**Lockheed C130 Hercules**

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| **C-130 Hercules** | |
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| USAF C-130E | |
| **Role** | [Military transport aircraft](http://en.wikipedia.org/wiki/Military_transport_aircraft) |
| **National origin** | United States |
| **Manufacturer** | [Lockheed](http://en.wikipedia.org/wiki/Lockheed_Corporation) [Lockheed Martin](http://en.wikipedia.org/wiki/Lockheed_Martin) |
| **First flight** | 23 August 1954 |
| **Introduction** | December 1957 |
| **Status** | In production, in service |
| **Primary users** | [United States Air Force](http://en.wikipedia.org/wiki/United_States_Air_Force) [United States Marine Corps](http://en.wikipedia.org/wiki/United_States_Marine_Corps) [Royal Air Force](http://en.wikipedia.org/wiki/Royal_Air_Force) See [*Operators*](http://en.wikipedia.org/wiki/Lockheed_C-130_Hercules#Operators#Operators) for others |
| **Number built** | Over 2,300 as of 2009 |
| **Unit cost** | US$62 million |
| **Variants** | [AC-130 Specter/Spooky](http://en.wikipedia.org/wiki/Lockheed_AC-130) [Lockheed DC-130](http://en.wikipedia.org/wiki/Lockheed_DC-130) [Lockheed EC-130](http://en.wikipedia.org/wiki/Lockheed_EC-130) [Lockheed HC-130](http://en.wikipedia.org/wiki/Lockheed_HC-130) [Lockheed Martin KC-130](http://en.wikipedia.org/wiki/Lockheed_Martin_KC-130) [Lockheed LC-130](http://en.wikipedia.org/wiki/Lockheed_LC-130) [Lockheed MC-130](http://en.wikipedia.org/wiki/Lockheed_MC-130) [Lockheed WC-130](http://en.wikipedia.org/wiki/Lockheed_WC-130) [Lockheed L-100 Hercules](http://en.wikipedia.org/wiki/Lockheed_L-100_Hercules) |
| **Developed into** | [Lockheed Martin C-130J Super Hercules](http://en.wikipedia.org/wiki/Lockheed_Martin_C-130J_Super_Hercules) |

The **Lockheed C-130 Hercules** is a four-engine [turboprop](http://en.wikipedia.org/wiki/Turboprop) [military transport aircraft](http://en.wikipedia.org/wiki/Military_transport_aircraft) designed and built originally by [Lockheed](http://en.wikipedia.org/wiki/Lockheed_Corporation), now [Lockheed Martin](http://en.wikipedia.org/wiki/Lockheed_Martin). Capable of using unprepared [runways](http://en.wikipedia.org/wiki/Runway) for takeoffs and landings, the C-130 was originally designed as a troop, [medical evacuation](http://en.wikipedia.org/wiki/MEDEVAC), and cargo transport aircraft. The versatile [airframe](http://en.wikipedia.org/wiki/Airframe) has found uses in a variety of other roles, including as a [gunship](http://en.wikipedia.org/wiki/Gunship) ([AC-130](http://en.wikipedia.org/wiki/Lockheed_AC-130)), for [airborne assault](http://en.wikipedia.org/wiki/Airborne_infantry), [search and rescue](http://en.wikipedia.org/wiki/Search_and_rescue), scientific research support, weather reconnaissance, [aerial refueling](http://en.wikipedia.org/wiki/Aerial_refueling), maritime patrol and [aerial firefighting](http://en.wikipedia.org/wiki/Aerial_firefighting). It is now the main [tactical airlifter](http://en.wikipedia.org/wiki/Tactical_airlift) for many military forces worldwide. Over 40 models and variants of the Hercules serve with more than 60 nations.

The C-130 entered service with U.S. in the 1950s, followed by Australia and others. During its years of service, the Hercules family has participated in countless military, civilian and [humanitarian aid](http://en.wikipedia.org/wiki/Humanitarian_aid) operations. The family has the longest continuous production run of any military aircraft in history. In 2007, the C-130 became the fifth aircraft—after the [English Electric Canberra](http://en.wikipedia.org/wiki/English_Electric_Canberra), [Boeing B-52 Stratofortress](http://en.wikipedia.org/wiki/Boeing_B-52_Stratofortress), [Tupolev Tu-95](http://en.wikipedia.org/wiki/Tupolev_Tu-95), and [Boeing KC-135 Stratotanker](http://en.wikipedia.org/wiki/Boeing_KC-135_Stratotanker)—to mark 50 years of continuous use with its original primary customer, in this case, the [United States Air Force](http://en.wikipedia.org/wiki/United_States_Air_Force). The C-130 is also the only military aircraft to remain in continuous production for 50 years with its original customer, as the updated [C-130J Super Hercules](http://en.wikipedia.org/wiki/Lockheed_C-130J_Super_Hercules).

**Design and development**

**Background and requirements**

The [Korean War](http://en.wikipedia.org/wiki/Korean_War), which began in June 1950, showed that [World War II](http://en.wikipedia.org/wiki/World_War_II)-era [piston-engine](http://en.wikipedia.org/wiki/Reciprocating_engine) transports—[Fairchild C-119 Flying Boxcars](http://en.wikipedia.org/wiki/Fairchild_C-119_Flying_Boxcar), [Douglas C-47 Skytrains](http://en.wikipedia.org/wiki/Douglas_C-47_Skytrain) and [Curtiss C-46 Commandos](http://en.wikipedia.org/wiki/Curtiss_C-46_Commando)—were inadequate for modern warfare. Thus on 2 February 1951, the [United States Air Force](http://en.wikipedia.org/wiki/United_States_Air_Force) issued a General Operating Requirement (GOR) for a new transport to [Boeing](http://en.wikipedia.org/wiki/Boeing), [Douglas](http://en.wikipedia.org/wiki/Douglas_Aircraft), [Fairchild](http://en.wikipedia.org/wiki/Fairchild_Aircraft), [Lockheed](http://en.wikipedia.org/wiki/Lockheed_Corporation), [Martin](http://en.wikipedia.org/wiki/Glenn_L._Martin_Company), [Chase Aircraft](http://en.wikipedia.org/wiki/Chase_Aircraft), [North American](http://en.wikipedia.org/wiki/North_American_Aviation), [Northrop](http://en.wikipedia.org/wiki/Northrop_Corporation), and [Airlifts Inc](http://en.wikipedia.org/w/index.php?title=Airlifts_Inc&action=edit&redlink=1). The new transport would have a capacity for 92 passengers, 72 combat troops or 64 paratroopers in a cargo compartment that is approximately 41 feet (12 m) long, 9 feet (2.7 m) high, and 10 feet (3.0 m) wide. Unlike transports derived from passenger airliners, it was to be designed from the ground-up as a combat transport with loading from a ramp at the rear of the fuselage. This innovation for military cargo aircraft was first pioneered on the WW II German [Junkers Ju 252](http://en.wikipedia.org/wiki/Junkers_Ju_252) and Ju 253 "Hercules" transport prototypes in World War II.

The Hercules resembled a larger four-engine brother to the [C-123 Provider](http://en.wikipedia.org/wiki/Fairchild_C-123_Provider) with a similar wing and cargo ramp layout, that evolved from the Chase XCG-20 Avitruc, which in turn, was first designed and flown as a cargo glider in 1947. The Boeing [C-97](http://en.wikipedia.org/wiki/C-97) also had a rear ramp which made it possible to drive vehicles onto the plane (also possible with forward ramp on a [C-124](http://en.wikipedia.org/wiki/Douglas_C-124_Globemaster_II)). But the ramp on the Hercules was also used to airdrop cargo, which included low-altitude extraction for [Sheridan tanks](http://en.wikipedia.org/wiki/M551_Sheridan) or even dropping large improvised "[daisy cutter](http://en.wikipedia.org/wiki/BLU-82)" bombs.

A key feature was the introduction of the T56 [turboprop](http://en.wikipedia.org/wiki/Turboprop), first developed specifically for the C-130. At the time, the turboprop was a new application of turbine engines that used exhaust gases to turn a shafted propeller, which offered greater range at propeller-driven speeds compared to pure turbojets, which were faster but thirstier. As was the case on helicopters of that era such as the UH-1 Huey, [turboshafts](http://en.wikipedia.org/wiki/Turboshaft) produced much more power for their weight than piston engines. Lockheed would subsequently use the same engines and technology in the [Lockheed L-188 Electra](http://en.wikipedia.org/wiki/Lockheed_L-188_Electra). That aircraft failed financially in its civilian configuration but was successfully adapted into the [Lockheed P-3 Orion](http://en.wikipedia.org/wiki/Lockheed_P-3_Orion) maritime patrol and submarine attack aircraft where the efficiency and endurance at high propeller speeds of turboprops excelled.

The new Lockheed cargo plane design possessed a range of 1,100 nm. (1,300 mi; 2,000 km), takeoff capability from short and unprepared strips, and the ability to fly with one engine shut down. Fairchild, North American, Martin and Northrop declined to participate. The remaining five companies tendered a total of 10 designs: Lockheed two, Boeing one, Chase three, Douglas three, and Airlifts Inc. one. The contest was a close affair between the lighter of the two Lockheed (preliminary project designation L-206) proposals and a four-turboprop Douglas design.



The two YC-130 prototypes; the blunt nose was replaced with [radar](http://en.wikipedia.org/wiki/Radar) on later production models

The Lockheed design team was led by [Willis Hawkins](http://en.wikipedia.org/wiki/Willis_Hawkins), starting with a 130 page proposal for the *Lockheed L-206*. [Hall Hibbard](http://en.wikipedia.org/wiki/Hall_Hibbard), Lockheed vice president and chief engineer, saw the proposal and directed it to [Kelly Johnson](http://en.wikipedia.org/wiki/Kelly_Johnson_(engineer)), who did not care for the low-speed, unarmed aircraft, and remarked, "If you sign that letter, you will destroy the Lockheed Company." Both Hibbard and Johnson signed the proposal and the company won the contract for the now-designated Model 82 on 2 July 1951.

The first flight of the *YC-130* [prototype](http://en.wikipedia.org/wiki/Prototype) was made on 23 August 1954 from the [Lockheed](http://en.wikipedia.org/wiki/Lockheed_Corporation) plant in [Burbank](http://en.wikipedia.org/wiki/Burbank,_California), California. The aircraft, [serial number](http://en.wikipedia.org/wiki/United_States_military_aircraft_serials) *53-3397*, was the second prototype but the first of the two to fly. The YC-130 was piloted by Stanley Beltz and Roy Wimmer on its 61-minute flight to [Edwards Air Force Base](http://en.wikipedia.org/wiki/Edwards_Air_Force_Base); [Jack Real](http://en.wikipedia.org/wiki/Jack_Real) and Dick Stanton served as flight engineers. Kelly Johnson flew chase in a [P2V Neptune](http://en.wikipedia.org/wiki/P2V_Neptune).

**Production**



C-130H Hercules flight deck

After the two prototypes were completed, production began in [Marietta](http://en.wikipedia.org/wiki/Marietta,_Georgia), Georgia, where over 2,300 C-130s have been built through 2009.

The initial production model, the *C-130A*, was powered by [Allison T56](http://en.wikipedia.org/wiki/Allison_T56)-A-9 turboprops with three-blade [propellers](http://en.wikipedia.org/wiki/Propeller_(aircraft)). Deliveries began in December 1956, continuing until the introduction of the *C-130B* model in 1959. Some A models were re-designated *C-130D* after being equipped with [skis](http://en.wikipedia.org/wiki/Ski). The newer C-130B had [ailerons](http://en.wikipedia.org/wiki/Aileron) with increased boost—3,000 [psi](http://en.wikipedia.org/wiki/Pounds_per_square_inch) (21 MPa) versus 2,050 psi (14 MPa)—as well as uprated engines and four-bladed propellers that were standard until the J-model's introduction.

**C-130A model**

The first production C-130s were designated as A-models, with deliveries in 1956 to the [463d Troop Carrier Wing](http://en.wikipedia.org/wiki/463d_Troop_Carrier_Wing) at [Ardmore AFB](http://en.wikipedia.org/wiki/Ardmore_AFB), Oklahoma and the [314th Troop Carrier Wing](http://en.wikipedia.org/wiki/314th_Troop_Carrier_Wing) at [Sewart AFB](http://en.wikipedia.org/wiki/Sewart_AFB), Tennessee. Six additional squadrons were assigned to the [322d Air Division](http://en.wikipedia.org/wiki/322d_Air_Division) in Europe and the [315th Air Division](http://en.wikipedia.org/wiki/315th_Air_Division) in the Far East. Additional aircraft were modified for electronics intelligence work and assigned to [Rhein-Main Air Base](http://en.wikipedia.org/wiki/Rhein-Main_Air_Base), Germany while modified RC-130As were assigned to the [Military Air Transport Service](http://en.wikipedia.org/wiki/Military_Air_Transport_Service) (MATS) photo-mapping division. Aircraft equipped with giant skis were designated as C-130Ds, but were essentially A-models except for the conversion. Australia became the first non-American force to operate the C130A Hercules with 12 examples being delivered from late 1958. These aircraft were fitted with AeroProducts three-blade, 15-foot diameter propellers. As the C-130A became operational with [Tactical Air Command](http://en.wikipedia.org/wiki/Tactical_Air_Command) (TAC), the C-130's lack of range became apparent and additional fuel capacity was added in the form of external pylon-mounted tanks at the end of the wings. The A-model continued in service through the [Vietnam War](http://en.wikipedia.org/wiki/Vietnam_War), where the aircraft assigned to the four squadrons at [Naha AB](http://en.wikipedia.org/wiki/Naha_AB), Okinawa and one at [Tachikawa Air Base](http://en.wikipedia.org/wiki/Tachikawa_Airfield), Japan performed yeoman's service, including operating highly classified special operations missions such as the BLIND BAT FAC/Flare mission and FACT SHEET leaflet mission over Laos and North Vietnam. The A-model was also provided to the South Vietnamese Air Force as part of the Vietnamization program at the end of the war, and equipped three squadrons based at Tan Son Nhut AFB. The last operator in the world is the Honduran Air Force, which is still flying one of five A model Hercules (FAH *558*, c/n 3042) as of October 2009.

**C-130B model**

The C-130B model was developed to complement the A models that had previously been delivered, and incorporated new features, particularly increased fuel capacity in the form of auxiliary tanks built into the center wing section and an AC electrical system. Four-bladed Hamilton Standard propellers replaced the Aero Product three-bladed propellers that distinguished the earlier A-models. B-models replaced A-models in the 314th and 463rd Troop Carrier Wings. During the Vietnam War four squadrons assigned to the 463rd Troop Carrier/Tactical Airlift Wing based at Clark Air Force Base and Mactan Air Force Base in the Philippines were used primarily for tactical airlift operations in South Vietnam. In the spring of 1969, 463rd crews commenced COMMANDO VAULT bombing missions dropping "daisy cutter" [M-121](http://en.wikipedia.org/wiki/M-121_(bomb)) 10,000 lb. (4,534 kg) bombs to clear "instant LZs" for helicopters. These would later be used by South Vietnam forces in a last-ditch air support effort to turn back communist troops. As the Vietnam War wound down, the 463rd B-models and A-models of the 374th Tactical Airlift Wing were transferred back to the United States where most were assigned to [Air Force Reserve](http://en.wikipedia.org/wiki/Air_Force_Reserve) and [Air National Guard](http://en.wikipedia.org/wiki/Air_National_Guard) units. Another prominent role for the B model was with the [United States Marine Corps](http://en.wikipedia.org/wiki/United_States_Marine_Corps), where Hercules initially designated as GV-1s replaced C-119s. After Air Force C-130Ds proved the type's usefulness in Antarctica, the US Navy purchased a number of B-models equipped with skis that were designated as LC-130s. The [Royal Canadian Air Force](http://en.wikipedia.org/wiki/Royal_Canadian_Air_Force) became another early user of the C130 with the delivery of its first B model in 1960.

An electronic reconnaissance variant of the C-130B was designated C-130B-II. A total of 13 aircraft were converted and operated under the SUN VALLEY program name. They were operated primarily from Yokota Air Base, Japan. All reverted to standard C-130B cargo aircraft after their replacement in the reconnaissance role by other aircraft. The C-130B-II was distinguished by its false external wing fuel tanks, which were disguised signals intelligence (SIGINT) receiver antennas. These pods were slightly larger than the standard wing tanks found on other C-130Bs. Most aircraft featured a swept blade antenna on the upper fuselage, as well as extra wire antennas between the vertical fin and upper fuselage not found on other C-130s. Radio call numbers on the tail of these aircraft were regularly changed so as to confuse observers and disguise their true mission.

**C-130E model**



A Michigan Air National Guard C-130E dispatches its flares during a low-level training mission

The extended range *C-130E* model entered service in 1962 after it was developed as an interim long-range transport for the Military Air Transport Service. Essentially a B-model, the new designation was the result of the installation of 1,360 US [gal](http://en.wikipedia.org/wiki/Gallon) (5,150 L) *Sargent Fletcher* external fuel tanks under each wing's mid-section and more powerful [Allison](http://en.wikipedia.org/wiki/Allison_Engine_Company) T56-A-7A turboprops. The hydraulic boost pressure to the [ailerons](http://en.wikipedia.org/wiki/Ailerons) was reduced back to 2050 psi as a consequence of the external tanks' weight in the middle of the wingspan. The E model also featured structural improvements, [avionics](http://en.wikipedia.org/wiki/Avionics) upgrades and a higher gross weight. Australia took delivery of 12 C130E Hercules during 1966–67 to supplement the 12 C-130A models already in service with the RAAF. Sweden and Spain fly the TP-84T version of the C-130E fitted for aerial refueling capability.

**C-130F / KC-130F / C-130G models**

The *KC-130* [tankers](http://en.wikipedia.org/wiki/Tanker_(aircraft)), originally *C-130F*s procured for the [US Marine Corps](http://en.wikipedia.org/wiki/United_States_Marine_Corps) (USMC) in 1958 (under the designation *GV-1*) are equipped with a removable 3,600 US gal (13,626 l) [stainless steel](http://en.wikipedia.org/wiki/Stainless_steel) [fuel tank](http://en.wikipedia.org/wiki/Fuel_tank) carried inside the cargo compartment. The two wing-mounted hose and drogue aerial refueling pods each transfer up to 300 US gal per minute (19 l per second) to two aircraft simultaneously, allowing for rapid cycle times of multiple-receiver aircraft formations, (a typical tanker formation of four aircraft in less than 30 minutes). The [US Navy](http://en.wikipedia.org/wiki/United_States_Navy)'s *C-130G* has increased structural strength allowing higher gross weight operation.

**C-130H model**



[Royal Australian Air Force](http://en.wikipedia.org/wiki/Royal_Australian_Air_Force) C-130H (2007).

The *C-130H* model has updated Allison T56-A-15 turboprops, a redesigned outer [wing](http://en.wikipedia.org/wiki/Wing), updated avionics and other minor improvements. Later *H* models had a new, fatigue-life-improved, center wing that was retro-fitted to many earlier H-models. The H model remains in widespread use with the [US Air Force](http://en.wikipedia.org/wiki/United_States_Air_Force) (USAF) and many foreign air forces. Initial deliveries began in 1964 (to the [RNZAF](http://en.wikipedia.org/wiki/Royal_New_Zealand_Air_Force)), remaining in production until 1996. An improved C-130H was introduced in 1974, with Australia purchasing 12 of type in 1978 to replace the original 12 C-130A models which had first entered RAAF Service in 1958.

The United States Coast Guard employs the HC-130H for long range search and rescue, drug interdiction, illegal migrant patrols, homeland security, and logistics.

C-130H models produced from 1992 to 1996 were designated as C-130H3 by the USAF. The 3 denoting the third variation in design for the H series. Improvements included ring laser gyros for the INUs, GPS receivers, a partial [glass cockpit](http://en.wikipedia.org/wiki/Glass_cockpit) (ADI and HSI instruments), a more capable APN-241 color radar, [night vision device](http://en.wikipedia.org/wiki/Night_vision_device) compatible instrument lighting, and an integrated radar and missile warning system. The electrical system upgrade included Generator Control Units (GCU) and Bus Switching units (BSU)to provide stable power to the more sensitive upgraded components.

**C-130K model**



[Royal Air Force](http://en.wikipedia.org/wiki/Royal_Air_Force) C-130K (C.3)

The equivalent model for export to the UK is the *C-130K*, known by the [Royal Air Force](http://en.wikipedia.org/wiki/Royal_Air_Force) (RAF) as the *Hercules C.1*. The *C-130H-30* (*Hercules C.3* in RAF service) is a stretched version of the original Hercules, achieved by inserting a 100 in (2.54 m) plug aft of the cockpit and an 80 in (2.03 m) plug at the rear of the fuselage. A single C-130K was purchased by the [Met Office](http://en.wikipedia.org/wiki/Met_Office) for use by its Meteorological Research Flight, where it was classified as the *Hercules W.2*. This aircraft was heavily modified (with its most prominent feature being the long red and white striped atmospheric probe on the nose and the move of the weather radar into a pod above the forward fuselage). This aircraft, named [*Snoopy*](http://en.wikipedia.org/wiki/Snoopy), was withdrawn in 2001 and was then modified by [Marshall of Cambridge Aerospace](http://en.wikipedia.org/wiki/Marshall_Aerospace) as flight-test bed for the [A400M](http://en.wikipedia.org/wiki/A400M) turbine engine, the [TP400](http://en.wikipedia.org/wiki/TP400). The C-130K is used by the [RAF Falcons](http://en.wikipedia.org/wiki/RAF_Falcons) for parachute drops. Three C-130K (Hercules C Mk.1P) were upgraded and sold to the Austrian Air Force in 2002.

**Later C-130 models**

The [*MC-130E Combat Talon*](http://en.wikipedia.org/wiki/Lockheed_MC-130) was developed for the USAF during the [Vietnam War](http://en.wikipedia.org/wiki/Vietnam_War) to support [special operations](http://en.wikipedia.org/wiki/Special_operations) missions throughout Southeast Asia, and spawned a family of special missions aircraft. 37 of the earliest models currently operating with the [United States Special Operations Command](http://en.wikipedia.org/wiki/United_States_Special_Operations_Command) are scheduled to be replaced by new-production MC-130J versions. The [EC-130](http://en.wikipedia.org/wiki/Lockheed_EC-130) and [EC-130H Compass Call](http://en.wikipedia.org/wiki/EC-130H_Compass_Call) versions are also Special variants but are assigned to Air Combat Command (ACC). The [AC-130 gunship](http://en.wikipedia.org/wiki/Lockheed_AC-130) was first developed during the [Vietnam War](http://en.wikipedia.org/wiki/Vietnam_War) to provide [close air support](http://en.wikipedia.org/wiki/Close_air_support) and other [ground-attack](http://en.wikipedia.org/wiki/Ground-attack_aircraft) duties.



USAF HC-130P refuels a [HH-60G Pavehawk](http://en.wikipedia.org/wiki/HH-60G_Pavehawk) helicopter

The [*HC-130*](http://en.wikipedia.org/wiki/Lockheed_HC-130) is a family of long-range search and rescue variants used by the USAF and the US Coast Guard. Equipped for deep deployment of [Pararescuemen](http://en.wikipedia.org/wiki/Air_Force_Pararescue) (PJs), survival equipment, and aerial refueling of combat rescue helicopters, HC-130s are usually the on-scene command aircraft for combat SAR missions. Early versions were equipped with the [Fulton surface-to-air recovery system](http://en.wikipedia.org/wiki/Fulton_surface-to-air_recovery_system), designed to pull a person off the ground using a wire strung from a helium balloon. The John Wayne movie [*The Green Berets*](http://en.wikipedia.org/wiki/The_Green_Berets_(film)) features its use. The Fulton system was later removed when aerial refueling of helicopters proved safer and more versatile. The movie [*The Perfect Storm*](http://en.wikipedia.org/wiki/The_Perfect_Storm_(film)) depicts a real life SAR mission involving aerial refueling of a [New York Air National Guard](http://en.wikipedia.org/wiki/New_York_Air_National_Guard) [HH-60G](http://en.wikipedia.org/wiki/HH-60_Pave_Hawk) by a New York Air National Guard HC-130P.

The *C-130R* and *C-130T* are US Navy and USMC models, both equipped with underwing external fuel tanks. The USN C-130T is similar, but has additional avionics improvements. In both models, aircraft are equipped with Allison T56-A-16 engines. The USMC versions are designated *KC-130R* or *KC-130T* when equipped with underwing refueling pods and pylons and are fully [night vision](http://en.wikipedia.org/wiki/Night_vision_device) system compatible.

The RC-130 is a [reconnaissance](http://en.wikipedia.org/wiki/Surveillance_aircraft) version. A single example is used by the [Islamic Republic of Iran Air Force](http://en.wikipedia.org/wiki/Islamic_Republic_of_Iran_Air_Force), the aircraft having originally been sold to the former [Imperial Iranian Air Force](http://en.wikipedia.org/wiki/Imperial_Iranian_Air_Force).

The [*Lockheed L-100 (L-382)*](http://en.wikipedia.org/wiki/Lockheed_L-100_Hercules) is a civilian variant, equivalent to a C-130E model without military equipment. The L-100 also has two stretched versions.

**Next generation**

Main article: [Lockheed Martin C-130J Super Hercules](http://en.wikipedia.org/wiki/Lockheed_Martin_C-130J_Super_Hercules)

In the 1970s, Lockheed proposed a C-130 variant with [turbofan](http://en.wikipedia.org/wiki/Turbofan) engines rather than turboprops, but the US Air Force preferred the takeoff performance of the existing aircraft. In the 1980s, the C-130 was intended to be replaced by the [Advanced Medium STOL Transport](http://en.wikipedia.org/wiki/Advanced_Medium_STOL_Transport) project. The project was canceled and the C-130 has remained in production.

In the 1990s, the improved [C-130J Super Hercules](http://en.wikipedia.org/wiki/C-130J_Super_Hercules) was developed by Lockheed (later Lockheed Martin). This model is the newest version and the only model in production. Externally similar to the classic Hercules in general appearance, the J model has new turboprop engines, six-bladed propellers, digital avionics, and other new systems.

**Improvements and upgrades**

In 2000, Boeing was awarded a US$1.4 billion contract to develop an Avionics Modernization Program kit for the C-130. The program was beset with delays and cost overruns until project restructuring in 2007. On 2 September 2009, Bloomberg news reported that the planned Avionics Modernization Program (AMP) upgrade to the older C-130s would be dropped to provide more funds for the F-35, CV-22 and airborne tanker replacement programs. However, in June 2010, the [Pentagon](http://en.wikipedia.org/wiki/The_Pentagon) approved funding for the initial production of the AMP upgrade kits. Under the terms of this agreement, the USAF has cleared Boeing to begin low-rate initial production (LRIP) for the C-130 AMP. A total of 198 aircraft are expected to feature the AMP upgrade. The current cost per aircraft is US$14 million although Boeing expects that this price will drop to US$7 million for the 69th aircraft.

**Operational history**



A Hercules deploying flares, sometimes referred to as *Angel Flares* due to the characteristic shape



USMC KC-130F Hercules performing takeoffs and landings aboard the aircraft carrier [USS *Forrestal* (CVA-59)](http://en.wikipedia.org/wiki/USS_Forrestal_(CVA-59)) in 1963. The aircraft is now displayed at the [National Museum of Naval Aviation](http://en.wikipedia.org/wiki/National_Museum_of_Naval_Aviation).

The Hercules holds the record for the largest and heaviest aircraft to land on an [aircraft carrier](http://en.wikipedia.org/wiki/Aircraft_carrier). In October and November 1963, a USMC KC-130F (BuNo *149798*), loaned to the US Naval Air Test Center, made 29 [touch-and-go landings](http://en.wikipedia.org/wiki/Touch-and-go_landing), 21 [unarrested](http://en.wikipedia.org/wiki/Arresting_gear) full-stop landings and 21 unassisted take-offs on the [USS *Forrestal*](http://en.wikipedia.org/wiki/USS_Forrestal_(CVA-59)) at a number of different weights. The pilot, LT (later [RADM](http://en.wikipedia.org/wiki/Rear_Admiral)) [James H. Flatley III](http://en.wikipedia.org/wiki/James_H._Flatley_III), USN, was awarded the [Distinguished Flying Cross](http://en.wikipedia.org/wiki/Distinguished_Flying_Cross_(United_States)) for his role in this test series. The tests were highly successful, but the idea was considered too risky for routine "[Carrier Onboard Delivery](http://en.wikipedia.org/wiki/Carrier_onboard_delivery)" (COD) operations. Instead, the [C-2 Greyhound](http://en.wikipedia.org/wiki/C-2_Greyhound) was developed as a dedicated COD aircraft. The Hercules used in the test, most recently in service with Marine Aerial Refueler Squadron 352 ([VMGR-352](http://en.wikipedia.org/wiki/VMGR-352)) until 2005, is now part of the collection of the [National Museum of Naval Aviation](http://en.wikipedia.org/wiki/National_Museum_of_Naval_Aviation) at [NAS Pensacola](http://en.wikipedia.org/wiki/NAS_Pensacola), Florida.



The C-130 Hercules were used in the [Battle of Kham Duc](http://en.wikipedia.org/wiki/Battle_of_Kham_Duc), when the North Vietnamese army forced U.S.-led forces to abandon the Kham Duc Special Forces Camp.

In 1958, a US reconnaissance C-130A-II was shot down over Armenia by [MiG-17s](http://en.wikipedia.org/wiki/Mikoyan-Gurevich_MiG-17).

While the C-130 is involved in cargo and resupply operations daily, it has been a part of some notable offensive operations.

In 1964 C-130 crews from the 6315th Operations Group at [Naha](http://en.wikipedia.org/wiki/Naha) AB, Okinawa commenced [FAC/Flare](http://en.wikipedia.org/w/index.php?title=FAC/Flare&action=edit&redlink=1) missions over the [Ho Chi Minh Trail](http://en.wikipedia.org/wiki/Ho_Chi_Minh_Trail) in Laos supporting USAF strike aircraft. In April 1965 the mission was expanded to [North Vietnam](http://en.wikipedia.org/wiki/North_Vietnam) where C-130 crews led formations of [B-57](http://en.wikipedia.org/wiki/Martin_B-57_Canberra) bombers on night reconnaissance/strike missions against communist supply routes leading to South Vietnam. In early 1966 Project BLIND BAT/LAMPLIGHTER was established at [Ubon](http://en.wikipedia.org/wiki/Ubon) RTAFB, [Thailand](http://en.wikipedia.org/wiki/Thailand). After the move to Ubon the mission became a four-engine forward air controller (FAC) mission with the C-130 crew searching for targets then calling in strike aircraft. Another little-known C-130 mission flown by Naha-based crews was COMMANDO SCARF, which involved the delivery of chemicals onto sections of the Ho Chi Minh Trail in Laos that were designed to produce mud and landslides in hopes of making the truck routes impassable.

In November 1964, on the other side of the globe, C-130Es from the 464th Troop Carrier Wing but loaned to [322d Air Division](http://en.wikipedia.org/wiki/322d_Air_Division) in France, flew one of the most dramatic missions in history in the former [Belgian Congo](http://en.wikipedia.org/wiki/Belgian_Congo). After a Congolese rebel group named "Simba" took white residents of the city of [Stanleyville](http://en.wikipedia.org/wiki/Kisangani) hostage, [the US and Belgium developed a joint rescue mission](http://en.wikipedia.org/wiki/Simba_Rebellion) that used the C-130s to airlift and then drop and air-land a force of [Belgian](http://en.wikipedia.org/wiki/Belgians) paratroopers to rescue the hostages. Two missions were flown, one over Stanleyville and another over [Paulis](http://en.wikipedia.org/wiki/Paulis_(Congo)) during Thanksgiving weeks. The headline-making mission resulted in the first award of the prestigious [MacKay Trophy](http://en.wikipedia.org/wiki/MacKay_Trophy) to C-130 crews.

In October 1968 a C-130B from the 463rd Tactical Airlift Wing dropped a pair of M121 10,000 pound bombs that had been developed for the massive [B-36](http://en.wikipedia.org/wiki/B-36) bomber but had never been used. The US Army and US Air Force resurrected the huge weapons as a means of clearing landing zones for helicopters and in early 1969 the 463rd commenced [Commando Vault](http://en.wikipedia.org/wiki/BLU-82) missions. Although the stated purpose of COMMANDO VAULT was to clear LZs, they were also used on enemy base camps and other targets.

After the People's Republic of China conducted its third nuclear test on 9 May 1966, the US was eager to get information on the Chinese capabilities. After the failure of the [Black Cat Squadron](http://en.wikipedia.org/wiki/Black_Cat_Squadron) to plant operating sensor pods near the [Lop Nur](http://en.wikipedia.org/wiki/Lop_Nur) Nuclear Weapons Test Base using a [Lockheed U-2](http://en.wikipedia.org/wiki/Lockheed_U-2), the [CIA](http://en.wikipedia.org/wiki/CIA) developed a plan, named *Heavy Tea*, to deploy two battery-powered sensor pallets near the base. To deploy the pallets, a [Black Bat Squadron](http://en.wikipedia.org/wiki/Black_Bat_Squadron) crew was trained in the US to fly the C-130 Hercules. The crew of 12, led by Col Sun Pei Zhen, took off from [Takhli Royal Thai Air Force Base](http://en.wikipedia.org/wiki/Takhli_Royal_Thai_Air_Force_Base) in an unmarked US Air Force C-130E on 17 May 1969. Flying for six and a half hours at low altitude in the dark, they arrived over the target and the sensor pallets were dropped by parachute near Anxi in Gansu province. After another six and a half hours of low altitude flight, they arrived back at Takhli. The sensors worked and uploaded data to a US intelligence satellite for six months, before their batteries wore out. The Chinese conducted two nuclear tests, on 22 September 1969 and 29 September 1969, during the operating life of the sensor pallets. Another mission to the area was planned as operation *Golden Whip*, but was called off in 1970. It is most likely that the aircraft used on this mission was either C-130E serial number 64-0506 or 64-0507 (cn 382-3990 and 382-3991). These two aircraft were delivered to Air America in 1964. After being returned to the US Air Force sometime between 1966 and 1970, they were assigned the serial numbers of C-130s that had been destroyed in accidents. 64-0506 is now flying as 62-1843, a C-130E which crashed in Vietnam on 20 December 1965 and 64-0507 is now flying as 63-7785, a C-130E which had crashed in Vietnam on 17 June 1966.

The [MC-130 Combat Talon](http://en.wikipedia.org/wiki/MC-130_Combat_Talon) variant carries and deploys the among the largest conventional [bombs](http://en.wikipedia.org/wiki/Bomb) in the world, the [BLU-82](http://en.wikipedia.org/wiki/BLU-82) "Daisy Cutter" and [GBU-43/B](http://en.wikipedia.org/wiki/GBU-43/B) [Massive Ordnance Air Blast bomb](http://en.wikipedia.org/wiki/Massive_Ordnance_Air_Blast_bomb), also known as the MOAB. Daisy Cutters were used during the [Vietnam War](http://en.wikipedia.org/wiki/Vietnam_War) to clear landing zones and to eliminate [mine fields](http://en.wikipedia.org/wiki/Land_mine). The weight and size of the weapons make it impossible or impractical to load them on conventional [bombers](http://en.wikipedia.org/wiki/Bomber_aircraft). The GBU-43/B MOAB is a successor to the BLU-82 and can perform the same function, as well as perform strike functions against hardened targets in a low air threat environment.

The AC-130 also holds the record for the longest sustained flight by a C-130. From 22 to 24 October 1997, two AC-130U gunships flew 36.0 hours nonstop from Hurlburt Field Florida to Taegu (Daegu), South Korea while being refueled 7 times by KC-135 tanker aircraft. This record flight shattered the previous record longest flight by over 10 hours while the 2 gunships took on 410,000 lb. (190,000 kg) of fuel. The gunship has been used in every major U.S. combat operation since Vietnam, except for [Operation El Dorado Canyon](http://en.wikipedia.org/wiki/Operation_El_Dorado_Canyon), the 1986 attack on Libya.

In the [Indo-Pakistani War of 1965](http://en.wikipedia.org/wiki/Indo-Pakistani_War_of_1965), the [Pakistan Air Force](http://en.wikipedia.org/wiki/Pakistan_Air_Force) modified/improvised several aircraft for use as heavy bombers, and attacks were made on Indian bridges and troop concentrations with some successes. No aircraft were lost in the operations, though one was slightly damaged.

It was also used in the 1976 [Entebbe raid](http://en.wikipedia.org/wiki/Operation_Entebbe) in which [Israeli](http://en.wikipedia.org/wiki/Israel) [commando](http://en.wikipedia.org/wiki/Commando) forces carried a surprise assault to rescue 103 passengers of an airliner hijacked by [Palestinian](http://en.wikipedia.org/wiki/Palestinian_people) and German terrorists at [Entebbe Airport](http://en.wikipedia.org/wiki/Entebbe_Airport), Uganda. The rescue force—200 soldiers, jeeps, and a black [Mercedes-Benz](http://en.wikipedia.org/wiki/Mercedes-Benz) (intended to resemble Ugandan [Dictator](http://en.wikipedia.org/wiki/Dictator) [Idi Amin](http://en.wikipedia.org/wiki/Idi_Amin)'s vehicle of state)—was flown over 2,200 nm. (2,532 mi; 4,074 km) almost entirely at an altitude of less than 100 ft (30 m) from Israel to Entebbe by four [Israeli Air Force](http://en.wikipedia.org/wiki/Israeli_Air_Force) (IAF) Hercules aircraft without mid-air refueling (on the way back, the planes refueled in [Nairobi](http://en.wikipedia.org/wiki/Nairobi), Kenya).

During the [Falklands War](http://en.wikipedia.org/wiki/Falklands_War) ([Spanish](http://en.wikipedia.org/wiki/Spanish_language): *Guerra de las Malvinas*) of 1982, [Argentine Air Force](http://en.wikipedia.org/wiki/Argentine_Air_Force) C-130s undertook highly dangerous, daily re-supply night flights as blockade runners to the Argentine garrison on the [Falkland Islands](http://en.wikipedia.org/wiki/Falkland_Islands). They also performed daylight maritime survey flights. One [was lost](http://en.wikipedia.org/wiki/Nigel_Ward) during the war. Argentina also operated two KC-130 [tankers](http://en.wikipedia.org/wiki/Aerial_refueling) during the war, and these refueled both the [A-4 Skyhawks](http://en.wikipedia.org/wiki/A-4_Skyhawk) and Navy [Dassault-Breguet Super Étendards](http://en.wikipedia.org/wiki/Dassault-Breguet_Super_%C3%89tendard). The British also used RAF C-130s to support their logistical operations.

During the [Gulf War](http://en.wikipedia.org/wiki/Gulf_War) of 1991 (Operation Desert Storm), the C-130 Hercules was used operationally by the US Air Force, US Navy and US Marine Corps, along with the air forces of Australia, New Zealand, Saudi Arabia, South Korea and the UK.

**Recent history**

During the [invasion of Afghanistan in 2001](http://en.wikipedia.org/wiki/War_in_Afghanistan_(2001%E2%80%93present)) and the ongoing support of the [International Security Assistance Force](http://en.wikipedia.org/wiki/International_Security_Assistance_Force) (Operation Enduring Freedom), the C-130 Hercules has been used operationally by Australia, Belgium, Canada, Denmark, France, Italy, the Netherlands, New Zealand, Norway, Portugal, South Korea, Spain, the UK and the United States.

During the [2003 invasion of Iraq](http://en.wikipedia.org/wiki/2003_invasion_of_Iraq) (Operation Iraqi Freedom), the C-130 Hercules has been used operationally by Australia, the UK and the United States. After the initial invasion, C-130 operators as part of the [Multinational force in Iraq](http://en.wikipedia.org/wiki/Multinational_force_in_Iraq) used their C-130s to support their forces in Iraq.

One RAF C-130 was shot down on 30 January 2005, when an Iraqi insurgent brought it down firing with a [ZU-23](http://en.wikipedia.org/wiki/ZU-23) anti-aircraft artillery gun while the plane was flying at 164 ft (50 m) after it had dropped [SAS](http://en.wikipedia.org/wiki/Special_Air_Service) special forces paratroopers.



USMC C-130T *Fat Albert* performing a [RATO](http://en.wikipedia.org/wiki/JATO)

A prominent C-130T aircraft named *Fat Albert* serves as the support aircraft for the US Navy [Blue Angels](http://en.wikipedia.org/wiki/Blue_Angels) flight demonstration team. Although Fat Albert supports a Navy squadron, it is operated by the US Marine Corps (USMC) and its crew consists solely of USMC personnel. At some [air shows](http://en.wikipedia.org/wiki/Air_Show) featuring the team, Fat Albert takes part, performing flyovers and sometimes demonstrating its jet-assisted takeoff (JATO) capabilities, but the JATO demonstration ended in 2009 due to dwindling supplies of rockets.

On 20 November 2011, the Australian government announced plans to donate four ex-RAAF C-130 Hercules aircraft to Indonesia for humanitarian and disaster relief work. The Hercules aircraft require an estimated AUD$25 million in maintenance to restore them to airworthiness

**Civilian use**



A C-130E fitted with a [MAFFS](http://en.wikipedia.org/wiki/MAFFS) dropping fire retardant

The [U.S. Forest Service](http://en.wikipedia.org/wiki/U.S._Forest_Service) developed the [Modular Airborne Fire Fighting System](http://en.wikipedia.org/wiki/Modular_Airborne_FireFighting_System) for the C-130 in the 1970s, which allows regular aircraft to be temporarily converted to an [airtanker](http://en.wikipedia.org/wiki/Airtanker) for fighting [wildfires](http://en.wikipedia.org/wiki/Wildfire). In the late 1980s, 22 retired USAF C-130As were removed from storage at [Davis-Monthan Air Force Base](http://en.wikipedia.org/wiki/Davis-Monthan_Air_Force_Base) and transferred to the U.S. Forest Service who then sold them to six private companies to be converted into air tankers (see [U.S. Forest Service airtanker scandal](http://en.wikipedia.org/wiki/U.S._Forest_Service_airtanker_scandal)). After one of these aircraft crashed due to wing separation in flight as a result of fatigue stress cracking, the entire fleet of C-130A air tankers was permanently grounded in 2004 (see [2002 airtanker crashes](http://en.wikipedia.org/wiki/2002_airtanker_crashes)). C-130s have been used to spread chemical dispersants onto the massive oil slick in the Gulf Coast in 2010.

**Variants**



C-130s from the: US, Canada, Australia and Israel (foreground to background)



Cargo compartment of a Swedish Air Force C-130

*For civilian versions, see* [*Lockheed L-100 Hercules*](http://en.wikipedia.org/wiki/Lockheed_L-100_Hercules)*.*

Significant military variants of the C-130 include:

C-130A/B/E/F/G/H/K/T

Tactical airlifter basic models

[C-130J Super Hercules](http://en.wikipedia.org/wiki/C-130J_Super_Hercules)

Tactical airlifter, with new engines, avionics, and updated systems

C-130K

Designation for [RAF](http://en.wikipedia.org/wiki/Royal_Air_Force) Hercules C1/W2/C3 aircraft (C-130Js in RAF service are the Hercules C.4 and Hercules C.5)

[AC-130A/E/H/U Specter/Spooky](http://en.wikipedia.org/wiki/Lockheed_AC-130)

Gunship variants

C-130D/D-6

Ski-equipped version for snow and ice operations [United States Air Force](http://en.wikipedia.org/wiki/United_States_Air_Force) / Air National Guard

CC-130E/H/J Hercules

Designation for [Royal Canadian Air Force](http://en.wikipedia.org/wiki/Royal_Canadian_Air_Force) Hercules aircraft

[DC-130A/E](http://en.wikipedia.org/wiki/Lockheed_DC-130)

Drone control

[EC-130](http://en.wikipedia.org/wiki/Lockheed_EC-130)

[**EC-130E/J Commando Solo**](http://en.wikipedia.org/wiki/Lockheed_EC-130) – USAF / Air National Guard [psychological operations](http://en.wikipedia.org/wiki/Psychological_operations) version

[**EC-130E**](http://en.wikipedia.org/wiki/EC-130E) – Airborne Battlefield Command and Control Center (ABCCC)

[**EC-130E Rivet Rider**](http://en.wikipedia.org/wiki/EC-130E_Rivet_Rider) – Airborne psychological warfare aircraft

[**EC-130H Compass Call**](http://en.wikipedia.org/wiki/EC-130H_Compass_Call) – [Electronic warfare](http://en.wikipedia.org/wiki/Electronic_warfare) and electronic attack.

[**EC-130V**](http://en.wikipedia.org/wiki/EC-130V) – Airborne early warning and control (AEW&C) variant used by [USCG](http://en.wikipedia.org/wiki/USCG) for counter-narcotics missions

GC-130

Permanently Grounded "Static Display"

[HC-130](http://en.wikipedia.org/wiki/Lockheed_HC-130)

[**HC-130B/E/H**](http://en.wikipedia.org/wiki/Lockheed_HC-130) – Early model [combat search and rescue](http://en.wikipedia.org/wiki/Combat_search_and_rescue)

[**HC-130P/N Combat King**](http://en.wikipedia.org/wiki/Lockheed_HC-130) – USAF aerial refueling tanker and combat search and rescue

[**HC-130J Combat King II**](http://en.wikipedia.org/wiki/Lockheed_HC-130) – Next generation [combat search and rescue](http://en.wikipedia.org/wiki/Combat_search_and_rescue) tanker

[**HC-130H/J**](http://en.wikipedia.org/wiki/Lockheed_HC-130) – USCG long-range surveillance and [search and rescue](http://en.wikipedia.org/wiki/Search_and_rescue)

JC-130

Temporary conversion for flight test operations

[KC-130F/R/T/J](http://en.wikipedia.org/wiki/Lockheed_Martin_KC-130)

[United States Marine Corps](http://en.wikipedia.org/wiki/United_States_Marine_Corps) aerial refueling tanker and tactical airlifter

[LC-130F/H/R](http://en.wikipedia.org/wiki/Lockheed_LC-130)

USAF / Air National Guard – Ski-equipped version for [Arctic](http://en.wikipedia.org/wiki/Arctic) and [Antarctic](http://en.wikipedia.org/wiki/Antarctica) support operations.

[MC-130](http://en.wikipedia.org/wiki/Lockheed_MC-130)

[**MC-130E/H Combat Talon I/II**](http://en.wikipedia.org/wiki/Lockheed_MC-130) – [Special operations](http://en.wikipedia.org/wiki/Special_operations) infiltration/extraction variant

[**MC-130W Combat Spear/Dragon Spear**](http://en.wikipedia.org/wiki/MC-130W_Combat_Spear) – Special operations tanker/gunship

[**MC-130P Combat Shadow**](http://en.wikipedia.org/wiki/MC-130P_Combat_Shadow) – Special operations tanker

[**MC-130J Combat Shadow II**](http://en.wikipedia.org/wiki/MC-130J_Combat_Shadow_II) – Special operations tanker Air Force Special Operations Command

[**YMC-130H**](http://en.wikipedia.org/wiki/Lockheed_MC-130) – Three modified under [Operation Credible Sport](http://en.wikipedia.org/wiki/Operation_Credible_Sport) for second [Iran hostage crisis](http://en.wikipedia.org/wiki/Iran_hostage_crisis) rescue attempt

NC-130

Permanent conversion for flight test operations

PC-130

[Maritime patrol](http://en.wikipedia.org/wiki/Maritime_patrol)

RC-130

[Surveillance aircraft](http://en.wikipedia.org/wiki/Surveillance_aircraft) for reconnaissance

SC-130

Search and rescue

TC-130

Aircrew training

VC-130

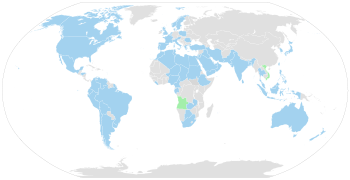
VIP transport

[WC-130A/B/E/H/J](http://en.wikipedia.org/wiki/Lockheed_WC-130)

Weather reconnaissance ("[Hurricane Hunter](http://en.wikipedia.org/wiki/Hurricane_Hunter)") version for [USAF](http://en.wikipedia.org/wiki/United_States_Air_Force) / [Air Force Reserve Command](http://en.wikipedia.org/wiki/Air_Force_Reserve_Command) in support of the [NOAA](http://en.wikipedia.org/wiki/National_Oceanic_and_Atmospheric_Administration)/[National Weather Service](http://en.wikipedia.org/wiki/National_Weather_Service)'s [National Hurricane Center](http://en.wikipedia.org/wiki/National_Hurricane_Center)

**Operators**

Main article: [List of C-130 Hercules operators](http://en.wikipedia.org/wiki/List_of_C-130_Hercules_operators)



Military operators of the C-130 Hercules aircraft;

Current operators

Former operators

Philippine Air Force and Army servicemen unload a C-130 of supplies for transfer to waiting U.S. helicopters for delivery to Panay Island.

|  |  |  |
| --- | --- | --- |
| * [Algeria](http://en.wikipedia.org/wiki/Algeria)  * [Angola](http://en.wikipedia.org/wiki/Angola)  * [Argentina](http://en.wikipedia.org/wiki/Argentina)  * [Australia](http://en.wikipedia.org/wiki/Australia)  * [Austria](http://en.wikipedia.org/wiki/Austria)  * [Bangladesh](http://en.wikipedia.org/wiki/Bangladesh)  * [Belgium](http://en.wikipedia.org/wiki/Belgium)  * [Bolivia](http://en.wikipedia.org/wiki/Bolivia)  * [Botswana](http://en.wikipedia.org/wiki/Botswana)  * [Brazil](http://en.wikipedia.org/wiki/Brazil)  * [Cameroon](http://en.wikipedia.org/wiki/Cameroon)  * [Canada](http://en.wikipedia.org/wiki/Canada)  * [Chad](http://en.wikipedia.org/wiki/Chad)  * [Chile](http://en.wikipedia.org/wiki/Chile)  * [Republic of China (Taiwan)](http://en.wikipedia.org/wiki/Republic_of_China)  * [Colombia](http://en.wikipedia.org/wiki/Colombia)  * [Denmark](http://en.wikipedia.org/wiki/Denmark)  * [Ecuador](http://en.wikipedia.org/wiki/Ecuador)  * [Egypt](http://en.wikipedia.org/wiki/Egypt)  * [Eritrea](http://en.wikipedia.org/wiki/Eritrea)  * [Ethiopia](http://en.wikipedia.org/wiki/Ethiopia)  * [France](http://en.wikipedia.org/wiki/France)  * [Gabon](http://en.wikipedia.org/wiki/Gabon) | * [Greece](http://en.wikipedia.org/wiki/Greece)  * [Honduras](http://en.wikipedia.org/wiki/Honduras)  * [Indonesia](http://en.wikipedia.org/wiki/Indonesia)  * [Iran](http://en.wikipedia.org/wiki/Iran)  * [Iraq](http://en.wikipedia.org/wiki/Iraq)  * [Israel](http://en.wikipedia.org/wiki/Israel)  * [Italy](http://en.wikipedia.org/wiki/Italy)  * [Japan](http://en.wikipedia.org/wiki/Japan)  * [Jordan](http://en.wikipedia.org/wiki/Jordan)  * [Kuwait](http://en.wikipedia.org/wiki/Kuwait)  * [Liberia](http://en.wikipedia.org/wiki/Liberia)  * [Libya](http://en.wikipedia.org/wiki/Libya)  * [Malaysia](http://en.wikipedia.org/wiki/Malaysia)  * [Mexico](http://en.wikipedia.org/wiki/Mexico)  * [Morocco](http://en.wikipedia.org/wiki/Morocco)  * [Netherlands](http://en.wikipedia.org/wiki/Netherlands)  * [New Zealand](http://en.wikipedia.org/wiki/New_Zealand)  * [Niger](http://en.wikipedia.org/wiki/Niger)  * [Nigeria](http://en.wikipedia.org/wiki/Nigeria)  * [Norway](http://en.wikipedia.org/wiki/Norway)  * [Oman](http://en.wikipedia.org/wiki/Oman)  * [Pakistan](http://en.wikipedia.org/wiki/Pakistan)  * [Peru](http://en.wikipedia.org/wiki/Peru) | * [Philippines](http://en.wikipedia.org/wiki/Philippines)  * [Poland](http://en.wikipedia.org/wiki/Poland)  * [Portugal](http://en.wikipedia.org/wiki/Portugal)  * [Romania](http://en.wikipedia.org/wiki/Romania)  * [Saudi Arabia](http://en.wikipedia.org/wiki/Saudi_Arabia)  * [Singapore](http://en.wikipedia.org/wiki/Singapore)  * [South Africa](http://en.wikipedia.org/wiki/South_Africa)  * [South Korea](http://en.wikipedia.org/wiki/South_Korea)  * [Spain](http://en.wikipedia.org/wiki/Spain)  * [Sri Lanka](http://en.wikipedia.org/wiki/Sri_Lanka)  * [Sudan](http://en.wikipedia.org/wiki/Sudan)  * [Sweden](http://en.wikipedia.org/wiki/Sweden)  * [Thailand](http://en.wikipedia.org/wiki/Thailand)  * [Tunisia](http://en.wikipedia.org/wiki/Tunisia)  * [Turkey](http://en.wikipedia.org/wiki/Turkey)  * [United Arab Emirates](http://en.wikipedia.org/wiki/United_Arab_Emirates)  * [United Kingdom](http://en.wikipedia.org/wiki/United_Kingdom)  * [United States](http://en.wikipedia.org/wiki/United_States)  * [Uruguay](http://en.wikipedia.org/wiki/Uruguay)  * [Venezuela](http://en.wikipedia.org/wiki/Venezuela)  * [South Vietnam](http://en.wikipedia.org/wiki/South_Vietnam)  * [Yemen](http://en.wikipedia.org/wiki/Yemen)  * [Zambia](http://en.wikipedia.org/wiki/Zambia) |

**Accidents and losses**

Main article: [List of C-130 Hercules crashes](http://en.wikipedia.org/wiki/List_of_C-130_Hercules_crashes)

The C-130 Hercules has had a low accident rate in general. The Royal Air Force recorded an accident rate of about one aircraft loss per 250,000 flying hours over the last forty years, placing it behind [Vickers VC10s](http://en.wikipedia.org/wiki/Vickers_VC10) and [Lockheed TriStars](http://en.wikipedia.org/wiki/Lockheed_TriStar) with no flying losses. USAF C-130A/B/E-models had an overall attrition rate of 5 percent as of 1989 as compared to 1 to 2 percent for commercial airliners in the U.S., according to the [NTSB](http://en.wikipedia.org/wiki/National_Transportation_Safety_Board), 10 percent for [B-52](http://en.wikipedia.org/wiki/B-52) bombers, and 20 percent for fighters ([F-4](http://en.wikipedia.org/wiki/F-4_Phantom_II), [F-111](http://en.wikipedia.org/wiki/F-111)), trainers ([T-37](http://en.wikipedia.org/wiki/T-37_Tweet), [T-38](http://en.wikipedia.org/wiki/T-38_Talon)), and helicopters ([H-3](http://en.wikipedia.org/wiki/Sikorsky_SH-3_Sea_King)).

A total of 70 aircraft were lost by the [United States Air Force](http://en.wikipedia.org/wiki/United_States_Air_Force) and the [United States Marine Corps](http://en.wikipedia.org/wiki/United_States_Marine_Corps) during combat operations in the [Vietnam War](http://en.wikipedia.org/wiki/Vietnam_War) in Southeast Asia. By the nature of the Hercules' worldwide service, the pattern of losses provides an interesting barometer of the global hot spots over the past 50 years.

On 17 August 1988, then President of Pakistan, General [Zia-ul-Haq](http://en.wikipedia.org/wiki/Zia-ul-Haq) was killed along with the then US Ambassador to Pakistan, [Arnold Lewis Raphel](http://en.wikipedia.org/wiki/Arnold_Lewis_Raphel), when a Pakistan Air Force C-130 carrying them crashed soon after takeoff from [Bahawalpur](http://en.wikipedia.org/wiki/Bahawalpur), Pakistan.

**Aircraft on display**

Australia

* C-130A RAAF A97-214 used by 36 Squadron from early 1959, withdrawn from use late 1978; now at RAAF Museum, RAAF Base Williams, Point Cook.
* C-130E RAAF A97-160 used by 37 Squadron from August 1966, withdrawn from use November 2000; to [RAAF Museum](http://en.wikipedia.org/wiki/RAAF_Museum), 14 November 2000, cocooned as of September 2005.

Canada

* CC-130E RCAF 10314 (later 130314) is on display at the [National Air Force Museum of Canada](http://en.wikipedia.org/wiki/National_Air_Force_Museum_of_Canada), [CFB Trenton](http://en.wikipedia.org/wiki/CFB_Trenton)

Norway

* C-130H Royal Norwegian Air Force 953 retired 10 June 2007 and moved to the Air Force museum at Oslo Gardermoen in May 2008.

Saudi Arabia

* C-130H RSAF 460 was operated by 4 Squadron [Royal Saudi Air Force](http://en.wikipedia.org/wiki/Royal_Saudi_Air_Force), December 1974 until January 1987. It was damaged in a fire at [Jeddah](http://en.wikipedia.org/wiki/Jeddah) in December 1989. Restored for ground training by August 1993. At [Riyadh Air Base](http://en.wikipedia.org/wiki/Riyadh_Air_Base) Museum, November 2002, restored for ground display by using a tail from another C-130H.

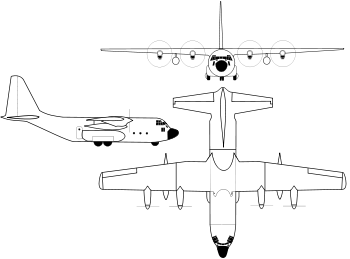
United Kingdom

* Hercules C3 *XV202* which served with the Royal Air Force from 1967 to 2011 is on display at the [Royal Air Force Museum Cosford](http://en.wikipedia.org/wiki/Royal_Air_Force_Museum_Cosford).

United States

* AC-130A USAF 53-3129, one of the first seven AC-130A aircraft deployed to [Vietnam](http://en.wikipedia.org/wiki/Vietnam), named *First Lady* in November 1970. This aircraft was a conversion of the first production C-130. On 25 March 1971, it took an [anti-aircraft artillery](http://en.wikipedia.org/wiki/Anti-aircraft_warfare) hit in the belly just aft of the nose gear wheel well over the [Ho Chi Minh trail](http://en.wikipedia.org/wiki/Ho_Chi_Minh_trail) in Laos. The 37 mm shell destroyed everything below the crew deck and barely missed striking two crew members. In 1975, after the conclusion of US involvement in the Vietnam war, it was transferred to the [Air Force Reserve](http://en.wikipedia.org/wiki/Air_Force_Reserve_Command), where it served with the [711th Special Operations Squadron](http://en.wikipedia.org/wiki/711th_Special_Operations_Squadron) of the [919th Special Operations Wing](http://en.wikipedia.org/wiki/919th_Special_Operations_Wing). In 1980 the aircraft was upgraded from the original three-bladed propellers to the quieter four-bladed propellers and was eventually retired in late 1995. The retirement also marked an end to the [Air Force Reserve Command](http://en.wikipedia.org/wiki/Air_Force_Reserve_Command) flying the AC-130A. The aircraft now sits on display in the final Air Force Reserve Command configuration with grey paint, black markings, the four-bladed Hamilton Sunstrand 54H60-91 props at the [Air Force Armament Museum](http://en.wikipedia.org/wiki/Air_Force_Armament_Museum) at [Eglin Air Force Base](http://en.wikipedia.org/wiki/Eglin_Air_Force_Base), Florida, USA.
* C-130A USAF 55-0037 was used by the 773 TCS, 483 TCW, 315 AD, 374 TCW, 815 TAS, 35 TAS, 109 TAS, belly-landed at Duluth, MN., April 1973, repaired; 167 TAS, 180 TAS, to Chanute Technical Training Center as GC-130A, May 1984; now displayed at [Octave Chanute Aerospace Museum](http://en.wikipedia.org/wiki/Octave_Chanute_Aerospace_Museum), Rantoul Aviation Complex, [Rantoul](http://en.wikipedia.org/wiki/Rantoul,_Illinois), Illinois. as of November 1995.
* C-130A USAF 56-0518 was by the 314 TCW, 315 AD, 41 ATS, 328 TAS; to [South Vietnamese Air Force](http://en.wikipedia.org/wiki/South_Vietnamese_Air_Force) 435 Transport Squadron, November 1972; holds the C-130 record for taking off with the most personnel on board, during evacuation of SVN, 29 April 1975, with 452. Returned to USAF, 185 TAS, 105 TAS; gate guard at [Little Rock AFB](http://en.wikipedia.org/wiki/Little_Rock_AFB) Visitor Center by March 1993.
* C-130A USAF 57-0453 operated from 1958 to 1991, last duty with 155th TAS, 164th TAG, Tennessee Air National Guard, Memphis International Airport, Tennessee, 1976–1991, named "Nite Train to Memphis"; to AMARC in December, 1991, then sent to Texas for modification into replica of C-130A-II 56-0528, shot down by Russian fighters over Soviet [Yerevan](http://en.wikipedia.org/wiki/Yerevan), Armenia on 2 September 1958, while on [ELINT](http://en.wikipedia.org/wiki/ELINT) mission with loss of all crew, displayed in [National Vigilance Park](http://en.wikipedia.org/wiki/National_Vigilance_Park), [National Security Agency](http://en.wikipedia.org/wiki/National_Security_Agency) grounds, [Fort George Meade](http://en.wikipedia.org/wiki/Fort_George_Meade), [Maryland](http://en.wikipedia.org/wiki/Maryland).
* C-130D USAF 57-0490 was used by the 61st TCS, 17th TCS, 139th TAS with skis, July 1975 – April 1983; to [MASDC](http://en.wikipedia.org/wiki/AMARC), 1984–1985, GC-130D ground trainer, [Chanute AFB](http://en.wikipedia.org/wiki/Chanute_AFB), [Illinois](http://en.wikipedia.org/wiki/Illinois), 1986–1990; When Chanute closed in September 1993 it moved to the [Octave Chanute Aerospace Museum](http://en.wikipedia.org/wiki/Octave_Chanute_Aerospace_Museum), [Rantoul](http://en.wikipedia.org/wiki/Rantoul,_Illinois), Illinois. In July 1994 it moved to the [Empire State Air Museum](http://en.wikipedia.org/w/index.php?title=Empire_State_Air_Museum&action=edit&redlink=1), [Schenectady County Airport](http://en.wikipedia.org/wiki/Schenectady_County_Airport), New York, until placed on the gate at Stratton ANGB in October 1994.
* NC-130B USAF 57-0526 was the second B model manufactured, initially delivered as JC-130B; assigned to 6515th Organizational Maintenance Squadron for flight testing at Edwards AFB, California on 29 November 1960; turned over to 6593rd Test Squadron's Operating Location No. 1 at Edwards AFB and spent next seven years supporting Corona Program; "J" status and prefix removed from aircraft Oct 1967; transferred to 6593rd Test Squadron at Hickam AFB, Hawaii and modified for mid-air retrieval of satellites; acquired by [6514th Test Squadron](http://en.wikipedia.org/wiki/6514th_Test_Squadron) at Hill AFB in Jan 1987 and used as electronic testbed and cargo transport; aircraft retired January 1994 with 11,000+ flight hours and moved to [Hill Aerospace Museum](http://en.wikipedia.org/wiki/Hill_Aerospace_Museum) by January 1994.
* C-130E s/n 62-1787 on display at the [National Museum of the United States Air Force](http://en.wikipedia.org/wiki/National_Museum_of_the_United_States_Air_Force), was flown to the museum on 18 August 2011. One of the greatest feats of heroism during the [Vietnam War](http://en.wikipedia.org/wiki/Vietnam_War) involved "Spare 617" (its call sign). The C-130E attempted to airdrop ammunition to surrounded South Vietnamese forces at An Loc, Vietnam. Approaching the drop zone, Spare 617 received heavy enemy ground fire that damaged two engines, ruptured a bleed air duct in the cargo compartment, and set the ammunition on fire. Flight engineer Sanders was killed, and navigator Lenz and co-pilot Hering were both wounded. Despite receiving severe burns from hot air escaping from the damaged air bleed duct, loadmaster Shaub extinguished a fire in the cargo compartment, and successfully jettisoned the cargo pallets, which exploded in mid-air. Despite losing a third engine on final approach, pilot Capt. Caldwell managed to land Spare 617 safely. For their actions, Caldwell and Shaub received the [Air Force Cross](http://en.wikipedia.org/wiki/Air_Force_Cross_(United_States)), the U.S. Air Force's second highest award for valor. Shaub also received the William H. Pitsenbarger Award for Heroism from the [Air Force Sergeants Association](http://en.wikipedia.org/wiki/Air_Force_Sergeants_Association).
* KC-130F USMC BuNo 149798 was used in tests in October–November 1963 by the U.S. Navy for [unarrested](http://en.wikipedia.org/wiki/Arresting_gear) landings and unassisted take-offs from the carrier [USS *Forrestal*](http://en.wikipedia.org/wiki/USS_Forrestal), it remains the record holder for largest aircraft to operate from a carrier flight deck, and carried the name "Look Ma, No Hook" during the tests. Retired to the [National Museum of Naval Aviation](http://en.wikipedia.org/wiki/National_Museum_of_Naval_Aviation), [NAS Pensacola](http://en.wikipedia.org/wiki/NAS_Pensacola), Florida in May 2003.
* C-130G USMC BuNo 151891 was modified to EC-130G, 1966, then testbed for EC-130Q in 1981. To TC-130G in May 1990 and assigned as [Blue Angels](http://en.wikipedia.org/wiki/Blue_Angels) support craft, serving as "Fat Albert Airlines" from 1991 to 2002. Retired to the [National Museum of Naval Aviation](http://en.wikipedia.org/wiki/National_Museum_of_Naval_Aviation) at [NAS Pensacola](http://en.wikipedia.org/wiki/NAS_Pensacola), Florida, November 2002.
* C-130E USAF 64-0525 is on display at the 82nd Airborne Division War Memorial Museum at Fort Bragg, North Carolina. Aircraft was the last assigned to the 43rd AW at Pope AFB, NC prior to retirement from the USAF.
* C-130E USAF 69-6579 was operated by the 61st TAS, 314th TAW, 50th AS, 61st AS; at Dyess AFB as maintenance trainer as GC-130E, March 1998;to Dyess AFB museum, January 2004.
* MC-130E Combat Talon AFSOC 64-0567 was unofficially known as "Wild Thing". It transported captured Panamanian dictator [Manuel Noreiga](http://en.wikipedia.org/wiki/Manuel_Noreiga) in 1989 during Operation Just Cause, and participated in Operation Eagle Claw, the unsuccessful attempt to rescue US hostages from Iran in 1980. Wild Thing was also the first fixed-wing aircraft to employ night-vision goggles. On display at [Hurlburt Field](http://en.wikipedia.org/wiki/Hurlburt_Field), in Florida.
* C-130E USAF 69-6580 was operated by the 61st TAS, 314th TAW, 317th TAW, 314th TAW, 317th TAW, 40th AS, 41st AS, 43rd AW, retired after center wing cracks were detected in April 2002; to the [Air Mobility Command Museum](http://en.wikipedia.org/wiki/Air_Mobility_Command_Museum), [Dover AFB](http://en.wikipedia.org/wiki/Dover_AFB) on 2 February 2004.
* C-130E USAF 70-1269 was used by the 43rd AW and now on display at the Pope Air Park, [Pope AFB](http://en.wikipedia.org/wiki/Pope_AFB), 2006.
* C-130H USAF 74-1686 was used by the 463rd TAW; one of three C-130H airframes modified to YMC-130H for aborted rescue attempt of Iranian hostages, [Operation Credible Sport](http://en.wikipedia.org/wiki/Operation_Credible_Sport), with rocket packages blistered onto fuselage in 1980, but these were removed after mission was canceled. Subsequent duty with the [4950th Test Wing](http://en.wikipedia.org/wiki/4950th_Test_Wing), then donated to the [Robins AFB](http://en.wikipedia.org/wiki/Robins_AFB) museum, Georgia, in March 1988.

**Specifications (C-130H)**



*Data from* USAF C-130 Hercules fact sheet, *International Directory of Military Aircraft,* *Complete Encyclopedia of World Aircraft* *Encyclopedia of Modern Military Aircraft*

**General characteristics**

* **Crew:** 5 (two [pilots](http://en.wikipedia.org/wiki/Aviator), [navigator](http://en.wikipedia.org/wiki/Navigator), [flight engineer](http://en.wikipedia.org/wiki/Flight_engineer) and [loadmaster](http://en.wikipedia.org/wiki/Loadmaster))
* **Capacity:**
  + 92 passengers *or*
  + 64 airborne troops *or*
  + 74 litter patients with 2 medical personnel *or*
  + 6 pallets *or*
  + 2–3 [Humvees](http://en.wikipedia.org/wiki/Humvee) *or*
  + 2 [M113 armored personnel carriers](http://en.wikipedia.org/wiki/M113_armored_personnel_carrier)
* [Payload](http://en.wikipedia.org/wiki/Payload_(air_and_space_craft)): 45,000 lb. (20,000 kg)
* Length: 97 ft 9 in (29.8 m)
* [Wingspan](http://en.wikipedia.org/wiki/Wingspan): 132 ft 7 in (40.4 m)
* Height: 38 ft 3 in (11.6 m)
* Wing area: 1,745 ft² (162.1 m²)
* [Empty weight](http://en.wikipedia.org/wiki/Manufacturer%27s_Weight_Empty): 75,800 lb. (34,400 kg)
* Useful load: 72,000 lb. (33,000 kg)
* [Max. takeoff weight](http://en.wikipedia.org/wiki/Maximum_Takeoff_Weight): 155,000 lb. (70,300 kg)
* [Powerplant](http://en.wikipedia.org/wiki/Aircraft_engine): 4 × [Allison T56](http://en.wikipedia.org/wiki/Allison_T56)-A-15 [turboprops](http://en.wikipedia.org/wiki/Turboprop), 4,590 shp (3,430 kW) each

Performance

* [Maximum speed](http://en.wikipedia.org/wiki/V_speeds#Regulatory_V-speeds): 320 knots (366 mph, 592 km/h) at 20,000 ft (6,060 m)
* [Cruise speed](http://en.wikipedia.org/wiki/V_speeds#Vc): 292 kn (336 mph, 540 km/h)
* [Range](http://en.wikipedia.org/wiki/Range_(aircraft)): 2,050 nm. (2,360 mi, 3,800 km)
* [Service ceiling](http://en.wikipedia.org/wiki/Ceiling_(aircraft)): 33,000 ft (10,060 m) empty; 23,000 ft (7,077 m) with 42,000 pounds (19,090 kilograms) payload ()
* [Rate of climb](http://en.wikipedia.org/wiki/Rate_of_climb): 1,830 ft/min (9.3 m/s)
* Takeoff distance: 3,586 ft (1,093 m) at 155,000 lb. (70,300 kg) max gross weight; 1,400 ft (427 m) at 80,000 lb. (36,300 kg) gross weight

**Avionics**

* [Westinghouse Electronic Systems](http://en.wikipedia.org/wiki/Westinghouse_Electric_(1886)) (now [Northrop Grumman](http://en.wikipedia.org/wiki/Northrop_Grumman)) [AN/APN-241 weather and navigational radar](http://en.wikipedia.org/wiki/List_of_radars#AN.2FAPN_Series)

**See also**

|  |  |
| --- | --- |
|  | [***Military of the United States portal***](http://en.wikipedia.org/wiki/Portal:Military_of_the_United_States) |
|  | [***United States Air Force portal***](http://en.wikipedia.org/wiki/Portal:United_States_Air_Force) |
|  | [***United States Marine Corps portal***](http://en.wikipedia.org/wiki/Portal:United_States_Marine_Corps) |
|  | [***Aviation portal***](http://en.wikipedia.org/wiki/Portal:Aviation) |

Related development

* [Lockheed Martin C-130J Super Hercules](http://en.wikipedia.org/wiki/Lockheed_Martin_C-130J_Super_Hercules)
* [Lockheed AC-130](http://en.wikipedia.org/wiki/Lockheed_AC-130)
* [Lockheed DC-130](http://en.wikipedia.org/wiki/Lockheed_DC-130)
* [Lockheed EC-130](http://en.wikipedia.org/wiki/Lockheed_EC-130)
* [Lockheed EC-130H Compass Call](http://en.wikipedia.org/wiki/Lockheed_EC-130H_Compass_Call)
* [Lockheed HC-130](http://en.wikipedia.org/wiki/Lockheed_HC-130)
* [Lockheed Martin KC-130](http://en.wikipedia.org/wiki/Lockheed_Martin_KC-130)
* [Lockheed LC-130](http://en.wikipedia.org/wiki/Lockheed_LC-130)
* [Lockheed MC-130](http://en.wikipedia.org/wiki/Lockheed_MC-130)
* [Lockheed WC-130](http://en.wikipedia.org/wiki/Lockheed_WC-130)
* [Lockheed L-100 Hercules](http://en.wikipedia.org/wiki/Lockheed_L-100_Hercules)

Aircraft of comparable role, configuration and era

* [Antonov An-12](http://en.wikipedia.org/wiki/Antonov_An-12)
* [Armstrong Whitworth AW.660 Argosy](http://en.wikipedia.org/wiki/Armstrong_Whitworth_AW.660_Argosy)
* [Blackburn Beverley](http://en.wikipedia.org/wiki/Blackburn_Beverley)
* [Shaanxi Y-8](http://en.wikipedia.org/wiki/Shaanxi_Y-8)
* [Short Belfast](http://en.wikipedia.org/wiki/Short_Belfast)
* [Transall C-160](http://en.wikipedia.org/wiki/Transall_C-160)

Related lists

* [List of active Canadian military aircraft](http://en.wikipedia.org/wiki/List_of_active_Canadian_military_aircraft)
* [List of active United Kingdom military aircraft](http://en.wikipedia.org/wiki/List_of_active_United_Kingdom_military_aircraft)
* [List of active United States military aircraft](http://en.wikipedia.org/wiki/List_of_active_United_States_military_aircraft)
* [List of military aircraft of the United States (naval)](http://en.wikipedia.org/wiki/List_of_military_aircraft_of_the_United_States_(naval))
* [List of aircraft of the Israeli Air Force](http://en.wikipedia.org/wiki/List_of_aircraft_of_the_Israeli_Air_Force)
* [List of aircraft of the Royal Air Force](http://en.wikipedia.org/wiki/List_of_aircraft_of_the_Royal_Air_Force)
* [List of C-130 Hercules crashes](http://en.wikipedia.org/wiki/List_of_C-130_Hercules_crashes)

**References**

**Notes**

* 1. [**^**](http://en.wikipedia.org/wiki/Lockheed_C-130_Hercules#cite_ref-42#cite_ref-42) The aircrew of "Spare 617" were: Capt. William Caldwell, pilot; Lt. John Hering, co-pilot; Lt. Richard A. Lenz, navigator; Tech. Sgt. Jon Sanders, flight engineer, loadmasters Tech. Sgt. Charlie Shaub and A1C Dave McAleece

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