A CONVERSATION WITH JESSE MARCEL JR.

BY ROBERT A. GALGANSKI

Most Roswell Incident skeptics explain the allegedly unusual debris recovered from the Foster ranch as wreckage from downed Project Mogul Flight 4, most of it the shattered remains of its three rawin radar targets. If they are correct, eyewitnesses involved in the case must have misidentified target "stiffener" fragments—broken glue-coated balsa-wood sticks—as thin, strut-like pieces of an unknown, indestructible material. They also must have misconstrued irregularly shaped remnants of radar-reflecting sheeting—torn pieces of a laminate made from aluminum foil and heavy paper—as two types of thin-shell fragments with extraordinary physical characteristics.

Figure 1 shows a neoprene weather balloon and typical rawin target—intact. Figure 2 depicts Roswell Army Air Field (RAAF) intelligence officer Major Jesse Marcel with the apparent remains of such a target. Skeptics contend that Marcel and others from that airfield failed to correctly identify this mundane debris because rawin targets used unconventional materials and construction techniques. They cite the same factors and the distortions that occur in long-term memory to dismiss the decades-later testimony of all debris-field material eyewitnesses.

Two years ago I conducted a series of straightforward home-workshop experiments to ascertain if a coating of glue could significantly change the appearance and certain physical properties of raw balsa-wood sticks. Test results proved—to my satisfaction, anyway—that the disputed struts could *not* have been made from that flimsy material (see "The Glue Explanation Just Won't Stick," *IUR,* Winter 1997–1998).

Jesse A. Marcel Jr., M.D. (the son of the late Major Marcel), who examined some of the debris 52 years ago, graciously agreed to carry out similar experiments as part of a September 13, 1998, videotape interview I conducted in Portsmouth, New Hampshire. The 25-minute-long exchange focused on but was not limited to the well-known I-beam fragment he handled and was intrigued with as a boy. This article presents highlights from that session and addresses other related aspects of the Roswell debris-field issue.

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Figure 1. A neoprene weather balloon and a 1947-era rawin radar target.

For the benefit of readers not fully acquainted with the ongoing controversy I'll begin with some relevant background and contextual information.

PHYSICAL PROPERTIES OF THE STRUTS

In early July 1947, 11-year-old Jesse A. Marcel Jr. reportedly handled a thin, capital-I shaped strut-like fragment with strange symbols on one web surface. It was in a box filled with other apparent wreckage his father had brought home after spending the better part of a day inspecting a large, debris-littered area on the Foster ranch near Corona, New Mexico. Figure 3 shows a 1995 replica (visual reproduction only) of that piece, the collaborative effort of Miller Johnson, industrial designer and artist, and Marcel. Its overall cross-section dimensions are $\frac{1}{8}$-inch wide (across the flanges) by $\frac{3}{8}$-inch high.

According to Roswell researcher Kevin Randle (private communication dated August 18, 1999), there are no other credible eyewitness descriptions of an I-shaped strut. Other reports of thin-strut pieces from Major Jesse Marcel, Bill Brazel, and Loretta Proctor mentioned a rectangular or some unspecified-shape cross section. These persons claim to have physically "tested" the struts or saw them being tested in some manner; they reportedly observed material behavior that appears to have been extraordinary—atypical of late 1940s technology. If their accounts are taken at face value, the struts were extremely lightweight, slightly flexible but unbreakable when bent, resistant to slicing with a knife or other sharp-edged tool, and noncombustible when exposed to the flame from a cigarette lighter or match.

Jesse Jr. himself did not attempt to bend or otherwise physically test the I-beam fragment in 1947. Consequently he cannot confirm or dispute these claims. But he has repeatedly asserted that it was extremely light in weight and looked metallic.

Asked during the interview why he believed his memory of the I-beam fragment is reasonably accurate, Marcel responded:

> I built balsa-wood models—stick models—as a kid. And the ceiling of my bedroom was replete with model fighter planes, even the Bell X-1. . . . So I was quite familiar with balsa wood because I worked with it all the time. And what I saw on our kitchen floor that night—what I handled—was not balsa wood.

Figure 2. One of the July 8, 1947, Fort Worth Star-Telegram *photos taken in Brigadier General Roger Ramey's office showing a portion of what Roswell skeptics claim is the actual debris retrieved from the Foster ranch. During the videotape interview Jesse Marcel Jr. compared what he saw and examined in his parents' kitchen in early July 1947 to the material scraps depicted here and in three other* Star-Telegram *photos.*

THE GLUE HYPOTHESIS

According to former Mogul project engineer Charles B. Moore, the rawin-target balsa-wood stiffeners were coated with glue as part of the target fabrication process. Researcher Kent Jeffrey, former Roswell Incident proponent turned skeptic, posited that that the glue "would probably have given them [the sticks] a different color than that of raw wood, as well as a different feel or texture—probably to the degree that someone who didn't know them for what they were, might not recognize them as wood." (Kent Jeffrey, "Roswell—Anatomy of a Myth," *MUFON UFO Journal*, June 1997, p. 12.)

Some Roswell skeptics, including Jeffrey and Moore, have also insinuated that the glue coating had altered the balsa-wood's physical characteristics sufficiently to account for at least part of the material-behavior anomalies reported by Major Marcel, Brazel, and Proctor. Both no-

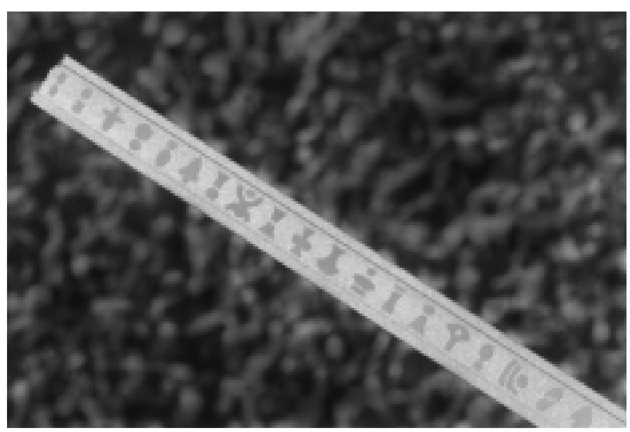

Figure 3. Milled-aluminum I-beam replica designed by Miller Johnson based on Jesse A. Marcel Jr.'s recollection. Photograph by Miller Johnson.

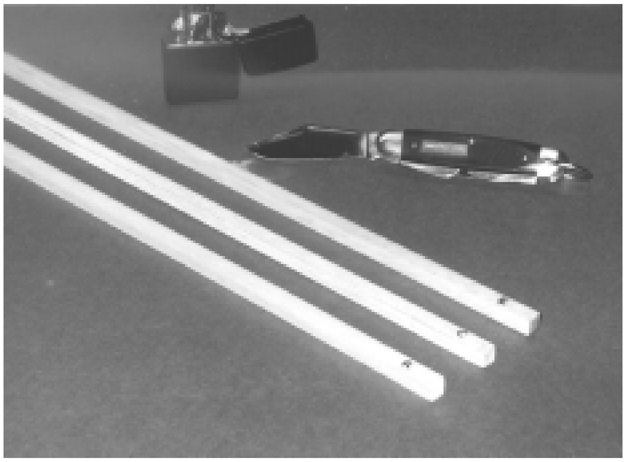

Figure 4. Simulated rawin radar-target struts and "tools" used by Jesse Marcel Jr. to test the glue hypothesis.

tions, which I've termed the "glue hypothesis," were the genesis for my aforementioned 1997 research effort and related *IUR* article.

Simulated thin-strut debris specimens

I prepared three different simulated rawin-target stiffener fragments from ordinary $\frac{5}{16}$-inch-square balsa-wood sticks—essentially the same cross-section dimensions (8 millimeters square) as those used in 1947 time-frame rawin targets. One stick was left in its natural raw (untreated) state and was labeled with an "R." The others were coated with the two types of glue that could, according to Moore, have been used back then. Their current equivalents are National Casein 8580 Glue (stick "C") and Elmer's Glue-All (stick "E"). Each stick was virtually identical to the ones I had used to conduct my earlier tests. They were all 18 inches long, consistent with Marcel's recollection of the I-beam fragment's length.

Marcel did not see the sticks until just before the interview began. They are shown in Figure 4, along with a Zippo lighter and a Craftsman pocketknife he used in the experiments.

"Metal is metal and wood is wood"

As noted earlier, Kent Jeffrey thought that Jesse Marcel Jr. and the other thin-strut eyewitnesses were fooled when they first saw the disputed fragments. Fifty-one years later would Jesse Jr. be able to tell the difference between raw balsa wood and the same material with a dried-glue coating on it? And even if he could, how convincing would his assessment be? Shortly after the interview began I asked Marcel to tell me what material each stick was made of and how he had arrived at that conclusion.

Marcel made short work of that task. These are his exact words as he identified them swiftly and confidently, without the slightest trace of hesitation, as balsa wood:

- Stick R: "Well, it's wood. It has a grain it, it's very light, and it certainly looks like a $\frac{1}{4}$-inch balsa-wood strut."
- Stick C: "This again looks like approximately $\frac{1}{4}$-inch balsa wood, but it has a coating of something on it . . . Its surface texture is a little different. . . . It has grain like wood. . . . It feels rougher [unintelligible]."
- Stick E: "Again, it's a $\frac{1}{4}$-inch [unintelligible] balsa wood. There's wood grain in it, so it is wood. The surface is smoother, but it feels like it does have a coating, a smooth coating on it."

Marcel described the color difference between the I-beam fragment and the substance-coated sticks in terms of their apparent composition: "Metal is metal and wood is wood." When apprised of Jeffrey's assertion that a dried-glue coating had masked the wood's natural appearance back in 1947, Marcel replied convincingly and diplomatically:

> You look at the wood—it's still wood color. And there's the grain that you can certainly see, which is totally different from the metal strut. So Kent has his opinion; I respect it, but I'll just say that he's not right.

Skeptics will probably say, "So what? Okay, Marcel was not fooled—this time—by a dried-glue coating on ordinary balsa-wood sticks. But can we conclude from this that he and the others who saw or examined the disputed thin-strut pieces in July 1947 would have reached the same conclusion back then?" I say yes, based on (1) the high probability that they, like Marcel, had seen or worked with raw wood before, and (2) the obvious look of fractured wood.

If Roswell boo-birds doubt, despite the extremely fragile nature of balsa wood (see later discussions), that most of the radar-target stiffeners would probably have fractured upon landing at the Foster-ranch site, one look at Figure 2 should settle the issue. I see at least two sticks with broken ends. And others there appear to be shorter than the original lengths depicted in Figure 1.

Destructive tests

Jesse Marcel Jr. bent, sliced, and burned each of the three sticks while being videotaped. Test results are summarized below:

Beam strength. Marcel held each stick near its ends and bent it. With his hands about 12 inches apart all sticks broke easily with very little effort and with no discernible difference in fracture resistance between the untreated and glue-coated members. Because he loaded each specimen in pure bending while I loaded the ones I had evaluated a year earlier in bending and shear (as a result of using a cantilever-beam test setup), the sticks he tested fractured somewhat differently compared to mine. The most important result, however, did not change: A dried-glue coating will *not* significantly increase the paltry beam strength of raw balsa wood.

Marcel contrasted the appearance of the metallic I-beam-fragment end surfaces (according to his recollection) with those of the balsa-wood sticks he had just broken:

> They're [the wood specimens] shattered; in other words it looks like a piece has been broken out of it. But this is not the way that the I-beam looked, I'll tell you that right now; it wasn't shattered like that.

This observation is especially significant. Even though we'll probably never know for sure if Marcel's I-beam fragment was made from the same material as the thin-strut pieces reported by other eyewitnesses, we can at least eliminate balsa—indeed, *any*—wood as a viable candidate. I would be shocked if the persons named earlier—an Army intelligence officer, a rancher, and a ranch homemaker, respectively—would not have been able to recognize, even after only a cursory inspection, broken wood. *Nobody* could be that sheltered or naïve.

The post bending-test photo shown in Figure 5 vividly illustrates the above remarks. The *unmistakable signature* of broken wood—notably, internal wood fibers sticking out of rough and irregularly contoured fracture surfaces—is clearly visible.

Asked if he could have reached the same conclusion when he was 11 years old, Marcel responded emphatically, "I'm sure I could have. And I don't recall it looking like this."

Cut resistance. Marcel used the pocketknife to slice off, with minimal effort, a thin piece of wood from an edge of all three sticks. Each specimen afforded pretty much the same resistance to this action, just as in my earlier, identical tests.

Combustibility. Combustion testing was conducted outside the hotel to preclude setting off the facility's sprinkler system. One end of each stick—an unbroken, coated surface for specimens C and E—was exposed to the cigarette-lighter flame. As was the case in my 1997 experiments, they all ignited and burned. However, because the wind was blowing at the time, the glue-coated sticks took somewhat longer to burn than the ones I had evaluated indoors.

Summary. Both my Fall 1997 experiments and the virtually identical or similar ones performed by Marcel a year later told the same story: Coating balsa-wood sticks with glue basically equivalent to that used to fabricate the rawin targets carried by Mogul Flight 4 won't buy you much.

The process will *not* magically change an inherently wimpy material into an extremely lightweight, super-high-strength material that can't be broken, sliced, or burned. It follows that since the glue or any other prosaic hypothesis can't explain the Foster-ranch thin-strut fragments, Project Mogul Flight 4 was *not* responsible for the debris field.

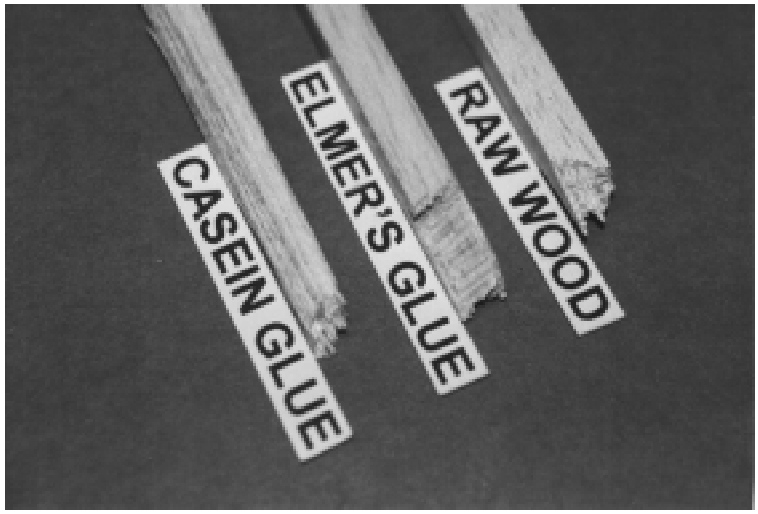

Figure 5. Closeup photo of a broken end from each of the bending-test balsa-wood specimens. Protruding wood fibers and "pockets" of pulled-out material are readily apparent.

BEYOND WOOD: SOME STRUT SPECULATION

If the previously mentioned eyewitness reports were at least reasonably accurate, the disputed thin-strut pieces obviously could *not* have come from balsa-wood radar-target stiffeners. I asked Marcel a series of questions designed to gain some insight into their possible composition and function. By doing that, I implicitly assumed that his I-beam fragment and the different cross-section pieces reported by others were metallic and were made from the same material—a seemingly reasonable premise.

Question-and-answer highlights are presented below. Preliminary explanatory information is provided where necessary.

Could the struts have originated from an operational or towed airborne device? I did not ask Marcel this question directly. Rather, it reflects the end product of his response to one important question and a bit of deduction on my part.

Let's assume that the struts were part of a lightweight exterior shell structure from—perhaps attached to or encapsulating—a relatively small, operational aircraft, or a separate nonpowered, shell-like airborne device that was being towed by a flying craft. This premise is supported by the nature of the debris found at the Foster-ranch site. In addition to the struts, the only other kind of debris that could be regarded as having had a *structural* application consisted of a large—enormous according to some reports—quantity of thin-shell material. Wreckage commonly associated with an aircraft accident such as seats, electrical and electromechanical hardware, and propulsion system components was conspicuously absent.

If the shell structure was an integral outer part of the craft, it's possible that the debris was generated after (1) a low-altitude, above-ground explosion, (2) a shallow-angle impact with the ground, or (3) a glancing impact followed by an explosion. In scenarios 2 and 3, the main part of the craft might have survived the accident, regained altitude, and resumed flight (perhaps to crash again at a second site). If the shell structure was being towed, it could have been either deliberately or accidentally dropped, with mechanical failure or an explosion as possible mechanisms in the latter case. (The first three scenarios are addressed in my article, "Roswell: Connecting the Debris Field and the Impact Site," *IUR,* Summer 1996.)

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We'll further assume that the object or craft was *crashworthy*. In other words let's say it was designed to protect something of value—occupants, cargo, or instrumentation—in certain "survivable" impact scenarios. Crashworthy vehicles use materials that have three common characteristics: light weight (a low density or weight per unit volume), moderate (as a minimum) stiffness, and ductility. It would be interesting to see how the strut's material properties measure up to these requirements.

The first material specification noted above—light weight—is self-explanatory; the others will require some discussion if you want to follow the arguments presented in this section. Stay with me.

Stiffness is simply the material's ability to resist elastic deformation. *Deformation* per se denotes a change in a material's original shape and/or size due to an applied loading or some other causative agent such as a temperature gradient. *Elastic* deformation completely disappears when that loading or agent no longer acts on or affects it, provided the material is not deformed to such an extent that it exceeds its elastic-limit stress. (A very simplified definition of "stress" is the intensity of force per unit area of material.)

In the elastic range, a material's stiffness is measured by its modulus of elasticity; the higher the modulus, the stiffer the material. To give you a feel for what this parameter indicates, common structural steel is about three times as stiff—therefore three times more resistant to deformation—as ordinary aluminum and aluminum alloys. Steel is roughly 30 times as stiff as all woods. Aluminum and its alloys are about 10 times stiffer than wood.

Two things can happen to a material that is stressed beyond its elastic or self-restoring deformation region. It will either fracture—physically break apart—or become permanently distorted. This difference is extremely important from a design standpoint.

Those that fracture are called "brittle" materials. They never experience any appreciable amount of permanent deformation, regardless of their stiffness. Typical examples include wood, ceramics, cast iron, concrete, certain metallic alloys, and glass.

Other materials don't break immediately when stressed beyond the elastic range. However, they will not regain their original size or shape once they're stress free (when the loading or other stress-causing agent is removed). Engineers say that such "ductile" materials "yield" or are stressed into their so-called plastic range of deformation. Some materials are more ductile than others. Low-carbon (structural) steel, many aluminum alloys, and polyethylene are examples of materials that have especially high ductility.

High-ductility materials can withstand *extensive*—and often massive—permanent deformation before fracturing. They can handle loads significantly higher than their design counterparts (which are always conservative) because of their ability to "flow" somewhat before breaking. Brittle materials can't do that. They just break. Period.

For this and other reasons that would occupy too much space to explain, ductile materials are employed for use as load-carrying structural elements in vehicles of all kinds: ground, water, and air. They can withstand extremely high impact loadings that stress a material far into its plastic range of deformation. Although vehicle structures are *expected* to collapse in even relatively moderate-severity impact scenarios, they must do so in a *controlled* manner, with minimal fracture failures. This structural integrity enables their individual components to dissipate the maximum amount of kinetic energy possible—a critical design objective. Material ductility alone isn't good enough for such applications. Materials having sufficient "toughness"—an adequate combination of stiffness *and* ductility—are required. Brittle materials, which break quickly without dissipating very much kinetic energy, obviously need not apply.

The strut substance

If I still have any readers left at this point, let's get back to Roswell. All persons who held thin-strut fragments from the debris field said they were extremely lightweight, consistent with the first material specification mentioned at the beginning of this discussion.

Major Jesse Marcel and Bill Brazel reported that they had experienced great difficulty when they tried to bend thin-strut pieces found at the debris-field site. Neither one apparently could generate the force required to bend them enough to either break them (if they were brittle) or cause them to yield (if they were ductile). From elementary mechanics of materials theory and personal experience, this indicates that the strut bending resistance—as measured by the product of its modulus of elasticity and a calculated cross-section area section property called the moment of inertia—must have been *at least* roughly comparable to that of a ⅜-inch-diameter aluminum rod. (I could not bend such a member by hand, no matter how far apart on it I placed my two hands.) From this we can conclude that the struts appear to have been made from a material that had, as a minimum, moderate stiffness—certainly much higher than that of brittle balsa wood (see the material relative-stiffness examples provided earlier). That satisfies the second material requirement.

Unfortunately, Major Marcel's and Brazel's anecdotal "test data" can't tell us if the strut material was ductile, the third material spec in this discussion.

But we *can* use well-known facts about how newly fractured material surfaces look to indirectly try to answer this question based on admittedly scanty "evidence." In general, the freshly broken surfaces of most ductile metals—high-tech or not—have a dull, smooth, and velvety appearance. For brittle metals, those surfaces will be bright, rough, and granular.

These surface-texture signatures have been observed in tests performed with individual components under controlled laboratory conditions. Determining or verifying general material type this way when the same components are part of an assembly or an entire structure that has failed in its actual operating environment can, however, lead to an erroneous evaluation. Numerous factors such as load mode and duration, stress type, and operating/ambient temperature, complicate the process. For example, some ductile materials may exhibit—totally or in part—brittle-material fracture-surface characteristics when they are subjected to *extremely rapid* shock loads and don't have time to start stretching. Lacking any information whatsoever about how the debris-field struts broke, I had to assume they failed as if they were lab tested, without the presence of any extreme complicating factors.

When I asked Marcel how the assumed broken ends of the I-beam fragment looked relative to the two surface-texture choices, he selected the first group of descriptors and added: "I don't remember a big difference between the ends of it and the way it looked [unintelligible] . . ." If his recollection is accurate and if the conditions surrounding the strut failure were not unduly complicated, we can conclude that they were made from a ductile material.

The struts therefore appear to satisfy all three material specifications mandated for crashworthy vehicle design. As such we can conclude that they *could* have been part of a powered aircraft or a towed airborne device that suffered some mishap above the Foster ranch. This finding is, of course, speculative. But it is based on logical conjecture supported by sound engineering principles.

A material laminate? George Filer, UFO researcher and director of advanced technological exhibits for the Air Victory Museum in Medford, New Jersey, requested that I ask Marcel about the possibility that the I-beam was a laminate comprising more than one lightweight material. ("Laminate" is a generic term denoting a structural element made from at least two layers of bonded material.) Filer said that the Germans and U.S. aviation companies started incorporating such materials into experimental aircraft during World War II. He noted, for example, that Chance Vought combined aluminum and balsa wood in selected structural elements used in their V-173 Flying Flapjack, a pancake-shaped fighter prototype built for the U.S. Navy and first flown in 1942.

Filer speculates that whatever (presumably) crashed or exploded at the Foster ranch was a top-secret U.S. aircraft that was fabricated, at least in part, using such a material laminate.

When asked if this is what he saw back in 1947, Marcel stated that the I-beam fragment cross section "was *uniform* as far as I could tell" (emphasis added). His reference to cross-section homogeneity appears to rule out the possibility that the I-beam and (as per our assumption) the rectangular struts were merely laminated structural "sandwiches" from a 1940s-era advanced aircraft.

Was there a residue on the debris, and did the debris have a distinctive odor? A crash or explosion involving a conventional or experimental aircraft could have left traces of the mishap on some or all of the debris that fell to the ground. The evidence could have been in the form of a residue such as meltage or powder from one or more mundane substances such as plastic, rubber, or fabric on its surfaces; discoloration and warping due to the presence of intense heat; or impact-induced gouges, scratches, or other indentations. Some of these processes or events could also have caused the debris to have a distinctive odor.

When asked about some of these possibilities Marcel replied that all of it "looked clean. There was no dust or particulate matter embedded on the foil, Bakelite, or the beams." Regarding the I-beam fragment in particular, he remarked, "There was no glue or any coating on this. When you handled it, when you were touching the surface, there was no additional coating . . . no splotches, no grain, no nothing. It was a piece of metal—uniform."

Marcel did not remember any particular smell emanating from any of the debris he inspected.

At first glance, Marcel's responses to these questions seem to preclude the possibility that the Foster-ranch debris originated as a result of an aircraft accident. However, it's also possible that the violent thunderstorm reported in the area on the night of the alleged crash or explosion may have deposited a significant amount of rain on the debris, washing away any residue (and associated odor, if any) that may have been on it. Moreover, since he saw or handled only a very small portion of that material, it may not have been representative of the vast majority of stuff on the ground.

The best we can say is that Marcel's recollection of no residue or odor isn't much of a test and the above-noted questions cannot be answered with any degree of certainty.

Marcel examines the "debris" photos

Even though he probably saw them before, I documented on videotape Marcel's reaction to and comments about a few of the alleged Foster-ranch debris photos taken in Brig. Gen. Roger Ramey's Fort Worth, Texas, office on July 8, 1947. Roswell researcher Bob Durant provided me with 16-by-20-inch prints showing various views of the disputed materials; I took four of them with me to Portsmouth for use during the interview. Some noteworthy remarks Marcel made about their contents are summarized below.

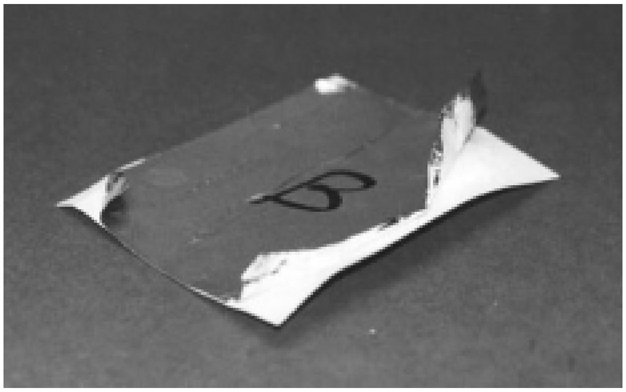

Figure 6. A partially delaminated piece of simulated rawin radar-target laminate made from aluminum foil and paper. Portions of similar materials depicted in the Fort Worth, Texas, photos had also separated from each other. Most of that damage probably occurred when the target impacted the ground and was subsequently dragged over vegetation and exposed rocks by the remaining inflated balloons in the Mogul Flight 4 or equivalent balloon train.

Figure 7. Overall view of a folded 1951–1953 rawin radar target provided by U.S. Air Force Captain James McAndrew to UFO researcher Rob Swiatek for his inspection. Photograph by Rob Swiatek.

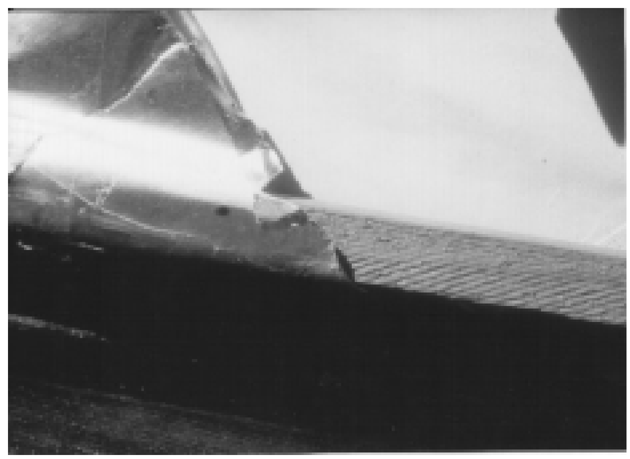

Figure 8. Closeup view showing how the metalized paper sheeting was wrapped around the wooden stiffeners comprising a 1951–1953 version rawin target. Photograph by Rob Swiatek.

Marcel identified the stuff on the floor of General Ramey's office as balsa-wood sticks and "metalized paper" (the aluminum foil-paper laminate) from a rawin target, the remains of a balloon envelope, and some wrapping paper. According to him *none* of it looked like the debris he remembered seeing and handling as an 11-year-old boy.

I asked Marcel if he distinctly recalled looking at both sides of the thin, shell-like material back in 1947. He did and asserted they were entirely metal, completely devoid of paper. Then he added—adamantly—"There's no question in my mind about that."

In an effort to calibrate the significance of that statement I asked Marcel to identify the constituent materials in a piece of rawin-target laminate I had made from heavy-duty aluminum foil bonded to thick, white paper with—what else?—Elmer's Glue-All. He had no problem at all, responding immediately: "Metalized paper." I then asked him to separate the two layers of material and hold the partially delaminated piece shown in Figure 6 next to one of the "debris" photos. My homemade "damaged" fragment was a close match, at least visually, with the radar-target reflective-material scraps shown there. The aluminum and paper parts of both the original and simulated laminates stood out like hammer-caressed thumbs.

Curious about the full-memory type of debris-field thin-shell material which purportedly could be easily crumpled by hand but would return to its original, unwrinkled condition when released, I asked Marcel if the pieces he held were completely free of deformation. He said they were "basically smooth but you could tell that there were some ripples in it. Not wrinkled like this one [in the photo]." His comments appear to describe a sheeting-type material having a relatively low "wrinkle factor"—say, 1 or 2. On such an admittedly arbitrary—and just made up—scale, the alleged self-restoring stuff mentioned by several eyewitnesses is a zero and the extensively crumpled laminate shown in the Fort Worth photos a 10.

Marcel noted that the shell-like pieces he saw were not as shiny as those depicted in the photos. He also stated that the latter fragments looked larger than the ones he saw; he remembers pieces ranging from about one inch by one inch to six inches by six inches. Their edges appeared to be "torn, not cut smoothly," similar to how the edges in the photos looked.

Final thoughts

The original intent of the project described in this article was to have Marcel conduct essentially the same experiments I had performed a year earlier—this time on video-

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Marcel—*continued from page 10*

tape—for the Roswell historical record. But I eventually added to the initial script numerous questions about the debris he inspected as a boy, hoping that at least one of them would trigger some long-forgotten memory of that night, providing a clue about its seemingly advanced-material type composition.

Such a breakthrough did not happen. But Marcel's detailed recollections of the I-beam's physical characteristics was impressive and reinforced my previous conviction that the thin-strut debris fragments were *not* balsa (or any other) wood alone or a laminated material made from aluminum (or other metal) and wood.

I also remain baffled how *anybody*—let alone highly trained personnel from the only atomic bomb–carrying base in the world—could have mistaken relatively large, highly crumpled pieces of paper-backed aluminum foil from radar targets for the two different types of allegedly strange thin-shell fragments found at the Foster ranch site. (The low-tech nature—even for 1947—of these devices is vividly apparent in Figures 7 and 8.) Roswell skeptics have still not provided a plausible answer to that nagging question.

The stiffener shown in Figure 8 appears to have a very rough surface texture. There is *no question* that this material is some kind of wood—presumably balsa wood. (Balsa wood sticks sold in hobby shops have smooth surfaces—see Figure 4.) If Mogul Flight 4's radar-target stiffeners were just as rough textured as their 1951–1953 counterparts, and if RAAF personnel *really* misconstrued them as something extraordinary, we would have to regard those persons as (shudder) complete incompetents. Given, however, the monumental nature of their responsibilities, that possibility is inconceivable. ❖