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LOCKHEED MARTIN 

Service News



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A SERVICE PUBLICATION OF LOCKHEED MARTIN AIR MOBILITY SUPPORT

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MARTIN AIR MOBILITY SUPPORT

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Volume 29, No. 2 2004

CONTENTS

Click on Entry to Go Directly to the Article

From the Editors Desk	2
C-130 Reaches Major Milestone	3
US Postal Service Honors C-130 Hercules	4
A Mating of the Jeep, The Truck and The Airplane	6
History & Overview of Wing Improvements (Part 2)	11
Operators Corner	12
Service Bulletin Updates	13

Address all comments or questions pertaining to the Service News, to the **Service News Editor** at ams.portal@lmco.

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From the Editor's Desk

As the **Service News** and Lockheed Martin are focused on the sustainment of all Hercules aircraft, it is only appropriate that we dedicate this issue to celebrate the Hercules and reflect on the significance of its contributions over the years and across the globe.

In August of this year, the Hercules reaches a huge milestone in aviation history, **the 50th anniversary of the first flight**.

Given the truly remarkable significance of this achievement, we have asked Joseph Dabney, a Lockheed veteran and noted Hercules historian, to provide us his interpretation of this milestone. Joe has also been kind enough to give us permission to reprint selected paragraphs from his detailed, colorful, and very popular history of the Hercules aircraft, **"HERK: Hero of the Skies."**

The United States Postal Service will also salute the Hercules on this significant anniversary. Description of their activities is shown on pages 4 and 5.

In keeping with the historical flavor of this issue of the Service News, we have included Part 2 of the multi-part article on the history of the Hercules wing.

And as always, we have included the latest Service Bulletin updates.

We continue to strive for a publication that is both informative and entertaining. Let us know what you think. Please forward your suggestions and comments to the **Service News Editor**, Mark Braunstein, at ams.portal@lmco



Image—Lockheed Martin Archives

C-130 Reaches *Major Milestone*

Written by Joseph E. Dabney, Retired Lockheed Employee and C-130 Hercules Historian

Many historic milestones have been recorded by the Lockheed Martin C-130 Hercules, but in August 2004, a major milestone will occur – the 50th anniversary of the prototype Hercules aircraft's first flight. This will be a world record as far as aircraft production longevity is concerned, a testimony to the plane's rugged design, continued evolution, and unmatched versatility.

It was shortly after 2:45 p.m. on August 23, 1954, at Lockheed's Burbank, California, facility, when the first YC-130 prototype took to the air. Test pilot Stan Beltz was in the left hand seat. Eight seconds down the runway, at 855 feet, the airplane leaped into the air in a spectacular 30 degree climb out. During the 61-minute test flight, mostly at 10,000 feet, Beltz and crew were amazed at the airplane's power and ease of handling.




Since that auspicious beginning, the C-130 has become one of the world's truly classic airplanes, being operated around the world in more than 70 versions, including the L-100 civil derivative.

Starting out primarily as a tactical military airlifter, delivering troops and supplies into and out of short strips of sand, grass, and snow, the C-130 quickly became one of the world's most effective ambassadors of goodwill, as a hefty "flying pickup," hauling relief goods to disaster areas around the world, hunting hurricanes, fighting forest fires, and refueling helicopters.

Living up to its namesake, mythology's legendary Greek strong man, the Hercules airlifter revolutionized the scientific exploration of Antarctica (on one-ton skis) and helped develop oil fields in Alaska, Peru, and Mexico. In recent years, in addition to its key roles in Iraq and Afghanistan where it operates routinely, the C-130 has provided vital airlift for Allied peacekeeping efforts in Yugoslavia and Bosnia.

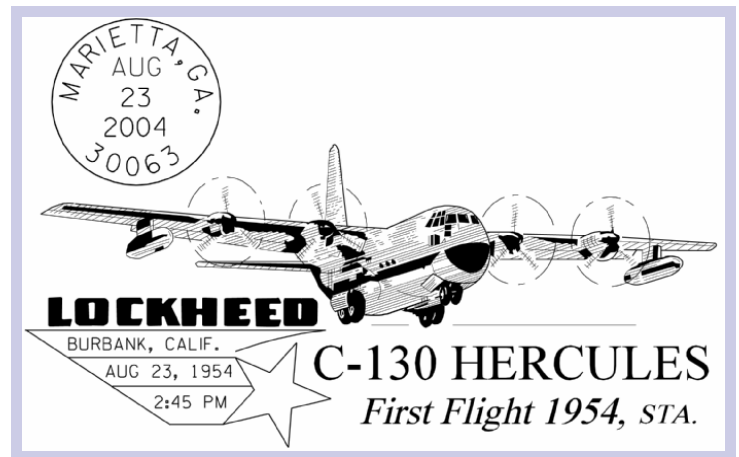
U.S. Postal Service Honors C-130 HERCULES!

By John Conti — Senior Flight Operations Analyst

On August 23, 2004, the United States Postal Service () will honor the 50th Anniversary of the First Flight of the C-130 Hercules with a Commemorative Pictorial Cancellation. A Pictorial Cancellation is a unique postmark offered by the U.S. Postal Service to commemorate special events. Items that are cancelled using a commemorative design are usually in very limited quantity and are highly sought after by stamp collectors and others interested in U.S. postal history.

Pictorial Cancellation Design

This commemorative cancellation uniquely depicts aircraft serial number 53-3397 as it lifts into the air at 2:45pm on August 23, 1954. Also depicted in the pictorial cancellation design is the Lockheed Star logo of that era which appeared on the side of the airplane as the prototype YC-130 transport lifted off from Burbank, California, with Stan Beltz and Roy Wimmer at the controls and with flight engineer Dick Stanton and flight test engineer Jack Real as crew.



The Lockheed airplane took flight that day powered by four Allison T56 turboprop engines and four AERO Product 3 bladed propellers as portrayed in the design. The prototype C-130 used just 855 feet of runway to take-off and climbed to an altitude of about 10,000 feet as the flight crew set about completing the scheduled test objectives for the first flight.

The C-130 Hercules Pictorial Cancellation can be applied to an addressed or unaddressed envelope, postcard, a favorite C-130 photo, or any similar item desired as a commemorative of this historic event.

A familiar postal “bull’s-eye” located in the upper left corner of the design reflects the long time Marietta, Georgia, home of the Hercules, where production C-130s are still rolling off the assembly floor. The zip code “30063” is unique to the Lockheed Martin Aeronautics Company in Marietta.



Postal Pictorial Cancellation Service

There are several ways to participate in this historic event. One option is to be present at the temporary philatelic C-130 Hercules First Flight Station on August 23, 2004, within the Lockheed Martin facility.

Once there, you can take advantage of the Hand-back service for the pictorial cancellation offered by the Marietta Postmaster on that day only, from 9am to 5pm. The Hand-back service is free of charge for quantities less than 50 items. The Postmaster will make available this unique pictorial cancellation on any material that bears un-canceled postage at the U.S. First-Class rate of 37 cents. These items do not require an address, as once cancelled, the item is immediately returned to the individual.

(Continued on page 5)

(Continued from page 4)

Another way to participate is through the Mail-back service offered by the Marietta Postmaster. This method permits Hercules enthusiasts to submit envelopes, postcards, photographs, posters, and other materials through the mail directly to the Marietta Post Office for cancellations over a 30 day period, from August 23, 2004, through September 23, 2004. Mail-in requests should be addressed to the Postmaster, Attention: C-130 Hercules First Flight Station and must be postmarked no later than September 23, 2004. Items submitted must also bear unused postage of at least the U.S. First-Class postage rate of 37 cents. Items must be accompanied by a self-addressed, stamped envelope with applicable U.S. postage for the return of each item. If the item is an envelope or postcard and you wish for it to pass through the mail-stream, these individual items need to be addressed and must also bear unused U.S. postage of at least the First-Class rate, and sufficient postage to allow the item to be returned to you.

SEND ITEMS TO:

TO: Postmaster
ATTN: C-130 Hercules First Flight Station
257 Lawrence Street
Marietta, Georgia, USA 30060-9998

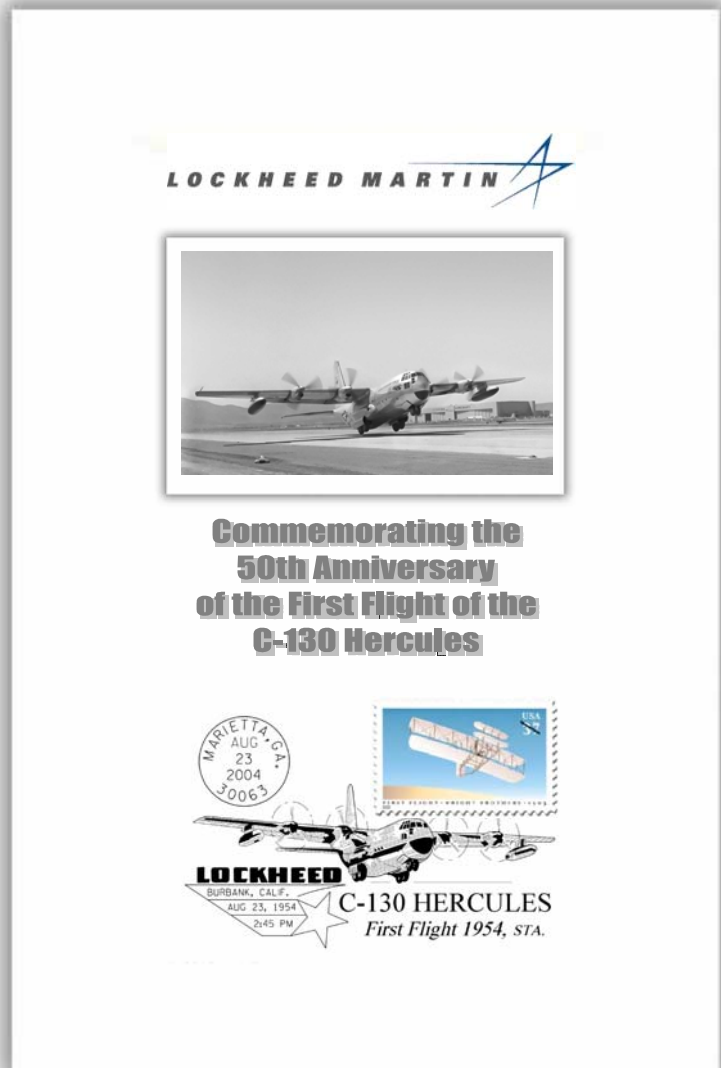
Commemorative Pictorial Cancellation Proof Cards Available

First Flight Proof Cards will be available in limited quantity through the Lockheed Martin Employee Association (LMEA) Gift Shop.

These special cards will show a copy of the original first flight photograph and the C-130 Hercules Pictorial cancelled over the 100th Anniversary of the Wright Brothers First Flight Stamp, embossed lettering on the front, and a brief history of the first flight on the back. Each commemorative proof card is displayed in a Lockheed Martin embossed presentation folder commemorating this historic event.

Also, in addition to the proof cards, LMEA Gift Shop will have several other commemorative items, such as shirts, hats, etc., available for purchase. This Gift Shop is open to the public.

You can order by phone at 770-494-3922, or online at the LMEA WEB site, at www.lockheedmartingiftshop.com.



A Mating of The Jeep, The Truck and The Airplane

By Joseph Dabney. Excerpts* from the book: [HERK: Hero of the Skies](#)

“The front of the C-130 resembles a goat, but it’s nowhere near as stubborn.”

- Major Joseph P. Tracy, U.S. Air Force

Lockheed Corporation, headquartered 12 miles north of Los Angeles at the foot of the San Gabriel Mountains, has given birth to some of America's most amazing flying machines . . . the series of Vegas so well loved by Charles Lindbergh and Amelia Earhart . . . the "forked tail" P-38 fighter of World War II . . . the high-flying U-2 spy plane of Russian overflight fame. . . . the L-1011 TriStar, the quietest of the modern day widebodies . . . and the SR-71 Blackbird, the highest-flying, fastest-cruising airplane of all time.

The turboprop cargo craft which waddled bashfully out of Lockheed's Hanger C-1 in Burbank, California, in August of 1954 did not seem to have a Lockheed pedigree. There were no swept wings. Its aerodynamic contours were dumpy, not flowing. Its nose was blunt and unshapely, giving the machine a mean, menacing appearance. Even Kelly Johnson, Lockheed's aircraft design genius, was not at all happy with the external shape that emerged in 1951 from the drawing boards of Lockheed's preliminary design organization, and he refused to sign the proposal for the C-130 to the Air Force. Lockheed's Vice President Hall Hibbard, finally decided to let it go.

Despite it all, when the word spread in mid-August, 1954, that the new beast was going to take wings, excitement crackled through the Burbank air.

A first flight is the most crucial milestone in an airplane's career, and in the case of the prototype Hercules, its performance would figure mightily in the Air Force's decision about whether it would move into a production contract. The flight would climax three years of sustained effort by Lockheed's engineering, manufacturing and subcontractor team. Thus despite the smog that shrouded all of Burbank on the morning of August 23, 1954, all hands at Lockheed were psyched up for the Herk's big moment. Even the postponement of the 9 a.m. takeoff dimmed the excitement only slightly.

Shortly after 2 p.m., the sun broke out. As if by telepathy, workers began gathering by the hundreds along the Lockheed Air Terminal's north-south runway. People materialized on the factory roofs. Top Air Force and Lockheed officials took their reserved seats on top of the Terminal Building and in the control tower.

Outside Factory C-1, pilot Stan Beltz and his fellow crew members . . . Roy Wimmer, co-pilot, and Jack Real and Dick Stanton, flight engineers . . . fired up the C-130's shrill-sounding gas turbine compressor, the auxiliary power unit housed in the left-hand main wheel well. The GTC's ear-splitting crescendo was just the prelude. The APU in turn kicked off the plane's powerful propjet engines which, together with the 15-foot Curtiss-Wright propellers, emitted a distinctive, throaty, air-cutting sound that seemed strange to the ears of the people of Burbank, accustomed, as they were to the piston-engined airplanes of the time.

For Beltz, a gutsy flyer of the old school, it was a moment to remember. Possessing a love for flying that transcended earthly pursuits, Beltz looked on a new flying machine as a special challenge. His derring-do was legendary even around Lockheed, which was known for the boldness of its test pilot corps. Beltz's trademark-- a tip-off to his effervescent personality--was the large, two carat solitaire

(Continued on page 7)

Excerpts from the book: **HERK: Hero of the Skies** (Continued from page 6)

diamond ring which he displayed proudly on the third finger of his right hand. He was not an engineer and didn't want to be. He just wanted to show what he could do with an airplane.

Stan taxied the aluminum behemoth to the north end of the runway. He turned it into the wind and raced it down the strip, with the nose getting airborne momentarily, only to settle down with a roaring prop pitch reversal. Beltz performed another fast "skip-off" in the opposite direction, then turned the Herk aside to allow two chase planes to take off--a P-2V carrying Kelly Johnson, and a chartered B-25 loaded with photographers.

Crewmen in the YC-130 tensed up. With the huge, three-bladed props spinning at a constant 1,108 revolutions per minute, Beltz pushed the power levers forward all the way, giving the props a huge "bite" of air. But he kept his feet on the brakes and the aircraft "danced a jig," eagerly chomping to move out. As Beltz released the brakes, spectators gasped. The Hercules surged down the field, jerking the crewmen back in their seats. Eight seconds down the runway, at 855 feet, Beltz pulled back the control column and the prototype shot skyward at a startling speed.

"Just look at it climb!" exclaimed Lockheed President Robert E. Gross. The 15,000 horses in the T-56 powerplants, coupled to the Curtiss-Wright electric props, lifted the 54-ton machine in a 30-degree climbout. It was a startling shocker to the crowds who were accustomed to lumbering liftoffs by the piston planes of the time.

The takeoff, at 2:45 p.m., lived up to its creators' expectations and then some. The plane displayed amazing power and mobility. High over Burbank, the daring Beltz -- relishing the moment -- had to suppress his own excitement. He leveled off at 10,000 feet and had his crew run a series of tests on the landing gear, flaps and control surfaces, and then ran stall checks. All systems worked fine.

Watching from his P-2V was Kelly Johnson, Lockheed's ubiquitous chief designer, who, despite his earlier misgivings, followed the baby bird on its 61-minute flight to Edwards Air Force Base in the Mojave Desert northeast of Los Angeles. There it was to undergo a series of Lockheed and Air Force flight tests.

Emerging from the plane at Edwards, Beltz exploded in a torrent of enthusiasm.

"I never saw such an eager airplane,"

he told the cluster of people who met him.

"When we took off, it wanted to climb so bad, I had trouble keeping my air speed down. She's a real flying machine."



Image—Lockheed Martin Archives

(Continued on page 8)

The Air Force issued its GOR -- General Operational Requirement -- on February 2, 1951. Requests for Proposals (RFP) went out to Boeing, Douglas, Fairchild and Lockheed, calling for their designs for "a medium transport . . . to perform tactical and logistic missions." But there was more. The Air Force wanted "an advanced, all purpose, work-horse type, aerial vehicle that can go anyplace, anytime, without elaborate facility or equipment preparations." In other words, a super airplane -- a speedy, high flying ocean-spanning strategic airlifter that could haul 90 troops in 2,000-mile stages, combined with a shortfield tactical transport capable of airlifting troops, supplies and 30,000-pound pieces of equipment on short hops right up to hastily prepared battlefield strips . . . being able to slow down to 125 knots for paratroops and even less for steep "assault" landings.

Many experts in industry and the military considered the requirements to be exceedingly harsh and virtually impossible to attain. Canadian pilot/historian H.G. Maxwell described the super aircraft envisioned by the GOR: "A plane that would fly the ocean with a healthy payload at a good rate of knots, land in a mudhole and get airborne out of it again, drop a tank, jump a goodly number of paratroops with their gear, carry a high percentage of the Army's bulky equipment, shrug off the failure of one of its four engines and, unless a guy was really hamfisted, land safely at its take-off weight."

Willis Hawkins, the brilliant head of Lockheed's Advanced Design Department, looked at the challenge from still another viewpoint. The winning contractor, he told his colleagues, would have to produce a hybrid mating of the jeep, the truck and the airplane. Hawkins and his crack cadre of creative engineers, including his deputy, Eugene Frost, Art Flock, E.A. Peterman and E.C. Frank, and, a little later, W.A. (Dick) Pulver, along with a lineup of whiz kid manufacturing specialists, accepted the challenge with a team spirit of innovative relish and gusto.

Art Flock, later to become chief engineer and vice president at Lockheed -- Georgia, was named the aircraft project leader in Lockheed's Preliminary Design organization. Al Lechner laid out the plane's general arrangements, including the wing and fuselage. The landing gear was done by Jack Lebold while Willard Tjossen and Merrill Kelly were in charge of the preliminary design of the power plant.

Flock and his colleagues were quite apprehensive about sending in a proposal for a four-engine aircraft, thinking that it would be much higher priced than that of the competition. "But after thrashing it out and thinking it over-realizing the Air Force had some tough engine-out capability requirements -- we settled on a four-engine design."

On July 2, five months to the day after issuing its RFP, the Air Force announced its decision. Lockheed, which came in with a proposal for a strange looking flying machine that it called its "Model L-206," was named the winner, and was given a contract to proceed with development of its unique approach. The Air Force contracted with Lockheed to build two prototypes of its new creation. The aircraft, the Pentagon announced, would be designated the YC-130.

Lockheed's Engineering Vice President, Hall L. Hibbard, was tremendously proud of what his team had wrought. He invited the company's top officers to his office in 1952 for their first view of a large model of the quaint looking transport then laboriously being born in Factory C-1 across the runway. When an engineer lifted the sheet off the big scale model, a resounding silence settled over the august assemblage.

Kelly Johnson spoke up first, objecting strenuously to the bulky design.

Hibbard cleared his throat, a bit embarrassed.

"It **does** have a beautiful paint job, don't you think?"

(Continued on page 9)

Despite the disappointment of some aviation buffs to the plane's dumpy external shape, the Lockheed design team in Burbank was undaunted. Utilitarian performance was the name of the game, and the designers were not about to sacrifice performance for sleekness. After all, the C-130 was destined to be a rugged, versatile, get-the-job-done aerial truck, with many tough and demanding tasks to perform and varied missions to fulfill.

When the two YC-130 airplanes were completed, the airframes came out so light that Lockheed was able to meet the mission requirements at a gross weight of 108,000 pounds instead of the 113,000 it had proposed! Empty weight was 57,500 pounds and design payload was 25,000 pounds. On the redesign for production, the company's engineers added back in about a thousand pounds in areas they felt to need more beef.

By careful attention to design detail, Lockheed's engineers found they had bettered the minimum requirements for flying qualities as laid down by the Air Force. Predicted average cruise speed turned out to be 20 per cent faster; normal power, ceiling and rate of climb were 35 per cent higher; normal power, one-engine-out ceiling and rate of climb were 35 per cent better, respectively, and 55 per cent faster; take-off distance with maximum power was 25 per cent less and landing distance, using brakes only, showed a 40 per cent decrease.

Shortly after Lockheed won the contract to build the two YC-130 prototypes, the company's top management in Burbank decided that if the aircraft went into full-scale production, the work would be done at its new Georgia division, located at Marietta, 15 miles north of Atlanta.



Image—Lockheed Martin Archives

Excerpts from the book: **HERK: Hero of the Skies**



The Lockheed – Georgia manufacturing line for the C-130 aircraft.
Images—Lockheed Martin Archives

The previous excerpts from 'HERK: Hero of the Skies' were included, by kind permission of the author, Joseph E. Dabney.

*Joseph E. Dabney, HERK: Hero of the Skies (Fairview, NC: Bright Mountain Books, Inc., 2003). pp. 77-96.

Joe Dabney will be available for book signing at the 2004 Hercules Operators Conference in Marietta, Georgia, 26-29 October 2004.

In connection with the upcoming anniversary, Bright Mountain Books of Asheville, N.C., (booksbmb@charter.net), has released a greatly expanded third edition of "HERK: Hero of the Skies," the definitive biography of the C-130.

Written by retired Lockheedian Joseph E. Dabney, the new 496-page edition brings the story of the ubiquitous "you call, we haul" transport into the 21st Century. The book is filled with dozens of new photos including a spectacular cover shot of a C-130J in a sunrise test flight over Alabama.

Four new chapters cover the amazing high tech C-130J model featuring six-blade composite propellers and more powerful Rolls Royce engines. The new edition tells the story of the daring rescue of Dr. Jerri Nielson, the cancer stricken National Science Foundation physician, who was airlifted from the South Pole by a U.S. Air Force Ski Hercules.

With more than 70 known versions in operation ranging from the basic A, B, E, H, and the current J models, plus L-100 commercial models, the Hercules is flown by operators in more than 60 countries, representing every continent.

Among other exploits, the C-130 was the last airplane out of Vietnam at the end of that war and was the first airplane into Baghdad and Kabul in recent hostilities there.

History & Overview of *Wing Improvements*

(Part 2)

by Dewey Meadows—Senior Design Engineer Specialist

This is the second article of a series discussing product improvements to Center and Outer Wings for C-130/L100 Hercules Aircraft. The first article discussed the improvements from the C-130B/E to the Fiscal Year (FY) 1973 C-130H Outer Wings. This article will continue the discussion of improvements incorporated in the FY'84 C-130H Outer Wings.

The FY'73 outer wings installed on production C-130H aircraft from 1973 until 1983 were a much improved product over the previous C-130B/E configuration, but in the late 1970s, the USAF at Warner Robins ALC contracted with Lockheed Martin Aeronautics (LM Aero) to design and ultimately build replacement wings for the USAF fleet of C-130B/E aircraft. The FY'84 contract called for LM Aero to design Kits to replace 492 ship sets of outer wings. The LM Aero effort was to design and produce only the outer wing box structure and not complete outer wings. Kit engineering was developed to salvage the re-usable components from the existing wings, which were being removed, and reinstall these components in the new wing structure. The removal/reinstallation of components and the installation of the new wings were performed by WR/ALC or their installation subcontractor. This outer wing replacement effort was accomplished by TCTO 1C-130-1039. A variety of kits were produced to fit the various aircraft configurations. The wing boxes were identified by Manufacturing End Product (MEP) 1T/2T, 5T/6T, 11T/12T and the final engineering part number was applied after the refurbishment was completed. Other replacement outer wings were identified by MEP 7T/8T, 9T/10T, and 13T/14T. These were complete wings ready for installation on an aircraft except for certain components salvaged from replaced wings such as Flaps, Ailerons, Leading Edges, and Wing Tips.

The FY '84 configuration outer wings are installed on all LM Aero production C-130H aircraft from serial 4992 and subsequent. The C-130J basic outer wing structure is the same configuration as the FY '84 with some minor differences. The improvements included in the FY'84 outer wings are highlighted below:

FY'84 Outer Wing Improvements

- Additional 7075-T6XX to 7075-T73XX aluminum alloy material changes were made to parts other than those changed on the FY'73 wings.
- Externally Mounted Fuel Quantity Probes were incorporated replacing the internally mounted probes. This change eliminates requirement for de-fueling and tank ingress for maintenance and replacement of probes. The "daisy chain" wiring was replaced with parallel circuits which allow detection of malfunctions without entrance into tanks. It reduced the number of probes in each wing from 16 to 11. This enhancement has proven to reduce the operator maintenance burden.
- A hi-tigue fastener system was added. Most structural fasteners in the new outer wings are interference fit steel hi-tigue pins with steel nuts. This is a proven system that burnishes the inner surface of the hole for fatigue crack prevention and is combined with wet installation using polysulfide sealant to further prevent fuel leaks.

(Continued on page 12)

(Continued from page 11)

- Upper and lower surface panel minimum thickness was increased from .040 to .080 inches. This change was made for better resistance to Lightning Strike burn through.
- Flap track attachment tees were beefed up at four locations on the rear beam. The tee thicknesses were increased to help prevent cracking due to high loading at these flap tracks locations.
- Box rib caps and braces were beefed up throughout the wing box assembly. New thicker rib caps and braces were designed to increase wing durability and some additional braces were added.
- MBT50 Interference fit shear-tension bolts were added. These new bolts were specially designed and ordered for use at the rear beam flap track attachments. The need at these locations was for a bolt that had both shear and tension capability.
- Dry bay finish was changed to white polyurethane. This finish had a two fold purpose. It is more abrasion resistant than the previous aluminized color epoxy and the white color improves the inspections within the dry bays.
- Better lightning protection was incorporated. Over wing filler and push to drain valves were redesigned for better lightning resistance. A lightning arrestor was added in the wing tip fuel dump mast.
- A wing durability and residual strength test was performed. This test was a complete wing tip to tip fatigue test and was performed at LM Aero on the FY' 84 (TO 1C-130-1039) outer wings and a 1970s version center wing. After fatigue testing was completed, the outer wings were successfully tested for residual strength.

Look for Part Three in the series on Hercules Wing Evolution in upcoming issues of The Service News. The third article will feature the Center Wing Improvements.

Operator's Corner



**Image Courtesy of Air National Guard,
Anchorage Alaska, USA**

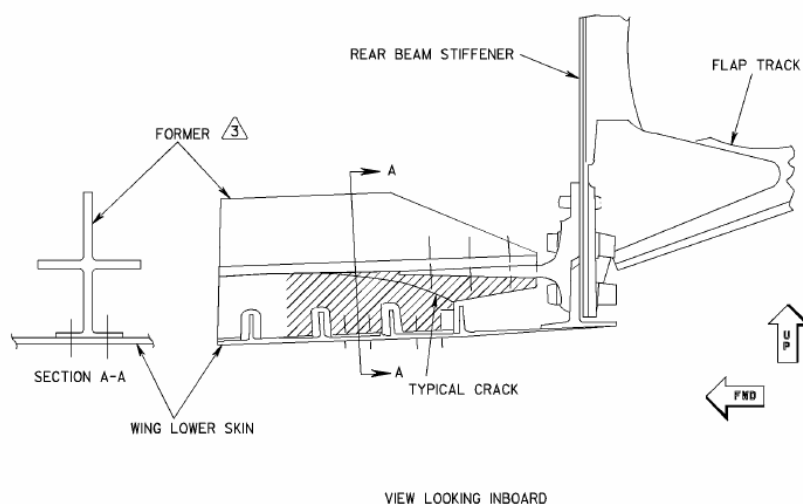
Service Bulletin Updates

[SB382-57-50 - WINGS - REPLACEMENT OF CENTER WING TO FUSELAGE ATTACHMENTS](#)

This Service Bulletin provides an inspection of the wing to fuselage attach angle for the center wing lower surface at approximately BL 58 to BL 61 from forward of the front beam at FS 517 to aft of the rear beam at FS 597. This inspection is recommended on commercial aircraft when the aircraft exceeds 10,000 wing flight hours, with recurring inspections at 3,600 or 7,200 flight hours depending on area to be inspected. It also provides instructions to replace existing taper-lok fasteners in the wing-to-fuselage attach angle with Hi-Tigue fasteners.

[SB82-716/382-57-75 - WINGS - INSPECTION OF RIB FORMER AT OWS 293 LOWER WING SURFACE FOR CRACKS](#)

This Service Bulletin requires a visual inspection of the Outer Wing Station 293 Lower Rib Former. If no cracks are found, the Rib Former must be re-inspected in accordance with the time period set in the Service Bulletin until the Rib Former is replaced by the preferred spare (Rib Former 3338069-3/-4). If cracks are found, the Rib Former must be replaced. Revision 4 was issued to make clarifications and corrections.



[SB82-766/382-57-79 - WINGS - INSPECTION OF CENTER WING LOWER FORWARD CORNER FITTINGS](#)

This Service Bulletin was issued to perform a surface scan eddy current inspection of the center wing lower forward corner fittings left-hand and right-hand CWS 212 to CWS 216. The Service Bulletin requires the cleaning of the center wing lower forward corner fittings, and the performance of a surface scan eddy current inspection. An errata notice was issued to revise the aircraft listed in the effectivity paragraph.

[SB82-769/382-27-47 - FLIGHT CONTROLS - INSPECTION OF RUDDER AND ELEVATOR COUNTERBALANCE](#)

This Service Bulletin provides inspection for the rudder counterbalance weights due to interference damage by the Hi-Lok pins on the 389624-1 Inboard Balance Assembly. If the fasteners interfere with the rudder counterbalance, this Service Bulletin provides instructions for removing and replacing the elevator counterbalance assembly Hi-Lok pins. An errata notice was issued to add another aircraft to the effectivity paragraph.

(Continued on page 14)

Service Bulletin Updates

(Continued from page 13)

SB82-775/382-24-24 - ELECTRICAL POWER - INSPECTION FOR CHAFFING OF THE ESSENTIAL DC BUS WIRING AND RELOCATION OF THE CIRCUIT BREAKER WIRE BUNDLE LOCATED BEHIND THE COPILOT'S SIDE CIRCUIT BREAKER PANEL

This Service Bulletin inspects the essential DC power circuit breaker wiring behind the Copilot's Side Circuit Breaker Panel for chaffing and/or arcing. Instructions are provided for the repair of wiring as needed and for the relocation of the circuit breaker wiring bundle to prevent future chaffing.



SB82-775-382-24-24-X00-3

NOTE: CLAMPS IN FIGURES 1 AND 2 ARE COMBINED INTO ONE DOUBLE CLAMP.

Modified Wiring Bundle Assembly
Figure 3

SB82-718 - INSTALLATION OF C-130 NOSE RADOME LIGHTNING DIVERter KIT

This Service Bulletin installs a kit to protect the aircraft and installed equipment against a direct lightning strike of the nose radome. An errata notice was issued to Revision 2 to add another aircraft to the effectivity paragraph.

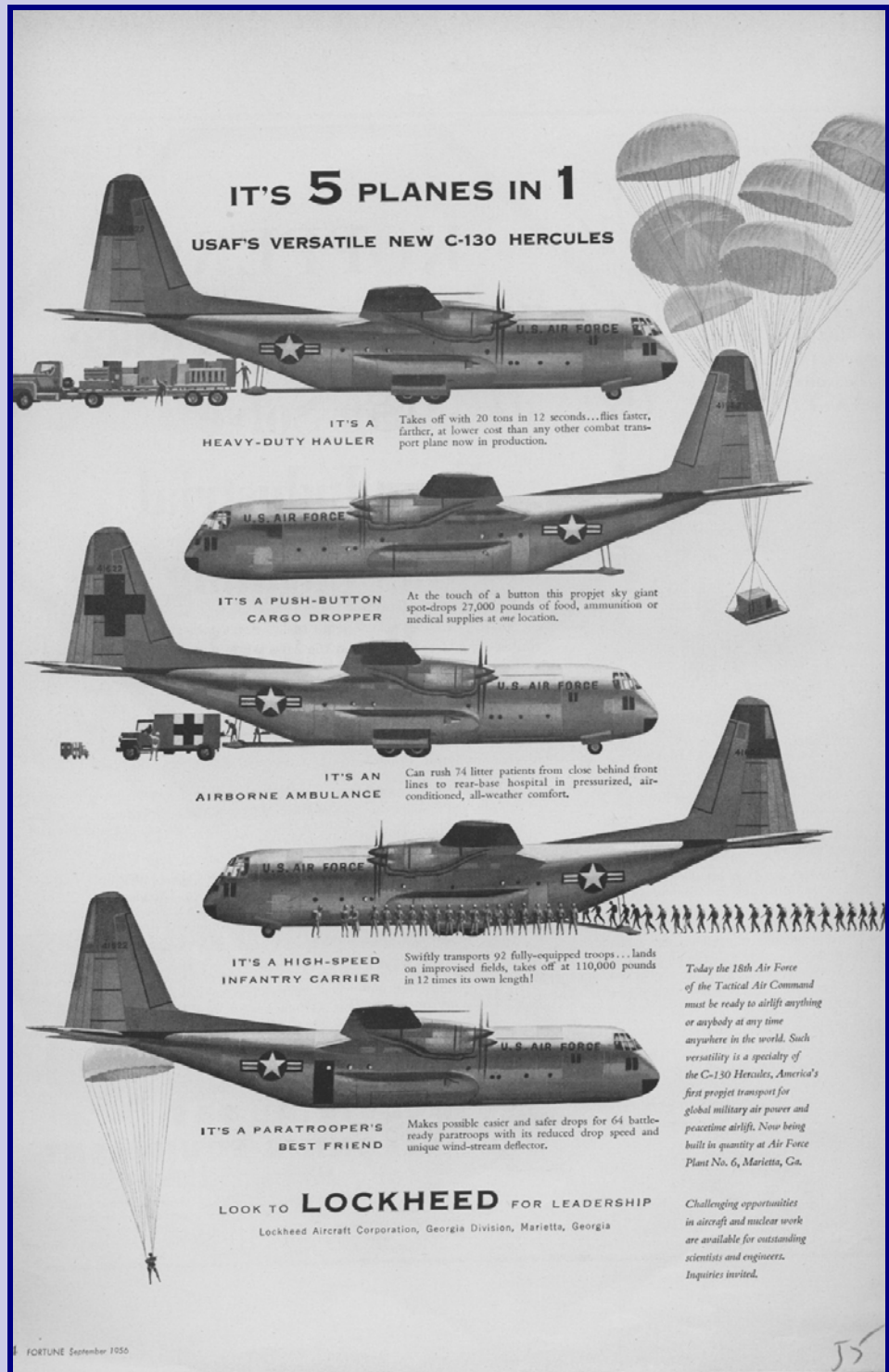
SB82-777 - FLIGHT CONTROLS - INSPECTION OF RUDDER COUNTERWEIGHT ARM ATTACHMENT HARDWARE FOR PROPER INSTALLATION

This Service Bulletin inspects the rudder counterweight arm attaching hardware for proper installation. Instructions are provided to remove and replace hardware if improperly installed.

Lockheed Martin Air Mobility Support
 86 South Cobb Drive
 Marietta, Georgia 30063-0589

On the World Wide Web - <http://www.lockheedmartin.com/ams>

IT'S 5 PLANES IN 1
 USAF'S VERSATILE NEW C-130 HERCULES



IT'S A HEAVY-DUTY HAULER
 Takes off with 20 tons in 12 seconds...flies faster, farther, at lower cost than any other combat transport plane now in production.

IT'S A PUSH-BUTTON CARGO DROPPER
 At the touch of a button this propjet sky giant spot-drops 27,000 pounds of food, ammunition or medical supplies at one location.

IT'S AN AIRBORNE AMBULANCE
 Can rush 74 litter patients from close behind front lines to rear-base hospital in pressurized, air-conditioned, all-weather comfort.

IT'S A HIGH-SPEED INFANTRY CARRIER
 Swiftly transports 92 fully-equipped troops...lands on improvised fields, takes off at 110,000 pounds in 12 times its own length!

IT'S A PARATROOPER'S BEST FRIEND
 Makes possible easier and safer drops for 64 battle-ready paratroops with its reduced drop speed and unique wind-stream deflector.

LOOK TO LOCKHEED FOR LEADERSHIP
 Lockheed Aircraft Corporation, Georgia Division, Marietta, Georgia

Today the 18th Air Force of the Tactical Air Command must be ready to airlift anything or anybody at any time anywhere in the world. Such versatility is a specialty of the C-130 Hercules, America's first propjet transport for global military air power and peacetime airlift. Now being built in quantity at Air Force Plant No. 6, Marietta, Ga.

Challenging opportunities in aircraft and nuclear work are available for outstanding scientists and engineers. Inquiries invited.

FORTUNE September 1950 J5