

Convair's Mach 2 Bomber

B-58 H U S T L E R

by Jan Tegler



Have you ever seen something that was beautiful *and* frightening all at once? Something that got your attention and commanded respect the moment you laid eyes on it. Something seductive and dangerous—a mean machine. Convair's B-58 Hustler was just that. Its shapely, area-ruled fuselage and delta wing gave it a fluidity that was distinctive. Few who saw it ever forgot it.

Over the course of aviation history, aircraft with dashing good looks and an exciting presence have traditionally been small, sleek and rakish—generally fighters. Everyone knows that bombers, especially in the immediate postwar era, weren't in that league. Handsome? Perhaps. Increasingly large and long-ranged? Definitely. But sexy? No way. That is until the B-58. Born out of the Air Force's Generalized Bomber Studies of the late 1940s, the Hustler was Convair's answer to the service's requirement for a

supersonic bomber. After a long and ambitious development program, a gorgeous airplane far ahead of its time emerged—a four-engine nuclear bomber that could reliably strike targets a long way off at a pace nothing else in the sky could match. Speed was definitely on its side. Capable of maintaining speeds of Mach 2 and above, the slippery bomber was designed to dash over targets at a high altitude and rain down nuclear or conventional bombs on enemies before they knew what hit them.

Curiously, though, this striking aircraft has never been given much attention. The B-58 served just 10 years in the USAF from 1960 to 1970. Universally praised by the crews who flew it, the Hustler wasn't as popular in other quarters. Cost was an issue throughout its service life. The technological innovations that made it such a tremendous performer had taken more time and expense to achieve than had been originally predicted. Funding

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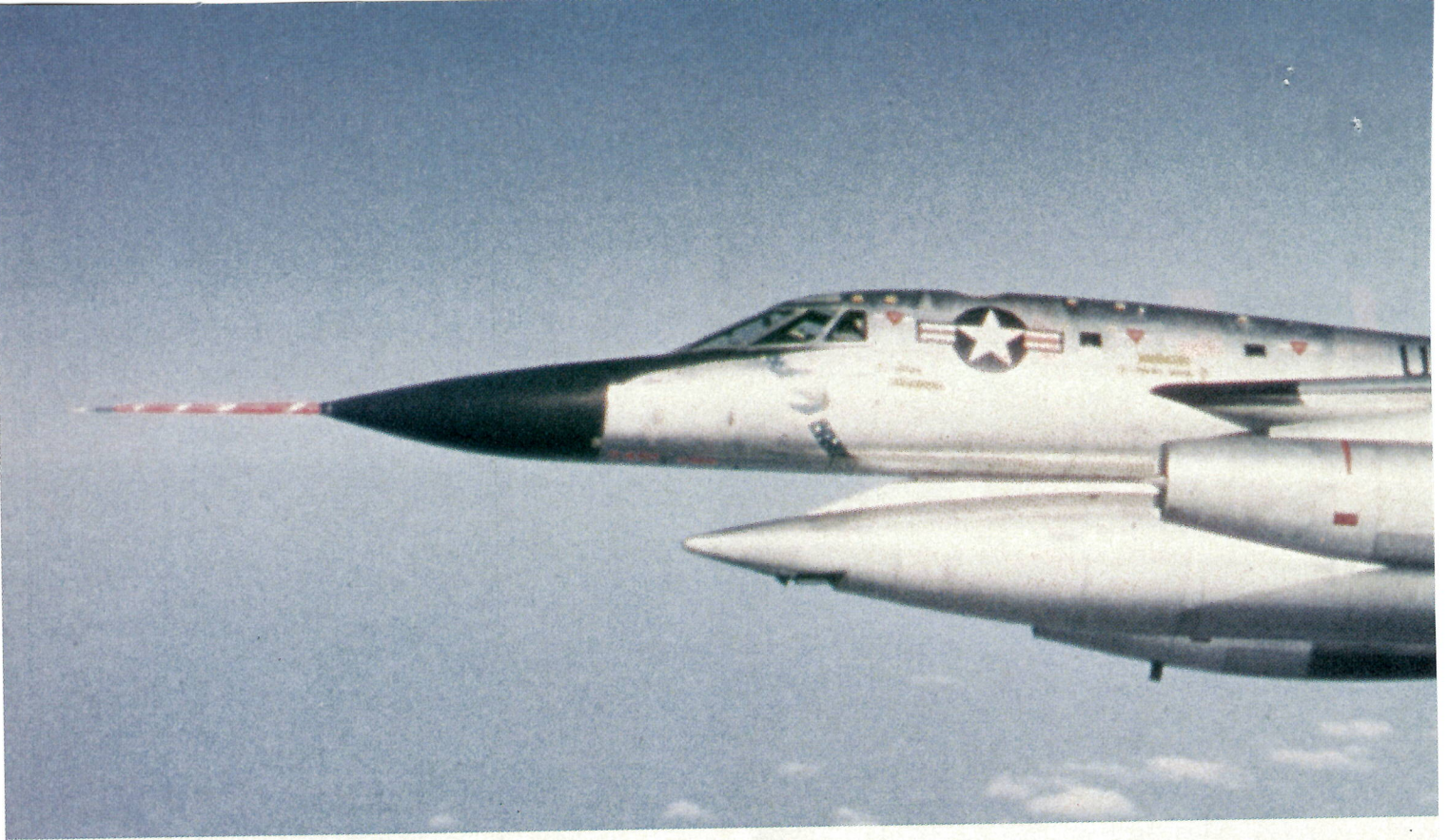
A SAC Hustler is prepared for another mission—perhaps even a world record. The crew's entry ladder was also used by the ground-support staff (photo by Leo Goff, courtesy of Warren Thompson).

had been difficult to procure, and budget battles in Washington and inside the Air Force had led to a relatively small purchase of B-58s (only 116 were built). Furthermore, the aircraft was expensive to operate, especially in comparison with its more traditional bomber counterpart, the Boeing B-52.

Additionally, the Strategic Air Command (SAC) was never very comfortable with the Hustler. It did not fit SAC's idea of what a bomber should be—big and long-ranged. The airframe characteristics that gave the B-58 its amazing speed limited its size and, therefore, its range and weapons-carrying ability. The aircraft was also at a disadvantage because the mission it had been designed for had changed. By the time it became operational, Russian surface-to-air missile (SAM) technology had progressed considerably. Flying at a high speed and high altitude no longer guaranteed safety from SAMs, so the Hustler was sent in low. Though crews

claim it did a very creditable job on the deck, this was an environment for which it was not optimized. Finally, the B-58 suffered from a rather inaccurate reputation as being dangerous; fact is, for the bulk of its service life, its mishap rate was quite comparable with those of other high-performance aircraft of its day. However, several well-publicized accidents during its development and early operational career did not endear it to the Air Force.

— All of these factors contributed to its brief operational career. Perhaps that short tenure, combined with the fact that it never saw combat, is the reason the B-58 has often been overlooked in the annals of aviation history. Nevertheless, the B-58 was a history-making aircraft, and it is long overdue for a second look. In salute to that history, here are four stories about the history makers.



10:30 A.M., OCTOBER 16, 1963

Kadena AFB, Okinawa, Japan

Operation Greased Lightning

"We took off at about 10:30 a.m.; I was ready to go! The interesting thing was that I took off on October 16. Then we crossed the international dateline and I was back to October 15. Then later, over Greenland, I was back to October 16. I saw the sun rise twice on October 16, 1963."

Maj. Sidney Kubesch had a grand view of those two dawns that fall morning. He was in the cat-bird's seat, flying as pilot in command of B-58A number 61-2059 from the 305th Bomb Wing, Bunker Hill AFB, Indiana. Along with him were his navigator, Maj. John Barrett, and defensive systems operator (DSO), Capt. Gerard Williamson. Like most B-58 drivers, Sid Kubesch was a talented and experienced pilot, having logged many hours in the Boeing B-47 Stratojet before being chosen as one of the first operational pilots to fly the Hustler. On this crisp October morning, Kubesch, Barrett and Williamson were about to make history.

Their day began in Okinawa, Japan. It would end a record-setting 8 hours, 35 minutes later in England. Operation "Greased Lightning" was under way.

"Early on in the B-58 program, the Air Force wanted to show everyone just what we had in terms of capability. So they scheduled a series of record attempts for the airplane and began going after certain records. Being one of the first pilots through training in the Hustler, I was put on the Standardization Board as an instructor in the airplane, and I checked out the other guys. There had been several record flights already, and Carswell (43rd Bomb Wing at Carswell AFB) had been getting all the glory, so they thought they'd let the 305th have a try.

"We found out about the mission in midsummer. We were gonna try to break the record going from Tokyo to London (previously held by the British with a time of 17 hours, 42 minutes). Three crews were to make the attempt. I guess I was chosen because I was on StanBoard, had some experience and filled all my squares in good shape. It took quite a bit of planning. Imagine, we had to get an ATC clearance from the ground up to 50,000 feet to fly a third of the way around the world at Mach 2.

That was kind of hairy, but we got it.

"Four of us [four B-58s] took off from Bunker Hill and flew over to Kadena AFB nonstop. We waited on the weather for four days until it was good enough for all of our tankers to launch. They were coming out of places like Iceland and Greenland where the weather isn't always ideal, and it had to be good every place they launched. Over the course of the flight, we'd have to make five in-flight refuelings. Finally, on October 16, everything looked good. Three aircraft launched. Two were to go for the Tokyo-to-London



Maj. Sidney Kubesch, Maj. John Barrett and Capt. Gerard Williamson flew this 305th Bomb Wing B-58 no. 61-2059 nonstop from Tokyo to London for Project Greased Lightning. Averaging 938mph, they made the trip in a record 8 hours, 35 minutes (USAF photo, courtesy of author).



The Air Force's Generalized Bomber Studies of the late 1940s revealed the need for a supersonic bomber that would be able to take an enemy completely by surprise. The Hustler was Convair's answer to this requirement (photo by Ken Smith, courtesy of Warren Thompson).

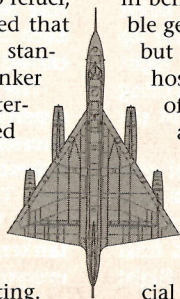
record, and the third was to go from Tokyo to Chicago to get that record. Rothwell and his crew took off 35 minutes ahead of us in number one. We were number two, and George Andrews and his crew left 35 minutes later for Chicago.

"We climbed to 50,000 feet and flew up to Tokyo. In Tokyo airspace, we were guided by radar to certain point where the official timing was to begin. We flew over, and they gave us the go-ahead. I kicked her into burner and we were off and running."

Kubesch and his crew were officially logged as departing Tokyo at 0459 Zulu, cruising at 53,000 feet at a blistering ground speed of 1,230 knots! But according to Sid and many other Hustler jocks, tearing along at high Mach numbers wasn't necessarily impressive.

"Going Mach 2 is really no big deal. At an altitude where there's no relativity, it doesn't have any particular sensation. The only way you know is by watching your instruments. You certainly had to think ahead, but otherwise, it was very comfortable. If you took your helmet off, it just sounded like you had your head in a waterfall. You couldn't hear the engines or anything else. Nothing but wind noise. We were pretty busy and time went by fast.

"Our first refueling was out over the Pacific between Tokyo and the Aleutian Islands. The B-58 was an easy airplane to refuel, and it was really good behind the tanker. Speed dictated that we use a special technique for refueling rather than the standard doctrine. We'd be at about 25 miles behind the tanker at Mach 2 and just honk the throttles out of max AB [afterburner] to idle. I'd point the nose down, and that airspeed would unwind. Then we'd just coast up behind the tanker at about 25,000 feet, get our gas and be gone. The first refueling was a piece of cake, and we were right on schedule. I left the tanker and climbed and accelerated again, aiming for Shemya Island, the westernmost of the Aleutians where our next tanker was waiting.



The second refueling went terrific and we were making good time." After the two previous decelerations for refueling, the crew's speed was averaging 950 knots.

"We then went Mach 2 to Anchorage and rendezvoused with a tanker in that area. That third refueling was difficult. It was black dark and we were in the clouds, and the northern lights



During a B-58 landing, a high angle of attack was maintained as long as possible to act as aerodynamic braking. The drag chute was deployed just after touchdown (photo by Ken Smith, courtesy of Warren Thompson).

were in full glow, and that was throwing off my horizon. We also had tankers from about five different outfits. At that time, not all of the [KC-] 135 units had tanked B-58s before. We slid in behind this particular 135, and the boom operator had trouble getting the boom into our receptacle. He tried to plug it in, but didn't quite get it locked. When he began pumping gas, it hosed down our windshield. All of that combined stuff kind of puckered me up a bit. We got it done finally, but it took a little extra time, and we were a bit frustrated about it.

"There were Federation Aeronautique Internationale [FAI, the body responsible for official record keeping of world aviation and space records] observers in all of the KC-135s. They were timing us and were there to confirm that it was us they were refueling. We had special markings on the nose of our three aircraft by which they



Pilots report that the Hustler was exceptionally stable and controllable while being refueled in flight (photo by Leo Goff, courtesy of Warren Thompson).

could identify us. They had to be sure because we could have just shot somebody up out of Anchorage, for instance, about 30 minutes after we started from Tokyo and said, 'Oh boy, we're doing good—see?' They were just making sure it was the same aircraft.

"As we accelerated away from Anchorage, we learned that we were now the only airplane headed for London. The number-one crew had a problem. They couldn't get their spikes to operate on one side or something. [Each B-58/J-79 engine was

time. Once again, Kubesch executed a quick and flawless tanking, but then things went awry.

"I lost the number-three engine after the fifth refueling. I ran out of oil in that engine. We used engine oil to pucker down the afterburner [oil was pumped to the variable exhaust nozzle system to open and compress the nozzle] when we pulled the throttles out of afterburner. When I came off the tanker and pushed the throttles into AB again, the number-three engine wouldn't light. In AB, the exhaust nozzle would have been wide open, but with no oil, it wouldn't go to full open. I think about 100-percent power was all I could get. When that failed, Mach 1.3 was as fast as I could go. That held us back for the last thousand miles."

Already slowed by the engine malfunction, Sid had to slow the Hustler even more approaching the UK.

"We had to go subsonic over England. We didn't have permission to go Mach 1 and boom the people. We peeled back to about .98 Mach and headed for RAF Greenham Common." Kubesch and his crew thundered over London at 1334 Zulu, 8 hours, 35 minutes, 20.4 seconds after departing Tokyo. The exhaust-nozzle malfunction added 1 hour and 5 minutes to the total time. Without it, the crew would have certainly met or exceeded their seven-and-a-half-hour flight plan. Still, they had beaten the

previous British record by over nine hours and, in the process, set five more records—Tokyo to Anchorage, Anchorage to London, etc.; moreover, the five hours of supersonic cruise made this the longest supersonic flight in history to that point [the record was later surpassed by the Lockheed A-12/SR-71]. Each crew member was awarded the DFC. Kubesch himself earned SAC's "Outstanding Pilot of 1963" award.

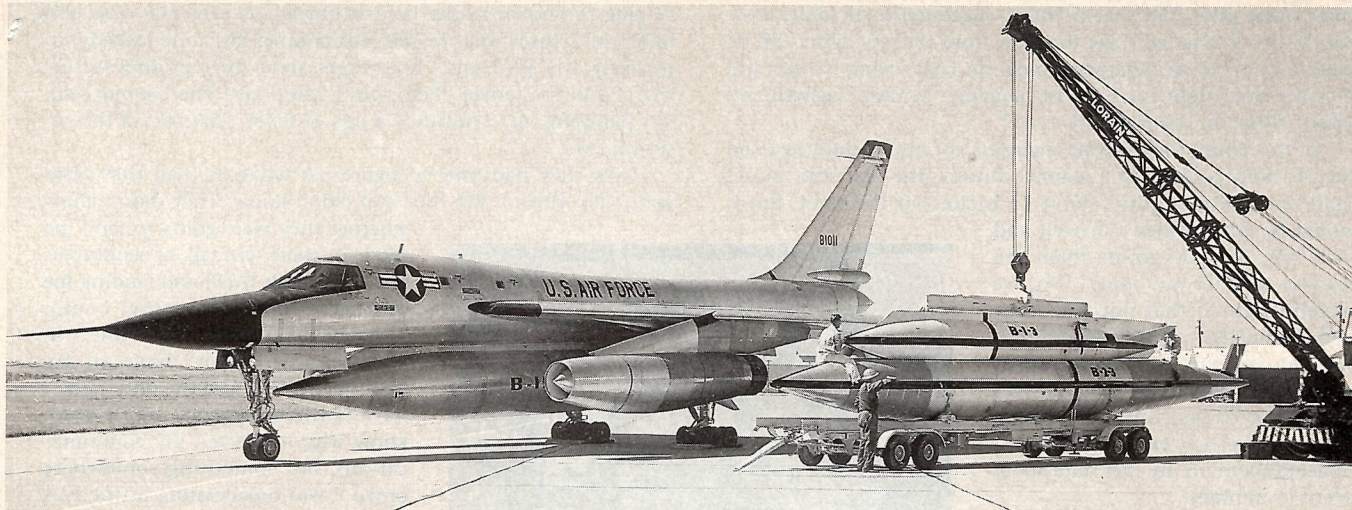
The B-58 had clearly lived up to its name by demonstrating a supercruise capability that, with refueling, could put it on the doorstep of any aggressor in the world in a matter of hours. Sid Kubesch and his crew made Operation Greased Lightning a success. Today, he is modest about the accomplishment. "It felt good. We were queen for a day. They flew us back home on a tanker, and I was a regular B-58 pilot, sitting alert just like everyone else."



Although the B-58's many technological innovations made it a tremendous performer, it took longer and cost more to achieve them than had been originally predicted. Budget battles in Washington and inside the Air Force led to only 116 Hustlers being built (photo by Ken Smith, courtesy of Warren Thompson).

equipped with variable-position intake spikes. At speeds above Mach 1.42, the spikes extended to prevent the formation of shock waves around their air inlets, which would restrict airflow to the engines.] They couldn't maintain the supersonic speeds, so they aborted. From Anchorage to our next rendezvous point for tanking, we were really honking along, and we made up some of the time we had lost. We put on the brakes right around Thule, Greenland, for the fourth refueling. Everything went OK there, and we pushed 'em [throttles] back up and got after it again."

Flight planning for the record attempts was critical and exacting. Kubesch, Barrett and Williamson had turned in a flight plan that predicted an elapsed time of seven and a half hours to London. As they zoomed toward their fifth and final refueling, they were on track to achieve their forecast flight



During its career, the B-58 was given a two-component pod (TCP) that consisted of a fuel tank and a weapons pod. The TCP increased the aircraft's speed and range, and the weapons pod was fitted atop the fuel tank, which could be dropped when empty (Air Age archives).

DUSK, MARCH 1961

Carswell AFB, Fort Worth, Texas

A Wild Ride

"It was my third solo mission. Just before dark, I taxied out and lined up on the runway at Carswell AFB. Our call sign was Hobo 49. I pushed the power up to full AB and away we went. Just as I rotated, the axle on the right main gear truck broke; it shot garbage everywhere and punctured my centerline fuel tank!"

With its nose cocked skyward, the B-58 roared down the runway, shedding pieces of the gear. Up at the pointy end sat Maj.

John Irving, working the stick of the aircraft he had longed to fly and totally unaware of the commotion several feet behind him. By spring 1960, John Irving was already a vastly experienced pilot. Early in WW II, he served with the AAF Ferry Command, flying fighters, bombers, trainers—just about everything in the Air Corps inventory. In 1943, he was sent to West Africa, where he enjoyed flying C-47s so much that he extended his tour by six months. After the War, he remained in the USAF Reserve and was called back to service during the Korean War. Following a brief period in a non-flying assignment, John began flight training for the B-47 Stratojet, and by 1959, he was chief refueling instructor on the B-47 Standardization Board at Schilling AFB, Salina, Kansas.

"Our unit was being relocated to Forbes AFB. Everyone [the unit personnel] had to go somewhere. At this time, the B-58 was coming into service, and we all knew about it. Several crews were to go down [to the 43rd Bomb Wing Combat Crew Training School, Carswell AFB] and fill slots in the B-58 program. I was not in one of those crews, but I begged the wing commander. I said,

'Let me go down there as a staff officer.' The B-58 was an exotic opportunity to go a step further that I didn't want to miss. They gave me the OK, and I went to Carswell as a staff officer in late 1959. Not too long after that, maybe four months, a crew position opened up. I said, 'Hey, let me get in.' So, in early 1960, I went into training. It was intense and well-executed and I did well, but I had a hairy experience early on."

On that spring evening, John Irving was in for a wild ride.

"I had no idea anything had happened. All I knew was that the cockpit was filled with a great big orange glow. I thought, 'What the heck is that?!' I figured out what happened afterward. When the gear came apart, the centerline TCP [tank] was punctured."

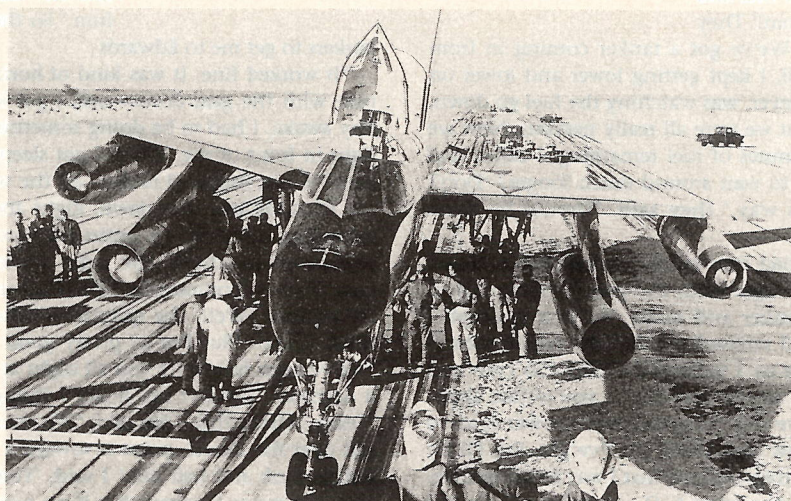
[The Hustler carried a two-component pod, or "TCP," that held fuel and bombs mounted on its belly between the main gear.]

"I was in afterburner for takeoff, and each engine was throwing out its normal tail of flame. Here I was with the nose rotated up, and those flames were hitting the runway. So was the fuel pouring out the TCP! There was a beautiful orange rooster-tail following me down the runway, and that caused the glow I saw in the cockpit.

"Of course, the tower saw this and called

me. 'We don't know exactly what happened Are you all right, Hobo 49?' 'Right now, I am,' I said. 'I can't get my right gear up, though.' When that gear wouldn't come up, I knew there had been some sort of malfunction. Otherwise, the airplane was flying fine. Then I thought, 'Well, I'd better try to get the rest of the gear back down.' I pushed the handle into the down position, and they came down and locked. 'OK,' I said. 'That's it. They can stay there.'

"The people at the base quickly sent a TF-102 chase plane up to find out what had taken place. By this time, it was dark and the



"The people at Edwards had two T-33s flying on me as chase aircraft, and they filmed the landing from the air and the ground. As we touched down and settled on the mains, you could see a stream of fire coming from the right gear. Pieces were flying off everywhere." When John Irving's crippled B-58 eventually came to rest on the Edwards AFB runway, the scene was much like this one—the second accident of that type (USAF photo, courtesy of author).

B-58 HUSTLER

chase plane pilot, Maj. Norris Smith, suggested we fly down over Fort Worth so that we'd get the glow from the city lights and he might be able to see what was going on. That's what we did, and he said, 'Your right truck is just hanging.' I called Carswell and asked, 'What do you want me to do?'

"At this point, the Convair engineers got into it, and they said that if I were to land on a foamed runway, the gear strut would hold up. It would grind about 13 inches off the strut, but it would be OK. I called Carswell and said, 'OK, are you gonna foam the runway and let me land?' 'No, we haven't figured that out yet,' they said. I came back, 'Just for your information, my fuel is burning off at about 6,000 pounds an hour, and it's not going to last long, especially since I have no centerline now.' I updated them on my fuel state about every 15 minutes.

"I was flying between 5,000 to 10,000 feet over Fort Worth and the fuel was going away pretty rapidly. I got on the radio again and said, 'I've got [X] amount of fuel left. If you plan to keep me up here for any length of time, I suggest you launch that strip alert tanker down there and have him come up and give me some gas.' They said, 'Yeah, OK. No problem.' This went on for about two hours, and I'm screaming, 'Hey look! You guys better figure out what you're going to do with me, or I'm gonna punch out of this airplane 'cause I'm gonna run out of fuel and have no choice but to bail out!' They replied, 'Oh, no problem. We've got a tanker coming in from Shepard [AFB Kansas].' Well, I kept getting lower and lower on fuel. My DSO, Lt. Jim Niemeyer, was watching the fuel go down, and he kept pretty calm, but we were all really nervous. Now we were down to about 15 minutes of fuel remaining. I called and said, 'I don't have fuel left to wait around much longer.' 'Don't worry, the tanker's on its way,' they said. 'Should be there momentarily.'

"Don't worry? Nobody had ever rendezvoused with a tanker at 10,000 feet in a B-58 at night with the gear hanging down. Well, we picked up the tanker and made our first attempt. I quickly aborted it. It was all screwed up, and the tanker wound up a little distance ahead of us. I radioed the [KC] 135 crew and told them to throttle back all the way till '... you're just about stalled out. I don't want give this thing too much power to close on you because I don't know how much gas I've got. But I'll try to catch you!' By this time, they realized that I was in big trouble.

"Col. Jake Hutchinson, the wing C.O., literally ran up the steps to the control tower, all the way to the top. He got on the radio and, completely out of breath, he puffed, 'Tell the crew to turn around and drop their TCP in Bembrook Lake and land here at Carswell!' But by this time, I had the tanker right in front of me. I was just about to make contact. The tanker pilot called me and said, 'You're supposed to drop your tank in Bembrook Lake and land!' I said, 'If you move that tanker an inch, I'll kill ya!' He said, 'Oh no, sir, I'm not gonna move!' 'All right,' I said. 'You stay where you are.'

"We made contact and they stuck the boom in, and the damn thing flipped back out. So I told the boomer [boom operator], 'This is what we're gonna do, and we're gonna have to do it fast. I'm gonna come in high right underneath you—too high for contact but lined up in the proper position. Then I'll dip the nose, and I want you

to plug the boom in the hole as quickly as I dip the nose and lock it in!' This is what we did. The boomer hit it and locked it in perfectly. My DSO said, 'You've got about two minutes of fuel left!' I told the tanker, 'Pump fast! Pump fast! The boomer said, 'It's pumping, sir.' I breathed a sigh of relief. That part of the crisis was over.

"Now they had time to figure out what the hell they were gonna do with us. But they still didn't know. They didn't know whether they were going to land me there, or there was talk of sending us out to Edwards [AFB] and landing me out there in the morning. I said, 'Whatever you want to do is fine; just let me know. I don't have all my instruments left, and the only radio I have is the emergency set.' I don't know why it affected my communications, but something somewhere broke. I was broadcasting to the FAA continually, and they were keeping a record of my position.

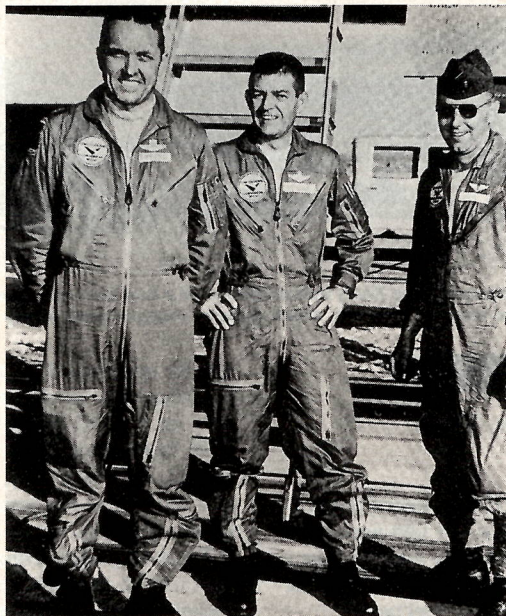
"Finally, they figured out what they wanted to do. They said, 'We're going to land you out at Edwards. In case you go off the runway, you've got a thousand square miles of lakebed to eat up out there.' My next question was, 'How am I gonna get there?' 'We've got a fleet of tankers lined up,' they said. 'The tanker you've got now will deliver you to another downstream. As soon as you make contact, he'll take over and you'll follow him. Then there will be another tanker farther on to relieve him.' So there would be three sets of

tankers to get me to Edwards.

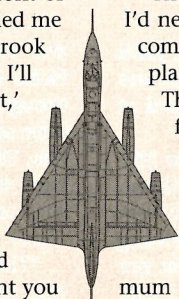
"It worked fine. It was kind of boring—nighttime at low altitude with the gear down—and I got kinda sleepy out there. To stay awake, I had to be doing something. The tanker was always right in front of me. When I got sleepy, I'd go up and get some gas! We just followed tankers all the way out and struggled into the Edwards area near dawn. Right about then, one of the most rewarding things in my entire Air Force career happened. When we arrived overhead, the radio started squawking, and it was Gen. Powers (commander of SAC). I said, 'Yes sir, how are you?' He replied, 'Well, the question is, how are you?' 'I'm a little tired,' I said. 'But I'm in pretty good shape.' Gen. Powers said, 'We've been following you all night at SAC HQ, and we've made a decision.' I didn't say it but I thought, 'That's a first.' I said, 'Yessir, what's that?' He said, 'We want you to take the airplane out over the desert, point it toward a mountain, drop that centerline tank and bail out.' I said, 'Yessir, we discussed that. But they tell me at Convair that if we were to land the aircraft on a foamed runway the strut would hold up. I've given the crew the opportunity to bail out if they so desire. I plan to land the airplane.'

"Then I heard the key words that really gave me a confidence I'd never had before in the powers that be. Gen. Powers didn't come back and say, 'Dammit, I told you to bail out of the airplane!' He said, 'All right, you're the aircraft commander.' That meant so much to me because from the day we began flying airplanes, we were told that if you've got the stick and throttle in your hand, you're *it*. *You* are the aircraft commander. That's what he told me. I was ecstatic. I said, 'By God, things aren't as bad as they could be, are they!'

"So I burned off fuel till we got down to the minimum Convair said we should have and got set up for landing.



The crew of Hobo 49: Maj. John Irving, pilot; Maj. Patt Serage, navigator and Lt. Jim Niemeyer, DSO (John Irving collection, courtesy of author).



Meanwhile, they foamed half the runway. Ironically, they told me, 'Keep your nose wheel out of the foam. Keep your affected gear in the foam and the other main out. The lateral separation between the nose wheel and the mains can't be more than about six feet. Maybe not that much.' So, I kind of jokingly said, 'Oh yeah, I'll keep the nose wheel out of the foam. No problem!' Anyway, I made my approach, and as it turned out, you could have put a ruler down the swath the right main cut in the foam. It just made a perfectly straight line when I touched down. I held the nose up as long as I could and deployed the brake chute. When the nose finally dropped and we slowed down, the nose-wheel steering quickly became inadequate to compensate for the drag on the right side. I used a lot of brake on the other side, and that kept it going straight as an arrow with the nose wheel and left main out of the foam. The people at Edwards had two T-33s flying on me as chase aircraft, and they filmed the landing from the air and the ground. As we touched down and settled on the mains, you could see a stream of fire coming from the right gear. Pieces were flying off everywhere. A couple of the wheels from the gear peeled off and nearly hit one of the crash trucks by the runway.

"We had an emergency escape out of the B-58. It was a rope! All that high tech and the escape system was a rope! That airplane had hardly stopped, and the navigator, Patt Serage, was on the ground. He bailed out of that beauty quick! Another funny thing was that, as I said, the Convair engineers had predicted that we'd grind 13 inches off the strut. They measured the damn thing later, and I'd ground off 12½ inches! The strut held up beautifully, and they repaired it and flew the airplane out the next day."

Flying the B-58 was mostly a delight, but like any high-performance airplane, things could go wrong quickly. Irving won the DFC for saving his aircraft and crew that spring day, and he continued the exhilarating business of flying the Hustler with the 43rd Bomb Wing. Soon enough, though, he'd be in for another wild ride!

2 A.M., VALENTINE'S DAY, 1963

35,000 feet above Southwest Oklahoma

"I took off from Carswell for a night training mission one evening in February 1963. No big deal. But about halfway through the mission, the airplane was not flying right. It was just strange. It felt like you were sitting on top of a bouncing ball. I thought, 'What the hell is the matter with this airplane?' Fortunately, I wasn't too far away from Carswell, and I called the command post and said, 'Hey look, I don't know what it is, but something's wrong with this airplane. It's just not flying right.' They said, 'What's your airspeed?' '.91 Mach,' I said. They called back, 'Go ahead with your navigation leg, then come back and we'll see what's wrong.' I said, 'OK.'"

In the previous two years, Maj. John Irving had become quite comfortable flying the B-58 Hustler, and like most who flew it, he praised it. "It was so stable. It was a beautiful airplane to fly. It was the only bomber in anybody's command that had a stick in it. Hey, I was sitting up there cruising along like I was in a fighter, and it *felt* like a fighter. It was a pilot's dream and yes, it had performance. Periodically, we'd do checks with North American Aerospace Defense Command facilities [NORAD—fighter/interceptor units responsible for U.S. airspace defense]. They'd have to make so many interceptions per month. Well, the only way they could intercept us was if we called them up about 30 minutes ahead of time and said, 'Hey, we'll be there in half an hour.' Then, maybe, they could get up to meet us. We just had so much performance. I remember our

Mach 2 bomb runs. I had three radar bomb-site runs to make on one mission: one at Greenwood, Mississippi, the next at Barksdale AFB, Louisiana, and the last at Fort Worth. From the time I accelerated to the time I pulled off the last run was 22 minutes! That gets your attention."

This February night, however, Irving was somewhat less than comfortable.

"The pitot system on the B-58 had some problems. It was made by a garbage disposal company called 'Waste King.' There were some incidents where airspeed indicators would lock up, and no one knew why. The Hustler's pitot was all the way forward on the nose. They worked fine mostly, and the heating system that heated the tube was generally fine. But there was such a tremendous distance between the pitot tube on the nose and the instrument panel that the portions of the tube near the cockpit weren't getting heated. Whatever moisture was dispensed from the heating unit in the nose traveled back through the tube and could freeze up near the cockpit. That fouled up the instruments. So the Air Force condemned the pitot tube and came out with what's called a 'Melrose System,' which was supposed to eliminate faulty instrument readings.

"The aircraft I had that night had just come out of IRN [inspection and repair as necessary]. At the time, the Melrose System was being adopted and a new one was supposed to be installed on this airplane. But the maintenance people didn't have one, so they looked at their logistics manual and found that there was a suitable substitute for the M-system. That



Air Force crash investigators look over the B-58 wreckage from which John Irving and his crew ejected (John Irving collection, courtesy of author).

happened to be the good old 'Waste King,' and they slapped that on the airplane.

"We got a little farther down the road on our navigation leg, and I engaged the autopilot at .92 Mach. I wanted .91 Mach. So I dialed in .91. The autopilot would then decrease power at intervals to give me .91. But it kept decreasing power incrementally and didn't stop at .91. I didn't even notice it. You couldn't see it. You couldn't feel it. But soon, the feel of the airplane started to get worse and worse, and the autopilot wasn't flying the aircraft too well, so I clicked it off. I could hand-fly it, but it still felt funny as hell. I engaged the autopilot again, and the same thing occurred. It didn't control the airplane properly.

"Finally, I had to turn off the autopilot. Then, I don't know what prompted me to do it, but I called the navigator, Capt. John Fuller. 'What's your airspeed reading?' The navigator's cockpit had a little independent system right outside the canopy.

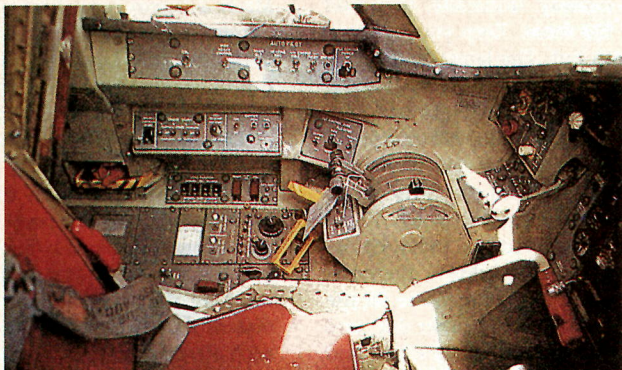
We were at 35,000 feet. He said, 'I'm reading 275 knots.' I said, 'Oh, sh*t! This airplane won't fly at 275 knots at 35,000 feet!' I jammed everything [throttles] forward and pushed the stick forward. The airspeed started going down!

"I thought, 'Good grief, what is going on here?!' We lost about 5,000 feet, and I decided I'd better level off and see if I could analyze what the hell was going on. When I pulled the stick back and leveled off, that was the end of the line. The airplane just quit flying. I was stalled out. That was the problem. I had just lost all airspeed and yet the artificial horizon was showing straight across, my airspeed read .92 Mach, and everything was lovely. But the pitot tube was frozen.

"When I pushed the stick forward to descend, I got a decrease in airspeed! I didn't know what was going on, but I didn't have time to analyze that. My instruments weren't supposed to be lying to me. Anyway, the airplane shuddered and quit and started to slip off into a spin. It was really out of shape. We had rules that said, if you are unable to get control passing through 15,000 feet, get out! As I was approaching 15,000 feet, I got control of the airplane and recovered, but I had been in a flat spin and the gyro had spilled. When I leveled the attitude indicator out to where I thought I was flying straight and level, I was actually in a 45-degree bank. When I did that, it just stopped flying again, and I said, 'Let's get out!'

"The navigator and DSO [Capt. Donald Avallón] got out so fast they actually ran into each other. The navigator's left arm was smashed—just mangled. The DSO was OK—he just split the web between his thumb and index finger. They were both out before me. The airplane was pitching and yawing so violently that I couldn't even find the seat ejection handles [early model Hustlers were equipped with ejection seats; later versions had full ejection capsules]. I finally did find the handle on my right, pulled it and 'bang!' out I went.

"That was just the beginning. When you ejected from the Hustler, the shoulder harness would lock in the position your body was in when it was fired. I was bent way forward, reaching for the ejection handles. I had lots of slack in the harness, and when that 37mm cannon shot me out of there, it busted my third vertebrae. Also, when you went through 15,000 feet, there was an automatic device that was supposed to release your lap belt so that your seat would fall away. My belt never released. I kept waiting for my chute to deploy, and it didn't. I thought, 'Great! What's the matter with this stupid chute?' I decided to give it a little assistance, and I pulled the ripcord. It popped out, but I didn't have a full canopy for long. I had ejected into a thunderstorm, and the turbulence collapsed the damn chute. Fortunately, it blossomed again before too long. But something didn't feel right. I was still sitting on the seat! It hadn't separated. So I pulled the release and pushed it off. I thought, 'Hmmm, seems like there's something else I ought to do?' Then I remembered: we sat on a 75-pound survival pack. After ejecting, you were supposed to pull a little toggle on the side of your para-



Like a fighter, the Hustler's throttle-control levers were on the cockpit's left side (Mick Roth, courtesy of author).



The B-58A's innovative, pilot instrument-panel layout was far ahead of its time: every knob, toggle and switch came easily to hand (Mick Roth, courtesy of author).

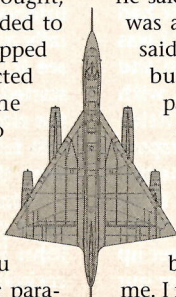
chute that would release the survival pack down on a 75-foot tether. That way, the pack would hit the ground before you so you wouldn't have the added weight on impact. We also had spurs on the back of our boots that would dig into the seat and pull our feet back so they wouldn't get caught on the way out when we ejected. Well, when I released the survival pack, the sucker hung up on my spurs. 'Alrighty,' I said. 'I ain't pullin' or pushin' nothin' else till I get on the ground!'

"I drifted down and came crashing through a tree. The chute got tangled and left me hanging a little over a foot off the ground. I unbuckled and fell to the ground. It was winter, it was cold, and rain was falling. It must have been about 34 degrees and I was wearing a summer flying suit. I had no idea where I was. My flashlight was working and I looked around and luckily found a lean-to-type hay shed. I thought, 'At least, I

can get under there and get out of the rain.' I got in there and my back was killing me. It was 2:30 or 3 a.m., so I knew I'd have to endure the rest of the night.

"When dawn began to break, I could hear something creaking in the distance. I looked in that direction and could just make out the silhouette of a small house. I thought, 'Wonderful, I slept in this little hay shed and there's a house right there.' I struggled over, and it wasn't a house at all; it was just being used as a barn, but at least it was warmer than the open shed. I decided to wait there until the search teams showed up to get me. We had an automatic emergency beacon that would go off in the event of an ejection or a crash. It broadcast a signal the rescue teams could get a fix on. I knew there would be a helicopter out shortly after dawn to pick me up. Sure enough, a little while later, I heard a helo upstairs. I took my trusty UC-4 radio out of my survival pack and tried it. The SOB was dead! I thought, 'What else can happen?!'

"So, I went back to my parachute to get some flares and stumbled out onto this country road. There was a pickup truck coming up the road. I stood right in the middle of it waving my arms, 'Stop! Stop!' The guy in the pickup pulled up and said, 'You must be the other crew member from that airplane that went down last night.' I said, 'Yes. Have you heard about the other two?' 'They're in the hospital in a little town up the road,' he said. Lawton, Oklahoma, I think it was. I asked him if there was any chance he could take me into Lawton. 'Jump in,' he said. 'I'd be happy to take you.' So I'm sitting there with a busted back going down a country road. It was a little painful. We arrived at this little dispensary-type hospital. I told the doctor, 'Before we do anything, doc, I need to make a phone call.' He pointed to a phone on the wall, and I picked it up and dialed the operator. I said, 'Give me Carswell AFB.' She did, and the Carswell operator came on. 'Operator, this is Maj. John Irving,' I said; 'I bailed out of a B-58 last night and the world is looking for me. I need to talk to the wing commander.' He said, 'What's your



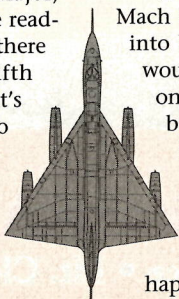
control number?' I said, 'I don't think you heard me, operator. This is Maj. John Irving. I was in a B-58 accident last night and the world is looking for me. I need to speak to the wing commander. I don't have a control number!' There was silence for a minute, and he replied, 'I'm sorry, sir; I can't put you through unless you have a control number.' 'OK, operator. I'm gonna do this one more time. After my voice dies down, you've got 30 seconds to put me through to the wing commander, or you will not be working tomorrow morning.' I repeated everything then said, 'Now! You're on the clock!' I was actually timing him. We got to 25 seconds and the wing commander, Col. Everett "Brick" Holstrum, picked up the phone. I told him what had happened and I said, 'If I hadn't gotten through, I'd have called my wife, told her I was OK and not to tell anyone she heard from me. Just let 'em look for me!'

"Well, the upshot of this whole thing was that there was a miscarriage of justice. An accident investigation board met. They had no problem finding the airplane. It hit the ground virtually flat and dug in and moved six inches forward. They dug the pitot system up, completely intact. They took it to a wind tunnel and reproduced the atmospheric conditions, temperature and pressure, and the pitot did exactly what it had done to me. It froze up. This was all in the accident report. But they didn't believe me. They even went to the simulator. They didn't believe that my artificial horizon read straight across. They duplicated the situation and obtained the same result. Hal Confer and William Payne [two well-known, record-setting pilots] flew the simulator and, apparently, in their report they figured out that I could have maybe saved the airplane by using the navigator's airspeed indicator.

"After the accident, I talked to the unit ops officer. He said, 'What happened to the aircraft?' I said, 'Boss, I don't have the foggiest idea. There was some malfunction of the airspeed system, but I don't know what it was.' The ops officer called Gen. Ryan at 2nd Air Force HQ. Gen. Ryan asked him what happened. The boss said, 'I don't know. The pilot says he thinks there was a malfunction of the airspeed indicator.' Gen. Ryan's response was, 'You mean we have pilots who can't fly without an airspeed indicator?' So in my mind, they geared the whole investigation to come up with the answer that Gen. Ryan gave. With all of the information they had, the pitot system malfunction, the artificial horizon malfunction—everything—they charged me with pilot error. The airplane had been grounded for six months because of the pitot system, yet they charged me with pilot error.

"The regulation was that if you were charged with pilot error in an accident, you'd have to meet an FEB [Flight Evaluation Board]. Col. Holstrum, who was actually a great guy, came to see me in the hospital. I asked him, 'Brick, are you going to convene an FEB?' Up until this time, the accident investigators hadn't asked me anything. The investigation had gone forward with no input from me. 'I guess I'm going to have to,' he said. I said, 'That's fine. You see, I haven't had any input in this thing but when the FEB convenes, my tongue's going to wag. But before it meets, I'm bringing charges against you, Col. Blizzard [the maintenance officer] and Gen. Ryan. You do what you have to do, and I'll do what I have to do.' I was serious. I already had an attorney.

"It was kind of funny because they never convened an FEB. The telephone rang in my hospital room one day. They said, 'It's for you, Maj. Irving.' I picked it up and it was a general from Air Force Flying Safety Command at Norton AFB. He said, 'Major, what's this I'm reading?' I said, 'I have no idea what you're reading, sir.' 'I'm reading your accident report,' he said. 'Isn't there anybody in SAC who can read?' 'I'd like to take the Fifth Amendment on that, sir,' I laughed. He went on, 'Well, if it's any consolation to you, this will go into your record as no pilot error whatsoever. It was a maintenance and administrative malfunction.' 'It's a bit late, but I appreciate it, sir.' That was not a pleasant experience. The irony was, I had just been awarded the DFC for saving the other airplane several months earlier. Three months later, I was back as an instructor pilot."



JULY 1963

Carswell AFB Max-Performance Takeoff

"Champion of Champions"

"One of the highlights of my career was meeting and flying with Jimmy Stewart. He came down to Carswell for his two weeks of active duty [Stewart, a former B-24 pilot during WW II, stayed in the Air Force Reserve into the 1970s, eventually rising to the rank of Brigadier General]. He was making a movie in Dallas on the record-setting flights of the B-58 called 'Champion of Champions.' Brick Holstrum, my wing commander, said, 'John, you're going to be his aide for two weeks.' I said, 'Great! I'd love to!' It was my job to familiarize him with the aircraft and take him over to Dallas every morning.

"I'll tell you, that guy's not even acting when he's on stage. That's just the way he is all the time. That's Jimmy Stewart. He was the nicest, slowest-talking guy you'd ever want to meet—a prince of a fellow. I just ate this assignment up. I enjoyed the hell out of it.

"At the end of his two weeks, I was to give him a ride in a Hustler. We had a procedure in the manuals that I don't think anyone up to that point had ever executed. It was a maximum-performance takeoff. The standard takeoff was attention-getting all by itself. Normally, you'd take off with all four burners lit, and when you reached 425 knots indicated, you'd pull back to military power and climb at 425 until you got to cruise altitude, where you'd transition to .91 Mach. The max-performance takeoff called for you to leave the engines in burner till you got to the top of the hill [35,000 feet]. I said to Brick, 'Boss, do you mind if I show him a max-performance takeoff?' He said, 'I don't give a damn what you do with him.' I said, 'OK!'

"That was the wildest ride I ever took! Jimmy and I strapped on a TB-58 [the training version of the Hustler] and taxied out to the runway. 'Ready?,' I asked. He said, 'Yup.' I lit those burners, and before you knew it, we lifted off. Just like that! Up came 425 knots, our normal climb rate. Well, I kept pulling the nose up to stay at 425 or below. I had the stick pretty far back and I just kept pulling and pulling and pulling, and pretty soon, we were going straight up! The gyro spilled, and the whole panel was going nuts. It took just three minutes from the time I released the brakes to the time I pushed the nose over at 35,000 feet! Right then, I heard this sigh of relief from the front seat. Stewart said, 'This ain't no airplane; it's a goddamned missile!'

"One of the requirements of the flight was that I get Jimmy his Mach 2 pin. But when I got up there and pushed the throttles into burner again to go supersonic, one of the damn engines wouldn't light. I thought, 'Oh hell! He's gonna get to Mach 2 one way or another! So, I pushed the nose over with the three burners lit and went almost straight down. We zoomed through Mach 2 and I pulled everything back and leveled out and said, 'OK; you've been there!'

"The crowning glory was that we had a big party for him that evening and his wife, Gloria, called me over to one side. She said, 'John, you made an old man really happy today!' That felt very good."



When Maj. John Irving and Jimmy Stewart took off, it took just three minutes for them to reach 35,000 feet! Right then, Irving heard Stewart sigh with relief and say, "This ain't no airplane; it's a goddamned missile!"