was trying to decide the most likely motive when Jim Riordan called me.

"I'm in Alexandria," he said. "Been looking at one of the Hunting Towers apartments. If you're not busy, I thought I might grab a bus and come out—I'd like to hear what Smith had to say."

I looked at the clock.

"There's no bus for an hour—I'll run in and pick you up."

"All right," said Riordan. "I'll be in the lobby of the George Mason Hotel. In fact we might as well talk here. It'll be easier for me to get a bus back to Washington."

It was only a few minutes' drive into Alexandria. I went into the hotel and found Riordan smoking his pipe, watching the lobby television set. We sat down in a corner and I gave him the main points of my talk with Smith. Then I told him about the Utah pictures.

"They're going to make that public?" Riordan said incredulously.

"In about a week."

"It'll raise hell—people should have been gradually prepared."

"They've heard the idea for five years."

"The idea—yes. But how many have really figured out the angles? That piece in *Gusto* was right—nobody's ready for it"

"I didn't see that," I said.

"It's a pocket mag—they had an article called 'When the Saucers Land.' The guy who wrote it asked Civil Defense, the Red Cross, the Civil Air Patrol, and a lot of other outfits what they'd do if saucers suddenly landed. He certainly caught them with their pants down. Civil Defense and the CAP said they didn't know. The Red Cross said it would send out an alert. The mayor—it was Los Angeles, I think—said they didn't have any plan."

"You've got something, Jim. A sudden landing could cause trouble."

"Some retired Navy commander got all steamed up about it," said Riordan. "He fired letters at the White House, the Defense Department, even the FBI, blasting the Air Force for not preparing people."

"It's easy to take cracks at the Air Force—I ought to know. But since July I've seen the spot they're in. If I'd been in Samford's shoes then, I'd have done just what he did."

"I guess I would, too. But that debunking's going to make it tougher now, when they throw this Utah thing at the public. And they'll just have to tell people what they think's behind the saucer survey."

"Unless they're holding back on me, all they could do would be to give out the possible answers."

Riordan read over the list I'd written.

"That last part is just wishful thinking," he said grimly. "If it's only a general survey, why the green missiles and the red-spray bombs?"

"I'll admit they're prepared for an attack. But I think

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it's only if we don't listen to reason—probably about A-bomb explosions."

"And that's your 'out'?" demanded Riordan.

"I know it sounds pretty thin. But you can't ignore the time element—four years since those tests and no attack. Take Smith's 'lost civilization' idea. Suppose we discovered a lost race like that today. You think the United Nations—even Russia—would go down there hell-bent on wiping them out?"

"Well—no. We'd check on them first."

"And it might take a long time to figure them out. If it looked as if they were getting set for A bombs and jet bombers, we'd do something—but we'd give them a chance first. Meantime we might try out a few guided missiles where nobody'd get hurt—maybe as a warning or even a ranging test if they didn't accept our offers."

"It could be the truth," Riordan said thoughtfully. "If you're right, it's up to us whether the saucers attack or not. I'm still not sold—but it's possible."

He glanced at his watch, stood up. As we went outside the hotel, Riordan looked up into the night.

"It's a queer feeling, knowing they're up there watching everything we do—and deciding whether they'll let us live or not"

"If my hunch is right, Jim, it'll be up to us."

Riordan slowly nodded.

"Maybe it will I hope to God you're right."

It was two days before I heard from the Pentagon. Then one morning an Air Force PIO phoned me.

"Al told me to give you a message—he had to rush off to a meeting. He said to ask you to come in around 2 o'clock. He's got something to show you."

When I saw Al, I noticed he had a worried look.

"What's happened?" I said.

"There's been a spurt in sightings. Only a few have gotten into the papers, but we've had 42 military reports alone, the first 17 days of February. I've got a few here for

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you." He was silent for a moment, tapping his fingers on the desk. "It's not good, Don. If it keeps on, there may be a lot of public reports. We might have the July trouble all over again."

"I can guess the rest," I said. "They're backing down on the Utah film showing."

"Nobody's backing down," Al retorted. "Anyway, not the ones who think it should be made public. But it wasn't the Utah business I wanted to see you about."

Reaching into a desk drawer, he brought out a manila folder. As he opened it, I saw several typed pages.

"This script," he said carefully, "has been approved for publication—on one condition. I'll tell you what it is after you read it."

He handed me the pages and I looked at the title:

Planet Earth—Host to

Extraterrestrial life

I stared at Al, then read the beginning. The key paragraphs repeated a statement which several scientists had made: In some far-off future, when the earth cools or our sun expands, Man's only chance for survival will be escape to another planet. This situation, the script went on, can be expected on any inhabited planet.

Then one line seemed to leap from the page:

"Granted that super-intelligents in another solar system are looking for a suitable planet for a second home, why would earth be singled out . . .?"

I looked at Al in amazement.

"This is dynamite. You mean the Air Force wants this made public?"

"It's not an official statement," he said quickly.

"Then what is it?"

"It's one person's opinion—a man named W. C. Odell."

"Not Colonel Odell, in Intelligence?"

"Well—yes. But his Air Force connection can't be used on the by-line."

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"You'll never keep it secret, if this gets into print. The boys in the press room are sure to dig it up. When that hits the wires, it'll raise holy hell."

"The Air Force would say it was simply one man's opinion."

"But an Intelligence colonel! Why take the risk—now of all times?"

"Odell has the right to express a personal opinion, if it doesn't violate security."

"For Heaven's sake, Al! You know what this means. If this invasion idea gets out after you show the Utah film—"

"It won't be published then. No magazine could get it on the stands that soon."

"You think they'd sit on it that long? The minute the Utah story breaks, they'd resell it to a wire service, with joint credit."

Al was silent.

"You want me to show this to *True*—is that it?"

"Yes, or any other magazine you write for. But make it clear that Odell's Air Force rank can't be used."

"Look, Al I've got to know what's back of this. Does the Air Force want it out as one of the possible answers?"

Al shook his head. "I told you it was just one man's idea. Security Review passed it. That's all I know."

He put the script in an envelope, along with the February cases he'd cleared.

"Show it to your editors, and let me know their reaction as soon as you can."

I went out, still astonished. Even if Al were telling the truth, it was incredible that Colonel Odell's suggestion should be made public now. On the face of it, the Air Force was throwing caution to the winds. But knowing the fight against even the film showing, I couldn't believe it. There must be some other answer.

Stopping under a corridor light, I read over the entire script. It was quietly written, the invasion suggestions sandwiched between discussions of space travel and astronomy.

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There was no hint of a violent occupation of the earth. But nothing could reduce the impact of Odell's suggestion.

If he were right, unknown beings from a dying planet were considering the earth as a possible haven—a new home in which to perpetuate their race. Possibly, as Odell said, the long survey would prove our world was not suitable. Otherwise, Planet Earth might become—willingly or not—a "host to extraterrestrial life."

I went into a phone booth to call *True*. Then I realized that the editors would want to see the script and talk over all the angles. Calling the airport, I made a reservation on a 5 o'clock flight, then I drove home to get an overnight bag. Before I left, I phoned Riordan's hotel. Jim was out, but I left a message for him to meet me, if he could, at the airport. Maybe he'd have some idea of why the script had been cleared.

On the way to the airport, I thought over Odell's suggestion. The mass migration idea wasn't new—it had been used in dozens of stories and plays. But I'd never taken it seriously; moving any large number of people from a distant planet seemed impossible.

Of course it could be done gradually, over a period of years. Even then, the problems seemed enormous, though they might not be barriers to a race which had long ago mastered space travel.

How would Man, in some far-distant age, go about migrating to another planet?

It would depend, first, on the fate they faced on earth. There were two theories as to how the earth would die. According to the first, it would slowly cool, then become frigidly cold like Jupiter and Pluto. The opposite theory held that the earth will get unbearably hot and finally bum up. One scientist holding

this belief is Dr. George Gamow, author of *One-Two-Three—Infinity!* and professor of theoretical physics at George Washington University. In Gamow's opinion the sun is producing more energy and

constantly expanding: at the last, our globe will be destroyed in a tremendous explosion.

During the first stages of cooling or heating, our descendants might escape surface temperatures by building underground, air-conditioned cities, surviving on chemically produced foods. (This was the Project Sign suggestion regarding a possible race on Mars.) If the earth were cooling and not threatened by an expanding sun, the human race might exist indefinitely underground. But if there were a better alternative, the chance of a normal, outdoor life on another planet, some earthlings at least would undoubtedly try it.

In that far-distant time, Man will certainly have mastered interstellar flight. Long before the earth becomes unbearably hot or cold; our descendants would begin to look for a new home in the universe.

Since no solar-system planet has a climate like the earths, the nearest star system would be explored first. Perhaps a twin of the earth will be found; if not, the explorers would search farther.

During a long exploration more than one earth "twin" might be found. If the nearest one were inhabited, our descendants might choose a more distant planet, especially if the planet race were strong enough to resist invasion.

Once Earth II was selected, bases would be set up and an occupation force gradually brought in. On a planet similar to this, evolution probably would have produced fish and fowl, also animals which the colonists could domesticate. If not, small numbers could be brought to start such life. Fields would be cleared and earth-type crops planted.

Even with giant space ships, moving most of the earth's population would be impossible. At first, probably, migration would be limited to technicians, builders, defense forces, and their families. It might take hundreds of years for Earth II to be fully occupied. Migration might be voluntary, but probably it would be restricted to younger

age-groups—except for key scientists and various experts.

What would happen to the hundreds of millions necessarily left on earth? It would be impossible to move all of them underground. Perhaps some plan for gradual depopulation could be used—birth control enforced by sterilization. In this case, long before the earth freezes, or begins to roast under a blazing sun; it will in truth become a dead planet, abandoned to its fate.

Fantastic as it sounded, this could well be the method of migration to an uninhabited planet.

But if the selected planet were inhabited, a different plan would have to be used. The choice of such a planet might be forced on the earthlings; it might be the only one on which they could survive. Or it could be a cynically deliberate choice—the homes, industries, farms, and mineral supplies of the planet race might offer short cuts to colonization.

Either way, the fate of the planets' inhabitants would depend on the character of future Man. By then, a wiser human race may have outlawed war, or they may have degenerated into scientific barbarians.

If our descendants were peaceful, they could suggest a friendly coexistence to the planet race: the earth's scientific advances might be held out as an inducement. But if future Man is a cruel materialist, he would take one of two steps:

First, he could destroy the inhabitants and take over their civilization. Second, he could conquer them, then use the captive race for forced labor.

Even if the earthlings desired a peaceful occupation, it might not succeed. A race too weak to resist would be no problem, but an advanced race might fight. If the planet were the only possible choice for Earth II, our descendants would probably use force if reason failed. Once in control, they might persuade the inhabitants to cooperate in exchange for their freedom.

It is possible that the earthlings would discover a highly

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superior race, forcing them to renew their search for a second home. If none were found they might, in desperation, stage a sudden attack with their most deadly weapons, hoping surprise would overcome the inhabitants' defenses. Should this fail, then underground life on earth would be Man's last hope . . .

To the world of '53, I knew the fate of future Man would be of little interest. But Colonel Odell's suggestion brought the exodus idea grimly down to the present. His explanation might be mere speculation, without a shred of evidence. But somewhere in the universe there were bound to be planets far older than ours. If such an aging planet were inhabited, its race—providing they traveled in space—would certainly search for a twin to their dying world.

And that twin could be the earth.

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CHAPTER XIV

The Hidden Report

When I went into the airport terminal, there was no sign of Riordan. He came in a few minutes later, as I was leaving the American Airlines counter. We went up to the deserted mezzanine and I told him about Colonel Odell's migration answer.

"Good Lord!" said Riordan. "Does the Air Force really believe that?"

"I don't think so, but I'm puzzled at their letting Odell say it."

Riordan skipped through the typescript, pausing at the key points.

"It's fantastic," he muttered. "If an Intelligence colonel hadn't written it—" he stopped. "There's one sure thing. If any other race tried to muscle in here, there'd be one hell of a fight."

"It would depend on their weapons—"

"We'd fight, anyway," grated Riordan. "I can't see Americans—or the rest of the world, either—letting themselves be pushed off onto reservations like the Indians. They'd have to finish us off before they could settle here."

"I still think one of the other answers is more likely. But even if it's true, it doesn't mean they've definitely decided on the earth. They may be considering some other planet.

They might have trouble with our atmosphere; if they find they can't adjust to it, they may give up. There could be a dozen reasons why they'd have trouble settling here."

Riordan stared down at the crowded waiting room.

"It could explain the long check-up—maybe why they haven't tried to contact us. But somehow I just can't believe it. You don't take it seriously, do you?"

"I'd have to see some evidence first. Of course, this might fit Mars, if Lowell was right about its being a dying planet. The Martians may have developed space travel in the hope of saving the race. It's a possible answer, but even if they did select the earth, it might be years before they'd be able to start migration."

"And if they tried it on a small scale, we could handle them. Also, we might have space ships by then, maybe new weapons to hit them with. Of course, if the earth was their only chance, they might rush things." Riordan stopped, made a wry face. "Damn it, I still say it's fantastic-Intelligence colonel or not."

The loud-speakers broke in, announcing my plane's departure. Riordan went down to the gate with me.

"The thing that bothers me," I said, "is the Air Force clearing the script."

"Maybe it was a fluke," said Riordan. "Could be it was passed by some Review officer who doesn't believe in the saucers, so he thought it wasn't important. He could've figured that taking off the colonel's rank was enough to protect the Air Force."

"He'd have to be pretty dumb not to see what could happen."

"Sure, but that could explain its getting cleared. It's still a hellish idea." Riordan gave me a crooked grin. "Even though I don't believe it, I wish I hadn't heard it."

As the Convair roared off the runway, I glanced at some of the passengers, trying to imagine how they would take Odell's suggestion. Judging from Riordan's reaction, most of them would shrug it off as some scare-writer's brainstorm.

What difference it would make if they knew his Air Force background, I could only guess. Some might call it pure fantasy; Riordan had at first, and he'd seen all the saucer evidence. Even so, releasing the story now seemed to me a curious action.

The airliner droned past Baltimore, and I looked down at the sprawling city. Would this and other great American cities be coveted by that unknown space race? Would they offer the homes, industries, food these mysterious beings required? Or would their needs be totally different? Even if they closely resembled us in form, they might have developed a civilization so strange that ours would be utterly useless to them . . .

That night at my hotel I read the reports Al had cleared. Only one of them added any new angle. On February 6, near Rosalia, Washington, a saucer had circled a B-36 bomber. During this maneuver the pilot saw a white light blink at two-second intervals. Before he had time to blink his own lights in answer, the machine swiftly turned south and disappeared.

The other reports followed the usual pattern. On the night of February 1 an Air Force jet pilot had spotted several glowing saucers near Terre Haute, Indiana. Later he saw the same group, or a similar one, as he came into St. Louis. Three days later a Weather Bureau observer at Yuma had tracked two discs with his theodolite. On February 11 there had been two widely separated sightings. One disc had paced an Air Force C-119 en route from Tunis to Tripoli. The other had led a Marine Corps jet pilot a wild chase over Virginia.

The last ATIC report was dated February 13, when three discs, in echelon formation, had maneuvered near Carlstrom Field, Texas. During the visual sighting the UFO blips had been picked up by a B-36 radar man.

I put the reports away. Possibly the rest of the 42 cases held clues to the meaning of this new cycle. There were none in these six, unless the blinking light had been some kind of signal.

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Next morning I took Odell's script over to *True*. Ken Purdy was out of town, so I showed it to John DuBarry.

"It's a startling idea," he said. "But I'm afraid of it, the way they've released it. Without Odell's rank, we'd be accused of printing a scare story by some wild-eyed author. And frankly I don't understand the setup. What's going on down there?"

I told him about the battle over the Utah film and the new spurt in sightings.

"This thing must be driving them crazy," DuBarry said. "Clearing this Odell story baffles me, and it could have been a slip-up. Anyway, even if the Air Force asked us to run it, with Odell's rank and Intelligence connection, things are moving too fast. Before we could get it into print, the Utah film showing will break the whole business wide open."

"That's about how I figured it, but Chop asked me to find out."

After what DuBarry had said, I decided not to show the script to any other editors. There was too much mystery about it.

For two days after my return from New York, I heard nothing from the Pentagon. Finally I called Chop, but a PIO told me he was in a conference. I left word for him to call, and a little later the phone rang. But instead of Al, it was Henry Brennard, the man who had tipped me off to the Utah pictures.

"Did you hear about yesterday's blow-up over the saucers?"

"No," I said, "what happened?"

"There's been a rush of new sightings—"

"I know that. Chop told me."

"Well, most of them have been kept quiet. Then one hit the papers—a huge disc over Lake Erie. It's worried some of the Pentagon crowd. They're afraid it's the beginning of another scare like the one last summer. Then on top of it an Intelligence colonel got an article cleared—"

"You mean the Odell piece? They let me see it."

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"That set off another row," said Brennard. "Some of the Air Force people are sore that Review passed it. They're afraid now that it might be tied up with that AP story from the International Medical Conference."

"I missed that," I said. "What was it?"

"It said they were on the track of a way to prolong life so people would live indefinitely—hundreds of years, anyway. The AP had a statement by Colonel J. E. Ash—he used to be head of the Armed Forces Institute of Pathology. He said the earth would be so crowded we'd have to start colonies on other planets."

"Oh-oh," I said.

"Yes—it's bad. If Odell's piece gets published, some smart newspaperman would be sure to remember what Ash said and tie the two together. It's another argument for slamming the lid down on saucer stuff."

"You mean they've done that?"

"No, but the Central Intelligence Agency recommended it," said Brennard. "At least that's what I heard."

"How did the CIA get into this?" I asked.

"The Air Force gave some of their top men a secret briefing. The CIA people advised them to put out a new report, debunking the saucers the way they did in '49—tell the public the project was ended, and then carry it on underground. It'd probably be top secret."

"They'd never get away with it—not with all they've let out now."

"I don't think they'll even try. Some of the Intelligence boys were mad as the devil at CIA for even suggesting it. Well, that's the picture. I thought you'd like to know—it's turned into a knockdown fight."

I had barely put down the phone when it rang again. This time it was Al.

"I've resigned," he said bluntly. "You'd better come in and meet my relief."

"What the devil happened?" I exclaimed.

"This hasn't anything to do with the saucers," Al said quickly.

"Look, I heard there was a big row over the Utah film—" "I don't want to talk about that now," Al broke in. "Come out to my place tonight and I'll tell you what I can."

Then he hung up.

When I saw Al that night, he told me that two Air Force groups were deadlocked over the secret film.

"But I'd resigned before that," he said. "I'm going out to California—I've been wanting to get into private industry."

He could see I didn't believe him.

"It's the truth," he insisted. "I might have put it off a while—they wanted me to stay on. But the way this thing's worked out, I'm glad I'm going."

"How does the Utah deal stand now?"

"They're arguing over the statement." Al gave me a mirthless smile. "One group wants to say the objects might have been balloons or light reflections from gulls' wings."

"You're kidding!" I said incredulously.

Al shook his head.

"But the analysis!" I said. "Those speeds and maneuvers proved the things couldn't be birds or balloons—or even jets. Both ATIC and the Navy agreed on that"

"Yes—but the statement doesn't have to go into that."

I stared at him.

"You mean all the analysis conclusions would be left out?"

"It's not decided yet," Al said evasively. "They—some of the people—are talking about running other pictures along with the Utah film."

"Pictures of what?"

"Balloons and gulls. You know, with the sun reflecting from them."

"You call that a fair deal?" I demanded.

Al's face got a little red.

"It's not my suggestion—don't get mad at me." Then he

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added, soberly, "And don't get the idea that the officers who suggested it are just trying to fool the public. They honestly think they're right—that it's better to keep the thing quiet and not stir up people."

"It's a dangerous gamble, Al. If something happened suddenly and nobody was prepared—"

He nodded. "I know. But it isn't settled—we may win yet."

"You're still in on the fight?" I said, surprised.

"Yes, my resignation doesn't take effect for a few days." Al squashed out his cigarette. "There's one thing they've lost sight of, in all these arguments. The country's top newspapermen and commentators will be invited to that showing. They're no fools—they're bound to see through a setup like that."

I thought it over a moment.

"You're dead right. They'll want to know why the big build-up over nothing."

"Absolutely. They'll want to know why we've got them in for this special showing, if the Utah film is just pictures of balloons or birds. The film was shot in July, and they'll ask what we've been doing with it all this time. Even if we don't mention the ATIC and Navy analysis, they'll smell a mouse. Before it was over, the Air Force would be in a real jam."

"You going to tell them that?"

"Yes, I think somebody ought to warn them." Al gave me a dry grin. "Maybe I'm a fool for sticking my neck out but I'll give it a try."

As I was leaving, he told me the final decision would probably be made by the next afternoon.

"If you want to, come in about 4. I'd rather not discuss it on the phone."

When I went in to the Pentagon, next day, Al was not at his desk. It was almost an hour before he came back.

"Is it settled?" I asked quickly.

He gave me a grim look.

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"It's settled, all right—the whole thing's killed."

"They're going to keep the film secret?"

"There won't be any public showing—you can take it from there."

"How'd it happen?" I said.

"After they saw my point, it boiled down to telling all or nothing. So it's nothing."

Al sat down and looked dully at the floor.

"It's not right," I muttered.

"The other side thinks it is," Al said. "They think it's the wisest decision. But some of the Intelligence people are pretty sore. They don't think the public's getting a fair shake."

"I don't either. And the more I think about it—Al, I'm going to break this story!"

"There's nothing to stop you—you got the facts cleared. And plenty of our people will be glad to see it come out, so long as you don't give the whole Air Force a black eye."

"Don't worry. I know it's only a small group that blocked this."

Anger over the decision, I found, went far beyond Air Force Intelligence. Next day I received an unsigned note on plain paper, urging me to tell the Utah film story. I recognized the handwriting of a Defense official who knew I was writing a book. Like Al, he asked me not to blast the entire Air Force. Then he added an acid comment:

"There are some human ostriches in the Air Force, and outside as well, who stick their heads in the sand and refuse to accept the most positive evidence. It is no accident that these people haven't correlated the saucer sightings—they obviously fear it will prove facts they don't want to face. But there is a definite pattern, with clues which eventually will give us the final answer."

The tone of his letter didn't surprise me. After the licking the "A" group had taken, they were bound to be bitter. What their defeat would do to the clearance policy, I

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could only guess. The lid might go down again on all ATIC cases. But I didn't need any more sighting reports—the evidence I had was enough to prove the main points.

Only one thing was missing—an Air Force report that the saucers came from space. Considering all the facts they had, it seemed almost certain there must be such a report. But the chance of finding out now was about one in a thousand.

Then it suddenly occurred to me that Brennard might have a lead. When I phoned him, I found he already knew about the Utah film decision.

"I'm not surprised," he said. "I never really thought they'd let that out."

"It'll be out, all right," I told him. "I got it cleared."

"How the devil did you finagle that?" Brennard exclaimed.

"I just asked for it and Chop OK'd it."

"I'll bet somebody higher up told him to, so the public would get the story if the showing was blocked."

"Maybe, but if so he didn't let on."

"With that and all the other cases," said Brennard, "you've certainly got proof the saucers are interplanetary."

"Everything but an Air Force admission. I've got a hunch there's a secret report with that conclusion. Any leads?"

Brennard hesitated.

"I heard one thing, but it isn't absolute proof. A month or so ago an official I know was secretly briefed on the saucers. He used to think they were a joke. But after that briefing he told me he was convinced they were extraterrestrial."

"That's the biggest break yet! The Intelligence officer must have said it was the Air Force conclusion."

"It sounds like it, but it could be just his personal opinion."

"Even so, that's still a break. I'm going to ask Chop about this before he leaves for the coast."

government.

"I've forgotten your street number," he said. "I've got something to mail you."

"Hold it—I'll be right out," I said. "I want to see you for a minute."

When I saw Al, I told him what I'd heard about the briefing.

"Doesn't this prove there's a secret report?" I asked.

Al was silent so long I gave up.

"I can't violate security," he said finally, "even if I am out of the service. But I can tell you this. Last fall there was a detailed analysis of all the evidence. I can say that because it wasn't classified when I saw it. After ruling out all other explanations, it came to a definite conclusion. I can't tell you what that conclusion was—by now it's probably top secret."

It was maddening to get so close, only to have the door slammed. I made one last try.

"Al, you've seen all the evidence. Will you tell me your conclusion—as a private citizen?"

He gave me an odd look.

"Maybe this will be even better." He took out the folded carbon of a letter. "This is what I was going to send you. It's our official answer to a letter from your book publishers. Those ATIC cases you outlined must have scared them."

"But I told them the cases were cleared—"

"They wanted an official OK, addressed to them. They got it, also a statement that the Air Force regarded Major Keyhoe as a responsible, accurate reporter—but here, read it yourself."

I picked up from where he'd left off:

"His long association and cooperation with the Air Force, in our study of unidentified flying objects, qualifies him as a leading authority on this investigation.

"The Air Force and its investigative agency, Project

Bluebook are aware of Major Keyhoe's conclusion that the flying saucers are from another planet. The Air Force has never denied that this possibility exists. Some of the personnel believe that there may be some strange natural phenomena completely unknown to us, but that if the apparently controlled maneuvers reported by many competent observers are correct, then the only remaining explanation is the

interplanetary answer."

For a second I just stood there, staring at the last sentence.

It was an official Air Force admission that the saucers came from space!

There wasn't the slightest doubt that the saucers' maneuvers were controlled—and Air Force Intelligence knew it. Hundreds of veteran pilots, from Wing Commander Curtis Low on down, had sworn to that. And the simultaneous radar and visual tracking reports proved it beyond all question.

I drew a long breath.

"This does it, Al. I've waited four years for this."

"I thought you'd be interested," he said dryly.

"I guess I don't have to ask what you believe, now."

"I've been convinced for a long time that the saucers are interplanetary. There's no other possible answer."

"One more question," I said. "Do you have any idea what they're up to?"

"No. And I'm positive no one in the Air Force knows for sure. It could be any of a dozen motives—including Odell's answer."

Al paused and looked at me solemnly.

"But one thing's absolutely certain. We're being watched by beings from outer space. You've been right from the very start."

Epilogue

Five months have passed since I learned of the secret Intelligence analysis. Few sightings have been made public in that time, but the mysterious surveillance is still going on. Despite all this, no steps have been taken to prepare the American people.

We are nearing the possibly fateful year of 1954. According to the Joint Chiefs of Staff, Russia will then be able to stage a mass A-bomb attack. Leaving the saucers officially unidentified adds to that grave danger. Prior to its D Day, the Soviet might suddenly claim these machines as secret Red weapons. By starting false rumors of Russian saucer attacks, they might cause stampedes from cities, block defense highways, and paralyze communications just before an A-bomb raid.

It is imperative that we end this added danger. At the same time we should also try to forestall panic if the saucers should suddenly land. To that end, I believe four steps should be taken as quickly as possible:

1. The secret Intelligence analysis should be made public, with all the evidence which led to the final conclusion.
2. The Utah film should be released, with the detailed statements by Air Technical Intelligence and Navy Photo-Interpretation.

These two steps, with their massed evidence that the saucers are interplanetary, are almost certain to prevent any false Soviet claims. At the very least, they would greatly reduce any chance that the trick would succeed.

The other two steps are equally important:

3. Project Bluebook should be expanded, given the full-time services of top-level scientists, and coordinated with foreign investigations. An integrated world-wide investigation will probably reveal new facts, especially clues to the motives of the unknown space race.
4. A plan for communication and eventual contact should be drawn up and made world-wide if

possible. Such a plan should include standard radio and visual signals for all aircraft, ships, and ground stations. Detailed steps should be worked out to cover every possible development, from the first message to the saucer landings.

If there is any hidden proof that attack or invasion is planned, we should be told at once. The American people have risen to supreme heights before. They would undoubtedly meet this danger, after the first hysteria, as bravely as they have faced all of our great crises. And with our leading scientists working on the problem, perhaps some defense might be found.

However, there is at least an even chance that the space race means us no harm—they may be waiting only for proof that landing here is safe.

All of us—every nation—should be told the truth and made ready for saucer landings. Even if we are fully prepared, there will be tense moments. We must accept the possibility that the saucer creatures may differ from us in form. Even if they are utterly friendly, their strange appearance could cause panic. But there may be no such problem. These beings from another world may resemble us closely, in form if not in size. Regardless of their appearance, we must be ready to match the friendliness of any strangers from space.

Those first meetings with beings from another world

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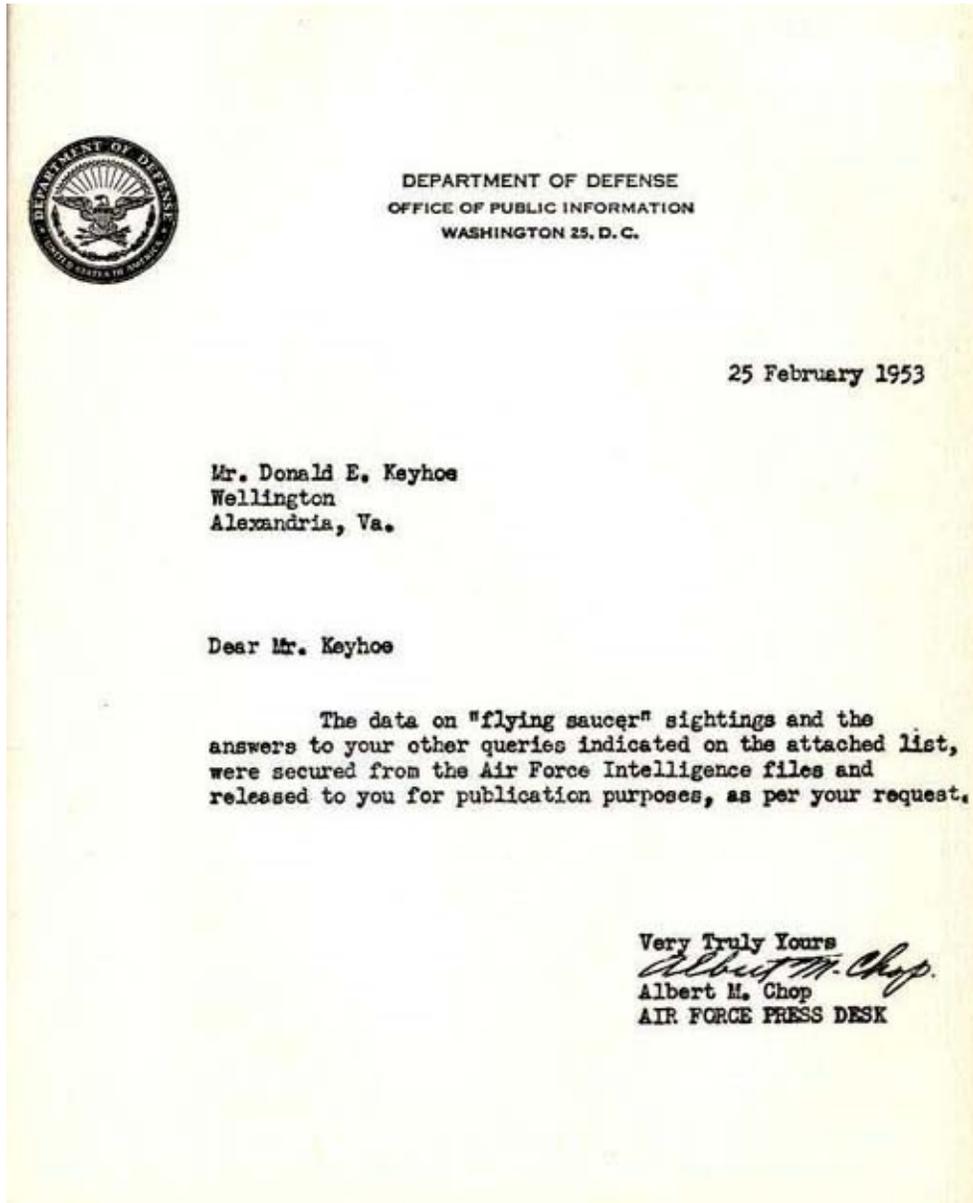
could be the greatest adventure of all time. But we must guard against fear, panic, and violence by our own people, so that no tragic blunder will change peaceful visitors from space into deadly enemies.

For those first dramatic moments may decide the fate of our world.

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Appendixes

Appendix I



Appendix II

1. *Laredo Air Force Base, Tex.*, December 4, 1952. Air Force pilot's "fight" with a UFO.
2. *North Atlantic area*, August 29, 1952. Three disc-shaped objects seen during tracking of a balloon.
3. *Santa Ana, Calif.*, January 9, 1953. B-29 pilots saw rapidly moving UFO lights, bluish-white, in formation.
4. *Presque Isle, Me.*, January 29, 1953. Pilots of an F-94 and two other fighter aircraft sighted a dark gray object, with a very definite oval shape.
5. *Hempstead, L. I.*, October 29, 1952. Two F-94s; very strong statement on object's maneuvering, high speed that it seemed to be controlled.
6. *Duncanville, Tex.*, January 6, 1953. Strange lighted object seen by CAA tower operator and others.
7. *Goose Bay Air Force Base, Labrador*, December 15, 1952. Two Air Force crews got a momentary radar lock on a strange object. One pilot had seen similar object before, on November 26, 1952.
8. *Gulf of Mexico area*, December 6, 1952. B-29 training flight. Radar and visual reports, accurate details, double-checked; speeds computed showed UFO making 9,000 m.p.h.
9. *Minneapolis, Minn.*, October 11, 1951. Extremely important sighting by two airborne balloon observers, General Mills-Navy balloon project; observers were in a plane, sighted two smoky-gray cigar-shaped objects moving at terrific speed. Also one of the objects was sighted and briefly seen in a theodolite by a ground observer.

10. *March Air Force Base, Calif.*, September 23, 1951. F-86s trying to intercept a strange object in controlled orbit at 50,000 feet or higher.
11. *Terre Haute, Ind.*, October 9, 1951. CAA communicator report; silvery object seen overhead, moving at high speed. (See next case.)
12. *Greencastle, Ind.*, October 9, 1951. Private pilot sighted silvery object at (estimated) 5,000 feet.
13. *Japan*. Rotating lights case. December 29, 1952. Extremely accurate details, with ground and airborne radar and visual confirmation; three plane crews confirmed position, movements, and speeds.
14. *Northern Michigan area*, November 24, 1951. UFO observed from four locations, faster than any jet.
15. *Greenville, S. C.*, May 13, 1952. Four amateur astronomers observed a diamond-shaped formation, oval-shaped objects, wobbled in flight.
16. *Patrick Air Force Base, Fla.*, July 18, 1952. Three officers, four airmen, saw a series of UFO lights. Objects hovered, speeded up, stopped, turned.
17. *An Aircraft and Warning Station in Michigan*, July 29, 1952, reported an extremely important case:

Ground Control Intercept tracked UFO by radar, target speed 550 knots. Chased by F-94s; one got a radar lock-on; bright flashing light seen at the same time, same position.

18. *Los Alamos, N. M.*, July 29, 1952. Several pilots and a Los Alamos guard saw a UFO, metallic in color, in straight, fast flight. Object made a 360-degree turn behind fighters trying to intercept it.
19. *Albuquerque, N. M.*, July 29, 1952. Air Force reserve colonel at Los Alamos saw a strange ellipse-shaped light; indicated its rapid speed.
20. *Bellefontaine, Ohio*, August 1, 1952. Two F-86s chased a strange round object, got gun-camera pictures.
21. *Truth or Consequences, N. M.* Three cylindrical objects sighted.
22. *Azores*, September 26, 1952. Strange green lights seen by Air Force crews approaching the Azores.

23. *Washington, D. C.*, July 19-20 and July 26-27, 1952. The Washington Airport cases, radar and visual sightings.
24. *Norfolk, Va.*, July 14, 1952. Pan American pilots' extremely accurate report to ATIC on several lighted objects maneuvering and flying at terrific speeds.
25. *Pittsburg, Kans.*, August 27, 1952. ATIC states basic details and soil sample forwarded from town where sighting occurred. Object reported hovering over open field; bluish lights seen through ports; swift ascent when observed. Soil sample broken up, unable to analyze for radioactivity.
26. *Yuma County Airport*, February 4, 1953. Theodolite tracking of two elliptical-shaped objects.
27. *Fort Worth, Tex.*, February 13, 1953. B-36 radar tracking and visual sightings of strange flying objects.
28. *Terre Haute, Ind.*, February 1, 1953. Sighting of a UFO by a T-33 pilot.
29. *Japan*, April 19, 1952. A T-6 pilot, Lieut. D. C. Brigham, reported to ATIC the sighting of a small disc-shaped object closing in on a fighter, maneuvering around it.
30. *Uvalde, Tex.*, July 22, 1952. Details on separate list.
31. *Manhattan Beach, Calif.*, July 27, 1952. The "stack of coins" sighting.
32. *Near Hermanas, N. M.*, August 24, 1952. F-84 pilot observed two strange objects (disc-shaped and maneuvering at high speeds).
33. *Hamilton Air Force Base, Calif.*, August 3, 1952. Sighting of a series of UFOs; extremely accurate report of maneuvers, speeds.
34. *Rosalia, Wash.*, February 6, 1953. A B-36 report, very accurate sighting description, showing object circled as B-36 approached it, and light commenced flashing at short intervals.
35. *Truk Island*, February 6, 1953. Shiny, metallic-looking object sighted by officer in charge of weather station.
36. *Korean area*, February 7, 1953. Radar picked up a UFO; an F-94 was scrambled, pilot saw bright orange-colored object, which changed altitudes, pulled away at high speed.

37. *Tunis-Tripoli*, February 11, 1953. UFO sighted by crew of an Air Force C-119, closed in, fell back, paced plane for long period.

38. *South Carolina*. Preliminary report on case, in February, 1953, where a man named Booth fired at an apparently hovering lighted object. (Possibility he fired on a Navy blimp is being investigated.)
39. *Falls Church, Va.* Preliminary report on a sighting in August, 1952; rotating-light UFO seen by ground observers including police. When police officer tilted scout-car spotlight upward, object seemed to descend toward it. Light was hurriedly turned off, and object rose to former height, continued rotating.
40. *Erie, Pa.*, February 22, 1953. Former Navy gunner, now plane spotter, reported silvery disc, with very brilliant glow, estimated to be at least 150 feet in diameter.
41. *Panama, Canal Zone*, November 25-26, 1952. Two UFOs, tracked by defense radar, no visual sighting.
42. Series of questions in regard to Dr. Donald Menzel's theories. Answered by ATIC.
43. Questions regarding claims of Henry J. Taylor, *U.S. News and World Report*, Dr. Urner Liddel, Frank Scully, Dr. Anthony Mirachi. Answered by ATIC.
44. Questions on Tremonton, Utah, pictures; existence known from outside source, confirmed by Air Force, including confirmation by Intelligence officers at showing of the McLean pictures.
45. Summary of early Air Force investigation; admission by Albert M. Chop that early phase was not well handled, but attitude now changed, with a very serious approach.
46. Fact that an increasing number of Air Force personnel, including officers both in and out of Intelligence and the Project, are convinced that the saucers are interplanetary in origin, unless some strange natural phenomena. (This statement was cleared before the official statement made to Henry Holt and Company.)
47. Fact that classified briefings are given by Intelligence to various important officials (as indicated by the Finletter report).

48. Fact that various highly reputable scientists, astronomers. Astrophysicists, engineers, aeronautical experts, guided missile and rocket experts, etc., are used by the Project in analyzing reports and other evidence.
49. Fact that I helped the Air Force secure the McLean pictures for analysis.

50. Fact that Col. William C. Odell submitted an article (through Mr. Chop) indicating possible exodus from another planet; that he was not allowed to use his rank in connection with it, and that after discussing the matter with *True* magazine I returned the manuscript to the colonel (again through Mr. Chop).
51. Clearance of the Tremonton, Utah, case, and the facts I previously had confirmed.

This itemized list bears the following notation:

"As initialed, the above is the true account of subjects discussed, opinions expressed, and material cleared for publication."

(Signed) Albert M. Chop.

Appendix III

U. S. AIR FORCE TECHNICAL INFORMATION SHEET

This questionnaire has been prepared so that you can give the U. S. Air Force as much information as possible concerning the unidentified aerial phenomenon that you have observed. Please try to answer as many questions as you possibly can. The information that you give will be used for research purposes, and will be regarded as confidential material. Your name will not be used in connection with any statements, conclusions, or publications without your permission. We request this personal information so that, if it is deemed necessary, we may contact you for further details.

<p>1. When did you see the object?</p> <p style="text-align: center;"> <input type="text"/> Day <input type="text"/> Month <input type="text"/> Year </p>	<p>2. Time of day: <input type="text"/> Hour <input type="text"/> Minutes</p> <p style="text-align: center;">(Circle One): A.M. or P.M.</p>
<p>3. Time zone:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(Circle One): a. Eastern b. Central c. Mountain d. Pacific e. Other _____</p> </div> <div style="width: 45%;"> <p>(Circle One): a. Daylight Saving b. Standard</p> </div> </div>	
<p>4. Where were you when you saw the object?</p> <p style="text-align: center;"> <input type="text"/> Nearest Postal Address <input type="text"/> City or Town <input type="text"/> State or Country </p> <p>Additional remarks: _____</p>	
<p>5. Estimate how long you saw the object. <input type="text"/> Hours <input type="text"/> Minutes <input type="text"/> Seconds</p> <p>5.1 Circle one of the following to indicate how certain you are of your answer to Question 5.</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>a. Certain b. Fairly certain</p> </div> <div style="width: 45%;"> <p>c. Not very sure d. Just a guess</p> </div> </div>	
<p>6. What was the condition of the sky?</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(Circle One): a. Bright daylight b. Dull daylight c. Bright twilight</p> </div> <div style="width: 45%;"> <p>d. Just a trace of daylight e. No trace of daylight f. Don't remember</p> </div> </div>	
<p>7. IF you saw the object during DAYLIGHT, TWILIGHT, or DAWN, where was the SUN located as you looked at the object?</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(Circle One): a. In front of you b. In back of you c. To your right</p> </div> <div style="width: 45%;"> <p>d. To your left e. Overhead f. Don't remember</p> </div> </div>	

8. IF you saw the object at NIGHT, TWILIGHT, or DAWN, what did you notice concerning the STARS and MOON?					
8.1 STARS (Circle One):	8.2 MOON (Circle One):				
a. None	a. Bright moonlight				
b. A few	b. Dull moonlight				
c. Many	c. No moonlight — pitch dark				
d. Don't remember	d. Don't remember				
9. Was the object brighter than the background of the sky?					
(Circle One):	a. Yes	b. No c. Don't remember			
10. IF it was BRIGHTER THAN the sky background, was the brightness like that of an automobile headlight?					
(Circle One)	a. A mile or more away (a distant car)?				
	b. Several blocks away?				
	c. A block away?				
	d. Several yards away?				
	e. Other _____				
11. Did the object:					
	(Circle One for each question)				
a. Appear to stand still at any time?	Yes	No	Don't Know		
b. Suddenly speed up and rush away at any time?	Yes	No	Don't Know		
c. Break up into parts or explode?	Yes	No	Don't Know		
d. Give off smoke?	Yes	No	Don't Know		
e. Change brightness?	Yes	No	Don't Know		
f. Change shape?	Yes	No	Don't Know		
g. Flicker, throb, or pulsate?	Yes	No	Don't Know		
12. Did the object move behind something at anytime, particularly a cloud?					
(Circle One):	Yes	No	Don't Know.		
IF you answered YES, then tell what it moved behind:	_____				
13. Did the object move in front of something at anytime, particularly a cloud?					
(Circle One):	Yes	No	Don't Know.		
IF you answered YES, then tell what it moved in front of:	_____				
14. Did the object appear: (Circle One):					
a. Solid?	b. Transparent?	c. Don't Know.			
15. Did you observe the object through any of the following?					
a. Eyeglasses	Yes	No	e. Binoculars	Yes	No
b. Sun glasses	Yes	No	f. Telescope	Yes	No
c. Windshield	Yes	No	g. Theodolite	Yes	No
d. Window glass	Yes	No	h. Other _____		

16. Tell in a few words the following things about the object.

a. Sound _____

b. Color _____

17. Draw a picture that will show the shape of the object or objects. Label and include in your sketch any details of the object that you saw such as wings, protrusions, etc., and especially exhaust trails or vapor trails. Place an arrow beside the drawing to show the direction the object was moving.

18. The edges of the object were:

- (Circle One):
- a. Fuzzy or blurred
 - b. Like a bright star
 - c. Sharply outlined
 - d. Don't remember

e. Other _____

19. IF there was MORE THAN ONE object, then how many were there? _____
Draw a picture of how they were arranged, and put an arrow to show the direction that they were traveling.

20. Draw a picture that will show the motion that the object or objects made. Place an "A" at the beginning of the path, a "B" at the end of the path, and show any changes in direction during the course.

21. IF POSSIBLE, try to guess or estimate what the real size of the object was in its longest dimension. _____ feet.

22. How large did the object or objects appear as compared with one of the following objects *held in the hand* and at about arm's length?

(Circle One):

- a. Head of a pin
- b. Pea
- c. Dime
- d. Nickel
- e. Quarter
- f. Half dollar

- g. Silver dollar
- h. Baseball
- i. Grapefruit
- j. Basketball
- k. Other _____

22.1 (Circle One of the following to indicate how certain you are of your answer to Question 22.

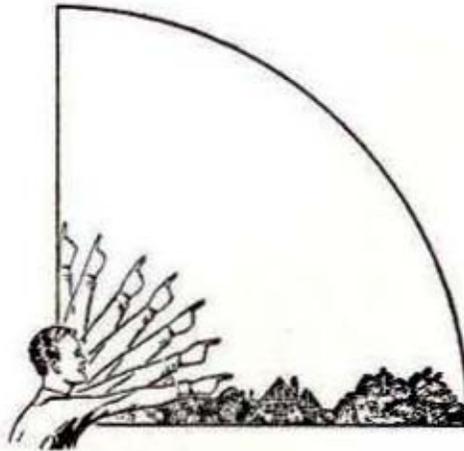
- a. Certain
- b. Fairly certain
- c. Not very sure
- d. Uncertain

23. How did the object or objects disappear from view? _____

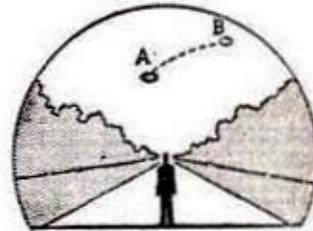
24. In order that you can give as clear a picture as possible of what you saw, we would like for you to imagine that you could construct the object that you saw. Of what type material would you make it? How large would it be, and what shape would it have? Describe in your own words a common object or objects which when placed up in the sky would give the same appearance as the object which you saw.

<p>25. Where were you located when you saw the object? (Circle One):</p> <p>a. Inside a building b. In a car c. Outdoors d. In an airplane e. At sea f. Other _____</p>	<p>26. Were you (Circle One)</p> <p>a. In the business section of a city? b. In the residential section of a city? c. In open countryside? d. Flying near an airfield? e. Flying over a city? f. Flying over open country? g. Other _____</p>
<p>27. What were you doing at the time you saw the object, and how did you happen to notice it?</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p>28. IF you were MOVING IN AN AUTOMOBILE or other vehicle at the time, then complete the following questions:</p> <p>28.1 What direction were you moving? (Circle One)</p> <p>a. North c. East e. South g. West b. Northeast d. Southeast f. Southwest h. Northwest</p> <p>28.2 How fast were you moving? _____ miles per hour.</p> <p>28.3 Did you stop at any time while you were looking at the object? (Circle One) Yes No</p>	
<p>29. What direction were you looking when you first saw the object? (Circle One)</p> <p>a. North c. East e. South g. West b. Northeast d. Southeast f. Southwest h. Northwest</p>	
<p>30. What direction were you looking when you last saw the object? (Circle One)</p> <p>a. North c. East e. South g. West b. Northeast d. Southeast f. Southwest h. Northwest</p>	
<p>31. If you are familiar with bearing terms (angular direction), try to estimate the number of degrees the object was from true North and also the number of degrees it was upward from the horizon (elevation).</p> <p>31.1 When it first appeared:</p> <p>a. From true North _____ degrees. b. From horizon _____ degrees.</p> <p>31.2 When it disappeared:</p> <p>a. From true North _____ degrees. b. From horizon _____ degrees.</p>	

32. In the following sketch, imagine that you are at the point shown. Place an "A" on the curved line to show how high the object was above the horizon (skyline) when you *first* saw it. Place a "B" on the same curved line to show how high the object was above the horizon (skyline) when you *last* saw it.



33. In the following larger sketch place an "A" at the position the object was when you *first* saw it, and a "B" at its position when you *last* saw it. Refer to smaller sketch as an example of how to complete the larger sketch.



34. What were the weather conditions at the time you saw the object?

34.1 CLOUDS (Circle One)

- a. Clear sky
- b. Hazy
- c. Scattered clouds
- d. Thick or heavy clouds
- e. Don't remember

34.2 WIND (Circle One)

- a. No wind
- b. Slight breeze
- c. Strong wind
- d. Don't remember

34.3 WEATHER (Circle One)

- a. Dry
- b. Fog, mist, or light rain
- c. Moderate or heavy rain
- d. Snow
- e. Don't remember

34.4 TEMPERATURE (Circle One)

- a. Cold
- b. Cool
- c. Warm
- d. Hot
- e. Don't remember

35. When did you report to some official that you had seen the object?

_____ Day

_____ Month

_____ Year

36. Was anyone else with you at the time you saw the object?

(Circle One) Yes No

36.1 IF you answered YES, did they see the object too?

(Circle One) Yes No

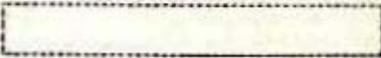
36.2 Please list their names and addresses:

37. Was this the first time that you had seen an object or objects like this?

(Circle One) Yes No

37.1 IF you answered NO, then when, where, and under what circumstances did you see other ones?

38. In your opinion what do you think the object was and what might have caused it?



ELECTRONICS DATA SHEET
(GROUND RADAR)

The purpose of this questionnaire is to provide technical data for evaluating the report of an unusual radar target or track. It is requested that it be completed as accurately as possible.

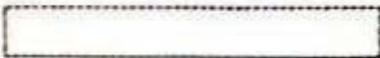
When not filled in, the form is Unclassified. The reporting officer will use his own judgement as to what degree of classification is required.

It is preferred that the answers to the questions be typewritten, however, if it will expedite the completion of the form, the answers may be printed in ink. If additional space is needed, use reverse side of form.

1. STATION OBSERVING TARGET: <hr/> <p align="center">Organization</p> <hr/> <p align="center">Location</p>	2. DATE OF THIS REPORT: <hr/> <p align="center">Day Month Year</p>																								
3. DATE TARGET OBSERVED: Local Time <input type="checkbox"/> Z Time <input type="checkbox"/> <hr/> Day Month Year Time-Local _____ Time-Z _____	4. NAME, RANK AND ORGANIZATION OF REPORTING OFFICER: <hr/> <hr/> <hr/>																								
5. EXACT LOCATION OF STATION (COORDINATES): 																									
6. OBSERVER DATA (LIST EACH OBSERVER): <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:45%; text-align: center;">Name</th> <th style="width:15%; text-align: center;">Rank</th> <th style="width:20%; text-align: center;">Duty</th> <th style="width:20%; text-align: center;">No. of Years Exp. in Radar</th> </tr> </thead> <tbody> <tr><td>A. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>B. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>C. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>D. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>E. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>		Name	Rank	Duty	No. of Years Exp. in Radar	A. _____	_____	_____	_____	B. _____	_____	_____	_____	C. _____	_____	_____	_____	D. _____	_____	_____	_____	E. _____	_____	_____	_____
Name	Rank	Duty	No. of Years Exp. in Radar																						
A. _____	_____	_____	_____																						
B. _____	_____	_____	_____																						
C. _____	_____	_____	_____																						
D. _____	_____	_____	_____																						
E. _____	_____	_____	_____																						
7. WAS A VISUAL SIGHTING MADE BY ANY PERSONNEL OF THE STATION? <input type="checkbox"/> YES <input type="checkbox"/> NO IF SO, GIVE NAME AND RANK OF ALL PERSONNEL MAKING A VISUAL SIGHTING AND A BRIEF DESCRIPTION OF WHAT THEY SAW: 																									

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8. HAVE YOU HEARD OF ANYONE NOT AT THE RADAR STATION MAKING A VISUAL SIGHTING AT APPROXIMATELY THE SAME TIME THE RADAR CONTACT WAS MADE? YES NO
IF SO, GIVE NAME AND ADDRESS.

9. RADAR SCOPE PHOTOS:
 IS RADAR EQUIPPED WITH A SCOPE CAMERA? YES NO
 WAS CAMERA OPERATIONAL? YES NO
 WERE SCOPE PHOTOS TAKEN? YES NO
 WERE PRINTS OF THE SCOPE PHOTOS FORWARDED TO THE
 AIR TECHNICAL INTELLIGENCE CENTER? YES NO

10. TRACK DATA:
 WHAT WAS THE NUMBER OF THE TRACK?
 WAS A PERMANENT PLOT MADE OF THE TRACK AT THE TIME OF THE OBSERVATION? YES NO

11. WERE AIRCRAFT SCRAMBLED TO INTERCEPT THE TARGET? YES NO
 IF SO, WERE THE AIRCRAFT BEING OBSERVED ON THE SCOPE AT THE SAME
 TIME AS THE TARGET? YES NO

12. WERE ANY NEARBY RADAR INSTALLATIONS QUERIED WHETHER THEY HAD OBSERVED
 THE SAME TARGET OR TRACK? YES NO
 IF SO, WHICH STATIONS?

13. WAS THE TARGET OBSERVED ON SEARCH RADAR? YES NO
 IF SO, WHAT IS THE NOMENCLATURE OF THE EQUIPMENT?

14. WAS THE TARGET OBSERVED ON HEIGHT FINDING RADAR? YES NO
 IF SO, WHAT IS THE NOMENCLATURE OF THE EQUIPMENT?

15. HAVE THERE BEEN ANY RECENT MAINTENANCE DIFFICULTIES? YES NO
 IF SO, DESCRIBE.

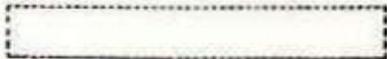
16. WHAT TYPE MODULATOR (I.E., SPARK GAP, HARD TUBE, ETC.) IS USED IN THE RADAR EQUIPMENT?

17. WAS THE AFC (AUTOMATIC FREQUENCY CONTROL) CIRCUIT OPERATING PROPERLY? YES NO
 COMMENTS:

18. HAS INTERFERENCE FROM ANOTHER RADAR SET BEEN OBSERVED RECENTLY? YES NO
 COMMENTS:

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19. ARE PERSONNEL FAMILIAR WITH THE EFFECTS CAUSED BY AN INTERFERING SIGNAL? YES NO
 COMMENTS: _____

20. ARE PERSONNEL FAMILIAR WITH THE EFFECTS OF ANOMALOUS PROPAGATION (DUCTING EFFECTS) AS THEY PERTAIN TO THIS TYPE OF RADAR? YES NO

21. HAS ANOMALOUS PROPAGATION (DUCTING EFFECT) BEEN OBSERVED TO EXTEND THE RANGE OF THE GROUND CLUTTER OF THIS RADAR AT THIS SITE? YES NO
 COMMENTS: _____

22. WAS ANOMALOUS PROPAGATION (DUCTING EFFECT) EXTENDING THE RANGE OF THE GROUND CLUTTER AT THE TIME THE TARGET WAS OBSERVED? YES NO
 COMMENTS: _____

23. HOW DID THE TARGET APPEAR IN SIZE AND SHAPE AS COMPARED TO CONVENTIONAL AIRCRAFT TARGETS?

24. PERFORMANCE OF TARGET:

a. REMAINED CONSISTENT IN SIZE	<input type="checkbox"/>	CHANGED SIZE RAPIDLY	<input type="checkbox"/>
b. SPEED WAS CONSTANT	<input type="checkbox"/>	SPEED WAS VARIABLE	<input type="checkbox"/>
c. FOLLOWED CONSISTENT TRACK	<input type="checkbox"/>	APPEARED, DISAPPEARED, THEN REAPPEARED IN NEW LOCATION	<input type="checkbox"/>
d. FUZZY COMPARED TO AIRCRAFT TARGET	<input type="checkbox"/>	SHARP COMPARED TO KNOWN AIRCRAFT TARGET	<input type="checkbox"/>
e. SAME AS AIRCRAFT TARGET	<input type="checkbox"/>		

25. WERE OTHER TARGETS (KNOWN) OBSERVED IN THE SAME GENERAL AREA, AT APPROXIMATELY THE SAME TIME AND AT THE SAME ALTITUDE AS THE UNUSUAL TARGET? YES NO
 IF SO, DESCRIBE. _____

26. WHAT TYPE INDICATORS ("A" SCOPE, "B" SCOPE, ETC.) WERE USED TO FOLLOW THE TARGET?

 DESCRIBE THE SIGNAL: _____

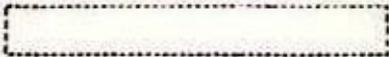
27. WHAT WAS THE RADAR SCAN RATE? _____

28. WHAT WAS THE FREQUENCY OF THE TRANSMITTER?

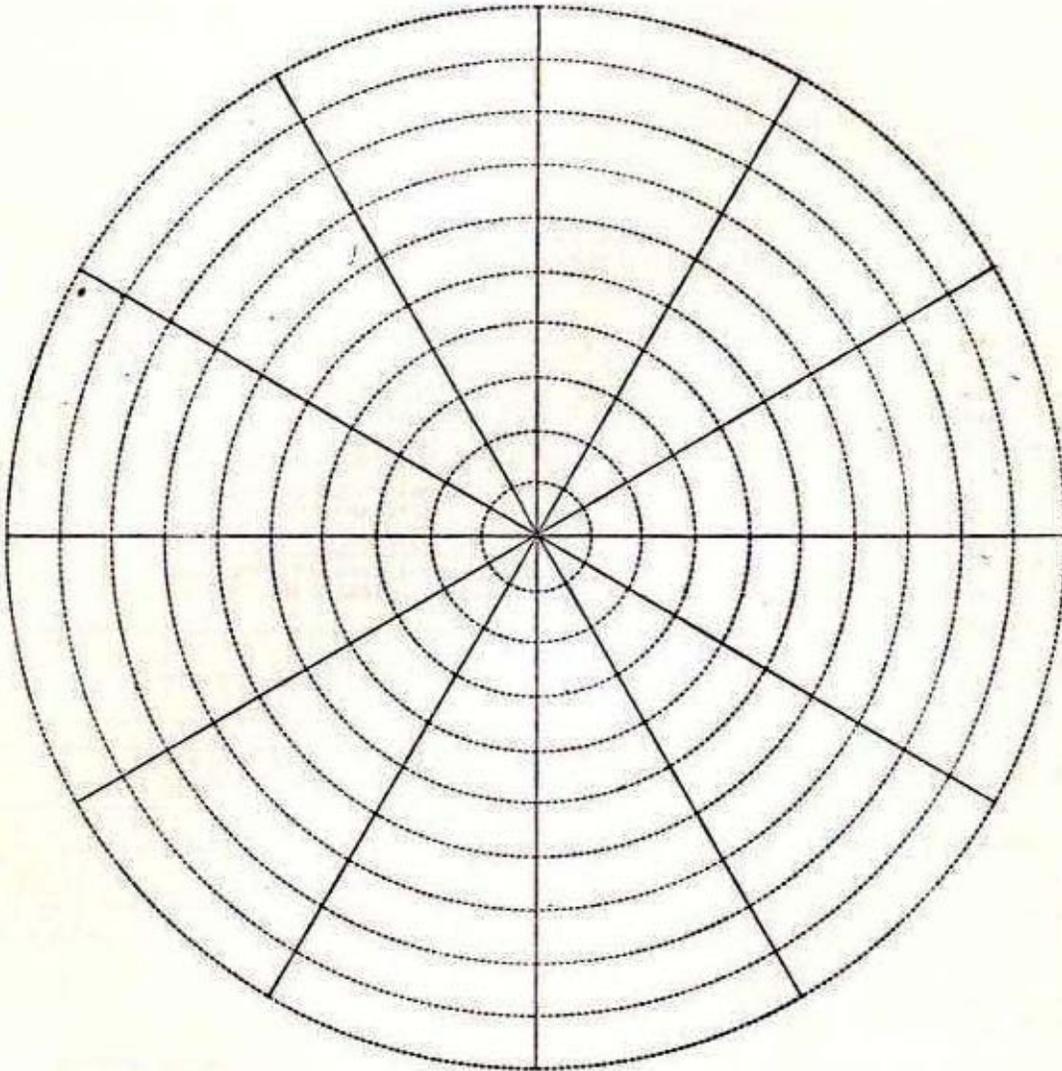
29. DID ANY OF THE OBSERVERS HAVE ANY OPINIONS AS TO THE NATURE OF THE TARGET? YES NO
 IF YES, GIVE THEIR NAMES AND OPINIONS BELOW.

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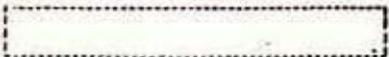




30. IF SCOPE PHOTOS ARE NOT AVAILABLE, PLOT THE TARGET TRACK AS ACCURATELY AS POSSIBLE. GIVE THE TIME AND ALTITUDE (IF MEASURED) FOR EACH POINT PLOTTED. PUT THE NECESSARY RANGE SCALE ON THE DIAGRAM.



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WHO's WHO in UFOLOGY



Donald E. Keyhoe
1897-1988

Expertise:
All Cats

[Category List](#)

Brief Biography

Donald E. Keyhoe was born in Ottumwa, Iowa, on June 20, 1897. He graduated from the U.S. Naval Academy in Annapolis, Maryland, in the Class of 1920, with a B.S. degree and the commission of a 2nd Lieutenant in the Marine Corps. The young Lieutenant became a Naval aviator, piloting both balloons and airplanes in the period between the World Wars. After a night crash at Guam, he retired from active duty and began freelance writing. During the 1930s and early 1940s Keyhoe wrote fictional aviation adventure stories for then popular pulp magazines. He also wrote factual articles for major newsstand magazines of the time such as Saturday Evening Post, Cosmopolitan, American, Redbook, and True. During the late 1940s and early 1950s, Keyhoe personally test-flew a wide variety of aircraft and evaluated their performance and features for True Magazine. When the first "flying saucer" sightings were reported in June of 1947, Keyhoe, as an experienced aviator was skeptical. But when True asked him to investigate in 1949 and he interviewed numerous fliers as well as military officers in the Pentagon, he discovered that expert observers had seen the unexplained discs, many at close range. His article "Flying Saucers Are Real" in the January 1950 issue of True became one of the most widely read and discussed articles in publishing history, and caused a sensation. The article was expanded into a paperback book. In January 1957 Keyhoe had become Director of the newly formed National Investigations Committee on Aerial Phenomena (NICAP) in Washington, D.C., which under his leadership gave serious publicity to the UFO mystery through the 1960s and encouraged Congressional hearings.

UFO Books written by Donald Keyhoe

"The Flying Saucers Are Real" (New York: Fawcett, 1950)
"Flying Saucers From Outer Space" (1953)
"Flying Saucer Conspiracy" (1955)
"Flying Saucers: Top Secret" (1960)
"Aliens From Space" (1973)

Donald Keyhoe spent his later retirement years at "Bluemont" in the beautiful Shenandoah Valley outside of Luray, Virginia, with his wife Helen Gardner Keyhoe, a native of Page County, Virginia.

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