

THE LAST ACTION HERO

WITH A LIFE STORY THAT READS LIKE THE SCRIPT OF A SUMMER BLOCKBUSTER, CHUCK YEAGER'S PICTURE SHOULD BE IN THE DICTIONARY NEXT TO THE WORD "TOUGH". ON LOCATION AT THE LANDING STRIP WHERE HE FIRST SHOT TO FAME, **CHRIS WRIGHT** SPEAKS TO THE MAN HIMSELF ABOUT FLIGHT, WAR AND TRANSATLANTIC RELATIONS

If you know the name Chuck Yeager, it is probably because he broke the sound barrier — the invisible, impenetrable wall that scientists used to believe existed at the speed of sound — at the age of 24 in 1947. But that is not the best bit of the story. To understand Yeager, you need the rest of it.

Two nights before the flight, he decided to go horse-riding in the dark in the middle of the Mojave Desert, in the US state of California. Galloping between the Joshua trees on a moonless night, Yeager failed to see a closed gate and was thrown over it, breaking two ribs. He refused to tell anyone in command, in case they grounded him. Instead, he got his ribs taped up by a veterinarian — but still had a problem. Although he could fly his Bell X-1 jet with broken ribs, he couldn't actually seal the hatch. So he got a trusted flight engineer to saw the end off a broomstick, fashioning it into a lever, and used that instead. Then, wounded and with a broom handle wedging the lock, Yeager went off and beat the speed of sound — for the first time in human history.

Calling Yeager tough is like saying that the *Titanic* had a bit of a scrape. Yeager isn't tough, he is indestructible. He also represents the kind of epic American hero that seemingly cannot exist anymore. This is a pilot who became a World War II flying ace (requiring five or more victories) at the age of 21 — not in a year or even a week of flying, but remarkably, after a single mission.

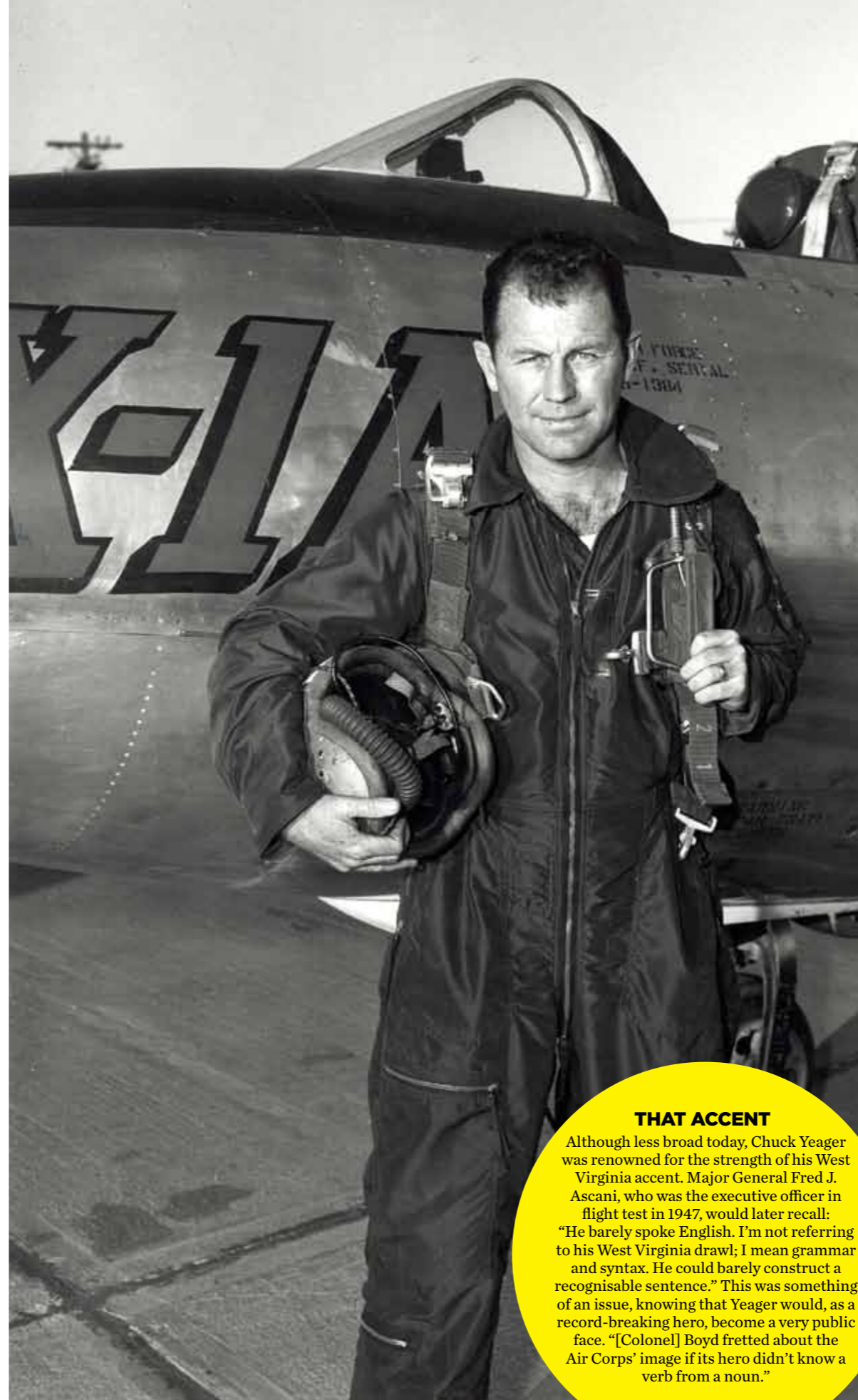
Yeager once amputated a shot colleague's leg with a penknife, before carrying him up a snowbound Pyrenean mountain to save his life. Another time, he evacuated from a plane, and was hit in the face by his own ejector

seat, causing his head and hand to catch fire. Upon landing, he calmly asked a passer-by for a knife, which he then used to cut off his glove, two of his charred fingertips along with it. Famed writer and journalist Tom Wolfe, narrating his definitive account of post-war test pilot bravado and skill, virtually coined the term *The Right Stuff* for Yeager, calling him "the most righteous of all the possessors of the right stuff."

It is May, and *Discovery Channel Magazine* is sitting with Chuck Yeager at the test pilot school at Edwards Air Force Base, formerly known as Muroc. This was the place where he broke the barrier, 65 years ago. Decades may have passed, but it is clear that Yeager has not lost his direct nature. "You got an English accent," he observes as we drive around the base. "I gotta tell you, I hated the English even more than I hated the Germans in World War II. The meanest people I have ever seen — and we were supposed to be saving your goddamned asses." On that note, we begin.

MAKING OF A MAN

One of the things that shaped Yeager was his modest childhood in Hamlin, in the US state of West Virginia. At the time the state topped the nation in unemployment,



THAT ACCENT

Although less broad today, Chuck Yeager was renowned for the strength of his West Virginia accent. Major General Fred J. Ascani, who was the executive officer in flight test in 1947, would later recall: "He barely spoke English. I'm not referring to his West Virginia drawl; I mean grammar and syntax. He could barely construct a recognisable sentence." This was something of an issue, knowing that Yeager would, as a record-breaking hero, become a very public face. "[Colonel] Boyd fretted about the Air Corps' image if its hero didn't know a verb from a noun."

PHOTOS: WWW.CHUCKYEAGER.COM (MAIN); CORBIS

THE MANY SCRAPES OF CHUCK YEAGER

1943

"A SHEEP-HERDER FOUND ME"

IN A P-39 AT 644 KILOMETRES PER HOUR OVER WYOMING. "THERE WAS AN EXPLOSION IN THE BACK. FIRE CAME OUT FROM UNDER MY SEAT AND THE AIRPLANE FLEW APART IN DIFFERENT DIRECTIONS. I JETTISONED THE DOOR AND STUCK MY HEAD OUT, AND THE PROP WASH SEEMED TO STRETCH MY NECK THREE FEET. I JUMPED FOR IT. **WHEN THE CHUTE OPENED, I WAS KNOCKED UNCONSCIOUS.** A SHEEP-HERDER FOUND ME IN THE HILLS AND TOSSED ME ACROSS HIS BURRO, FACE DOWN." HE ENDED UP IN HOSPITAL, WITH A FRACTURED BACK



1944

PROTECTED BY FRENCH RESISTANCE

SHOT DOWN OVER OCCUPIED FRANCE. "**THE WORLD EXPLODED.** I DUCKED TO PROTECT MY FACE WITH MY HANDS, AND WHEN I LOOKED A SECOND LATER, MY ENGINE WAS ON FIRE, AND THERE WAS A GAPING HOLE IN MY WINGTIP. THE AIRPLANE BEGAN TO SPIN. **IT HAPPENED SO FAST, THERE WAS NO TIME TO PANIC.** I KNEW I WAS GOING DOWN; I WAS BARELY ABLE TO UNFASTEN MY SAFETY BELT AND CRAWL OVER MY SEAT BEFORE MY BURNING P-51 BEGAN TO SNAP AND ROLL, HEADING FOR THE GROUND. I JUST FELL OUT OF THE COCKPIT WHEN THE PLANE TURNED UPSIDE DOWN — MY CANOPY WAS SHOT AWAY." HE GOT OFF FAIRLY LIGHTLY, WITH **SHRAPNEL PUNCTURES** IN HIS FEET AND HANDS. PROTECTED BY FRENCH RESISTANCE, HE EVENTUALLY **ESCAPED OVER THE PYRENEES MOUNTAINS TO SPAIN**



1946

"MORNING, MA'AM, CAN I USE YOUR TELEPHONE?"

IN A T-6 PROP TRAINER WITH AN INSTRUCTOR, THE **MASTER ROD BLEW APART IN THE ENGINE** WHEN HE WAS FLYING OVER RURAL OHIO. YEAGER AIMED FOR TWO FIELDS AND LANDED IN BETWEEN THEM IN THE PATH OF A FARMHOUSE, GOING THROUGH A CHICKEN HOUSE AND **ENDING ALONGSIDE THE FARMER'S WIFE'S KITCHEN WINDOW.** "SHE WAS AT THE SINK, LOOKING OUT, AND I WAS **LOOKING HER RIGHT IN THE EYE** THROUGH A SWIRL OF DUST AND FEATHERS. I OPENED THE CANOPY AND MANAGED A SMALL SMILE. 'MORNING, MA'AM,' I SAID. 'CAN I USE YOUR TELEPHONE?'"

and Yeager was from the poorest county within it, Lincoln County. "It wasn't really tough. It was just a variety of experiences," he says today. Still, it is not a childhood that a lot of us would recognise. By the time he was six, he knew how to shoot a .22 rifle, and hunt squirrels and rabbits, skinning them before school, left in a bucket of water for his mum to cook for supper. He slopped hogs, milked cows, weeded gardens and stole watermelons from farmers, who kept shotguns loaded with rock salt, "to sting the butts of kids like us".

Yeager has written that West Virginia also made him the pilot he became. "What is the secret to combat?" he asks me. "Deflection shooting." That is, shooting at where something is going to be, not where it is now. "What do the kids in the hills do? They hunt," he explains. "They shoot at animals that are running. And that makes them experts at deflection shooting."

His background and lack of education also made him into a fighter, and stubborn to boot, the type who says what he thinks, and means what he says.

WOUNDED AND WITH A BROOM HANDLE WEDGING THE LOCK, YEAGER WENT OFF AND BEAT THE SPEED OF SOUND — FOR THE FIRST TIME IN HUMAN HISTORY

"I was impulsive, or headstrong," he admits. "Something is either right or wrong." This would help as he rose through the ranks, overtaking more qualified and experienced people along the way.

Another vital part of the Yeager legend was his vision, rated 20/10, or exceptionally sharp. This was at the heart of his success as a fighter pilot in World War II, since he could see German planes further away than most other pilots. Also, while lacking education, and self-conscious about it, Yeager benefited instead from an endless fascination with the most minute details of an aircraft, making him into an engineer as much as a pilot.

Chuck Yeager got started in flying after joining the Army Air Corps — the predecessor of the Air Force — in 1941, aged 18, shortly before America's engagement in World War II. After completing the training to become a commissioned reserve flight officer, he went to Tonopah, Nevada, where he was one of 30 fledgling pilots who underwent intensive training to join a combat fighter squadron,

the 363rd. He took to it like a duck to water, clocking 100 hours in his first month, and never looked back.

He was among a wild bunch. One fellow pilot, apparently doomed as he glided in with engine failure, bounced off the roof of a passing truck in order to get enough altitude to clear the airport fence. Yet even among the truly gung-ho, Yeager stood out.

Flight training was brutal. A total of 13 pilots died in six months, mostly through individual error. But even at that young age, Yeager seemed almost immune to any pity.

"A gruesome weeding-out process was taking place," he later wrote. "I turned my back on lousy fliers, as if their mistakes were catching. When one of them became a grease spot on the tarmac, I almost felt relieved: it was better to bury a weak sister in training than in combat, where he might not only bust his ass, but do something that would bust two or three asses in addition to his own." In his autobiography, *Yeager*, he speaks openly of "getting mad at the dead", not only for losing their lives so young, but also "for destroying expensive government property as stupidly as if they had driven a Cadillac off a bridge." While it might sound almost obscenely lacking in empathy, this is what he says fighter pilots had to feel. "Anger was my defense mechanism. Either you become calloused or you crack," he notes. "Those who couldn't put a lid on their grief couldn't hack combat."

The legend surrounding Chuck Yeager got rolling even before he went off to war. A friend with a ranch had mentioned that he wanted to get rid of a tree — so Yeager flew by and topped it with his wingtip, before trying to explain to a maintenance officer why there were hunks of wood rammed into the wing. He buzzed the main street of his hometown of Hamlin, West Virginia; and herded antelope from his P-39, shooting and later barbecuing them for his training squadron. Another time, his plane blew up and he was knocked out while parachuting.

ULTIMATE FLYING

Still, that was nothing compared to wartime. On one of his earliest missions, aged 21, he was shot down and later protected by the French resistance, who eventually sent him on foot over the Pyrenees mountains with another airman. Resting in a wooden shack, the two were discovered by German troops, who began shooting at them. They leapt down a logslide at the back of the shack, several hundred metres down into a creek. The other airman had been shot in the knee during the escape, and had only a tendon holding his leg together. Yeager cut off his fellow soldier's lower leg with a penknife, then dragged him up the side of a snowbound mountain to the border.

Again, in the account there is a sense of bullheadedness driving his actions. "I don't know why I keep hold of him and struggle to



A TEACHER YOU'LL NEVER FORGET

Yeager's training programme alumni from earlier test pilot days included leading Apollo astronauts such as David Scott, who later became the commander of Apollo 15 and seventh person to walk on the moon. Today, Yeager remembers him with great admiration, and the feeling is entirely mutual. Just a week before the interview with Yeager, when asked by *Discovery Channel Magazine* for suggestions on questions to ask during said session, Scott's advice was: "Just ask him about hunting," he said. "Then he'll talk all day."

ABOVE: YEAGER WITH THE CONVAIR XF-92, A DELTA-WING AIRCRAFT. HE WAS THE FIRST AIR FORCE PILOT TO FLY THIS TYPE OF PLANE
RIGHT: EVEN TODAY, ALMOST 90 YEARS OLD, YEAGER REMAINS AN ACTIVE CONSULTING TEST PILOT AT EDWARDS



THE MANY SCRAPES OF CHUCK YEAGER

1947 MAKE LIKE A BOMB

LESS THAN A MONTH AFTER BREAKING THE SOUND BARRIER, YEAGER'S NEXT FLIGHT IN THE X-1 WENT AWRY WHEN THE PLANE WAS DROPPED FROM THE MOTHER SHIP, AND HAD **NO ELECTRICAL POWER AT ALL**. WITHOUT RADIO, HE COULDN'T EVEN TELL ANYONE. "THE SHIP IS DEAD AND I'M DROPPING LIKE A BOMB, LOADED WITH FIVE THOUSAND POUNDS OF VOLATILE FUEL, **CERTAIN TO BLOW A GIANT CRATER INTO THE DESERT FLOOR** 20,000 FEET (6,096 METRES) BELOW." HE MANAGED TO VENT ENOUGH FUEL TO GLIDE DOWN AT HIGH SPEED AND MAKE A LANDING. ON NUMEROUS LATER WAR FLIGHTS, HE WOULD EXPERIENCE SMOKE IN THE COCKPIT



1950 "AT 2,000 FEET WITH NO ENGINE"

ASSIGNED BY THE AIR FORCE TO FLY FOR THE JOHN WAYNE AND JANET LEIGH FILM *JET PILOT*, YEAGER WAS ASKED TO DIVE INTO A CLOUD INVERTED AT 12,000 FEET (3,658 METRES), AND THEN PULL OUT NEAR THE GROUND. YET WHEN HE TRIED TO PULL OUT, **THE ELEVATOR RIPPED OFF HIS TAIL**, TAKING ABOUT A THIRD OF THE HORIZONTAL STABILISER WITH IT. TOO LATE TO EJECT, HE MANAGED TO LAND, BUT **HIS WINGMAN HAD ASSUMED HE HAD CRASHED AND BROADCAST AS MUCH TO THE GROUND**. TWO DAYS LATER THE TURBINE WHEEL ENGINE CAME OUT OF HIS PLANE, "LEAVING ME SITTING AT 2,000 FEET WITH NO ENGINE. I WAS FEELING GOOD THAT DAY." WITH NO ENGINE, HE LANDED THE PLANE SAFELY ANYWAY

1953 "I CALLED IT HELL"

FLYING THE NEW X-1A, YEAGER AIMED TO RECLAIM THE WORLD SPEED RECORD SET AT MACH 2. HE HIT 2.4, BUT LOST CONTROL. **"WE STARTED GOING IN FOUR DIFFERENT DIRECTIONS AT ONCE**, CAREENING ALL OVER THE SKY, SNAPPING AND ROLLING AND SPINNING, IN WHAT PILOTS CALL GOING DIVERGENT ON ALL THREE AXES. I CALLED IT HELL." HIS VISOR FOGGED AND HE HAD NO EJECTOR SEAT. AFTER **FALLING ABOUT 51,000 FEET (15,545 METRES) IN 51 SECONDS**, THE PLANE ENTERED A SPIN, WHICH HE CORRECTED, SUCCESSFULLY LANDING THE PLANE. HIS WIFE WOULD LATER SAY THIS WAS THE MOST SHAKEN SHE EVER SAW HIM. BOYD (BY NOW A GENERAL) SAID, **"I DON'T KNOW OF ANOTHER PILOT WHO COULD HAVE WALKED AWAY FROM THAT ONE."**

PHOTOS: OLIVER BLAISE C/O WWW.CHUCKYEAGER.COM (PRESENT-DAY YEAGER); AIR FORCE FLIGHT TEST CENTER HISTORY OFFICE (YOUNG YEAGER WITH PLANE)



THIS PAGE: YEAGER WITH THE TEAM AND EQUIPMENT BEHIND THE FLIGHTS IN THE BELL X-1A (PICTURED PAGE 41)
OPPOSITE: NOT JUST A PILOT, IN 1986, YEAGER DROVE THE PACE CAR FOR THE INDIANAPOLIS 500-MILE RACE, WHICH IS HELD EACH YEAR IN MAY. THAT YEAR, HE CELEBRATED HIS 63RD BIRTHDAY



PHOTOS: WWW.CHUCKYEAGER.COM (YEAGER AND TEAM); OLIVER BLASE/CO WWW.CHUCKYEAGER.COM (PORTRAIT)



climb," Yeager wrote in his autobiography. "It's the challenge, I guess, and a stubborn pride knowing that most guys would've let go of Pat before now, and before he stopped

"THERE IS NO JOY IN KILLING SOMEONE, BUT REAL SATISFACTION WHEN YOU OUTFLEW A GUY AND DESTROYED HIS MACHINE"

breathing." Yeager got them both into Spain, leaving the airman by a road where he was picked up and saved, returning home — minus half a leg — within six weeks.

Having escaped, Yeager still had a problem. Nobody who had been assisted in escape by the French resistance was allowed to fly again, because if they did so and were captured a second time, they might reveal crucial information to the Germans about resistance activities. This was supposed to be a hard and fast rule, but

Yeager, feeling cheated out of a war, was having none of it. He fought his case all the way up to General Dwight Eisenhower, who eventually took his side.

Flying again, Yeager excelled, spotting enemy aircraft early and taking advantage of the extra time his sight gave him. He became the first, and maybe the only, United States Army Air Forces pilot to be rated a flying ace in a single mission, something many aviators would not achieve over the entire war.

Sometimes his sheer enthusiasm for the fight was almost alarming. Writing about an incident when his squadron encountered around 150 German planes, he notes: "We couldn't believe our luck." He has called dogfighting "a clean contest of skill, stamina and courage, one on one. There is no joy in killing someone, but real satisfaction when you outflow a guy and destroyed his machine. For me, combat remains the ultimate flying experience."

This is also where his contempt for the English began. While he apologises four times for being rude about the English, each time he follows up by being even ruder about them. "All our missions ran about eight hours, 36,000 feet [10,973 metres]. No pressurisation, freezing cold with people shooting at you," he

remembers. "And when you came home from an eight-hour mission you would take a bicycle out on the country roads to unwind. And then a goddamn farmer with a pitchfork would come out and say: 'Get off my road, you damned Yankee'. I hated the British more than the Germans."

He flashes a classic Yeager smile, a combination of grin and sneer, like a lizard about to deliver a punchline. "Ain't your fault. I don't hold it against you."

BEFORE THE BARRIER

Returning home, luck was once again on Yeager's side. After a short spell training in Texas, he headed to Wright Field, Ohio, in order to move his newly pregnant wife, Glennis, closer to family support in West Virginia. In doing so, he arrived in the right place at the right time. Wright Field was set to become the centre of what Yeager called "the greatest adventure in aviation since the Wright brothers — the conversion from propeller airplanes to supersonic jets and rocket-propelled aircraft." And what an adventure it proved to be.

In 1945, he flew for the first time in a Lockheed P-80 Shooting Star, the first operational American jet fighter ("like being a pebble fired from a slingshot," he recalls),



FILMING THE RIGHT STUFF

The 1983 movie, based on the book by Tom Wolfe, starred Sam Shepard as Chuck Yeager. The film brought the award-winning writer, actor and director to the attention of the mainstream audience, though he was already making a name for himself in theatre prior to that. He once said, "I didn't go out of my way to get into this movie stuff. I think of myself as a writer." Indeed, he later won a Pulitzer prize for one of his plays. Incidentally, Yeager made an appearance in *The Right Stuff* as a bartender. He also personally advised Shepard on his role during the filming.

and felt like he was truly flying for the first time. In August that year, he accompanied then Colonel Albert Boyd, the head of the flight test division and the man who would trust Yeager more than any other to deliver the pioneering spirit of the jet age, to Muroc Air Base in the Mojave Desert. Now called Edwards, this was the place where history would be made, the first flight through the sound barrier.

Today, driving around Edwards amidst the relentless crosswinds of the Mojave Desert, Yeager recalls the process of beating the sound barrier with a mixture of pride and bitterness. The first place he takes me to is the remnants of a shack, seemingly in the middle of nowhere, and outside the modern edges of the base. There is really not much left now: a few stumps, the top of the well they drew their water from, and the frame of a swimming pool he built out of cement ("Where did you get the cement?" asks a test pilot who is escorting us around the base. "Stole it," Yeager replies). Rattlesnakes, scorpions and coyotes were rife here in the 1940s, and probably still are today.

Here, he says, he lived with his wife and children, because the base would not allow his wife onto it, as he was there on a 'temporary' assignment from Ohio.

OPPOSITE: ALL SUITED UP, YEAGER WAVES FROM THE COCKPIT OF A LOCKHEED F-104 STARFIGHTER
ABOVE: YEAGER AND GLENNIS, WITH THREE OF THEIR FOUR CHILDREN: DONALD, MICHAEL AND SHARON. THEIR OTHER DAUGHTER, SUSAN, IS NOT PICTURED IN THE PHOTO

THE MANY SCRAPES OF CHUCK YEAGER



1963 "THE GUY GOT SICK"

HE TOOK A TEST FLIGHT IN A LOCKHEED F-104 STARFIGHTER, THE FIRST MACH 2 FIGHTER AIRCRAFT. HE SUCCESSFULLY REACHED 104,000 FEET (31,700 METRES), YET ON DESCENT THE THRUSTERS DESIGNED TO KEEP THE NOSE DOWN DID NOT WORK. THE ENGINE LOCKED AND HYDRAULIC PRESSURE WAS LOST. **THE PLANE MADE 14 FLAT SPINS; YEAGER STAYED THROUGH 13, THEN EJECTED.** HIS EJECTOR SEAT, STILL SPEWING THE ROCKET CHARGE USED IN THE EJECTION, BECAME CAUGHT IN HIS CHUTE LINES, HITTING HIM IN THE FACE, PENETRATING THE HELMET AND IGNITING THE RUBBER SEAL AROUND IT, WHICH ERUPTED IN THE PURE OXYGEN ENVIRONMENT. **HIS HEAD CAUGHT FIRE AND HIS HAND TOO — AS HE TRIED TO SCOOP IN AIR TO BREATHE.** WHEN HE HIT THE GROUND A DRIVER WHO SAW HIM DESCEND CAME OVER, OFFERING TO HELP. YEAGER, HIS FACE LIKE CHARRED MEAT, REQUESTED A KNIFE AND **CUT OFF HIS GLOVE. PARTS OF TWO OF HIS BURNED FINGERS CAME OFF WITH IT.** YEAGER RECALLS: "THE GUY GOT SICK"



1964 UPSIDE DOWN IN THE MIDDLE OF THE ICY LAKE

NOT FLYING THIS TIME, HE AND COLLEAGUES WERE AT ROCKY BASIN LAKES IN THE HIGH SIERRA NEVADA MOUNTAINS, AND CLIMBED INTO A HELICOPTER. IT TOOK OFF, CLIMBED 80 FEET (JUST OVER 24 METRES), AND CAME DOWN UPSIDE DOWN IN THE MIDDLE OF THE ICY LAKE. HE MADE IT TO THE BANK, WHEREUPON HIS COLLEAGUE — A GENERAL — TOLD HIM HE **COULD SEE YEAGER'S BRAINS THROUGH A HEAD WOUND.** UNDETERRED, YEAGER WALKED NINE MILES (14.5 KILOMETRES) TO AN AIRSTRIP, **RECEIVED 138 STITCHES, AND MADE IT HOME FOR A DINNER PARTY,** WHICH HIS WIFE SHREWDLY CANCELLED

"IT DIDN'T KILL ME"

Is there really such a thing as *The Right Stuff*?

Nah. It sells books. It was Tom Wolfe trying to explain what did the right stuff mean. It's rather futile.

Then what makes a great pilot?

My answer would be, nobody ever told me what to do. My opinion is, the guys who do it on their own are the best. It's a simple statement but it is so true. If you have to run around and say, how can I be the best, they'll wipe you off the slate.

You piloted 361 planes. Is there a favourite that sticks out?

Some airplanes are good at doing one thing, some are good at another. Like the P-51: eight hours if it rains, escorting the bombers. The X-1 came out and developed the flying tail that got us through Mach 1.

How did the MiG-15 fly?

I was the first American to fly one. It was quite obvious when I walked up and looked at the airplane with its goddamn fixed stabilisers — they went out with the goddamn balloons. When I flew it, I knew exactly how it was going to fly. At Mach 0.94 you're going to lose control. And I did.

Deke Slayton said you should never ask a pilot who the best ever pilot is. You should ask who the second best is, since the pilot will think he's the best. Who's the second best you flew with?

If he's alive, he's a good pilot. It's that simple. It's not 'the best'. Some pilots have different capabilities, whether it's combat, test pilot or carrier pilot.

When you were burned ejecting from the F-104 in a flat spin, was that the worst accident you had, the scariest?

Probably, I reckon. I got a few holes in me during the war. But what the hell, it didn't kill me.

When did you last fly a jet?

October, here. An F-16. It's no problem. Hell, airplanes don't change. Like the steering wheel on your car: you turn right, it turns right. I'm just lucky, I have been flying Air Force planes for 72 years.

Will you fly one again?

I don't know. If I do I will, if I don't I won't. I don't live to do things like that.

"No housing. No nothing. So we rented a little shack, and that's where we set. My wife was not allowed to use the hospital, commissary, nothing," he says. "I'm a pretty bitter guy."

He has not a word of sympathy for the people who ran Muroc at that time. "Muroc was staffed by the dregs of the Air Force. They were useless." Asked whether he knows we're recording him, and that he will be quoted, Yeager leans towards the tape recorder. Unflinchingly, he speaks directly into it: "I cannot over-emphasise, this base had the most sorry-ass people on it. The most useless people I have ever seen." Clearly this is not someone who is in the habit of retracting his quotes.

Still, as he says, "I was bitter, but on the other hand I was a very happy guy. Because no pilots ever got this opportunity again." He is referring to the X-1 programme, the very first time the Air Force had been permitted to do research flying. The programme was given a mandate to work out how to beat the sound barrier.

In the 1940s, it was widely believed that it was impossible to fly faster than the speed of sound without the plane breaking



apart. The closer one got to it, the argument went, the more shock waves would smash against the fuselage. A famous British test pilot, Geoffrey de Havilland Jr., had died when his own experimental aircraft, *The Swallow*, disintegrated at Mach 0.94 (or 0.94 times the speed of sound) in early 1947.

The United States had long wanted to go supersonic, and initially their star man was a civilian called Chalmers "Slick" Goodlin, who had been piloting a new test jet called the X-1, manufactured by Bell. But Goodlin had demanded a renegotiated contract and US\$150,000 in pay to go beyond Mach 1. The Air Corps lost patience, took over the project, and that was where Yeager came in. He charged less than US\$300 a month, his regular Army captain's pay.

Despite his record, Yeager was initially not an obvious choice for Colonel Boyd to make as the pioneering test pilot. But Boyd was, in essence, an elder version of Yeager himself. "Think of the toughest person you've ever known, then multiply by 10. And you're close to the kind of guy that

the old man was," Yeager recalls. "He also came up the hard way. And what he saw in me was, I knew maintenance. My dad was a natural gas driller and I worked with him and used to overhaul all his engines. As a 12-year-old kid I could disassemble dome regulators, and that was the heart of the X-1." Boyd himself, who died in 1976, said shortly before his death: "Above all, I wanted a pilot who was rock-solid in stability. Yeager came up number one."

TEST THE LIMITS

Preparing for test flights on the X-1 was hellish, as scientists experimented with the effect of high altitude and extreme *g*-force on the pilots. He and wingman Bob Hoover wore the first high-altitude pressure suits. Flights began in August 1947. The X-1 was carried up attached to the belly of a B-29 bomber, which would climb to 7,620 metres, then dive to pick up speed. Yeager would climb down a ladder from the mother ship to the test jet, and then the bomber would release him.

On the first flights they carried practically no fuel, gliding down to the lakebed. The cockpit was pressurised with pure nitrogen so as to be inflammable; there was no back-up oxygen system beyond what he was breathing. Lacking a proper hard-hat helmet, he made his own by cutting the top out of a World War II tank helmet as a protective dome, and placing his own leather helmet over the top of that.

By the time of the first powered flight on August 29, Yeager had developed, if not a closeness with the plane, at least an understanding of it. Reminded that he once wrote that there were a dozen ways the X-1 could kill you, he shakes his head. "There were at least a hundred. You had no way of getting out of the X-1. You could open the door and roll out, but you'd be sliced in two by a razor-sharp wing." Yet was he really confident in the jet's ability to surpass the speed of sound, without disintegrating? He looks up, with 89 years worth of contempt. "Obviously. Or I wouldn't have flown it."

Dropped from the B-29 on the first powered flight, he lit the rocket chambers, leaving diamond-shaped shock waves in his wake. Then he promptly ignored the plan to jettison fuel and land, instead doing a slow roll and then rattling the base. Subsequent missions steadily increased the speed, working out what happened the closer they got to the sound barrier. At Mach 0.94, they ran into trouble as he lost pitch control, and for a while it looked like the end of the line, until engineer Jack Ridley — a true hero of the programme, who Yeager speaks of with reverence as "the brains of the operation" — came up with a fix.

"We modified the airplane with a jackscrew that would change the angle of the horizontal stabiliser, making a flying tail," Yeager explains today. "That was the

"I'M NOT FOR SENDING A DUMB PILOT WHO CAN'T FLY INTO COMBAT, THAT'S A BAD CHOICE. THE SAME APPLIES FOR GOING INTO SPACE. YOU'D BETTER GET SOME SMART GUYS"

TEST PILOT SCHOOL

The United States Air Force Test Pilot School at Edwards Air Force Base is one of the most established and competitive in the country. Just to apply, a potential pilot needs to have spent 10 years or more in the service; must have a Bachelor of Science degree, with good grades; and a minimum of 750 hours as a qualified instructor pilot. Requirements for prospective navigators and engineers are only slightly less rigorous. In the 1960s and '70s, the programme also included astronaut training. Twenty-six graduates went on to fly in space programmes such as Gemini, Apollo and the Space Shuttle.

answer to the whole X-1 programme. If you're gonna fly supersonic, you gotta have a flying tail. It took the British, the French and the Soviet Union five years to figure out that little trick." At the next flight, 0.96, the windscreen frosted, forcing him to land blind, guided verbally by another pilot. And finally, on October 14, after breaking his ribs two nights before, the X-1 he was piloting created the first aircraft-generated sonic boom ever heard on Earth.

Going supersonic was in fact a lot easier than nearly-supersonic. Moments before the sound barrier, the shock waves caused great disruption to a plane's handling. Beyond it, was "smooth as a baby's bottom," Yeager wrote. "Grandma could be sitting up there sipping lemonade. After all the anxiety, breaking the sound barrier turned out to be a perfectly paved speedway."

It was, he recalls today, something of an anticlimax. "When we were successful, I suppose I was let down a little bit that it didn't blow all to hell." To add some excitement of his own, having fallen off a horse before this perfect flight, Yeager then crashed his motorbike that night.



PHOTOS: WWW.CHUCKYEAGER.COM (X-1A); OLIVER BLASE C/O WWW.CHUCKYEAGER.COM (YEAGER IN PLANE)

FAME BUT NO FORTUNE

Oddly, the Air Force would keep the flight secret for months, possibly to allow production of supersonic jets to get underway before the Russians became aware of what the Americans had achieved. "That gave us a hell of a quantum leap over the rest of the world's air forces for five years. That's the reason it was classified," he says today.

This created an odd situation for Yeager. First, a sense that nothing had happened ("Thunder with no reverberation," as Wolfe put it), then an intense heroism, and a speaking circuit that he was deeply uncomfortable with. At no stage however did it bring much money. He told his superiors he wanted to buy his long-suffering wife Glennis — still raising several kids in a shack in the desert and drawing water from a windmill pump — a fur coat. This was refused. "We lived no better than a damned sheep-herder, maybe worse," he notes.

Making 20 speeches a month while still test piloting, before long he was on the cover of *TIME* magazine. But the fame didn't help him, particularly within the armed forces. And he hated the public speaking. "Some

goddamn friend of a senator would be head of the Rotary Club, and would say: hey, can you get Yeager to make a speech for us?" The Air Force, seeing an opportunity, would instruct him to do it. "I'm not a talker. I'm a flyer," he would say. But to no avail.

He recalls one early assignment. "So I crawl into a goddamn P-80 in Muroc, roll up my uniform, stick it in the nose at 60 below zero, fly to Lansing, Michigan, land on the goddamn runway, shake the damn ice off me, and go to the hotel." Nobody knows who he is, and two minutes before his speech, the head of the club asks him: what are you famous for? "I almost got up and walked out." Also, the reputation didn't help him within the Air Force, instead creating a lot of jealousy and enemies wanting to knock him down.

Soon, his career began to mesh with the space race. On the public speaking circuit, he often crossed paths with John Glenn, the first American to orbit the Earth, and before long astronauts started coming to Edwards.

Yeager was not a fan of the first round of NASA (then known as the National Advisory Committee for Aeronautics, or

NACA) astronauts, considering them arrogant and unwilling to take advice. "In the old days I rated them about as high as my shoelaces," he says. He has zero sympathy for Scott Crossfield, a golden boy of NACA's early days who would later be the first man to pass Mach 2, but who put a prototype Super Sabre jet through the wall of an aircraft hangar in 1954.

"He was a proficient pilot, but also among the most arrogant I've met. Scotty just knew it all, which is why he ran a Super Sabre through a hangar." Yeager is no more reverent about America's most famous astronaut.



"Armstrong may have been the first astronaut on the moon, but he was the last guy at Edwards to take any advice from a military pilot." Yeager never quite got over the time when Neil Armstrong, against Yeager's advice, attempted to touch their plane down in a lakebed, and got it stuck. Yet recalling the incident today, Yeager has mellowed, calling Armstrong "a good guy". His second wife Victoria (Glennis died of cancer in 1990) says the two in fact get along fine now.

Years on though, Yeager still thinks very little of the space programme, Apollo included. "What did we learn other than bringing back a few pieces of rocks from the moon? The whole space mission programme in my opinion was a waste of a lot of money."

Part of the contempt stems from the fact that during the Mercury, Gemini and Apollo programmes, which enriched astronauts, real flying innovation was taking place, largely unnoticed, at the Air Force. This is the theme that underpins Wolfe's book *The Right Stuff*, and the film that followed. "The film really laid it on the line," Yeager says. "What you saw was Air Force test pilots killing themselves, to support the space programme. And very few people knew it."

Yet Yeager later returned to Edwards to run an astronaut training programme, which put 26 people into space, mainly on the Space Shuttle. When asked if the training school was also a waste of money, Yeager says, "No. We trained them here, then sent them over to NASA. NASA's the ones who wasted the money."

Yeager himself was excluded from consideration for the space programme, through lack of a college degree. He doesn't appear to regret it though. "I'm not for sending a dumb pilot who can't fly into combat, that's a bad choice. The same applies for going into space. You'd better get some smart guys."

THE NEXT STEPS

After a near-death experience in the X-1A (see box on page 35) Yeager began to consider life after test flying. But in Okinawa in 1954, he found himself in arguably the most dangerous assignment yet — piloting a Russian-built MiG-15 gained from a defecting North Korean. Later assignments would take him through roles in Germany and Pakistan; service in Vietnam; and finally, to the rank of General.

Yeager's toughness is at times almost alarming. When he was four and a half, his six-year-old brother was playing with his father's shotgun, and accidentally shot and killed their baby sister. The unthinkable incident and its aftermath occupied 17 lines of a 400-page autobiography. Perhaps it is because it is a private matter, but one suspects also because he thinks there is nothing else to say. He never discussed it, and nor did his parents.

"That's just the Yeager way," he says. "We keep our hurts to ourselves." Which also seems an attitude of a different age, a black and white era of less introspection, and more big, bold events. He brushes away any question about fame or his place in history. "I didn't look at it as a mark in history," he says. "It was duty."

As our interview concludes in a lecture theatre at Edwards' test pilot school, Victoria, who now handles most of the administrative side of Yeager's life and public appearances, is cheerful. "Hey Charlie," she says. "I think we might have found an Englishman we like!"

Yeager stands. At 89, he needs no help, bar the hearing aids made necessary from years behind thundering engines. He extends a firm handshake. "Well," he says with that half-grin again. "Maybe." ●



PHOTOS: WWW.CHUCKYEAGER.COM (YEAGER AND SAM SHEPARD); OLIVER BLAISE / C/O WWW.CHUCKYEAGER.COM (PORTRAIT)

YEAGER MAY BE 90 NEXT FEBRUARY, BUT HE'S STILL GOING STRONG
LEFT: YEAGER AND SAM SHEPARD (PICTURED LEFT), THE ACTOR WHO PLAYED HIM IN *THE RIGHT STUFF*

IN DETAIL

SOUND BARRIER

As an aircraft reaches the speed of sound, aerodynamic drag suddenly increases. This is because the sound waves generated by the craft are travelling at the same speed as the vehicle itself, so it is constantly immersed in the high-intensity, vibrating waves. Once the craft passes Mach 1, it is actually moving ahead of the sound it makes.

SONIC BOOM

The speed of sound is variable, depending on atmospheric conditions and altitude. At sea level, sound travels at a smidgen over 340 metres per second. When a craft flies faster than Mach 1, it breaks through the sound barrier. As it does so, it literally pushes aside molecules in the air, creating shock waves that "boom".

EDWARDS AIR FORCE BASE

As a test centre for both US Air Force and NASA aircraft, this Californian air base is hallowed ground for the development of flight vehicles. The first American jet aircraft, the Bell XP-59A Airacomet, was tested here in 1942. It paved the way for generations of craft such as the XB-70 Valkyrie, SR-71 Blackbird, F-111, B-2 bomber and many others.

20/10 VISION

The term "20/20 vision" is a measurement of standard human eyesight: someone with 20/20 eyesight can stand 20 feet (six metres) away from an object and see it clearly. Less common is 20/10 eyesight, where one can see at 20 feet what an average person can only view at 10 feet. In the United States, a person is legally blind with 20/200 eyesight.

GLAMOROUS GLENNIS

This was the nickname of the Bell X-1, in which Yeager first broke the sound barrier. The name is a tribute to his first wife, Glennis. The aircraft featured a fuselage shaped like a .50 calibre bullet, a horizontal stabiliser to improve control as the jet approached the speed of sound, and carried over 230 kilograms of flight test equipment.