

**ADVANCED PERFORMANCE**

# **C-130H+ HERCULES**

**NEXT GENERATION CAPABILITIES**

Advanced glass cockpit, situational awareness /  
command and control data links, higher performance,  
and fuel savings for improved tactical operations



# **MORE CAPABILITIES AND GREATER PERFORMANCE AT A FRACTION OF THE COST**

**The Borsight C-130H+ Configuration  
Boosts Performance, Expands Mission  
Capabilities, and Saves Fuel...While  
Delivering Millions in Budget Savings**

- CNS/ATM advanced glass cockpit and avionics
  - RVSM with integrated tactical system (RTIC/TAMSS)
  - Class A TAWS
  - EIDS/EICAS (Electronic Instrument Display System/Engine Indication and Crew Alerting System)
  - EFIS (Electronic Flight Instrument System)
  - New Digital Autopilot, Fully-Coupled CAT-II Approach Capable
  - DoD/FAA-Certified Nav Data
- Faster climb to 18,000 feet
- Reduced field length under high-hot conditions
- Greater range with 35,000 pound payload
- Better fuel efficiency with improved reliability
- Reduced wing bending / wing fatigue
- No requirement for full outer wing tank
- No reduction of cargo capacity
- Up to 10,000 pounds less empty weight
- Expanded mission capabilities
  - Retardant Aircraft Delivery System (RADS)
  - Single Precision Air Drop (SPAD)
  - AECIS
  - Joint Precision Air Drop System II (JPADS II)
  - Mobility Aircraft Communications Addressing and Reporting System (MACARS)





## FUTURE-FORWARD TECHNOLOGY

**Comprehensive integration.** Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) brings new capabilities of communication, navigation, surveillance, and situational awareness to the C-130 that enhance the ability to carry out a worldwide mission in tactical and civil airspace.

**Fly worldwide.** Advanced area navigation, surveillance, and CAT-II approach capability meet worldwide next-generation airspace requirements, supporting any mission, anywhere.

**Future-proof upgradability.** Built-in support/interfaces for video, HF/VHF/UHF, TCAS, weather radar, ADF, FLIR, DME/TACAN, EVS, mission computer, and more provide a simple, low-cost path to future upgrades.

**Low total cost of operations.** Spend less on maintenance and replacement parts while experiencing greater uptime and higher mission completion rates.





# UNMATCHED SAFETY AND WORKLOAD BENEFITS...



**3D Synthetic Vision/GPS/SBAS.** Conformal terrain, traffic and obstacles on PFD enables exceptional situational awareness and optimum control and safety.

**Highway-In-The-Sky.** The only EFIS/FMS available for the C-130 to support HITS precision for all leg type for all procedures, including both published and user-defined approaches.

**OASIS (Open Architecture System Integration Symbology).** Allows customer-defined symbology pages and overlays for interfacing with aircraft and mission systems without affecting FAA Level-A software certification.



**TAWS/TCAS.** Achieve unprecedented traffic and terrain awareness—even look into the future during turns—with integrated visual/aural warnings.

**Integrated Digital Autopilot.** CAT-II approach capability and seamless coupling for all NexGen procedures, with envelope protection for added safety.

**EO/IR Sensor Integration.** Litening II Targeting Pod and MX15 multi-sensor, multi-spectral systems for Single Pass Precision Airdrop plus additional surveillance capabilities.



**Graphical FMS.** Plots the safest, most efficient route with just a few button clicks, plus easily adjusts on the fly if conditions change via the fast, intuitive interface. Supports all NexGen procedures including RNAV, BRNAV, PRNAV, RNP down to 0.1, LNAV/VNAV, and LPV approaches. The integrated FMS is capable of replacing or interfacing with the current SCNS data for combined use.

**Integrated Audio/Radio.** State-of-the-art integrated radio / audio management built into each display provide maximum flexibility and redundancy and supports future growth without adding additional control heads.



## ...PLUS ADVANCED EIDS FOR STREAMLINED PANEL



**Engine Instrument Display System (EIDS).** The EIDS utilizes a single IDU-680 and IDU-450 display to provide all current C-130H engine/propeller instrument information as well as numerous additional discrete annunciations:

- Engine Fuel Correction
- Beta
- Oil Cooler Augmenter
- Engine Hydraulic Pressure Warning
- Nacelle Overheat
- Elevator/Rudder/Aileron Trim
- Cabin Altitude
- Flap Position
- Liquid Oxygen Quantity
- Hydraulic Pressure Gauges

EIDS provides dual redundant TAWS and displays are dual redundant and capable of displaying equivalent information on either display. In addition, either can act as a back-up to the Primary Flight instrument and/or Flight Management System. Further, this architecture supports all configurations of the C-130H including the H1, H2, H2.5 and H3.



*The Engine Instrument Display System (EIDS) eliminates 37 gauges and discretes from the C-130H panel*

**ADS-B Out/In.** Meeting all current RVSM requirements, the EIDS system also supports ADS-B Out/In with the integration of the APX-119A and FAA/EASA-certified ADHRS/GPS. The certified ADHRS/GPS provides attitude, altitude, and position information across the system to meet current ADS-B Out requirements as well as preparing for the future requirements of ADS-B In.





# STATE-OF-THE-ART AVIONICS THAT SET THE STANDARD



PFD WITH TERRAIN



ARMS



TARGETING POD



EICAS



MOVING MAP WITH TERRAIN

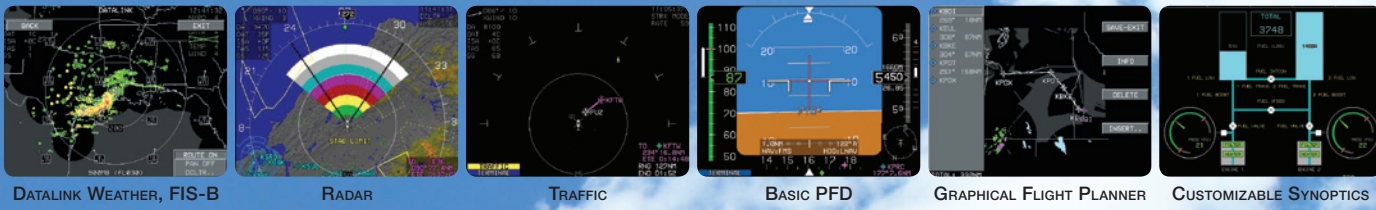


EHSI



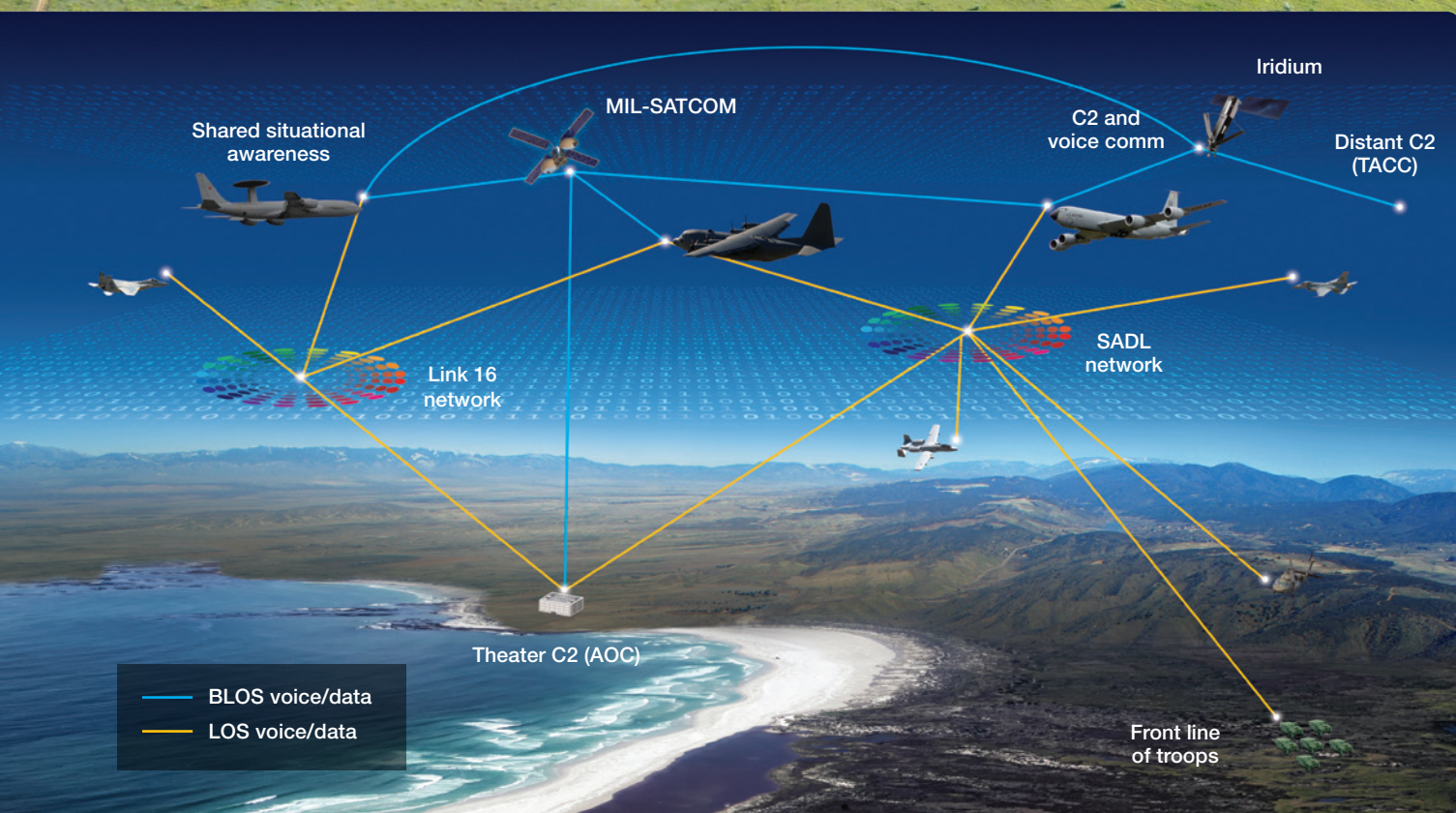


# WARD FOR GLASS COCKPITS IN THE 21ST CENTURY





# NEXT-GENERATION RTIC



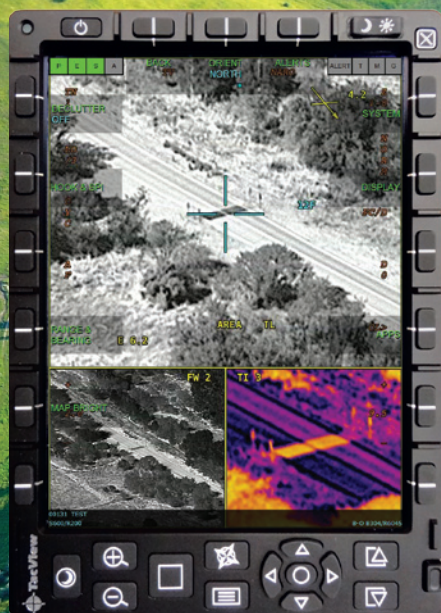
**C-130/KC-135 Future Gateway Systems.** Borsight delivers next-generation Real Time Information in the Cockpit (RTIC) capabilities with enhanced situational awareness and communications tools. The program provides pilot, co-pilot and navigator with individual flight management systems and situational mission displays, as well as enhanced airborne gateway options to Theater Commanders. System utilizes a data link radio and ARC-210 SATCOM, associated interfaces, and antennas.

Borsight is the Prime contractor for RTIC integration, production, and installation on

Air National Guard and Air Force Reserve aircraft for the ongoing ANG/AFRC C-130H RTIC program. Components and capabilities include:

- LINK-16/SATCOM (Small Tactical Terminal)
- High-power Amplifier
- Real Time Data Link (SADL)
- Over-the-Pole Capability (Iridium)
- Mission Processor (AEP)
- Displays (TacView)
- JTIC Datalink/Gateway (GRS)
- Power Converter (AC to DC)
- Antennas
- Litening II Targeting Pod





### TacView® Portable Mission Display (PMD).

Avionics-grade, portable smart display enables paperless cockpit. Rapid implementation of tactical data link communications and streamlined airborne operations. Uniquely integrated “QWERTY-style” sliding keyboard optimizes text input in all conditions. PMDs mount on yokes or on stands to right/left of pilot/co-pilot.

**Tactical Awareness Mobility Software Suite (TAMSS).** Borsight’s Situational Awareness and Data Link Gateway software is integrated into the PMD for maximum pilot, co-pilot, navigator flexibility. Also included is an Electronic Flight Bag to provide geo-referenced approach plate and charts, threat awareness information, and targeting pod:

- RPF Maps (FalconView Maps)
- CIB Imagery

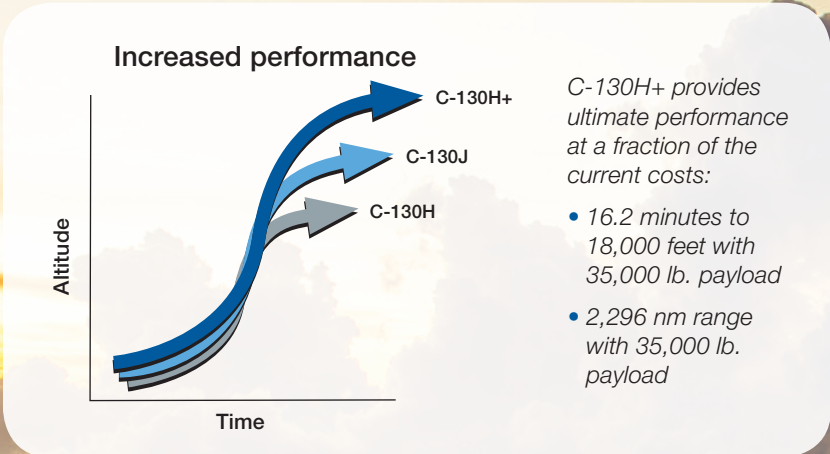
- ¼ Meter Imagery
- Data Link Overlays (SADL, Link 16, JREAP A/B/C)
- Radio Control (ARC-210, SADL, STT)
- DoD Operations
- Domestic Operations
- Weather Overlays
- Geo-referenced Low/High Charts
- Integrated Electronic Flight Bag
- Litening II Targeting Pod Control and Display (SPAD)
- Electronic Threat Situational Awareness (AECIS)
- Joint Precision Air Drop System II (JPADS II)
- Tele-Medicine for Medivac Operations
- Mobility Aircraft Communications Addressing and Reporting System (MACARS)





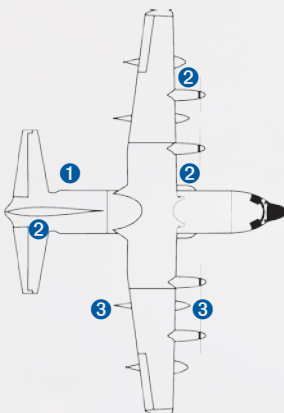
# PERFORMANCE IMPROVEMENTS THAT PAY FOR THEMSELVES THROUGH FUEL SAVINGS

Wingtips, Disturbance Area Modifications, and Propulsion Upgrades Boost Speed and Range While Conserving Fuel to Deliver Rapid Payback



## Scimitar Wingtips

- The only wingtip design that reduces wing load
- 6% less fuel burn
- Reduced drag
- 3% span increase
- Reduced bending movement/wing fatigue
- 3-year payback



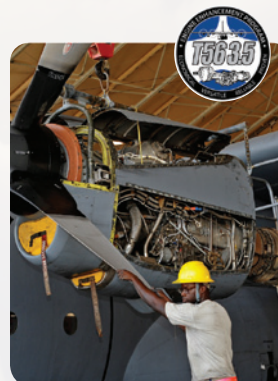
## Disturbance Area Modifications

- 6% less fuel burn
- Reduced drag
- ① Aft fuselage BLC
- ② Wing intersection horns proven over past 25 years by Airbus, Boeing, and Douglas
- ③ Fuel tank pylon BLC
- 3-year payback



## UTC NP2000 Scimitar Propeller Upgrade

- 6% reduced fuel burn
- Electronic Propeller Control System (EPCS)
- Inflight propeller balancing system
- 7-year payback



## Rolls-Royce 3.5 Engine Upgrade

- 9.7% reduced fuel burn
- 22% reliability improvement
- Installation during routine overhaul
- Upgrade cost offset by typical overhaul savings
- 6-year payback



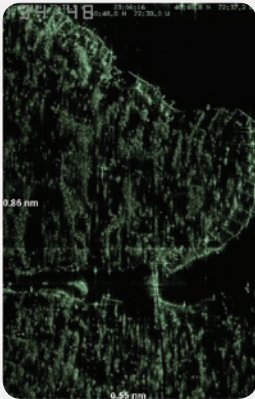
# ENHANCED RADAR SYSTEM AND EXTENDED FIRE FIGHTING CAPABILITIES

## Telephonics Imaging Radar.

A new standard for multi-mission airborne surveillance systems that integrates the functionality of ASW/ASUW maritime patrol and overland air-to-ground SAR/GMTI into a single radar. Ideal solution to meet multiple, diverse mission requirements with a single aircraft. Operating modes include:

- Wide Area Surveillance (WAS)
- Low Radar Cross Section (LRCS)

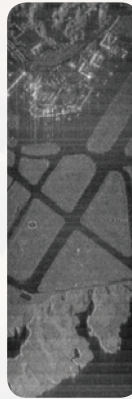
- ISAR (Seaspot)
- Stripmap SAR
- Landspot SAR
- Ground MTI (GMTI)
- Navigation (NAV)
- Weather (WX)
- Search & Rescue Transponder (SART)
- All-Mode IFF Interrogator (IFF-I)



Radar



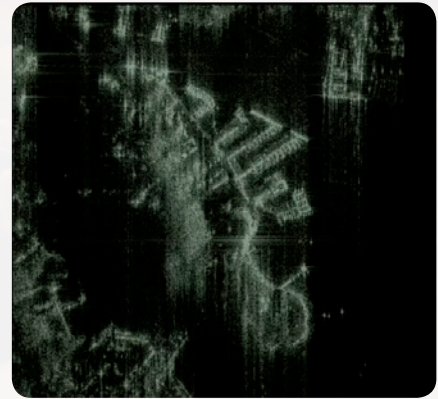
Satellite



Radar



Photo



Radar resolves boats in boat slips



**Expanded Fire Fighting.** The C-130H+ enhances fire fighting capabilities via the Retardant Aircraft Delivery System (RADS):

- Expanded Title 32 mission
- Maximize force structure use
- Utilize \$540M O&M through Department of the Interior Budget
- Budget versus supplemental funding

## Retardant Aircraft Delivery System (RADS).

RADS improves fire fighting mission capabilities, yet weighs a fraction of what other systems weigh, installs in 60 minutes, and requires no additional equipment or crew members.



# **BORSIGHT DELIVERS INNOVATIVE, INTEGRATED, COMBAT-PROVEN SOLUTIONS**

Borsight is a Service Disabled Veteran Owned Small Business that was founded on the belief that innovation leads to successful enterprise. The company has multiple divisions with management processes designed to provide Crosstalk between disciplines. Borsight's ultimate goal is providing services and products which surpass customer expectations.



**A-10 Warthog**



**Metroliner RC-26B**



**C-130 Hercules**



**HH-60**



**KC-135**



**C-17**

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