

# INTEGRATED AVIONICS SYSTEMS

DESIGNATION	DESCRIPTION	APPLICATIONS	REMARKS
<b>BAE SYSTEMS, BAE Systems Controls, Santa Monica, CA, USA</b>			
IS/AU	Integrated sensor/avionics unit. AHRS/GPS, flight control, vehicle management and integrated air data.	BQM-74E	For small vehicles.
ISU	Integrated sensor unit combines AHRS/GPS, vehicle management, flight control and air data.	Bell 412, KTX-1	Commercial and military manned aircraft applications.
MIAG (Modular Integrated Avionics Group)	AHRS/GPS and vehicle mgt. sys. with integrated air data.	Pioneer	Developed for UAV commonality and interoperability.
MIAG/IFF (Modular Integrated Avionics Group/Identification Friend or Foe)	AHRS/GPS and vehicle mgt. sys. with integrated air data and Mode 4 IFF.	—	Developed for UAV commonality and interoperability.
NSU (Navigation Sensor Unit)	AHRS/GPS and vehicle mgt. sys. with integrated air data.	ER-2S, KMR-30E, Mirach 100/5	Building block approach for AHRS, GPS, air data and vehicle control applications.
<b>THE BOEING CO., Integrated Defense Systems, Long Beach, CA, USA</b>			
B-1 Offensive Avionics System	Integrates radar, navigation, weapons delivery, stores mgt., defense/RFS/ECMS, terrain-following systems and displays.	B-1B	—
C-130 Avionics Modernization Program	Includes six flat-panel displays, two head-up displays, two comm./nav. control panels, flt. mgt. system and workload mgt. system.	C-130	Upgrades 500+ USAF C-130 aircraft to a GATM-compliant, common avionics architecture.
L-159 Integrated Tactical Avionics System	Digital avionics suite.	L-159	—
<b>CHUNG-SHAN INSTITUTE OF SCIENCE AND TECHNOLOGY (CSIST), Lungtan, Taoyuan, Taiwan</b>			
—	Integrated cockpit management system integrates transmitters/receivers, displays, GPS navigation and moving map.	—	—
<b>CMC ELECTRONICS INC., Ville St. Laurent, Quebec, Canada</b>			
CMA-900 Flight Management System	GPS/FMS system certified for GPS primary means navigation.	727, 737, 747, MD-80	—
CMA-2074 Data Interface Unit/Mission Computer	System interfaces discrete, digital, analog signals to MIL-STD-1553B and Arinc 429 avionics busses. Can function as a mission computer.	Older military aircraft. Interfaces analog avionic systems to digital avionic systems	In service with US, Canadian and NATO forces.
CMA-2082A Avionics Management System	Primary information control and display unit for navigation, communications, ASE and weapons systems.	C-130, MH-53E, UH-60M	In service with US, Canadian and NATO forces.
CMA-2082D Avionics Management System	Primary information control and display unit for navigation, communications, systems and weapons.	—	Selected for Canadian CP-140.
CMA-2082F Display and Control Unit	Integrated control and display, with onboard EW processing.	CP-140, EP-3, Tornado	—
CMA-2082M	Primary information control and display unit for navigation, communications, ASE and weapons systems.	UH-60M	Self-contained control and display unit for navigation, communications, ASE and weapons systems.
CMA-3000 Flight Management System	FMS, radio management system, controls and displays.	EC135, Super Puma Mk. 1 & Mk. 2	For rotary-winged aircraft and regional transports.
<b>ELBIT SYSTEMS LTD., Haifa, Israel</b>			
MDP/MMRC	Modular multi-role computer; performs fire control, stores management; controls display processor. Integrated communications and navigation systems.	F-4, F-5, F-16, MIG-21, Super Puma	In production.
<b>HONEYWELL, Phoenix, AZ, USA</b>			
ACMS (Avionics Control Management System)	Dual redundant integrated pilotage, mission and air vehicle avionics system for military helicopters.	Royal Netherlands Air Force CH-47D	Boeing is system integrator for CH-47s.
Advanced Transport Integrated Flight Control and Display System	Includes integrated mission computer, INS/GPS, radio/nav. aids mgt. Interfaces with self-defense system, flt. mgt. system with high-resolution cockpit displays.	C-130, C-141	—
AIMS (Airplane Information Management System)	System integrates flt. mgt., displays, onboard maint., comm. mgt., engine data interface, data conversion gateway, aircraft condition monitoring.	777	Developed under Boeing's direction.

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<b>HONEYWELL, Phoenix, AZ, USA</b>			
AMS-2000 (Avionics Management System)	Includes flt. mgt. sys., autopilot flt. director, nav. sensors and radios, comm. radio mgt., EFIS displays.	C-130, P-3, avionics upgrades	In production for Belgian air force C-130Es.
CNI-MS (Communication/Navigation/Identification Mgt. System)	Digital flt. mgt. system.	C-27J, C-130J	In production.
Integrated Cockpit Control and Display System	Includes master controller processor, MFD, keyboard, radio frequency display.	OH-58D	—
MD-11 Integrated Avionics	Subsystems include digital air data computer, automatic flt. system, electronic instrument system, aircraft system controllers, centralized fault display system, IRS, flt. mgt. system.	MD-11	Features six CRTs.
Primus 1000 Integrated Avionics System	Includes TCAS 2, AHRS, weather radar, radio system, avionics computer, flt. controls, EFIS, radio altimeter, data acquisition units.	Citation Bravo/Excel/Ultra, ERJ 135/140/145 and Learjet 45	—
Primus 2000 Integrated Avionics System	Includes dual avionics computers, dual auto flt. controls, EFIS, data acquisition units, AHRS, weather radar, radio system, flt. mgt. system, autothrottles, EICAS. Engine instrument and crew advisory system.	Citation 10, Falcon 900C and 900EX	Also on other aircraft.
Primus 2000 XP Integrated Avionics System	Includes triple avionics computers, dual auto flt. controls, EFIS, dual FMS-2000 flt. mgt. system, dual auto throttle, four data acquisition units, central aircraft info/maint. sys., triple IRS, TCAS, GNSSU, weather radar, radio system.	Global 5000, Global Express	—
Primus Epic	Integrates all traditional avionics functions and aircraft utilities into modular architecture.	AB139, ERJ 170/190, Falcon 900EASy, Gulfstream 5-SP, Raytheon Hawker Horizon, Sovereign	—
Primus Epic CDS	Upgrade to existing systems; includes flat panel displays and enhanced display functionality.	Sino Swearingen SJ30-2	Available for retrofits.
Special Operations Aircraft Integrated Avionics System	Includes display processors, MFDs, digital map display generator, remote terminal units for non-MIL-STD-1553 avionics.	MH-47E, MH-60K, helicopters	—
SPZ-4500 Integrated Avionics System	Includes digital flt. controls, EFIS, AHRS, digital air computer, weather radar, integrated radio system, radio altimeter.	CASA 212-300, Jetstream 41, Transall	—
SPZ-5000 Integrated Avionics System	Includes digital auto flt. controls, EFIS, AHRS, micro air data computer, weather radar.	CitationJet, LM2000	—
SPZ-6000 Integrated Avionics System	Includes digital auto flt. controls, EFIS, AHRS, digital air data computer, weather radar.	ATR 42/72	—
SPZ-8000 Integrated Avionics System	Includes digital auto flt. controls, EFIS or electro-mechanical sys., AHRS, digital air data computer, integrated radio sys.	Citation 7, DHC Dash 8Q series, Gulfstream 4, Raytheon Hawker 800XP	—
SPZ-8400 Integrated Avionics System	Includes dual digital flt. controls, FMS, air data computers, triple IRS, radio altimeters, weather radar, EFIS, HUD/EVS.	Gulfstream 4-SP	—
SPZ-8500 Integrated Avionics System	Includes dual computers, dual auto flt. control sys., EFIS, flt. mgt. sys., dual autothrottles, triple micro air data computers, DA-800 data acquisition units, triple LASEREF4 IRS, GNSSU, dual radio altimeters, weather radar, HUD/EVS.	Gulfstream 5	—
SPZ-9000 Integrated Avionics System	Includes integrated avionics computer, digital AFC, EFIS, air data computer, weather radar.	Fokker 50	—
VIA 2000 (Versatile Integrated Avionics)	Integrates displays, flt. mgt., autoflight/autothrottle, comm. mgt., flt. warning, central maint., digital flt. data.	717, 737-600/700/800, MD-10, MD-90	Evolution of integrated modular avionics on Boeing 777.
<b>NORTHROP GRUMMAN CORP., Integrated Systems, El Segundo, CA, USA</b>			
B-2 Bomber Avionics Systems	Includes eight MFDs, 164 embedded computers, 18 MIL-STD-1553 data buses.	B-2	21 bombers produced and delivered.
<b>NORTHROP GRUMMAN CORP., Navigation Systems Div., Woodland Hills, CA, USA</b>			
AN/ASN-150 Central Tactical Data Management System	Controls and displays navigation, communication and armament for rotary- and fixed-wing aircraft.	US Coast Guard HH-60J, US Navy HH-60H, SH-2G, SH-60F	Also in Sikorsky S-70 versions for Rep. of China, Greece, Thailand and Kuwait. In SH-2G for New Zealand and Egypt.

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<b>NORTHROP GRUMMAN CORP., Navigation Systems Div., Woodland Hills, CA, USA</b>			
C-17 Warning and Caution Computer/Mission Keyboard/Multi-function Control Panel	Single point control of all C-17 primary navigation system modes and sensors.	C-17 transport	In production.
Communications Control Group	Provides intercom control between crew stations, air-to-ground comm. control, data comm. and secure/clear isolation.	US Navy S-3B	Being upgraded.
Integrated Avionics System (IAS)	Includes displays, controls and computer for pilot and weapons delivery.	AH-1Z, UH-1Y	Under contract to USMC.
Integrated Tactical Avionics System (ITAS)	"Glass cockpit" with INS/GPS, communications, digital map, stores/weapons management and engine performance.	SH-2G	Commercially-based, open architecture system.
<b>NORTHROP GRUMMAN CORP., TRW Radio Systems, San Diego, CA, USA</b>			
Integrated CNI (Communication/Navigation/Identification) Avionics	Integrated comm./nav./ID.	F-22, RAH-66	Also planned for use on F-35.
<b>ROCKWELL COLLINS, Commercial Systems, Business and Regional Systems, Cedar Rapids, IA, USA</b>			
Pro Line 4 Digital Avionics System	Includes primary fit. displays, MFDS, EICAS, autopilot/fit. control sys., weather radar, TCAS, maint. diagnostic sys., fit. mgt sys., digital air data, comm./nav., GPS and AHRS.	Challenger 604, Falcon 50EX, Falcon 2000, G100, G200, Saab 2000	For corporate and regional aircraft. Also available as a retrofit for Dassault Falcon 20 and 50.
ProLine 21 Advanced Avionics System	Includes 2-5 10" x 8" or 12" x 10" LCD displays, integrated FMS and autopilot, EICAS, digital quartz gyro AHRS, LCD, radio tuning units, EICAS, maint. diagnostics, weather radar, TCAS.	ARJ21, Bell Agusta 609, Citation, CJ1 & CJ2, CL 601, Gulfstream 150, Hawker 800, Premier 1	Increased capability and functionality with less weight and volume. Also available for Falcon 20, Falcon 50 retrofit.
<b>ROCKWELL COLLINS, Government Systems, Cedar Rapids, IA, USA</b>			
Collins Flight2	Open systems architecture that integrates flight operations with navigation and guidance functions.	USAF C/KC-135	Multiple product interface, plug-and-play capability.
FMS-800	Flight mgt. system; provides integrated GPS/INS for guidance and navigation management.	B-1, C-5, C-130, CH-47, E-3, E-4, E-8, KC-10, KC-135	Provides integrated GPS/INS for guidance and navigation and cockpit management.
<b>SAGEM SA., Defense and Security Div., Paris, France</b>			
AP 2000	Includes single or dual digital flight control system, AHRS, trim activators and data management system.	EC135, EC145, EC155, EC225, EC635, EC725	—
MAESTRO	Integrates navigation, mission management, stores management, fire control and weapon delivery and control displays; also performs bus management.	F-5, Mirage 3, Mirage F-1	In operation on more than 400 aircraft, including Dassault Mirages.
NH 90 Integrated Avionics	Includes dual digital flight control systems, dynamic sensor unit, trim system, dual inertial system and Flir.	NH 90	—
<b>SMITHS GROUP PLC, Smiths Aerospace, Electronic Systems, Cheltenham, UK, Germantown, MD &amp; Grand Rapids, MI, USA</b>			
Integrated Avionics System	Includes flight management system, Terrain Awareness Warning System, integration communication management unit, remote interface unit, primary flight display processing, voice and data recorder, multifunction control display.	C-130 AMP	—
<b>THALES AVIONICS, Velizy Villacoublay, France</b>			
TopDeck modular avionics (civil/military aircraft)	Includes fit. controls and displays, comm. and maintenance functions.	C-130, C-295, Hawk, MiG-AT	Also for regional and business aircraft.
TopDeck modular avionics (helicopters)	Includes navigation and flight controls	A109	—
MEGHAS suite	Integrates flight controls, navigation, vehicle and engine management, health and usage monitoring.	EC120, EC130, EC135, EC145, EC155	—

**END OF TABLE**