



Blackbird Losses

Throughout the 25+ years that the Blackbird served the free world, 20 of these aircraft were lost due to accidents. In military jargon this is called "Written Off". The following web pages describes the events and suspected causes of the loss and includes as much data as is currently available about each crash. There are images of some of these losses. This loss listing is in chronological order from the first loss to the last one. Although Lockheed and CIA crewmembers were killed in some of these accidents, the U.S. Air Force never lost a man. This loss of life occurred in part to the early on testing phase of the aircraft by the Lockheed Skunk Works. Certainly the prevention of military loss of life is directly attributed to the incredible and subsequently improved zero-zero delay system built into the ejection seats on the Blackbirds. In effect, a crewmember can elect to eject while still on the ground. The ejection seat will carry him to an altitude high enough for the seat to separate from the man and the chute will open with enough altitude for a safe landing. Any aircraft accident is not a pretty sight. The destruction of a Blackbird is even more ominous due to the fact it is 90% constructed of Titanium. Titanium in itself is nearly indestructible, however it does burn as evidenced by these photos. The Blackbirds flew 53,490 hours of flight time with 11,675 hours at Mach three or above. The envious safety record of accidents vs flight hours flown can be directly attributed to Crewmember skills, superb maintenance technicians, ongoing direct technical support from Lockheed and certainly the zero-zero ejection seat. The following information and photos was derived from many sources. Credit is given at the end of page number four or on the photo itself. This segment of the SR-71 Blackbirds is divided up into *Four* web pages due to the extensive content and to expedite your browser's loading. There are five aircraft losses per page for a total of 20 losses. No apology is made to the quality of the newspaper articles...some of them are over 30 years old.



60-6926 (A-12)

24 May 1963

Loss #1 60-6926 (A-12) This was the second A-12 to fly but the first to crash. On 24 May 1963, CIA pilot Kenneth S. "Dutch" Collins was flying an inertial navigation system test mission. After entering clouds, frozen water fouled the pitot-static boom and prevented correct information from reaching the standby flight instruments and the Triple Display Indicator (TDI). The aircraft subsequently entered a stall and control was lost completely followed by the onset of an inverted flat spin. The pilot, Ken Collins ejected safely. The crash occurred 14 miles South of Wendover, Utah. The wreckage was recovered in two days and persons at the scene were identified and individuals were requested to sign secrecy agreements. Two farmers, who arrived near the crash scene in a pickup, were told that the airplane had been carrying atomic weapons, which was not true but effectively curtailed their interest in getting any closer to the CIA's secret spyplane. Meanwhile, the press was told a different and less alarming but also false story. That the airplane that crashed was a very unclassified Republic F-105 Thunderchief. Even today, official records lists the crashed airplane as being an F-105. LAC #123 (#926) flew 79 flights for 135.3 hours total flight time prior to the crash.



Ken Collins

60-6939 (A-12)



(Lockheed Photo)

09 July 1964

Loss #2 60-6939 (A-12) This aircraft was lost on approach to Groom Lake, Area 51, Nevada on 9 July 1964 following a Mach 3 check flight. On approach, the flight controls locked up (a stuck outboard elevon servo valve), and Lockheed test pilot Bill Park was forced to eject at an altitude of 200 feet in a 45 degree bank angle. Pilot, Bill Park survived. The aircraft had less than 9 hours on it and photos of this aircraft are extremely rare. LAC #133 (939) flew 10 flights for 8.3 hours total flight time prior to the crash.

The official report read:

"Aircraft No. 133 [S/N#939] was making its final approach to the runway when at altitude of 500 feet and airspeed of 200 knots it began a smooth steady roll to the left. Lockheed test pilot Bill Park could not overcome the roll. At about a 45 degree bank angle and 200 foot altitude he ejected. As he swung down to the vertical in the parachute his feet touched the ground, for what must have been one of the narrower escapes in the perilous history of test piloting. The primary cause of the accident was that the servos for the right outboard roll and pitch control froze."



ENVIRONMENT OF MACH 3.0 FLIGHT IS INDICATED BY THE CLOTHING OF A LOCKHEED SR-71 PILOT (WILLIAM C. PARKS, JR., CHIEF ENGINEERING TEST PILOT — ADVANCED DEVELOPMENT PROJECTS)

60-6929 (A-12)



(No Clear Photo Exists)

28 December 1965

Loss #3 60-6929 (A-12) This aircraft was lost on 28 December 1965 seven seconds into an Functional Check Flight (FCF) from Groom Lake, Nevada performed by CIA pilot Mel Vojvodich. The Stability Augmentation System (SAS) had been incorrectly wired up. The pilot was unable to control the aircraft and 100 feet above the runway the pilot ejected safely. This aircraft flew 105 flights and accumulated 169.2 hours prior to crashing.



CIA pilot Mel Vojvodich

61-17952 (SR-71A)



(Lockheed Photo)

25 January 1966

Loss #4 61-17952 (SR-71A) This aircraft disintegrated on 25 January 1966 during a high-speed, high-altitude test flight when it developed a severe case of engine un-start. This flight was to research and improve high mach cruise performance by reducing trim drag which would lower fuel burn and increase range. The un-start occurred during a turn at speeds above Mach 3.17 and a bank of 35 degrees. The bank immediately increased to 60 degrees; the nose pitched up and the aircraft broke apart at station 720. Lockheed pilot Bill Weaver was thrown clear (his ejection seat never left the plane) and he blacked out during the accident but recovered and landed on the ground safely. Tragically, his Reconnaissance System Officer (RSO), Jim Zwayer did not survive the high-G bailout . It is believed he died instantly from a broken neck before he ever became separated from the aircraft. His parachute opened normally and his body landed close to Bill Weaver's landing position. The incident occurred near Tucumcari, New Mexico with the crash scene being the Mitchell Ranch. The remains of #952 lie buried near the riding stables at Edwards AFB, Ca.

Roy, N. M.	Corp., which builds the reconnaissance craft.	crash scene, including State police officers. Officers were told the craft contained classified material.
A 2000-mile-an-hour SR-71 super-spy plane crashed yesterday about 30 miles east of Roy. Sheriff's officers said at least one person was killed and another injured.	It was the first reported accident for the new series of twin-engine surveillance craft, capable of scanning 60,000 square miles of the earth's surface per hour from an altitude of 80,000 feet.	The SR-71, developed by Lockheed as the A11 and later called the YF-12A, recently went into service as an operational weapon system at Beale AFB, Calif. Testing is continuing at Edwards.
The injured man, identified as Bill Weaver, was taken to a Tucumcari hospital. He was not believed seriously injured.	Reports from witnesses indicated that the plane exploded or caught fire in the air and then went down in wide spirals, leaving a trail of smoke.	The YF-12A was designed to carry missiles to shoot down high-flying bombers. The SR-71 carries some armament but primarily is intended as a successor to the much-slower U-2 reconnaissance craft.
Tight security measures were immediately imposed at the crash site.	New Mexico State police at Santa Fe reported it received a call from the military requesting State police to keep everyone away from the	Associated Press
The air force at Edwards Air Force Base, Calif., where the plane was undergoing tests, said the top-secret SR-71 carried two test pilots employed by Lockheed Aircraft		

Article courtesy [The Sacramento Union](#):

The dull daredevils

It's all in a day's work for test pilots of the 747 era



They milled around the lobby of the hotel, waiting for the Gray Line bus just like any other conventioners.

They wore leisure suits and sports jackets, shook hands with old friends and were introduced to new ones. Tall and short, some balding, some with glasses, they could have been insurance salesmen, bank tellers or Fuller Brush men.

But among this group, there was the first man who ever lifted the Boeing 747 into the sky, some of the men who will fly America's space shuttle for the first time, and a man who survived when his 2,000-mile-per-hour reconnaissance plane broke apart at 78,000 feet.

That's not to mention the first man to fly faster than the speed of sound, the first man to take the B1, the controversial supersonic bomber, into the air, and the German test pilot whose job it was during World War II to take every captured allied plane into the air to see what it would do. The German, Hans-Werner Lerche, no longer a test pilot, worked on pure instinct, of course, with no manuals.

THESE ORDINARY looking men — the world's top test pilots past and present — gathered here recently for the 20th annual meeting of the Society of Experimental Test Pilots (SETP), a very special international club with 1,400 members.

Meet, for instance, Bill Weaver, a rather good-looking 47-year-old blond who is at the moment discussing how to sell one home and buy another. Weaver, a test pilot for Lockheed, is also one of the luckiest men God

Bill Weaver and the SR71 Blackbird similar to the one that broke apart on him at

And the difference between test pilots and you and I is that Bill Weaver was back in the cockpit one week later, thundering another Blackbird into the atmosphere.

TIMES HAVE CHANGED, but test pilots are still a special breed. In one breath they deny it. They boast that they are pretty dull, that they spend most of their time on the ground laboriously working with the flight engineer on design and construction.

They admit they're cream of the crop

They say it's not all that dangerous anymore, although the insurance companies don't buy that story.

In the next breath, they admit that they are the cream of the aviator crop. It's a highly competitive field and no matter how good you are, if you are out for a few years, chances are you will never get back in. This kind of flying, these reflexes, these nerves to react, must never be allowed to dull.

They are far removed from the days when the men in goggles and white scarves — the fastest and bravest men on the race circuit — were paid top dollar to try out new planes.

NOW, ALMOST all test pilots have engineering backgrounds, many with advanced degrees in aeronautical engineering. They

78,000 feet and 2,000 miles an hour.

playing with a P40, completing his 2,500th flight in that World War II-vintage Curtiss fighter plane.

ONE WHO COULDN'T make it to the convention this year is the legendary Tex Johnson, Boeing's chief test pilot in the 1960s, when Boeing was introducing the then jumbo 707.

Johnson became legend when he rolled the 707 above the heads of 100,000 people back in 1956 — including the head of the president of Boeing.

A crowd had gathered for a boat race and the president was entertaining on his yacht, as the story goes, when the announcer called the public's attention to the new Boeing aircraft flying above.

And then Johnson rolled it, a stunt usually reserved for air shows in which one wing goes down and the plane rolls 360 degrees.

The next morning, Johnson was on the carpet.

"You and I know we have got a good airplane," Johnson told the Boeing president. "I just wanted to show the public how good it was."

WHAT MAKES A man become a test pilot?

"I don't know. Why do guys go out and race cars? You can't put your finger on it. You like to be on the top of the heap. Number one is the American way. We were born with it. We're the No. 1 country," says Lt. Col. Tom Bush, an Air Force test pilot.

AP Photo

ever created. And then decided to let live. He was testing the SR71, America's super reconnaissance plane, nicknamed "The Blackbird," about 10 years ago when she suddenly flipped onto her back — at 2,000 miles an hour flying at 78,000 feet.

Weaver was simply thrown from the plane as she broke apart.

"I blacked out. I thought it was a bad dream. This couldn't possibly be happening. If it had really happened, I couldn't survive.

"THEN I THOUGHT I was dead. I was slightly euphoric. I remember thinking that I didn't know why everyone worried about death. It was sort of nice.

"Finally, I realized I was falling. I was alive. I didn't even know what state I was over. I was making a turn when it came apart."

The Blackbird can easily gobble up five states as it turns. can go from California to Florida in 45 minutes and shuttle from London to New York in an hour and a half.

The mask on his pressurized astronaut's suit had iced over. He could see nothing. Finally, his parachute popped at 15,000 feet and Weaver floated down — many miles from any sign of civilization.

"I was convinced I wouldn't be discovered for a long time," said Weaver.

BUT HE WAS thrilled when he saw another parachute floating down — that of his systems controls analyst, the man who operates the sophisticated spy equipment.

Weaver mentally reviewed his survival training, and frightened an antelope as he came down in what turned out to be a remote corner of New Mexico. As he was fighting with his parachute, a voice said: "Can I help you?"

"There was this guy in this cowboy hat, straight out of a Marlboro ad," recounts

Rancher comes to the rescue

Weaver. "If I had told Edwards Air Force Base I was going to crash at such and such a place at such and such a time, they couldn't have gotten there faster."

The rancher had been branding colts when he heard a tremendous explosion too high to see. But he kept watching the sky and when the parachutes popped open, he jumped in his helicopter and went to greet them.

WEAVER HAD a cut on his nose. The other man, however, had broken his neck on the way out of the Blackbird and had drifted lifelessly to the ground.

The rancher insisted upon taking Weaver to a hospital.

"I don't know anything about helicopters, but I could see the red line, the safe mark, was 85 miles an hour and we were going well above that."

Now, wouldn't that be ironic . . . ? A test pilot thinks long and hard about a man who is killed when he is at the controls.

"Afterwards, I kept thinking of what I could have done differently that would have saved him. But I knew there was nothing. I didn't have time to warn him."

have almost an entire up through out military, and they know everything there is to know about a plane before they ever take it up.

They have even adopted their own aphorism:

"To be a test pilot is to spend hours and hours of sheer boredom, followed by one moment of sheer panic."

And their own gag definition of the ideal test pilot: "He should have 5,000 hours in the air, a masters degree in aeronautical engineering and be 21 years old." Most are in their late 20s before they have the experience and training to qualify. Many continue as test pilots into their 50s.

And their own philosophy of life, something called the "guts to brains ratio," but then you would have to be a test pilot to understand it.

Test pilots earn from \$25,000 to \$70,000 a year with good fringe benefits. The first men to take the big planes off the ground — thereby proving that the engineers were right — also get nice bonuses.

JACK WADDELL, the first man to pilot the massive 747 down the runway and up and away, was rumored to have received \$100,000. He said it wasn't that much.

Most of them could make more money by

Legendary roll of a jumbo jet

becoming commercial airline pilots, but that's not what they want to do.

"The commercial airline pilots are bus drivers compared with us," says Hank Hoffman, an Air Force major.

Test pilots in private industry say they pay 50 per cent more for insurance than the man who lives next door. Often, however, the companies pick up the difference or insure them heavily during their take-off to landing moments.

Frank Tallman, Hollywood's top stunt pilot, in attendance at the convention here, beat the system by insuring himself well before the insurance companies were quite so careful.

"THEY," HE SAYS, meaning the insurance companies "sit by their windows now and ponder their mistakes."

Tallman, who is 57 and has a wooden leg, was seriously injured while doing the stunt flying for "The Great Waldo Pepper." But he lost his leg from an accident with his son's go-cart, not in a plane crash.

Tallman, who divides his plane crashes into how many he got paid for and how many just happened, is flying in two tv series, "Baa Baa Black Sheep" and "Spencer's Pilots," and will soon be working on "Airport '77."

Then there is Herb Fisher, of Curtiss-Wright fame. He was the first test pilot to reverse all four propellers of a C54 in flight, giving him a sink rate of 15,000 feet per minute.

During World War II, Fisher was the civilian test pilot who first flew the treacherous Hump over the Himalayas. He is a man who, at 67 years young, as he puts it, doesn't give up. Just a few months ago, he was up

Waddell, who watches his race horses when he's not flying the 747, describes it as a sport. "It's like going out to play a good basketball game. I've never considered myself a courageous type of guy."

And Fitzhugh Fulton, the NASA test pilot who will fly the 747 that will carry the new space shuttle into the air, adds: "It's fun to go to work. You get to fly and they pay you for it."

THE GRAY LINE bus arrives in Palm-dale and the conventioners get a look at the space shuttle, the Blackbird, the U2, as well as some other classics. And then there is an air show, and if you think you have seen an exciting air show, imagine one that would be put on for the Society of Experimental Test Pilots.

Veteran test pilot Bob Hoover tricks around with the usual tricks — the difference being he's got all the engines shut down. A little jet called the Pinto races into the air, the pilot stands her straight up and she disappears. Next seen, she's spinning straight down for the runway, but then rolls out of that, flies upside down and zooms over the runway — 20 feet above it.

The spectacle over, the pilot taxis his super Pinto down the runway. The plane, built for 900 pounds of thrust, is souped up to nearly 3,000 pounds. The pilot pulls 7G's as he performs.

Most of the pilots know him well. He's Dick Hunt, chief engineering test pilot for American Jet Industries in Van Nuys. But those who don't, race over, expecting at least Robert Redford to get out of the cockpit.

Instead — he's 51 years old, balding, short, and Mother, he was wearing white bucks.

By Kay Bartlett
Associated Press

Berkeley



The hot pilot is Dick Hunt, climbing down from the cockpit of an experimental Super Pinto jet.



Bill Weaver

60-6941 (M-21)



30 July 1966

Loss #5 60-6941 (M-21) This was the second A-12 to be converted to an M-21 for launching the D-21 reconnaissance drone. During a flight test on 30 July 1966 for launching the drone, the drone pitched down and struck the M-21, breaking it in half. Pilot Bill Park and Launch Control Officer (LCO) Ray Torrick stayed with the plane a short time before ejecting over the Pacific Ocean. Both made safe ejections, but Ray Torrick opened his helmet visor by mistake and his suit filled up with water which caused him to drown. This terrible personal and professional loss resulted in "Kelly" Johnson's decision to cancel the M-21/D-21 program. LAC #135 (941) flew 95 flights for 152.7 hours total flight time prior to the crash.

The following data is derived from www.habu.org (with Permission):

She was lost on Saturday, July 30, 1966. Prior to this flight, there had been 3 successful D-21 launches from 941, but all 3 had been executed with the mother ship in a .9g "dive," flying slightly downward to assist in blackbird/drone separation. If the still-experimental M/D-21 were to be used in combat (real-world) missions, the crew might be under fire from missiles and fighter/interceptors, and so might not have the luxury of launching from a .9g dive. In this fourth launch, the D-21 would separate in a level-flight, 1g configuration.

For the first 2 to 3 seconds of the drone launch, everything went normally. Unfortunately, the drone was not able to penetrate the shock wave coming off the mother ship. The D-21 (#504) had almost cleared the M-21's rudders when it encountered the shock wave, bounced off, rolled 45 degrees to the port (left) side, and impacted the mother ship almost directly at Station 715, where the forward fuselage attaches to the wing root. Between the impact and resulting explosion, #941 was for all intents and purposes cut cleanly in two.

Lockheed test pilot Bill Park and Launch Control Officer Ray Torrick remained in the tumbling wreckage until a lower altitude where they ejected safely, but they landed in the open ocean, and Torrick drowned when his pressure suit took on water. Some reports attribute this to Torrick prematurely opening the faceplate of his visor, but other informed sources have stated that the buoyancy of the David Clark suits would make this almost impossible. Others have speculated that his suit was torn by shrapnel from the wreckage as he ejected. In either case, no further M/D-21 flights occurred; furthermore, a Baylor bar was then added to the flight suit helmets to ensure that the faceplate could not accidentally be opened in similar situations.

All M/D-21 operations ended with the death of Ray Torrick. All subsequent flights of the D-21 were as D-21B's, which were reconfigured to launch the drone from an under wing pylon of a B-52 (much like the X-15 had been), boosted to Mach 3 by a rocket motor that was jettisoned after the D-21B's Marquardt ramjet was started.

Editors Note: Additional Data and Images

In-Flight loss of M-21 with the D21 Drone: New page (10/27/2002) with images taken from film shot by Keith Beswick who was flying along side the M-21 and recorded the collision of the D21 into the M21 Blackbird at Mach 3. Includes 16 photos of the collision with data. URL:

http://www.wvi.com/~sr71webmaster/M21_Crash.htm

There is an MPEG movie of the crash sequence filmed by Keith Beswick flying along side of the M21 at Mach 3. It shows the D21 drone launch and the D21 roll to its left side and crashing into the M21 causing the nose of the M21 to pitch up breaking the aircraft in two at the 715 station. You can download this movie to your computer.

The file size is 16.7 MB (16,648KB) and depending on the speed of your modem connection, may be a lengthy download. Here is the URL for the M21/D21 Accident Movie:

http://www.wvi.com/~lelandh/MD21_accident.mpg

Tony Moore, "The X-Hunters" 7/5/2005 4:46 PM Writes: I knew a gentleman who worked for Lockheed Aircraft out at the test site back in the 1960's and he told me about a conversation he had with Ray Torrick on the ramp one day. It was about a camera mount that was on his right hand canopy sill and how, if he ever had to eject it would be in the way of a safe exit, Ray said he knew it was in the way but there was nothing they could do about it. He then told me that Ray Torrick did indeed hit the mount as he ejected, that it ripped the fabric of his pressure suit open and "broke his arm in about a hundred places". He said that this was why he perished in the water and not because of some mistake with a faceplate or suit vent. I know there's always been some question as to what happened that day and I thought you would like to hear this story from someone who was there.

Tony Moore

Go to Page #2 of "Blackbird Losses"

Loss: [Page#1](#)[Page#2](#)[Page#3](#)[Page#4](#)

SR-71 Front Page	Links Page	Index Page	Recollections	2001 Reunion
"SR-71 Blackbirds" Web Site Navigator				
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