



AIRCRAFT MAKE: AGUSTA WESTLAND (FORMERLY BELL / AGUSTA AEROSPACE COMPANY)  
 AIRCRAFT MODEL: AB-139  
 AIRFRAME SERIAL NUMBER: 31031  
 US REGISTRATION MARK: N139WH  
 DATE OF CONSTRUCTION: 12 DECEMBER 2005  
 DATE NEW IN SERVICE: AUGUST 2006

AIRFRAME TOTAL TIME: 195.6 FLIGHT HOURS & 455 LANDING CYCLES

ENGINE MAKE & MODEL: PRATT & WHITNEY OF CANADA MODEL PT6C-67-C  
 ENGINE SERIAL NUMBER: PCEW-KN-0030 & KB-0003  
 ENGINE TOTAL TIME: 200.7 FLIGHT HOURS 200.7 FLIGHT HOURS  
 ENGINE CYCLES: 356 CYCLES 356 CYCLES

**EXTERIOR:** METALLIC GREEN WITH GOLD AND MAROON STRIPES

**MISCELLANEOUS & OPTIONAL EQUIPMENT**

- ENAC/ FAA IFR BASIC CERTIFICATION
- AUXILIARY FUEL TANK PROVISIONS AND AUXILIARY FUEL TANK SUYSTEM
- MARKINGS FOR HIGH VISIBILITY MAIN ROTOR BLADES
- CO-PILOT STORM WINDOW
- APPROACH PLATES CHART LIGHTED HOLDER
- CLOSE CIRCUIT REFUELING SYSTEM
- AIR CONDITIONER
- P-660 WEATHER RADAR PROVISION AND RADAR SYSTEM
- EMERGENCY FLOAT PROVISIONS AND FLOAT SYSTEM
- COLLECTIVE OPERATED HOBBS METER
- ENGINE PARTICLE SEPARATOR
- TCAS 1 BENDIX KING
- CUSTOM SOUNDPROOFING
- DUAL PANE TINTED CABIN WINDOWS
- STAINLESS STEEL EXHAUST STACKS
- QUIET TRANSMISSION
- MASS VIBRATION ABSORBER
- AUXILIARY 27 AM BATTERY MOD WITH FDR TIME DELAY RELAY
- MODIFICATION OF BAGGAGE COMPARTMENT TO 300 KILOS

**INTERIOR:**

CUSTOM EDWARDS / FLIGHT ENVIRONMENT QUIET 12 PASSENGERS + 2 COCKPIT CREW CONFIGURATION DONE IN TAN LEATHER SEATS WITH MANUAL LIMO WINDOW AND PROVISIONS FOR HEADSETS AT EACH SEAT. PS ENGINEERING PAV-80 AM-FM-CD MUSIC SYSTEM AND I-POD PROVISIONS INTEGRATED INTO THE AUDIO SYSTEM. ROSEWOOD TRIM ON SIDE-PANELS.



**ROTORS AND CONTROLS:**

FULLY ARTICULATED MAIN ROTOR (M/R) WITH FIVE COMPOSITE BLADES, FIVE ELASTOMERIC BEARINGS AND FIVE HYDRAULIC DAMPERS  
ROTATING M/R FLIGHT CONTROLS  
THREE MAIN DUAL SERVO ACTUATORS  
FULLY ARTICULATING TAIL ROTOR (T/R) WITH FOUR COMPOSITE BLADES, FOUR ELASTOMERTIC BEARING AND FOUR ELASTROMERIC DAMPERS  
ROTATING T/R FLIGHT CONTROLS  
ONE T/R DUAL SERVO ACTUATOR  
FORCE TRIM SYSTEM  
PILOT FIXED FLIGHT CONTROLS (Cyclic, collective, anti-torque pedals)  
COPILOT FIXED FLIGHT CONTROLS (cyclic, collective, anti-torque pedals)  
DUAL DIGITAL 3-AXIS LINEAR ACTUATORS  
ROTOR BRAKE  
PROVISIONS FOR MAIN ROTOR TRACKING (Magnetic pick up)

### **AIRFRAME:**

ALUMINUM ALLOY FUSELAGE  
POLYCARBONATE WINDSHIELDS  
OVERHEAD COCKPIT WINDOWS  
LOWER COCKPIT WINDOWS  
COCKPIT RAM AIR ADJUSTABLE OUTLETS  
FORCED FAN VENTILATION  
BLEED AIR HEATER AND DEFROSTER WITH AIR NOISE SUPPRESSION  
HEATED PITOT TUBES (2) WITH PITOT HEAT FAILURE WARNING (2)  
HEATED STATIS INTAKES (2)  
COCKPIT MAP AND DATA CASE  
ONE COCKPIT AND ONE PILOT CABIN FIRE EXTINGUISHER  
PILOT DOORS (2) WITH PUSH-OUT EMERGENCY EXIT WINDOW (with "STORM WINDOW" on pilot's side)  
PLUG-IN SLIDING DOORS (2) FOR PASSENGER CABIN ACCESS  
SIX CABIN PUSH-OUT EMERGENCY EXIT WINDOWS (2 on each passenger cabin door)  
BAGGAGE COMPARTMENT WITH 2 LOCKABLE BAGGAGE COMPARTMENT DOORS (LH Side)  
BAGGAGE COMPARTMENT CARGO TIE-DOWN FITTINGS  
WHEELED RETRACTABLE TRICYCLE LANDING GEAR (2 Wheels on nose gear & Brakes on main landing gear)  
MOORING, HOISTING AND JACK FITTINGS  
TAIL-BOOM AND VERTICAL FIN  
STABILIZERS  
PILOT AND COPILOT WINDSHIELD WIPER  
MAINTENANCE STEPS FOR ACCESS TO UPPER DECK  
UPPER-DECK COWLINGS (one front forward sliding and 2 side opening for engine access)

### **ELECTRICAL SYSTEMS:**

DC PRIMARY POWER GENERATION: 28 V DC REGULATED VOLTAGE PROVIDED BY TWO INDEPENDENT 300 A STARTER GENERATORS  
DC EXTERNAL POWER RECEPTICLES  
TWO NICKEL-CADMIUM BATTERIES: ONE 40 AH MAIN BATTERY PLUS ONE 13 AH AUXILIARY BATTERY  
DC STARTER GENERATOR CONTROL UNITS (2)  
NAVIGATION LIGHTS (3)  
ANT-COLLISION LIGHT  
FIXED LANDING LIGHTS (2)  
ROTATING RETRACTING LANDING LIGHT  
BAGGAGE COMPARTMENT LIGHTING AND SMOKE SENSOR

### **TRANSMISSION / DRIVE SYSTEM AND HYDRAULIC SYSTEM:**

MAIN TRANSMISSION WITH TWO DIRECT DRIVE ENGINE INPUTS  
THREE MAIN TRANSMISSION CHIP DETECTORS/DEBRIS COLLECTORS WITH BURNING CAPABILITY  
TWO FREE WHEEL UNITS  
FOUR STRUT RODS FOR UPPER DECK ATTACHMENT AND ONE ANTITORQUE PLATE  
INTERMEDIATE GEARBOX WITH WIGHT GAUGE AND MAGNETIC DRAIN PLUG/CHIP DETECTOR  
TAIL GEARBOX WITH SIGHT GAUGE AND MAGNETIC DRAIN PLUG/CHIP DETECTOR  
DUAL INDEPENDENT, REDUNDANT HYDRAULIC SYSTEMS  
TWO HYDRAULIC POWER CONTROL MODULES (PCMs)  
THREE MAIN TRANSMISSION DRIVEN HYDRAULIC MECHANICAL PUMPS FOR CONTROLS, LANDING GEAR AND BRAKE ACTUATION  
ONE ELECTRICAL PUMP FOR CONTROLS CHECKS ON GROUND (engines off)  
AIR CONDITIONING COMPRESSOR QUILL

### **POWER PLANT & FUEL SYSTEMS:**

TWO PRATT & WHITNEY CANAD A PT6C-67C ENGINES  
TWO INDEPENDENT FADEC SYSTEMS (one on each engine) WITH AUTO-START AND ENGINE CONTROL FUNCTIONS FOR NORMAL, EMERGENCY AND TRAINING OPERATIONS  
TWO MAGNETIC CHIP DETECTORS  
TWO INTEGRATED AND INDEPENDENT ENGINE OIL COOLERS  
SEPARATE FIREWALL PROTECTION FOR EACH ENGINE  
FIRE DETECTION SYSTEM  
FIRE EXTINGUISHER SYSTEM (2 bottles)  
ENGINE EXHAUST AND EJECTORS

TWO INDEPENDENT CRASHWORTHY FUEL CELLS  
TWO SUPPLY PUMPS SUBMERGED IN FUEL TANKS  
TWO FUEL FILTER ASSEMBLIES  
TWO ENGINE BACK-UP CONTROLS, MECHANICAL AND ELECTRICAL  
TWO MANUAL ENGINE START AND IGNITION SYSTEMS

**STANDARD AVIONICS PACKAGE:**

1 ST PFD (PILOT PRIMARY FLIGHT DISPLAY) 8 "X 10" COLOR ACTIVE MATRIX LIQUID CRYSTAL DISPLAY AS PART OF HONEYWELL PRIMUS EPIC SYSTEM FOR VISULATION OF FLIGHT AND NAVIGATION DATA  
2 ND PFD (COPILOT DISPLAY)  
1 ST MFD (PILOT MULTIFUNCTION DISPLAY) 8"x10"COLOR ACTIVE MATRIX LIQUID CRYSTAL DISPLAY) AS PART OF HONEYWELL PRIMUS EPIC SYSTEM FOR VISULATION OF FLIGHT AND NAVIGATION DATA  
2 ND MFD (COPILOT) 8"x10"COLOR ACTIVE MATRIX LIQUID CRYSTAL DISPLAY) AS PART OF HONEYWELL PRIMUS EPIC SYSTEM FOR VISULATION OF FLIGHT AND NAVIGATION DATA  
ELECTRIC ATTITUDE AND HEADING REFERENCE SYSTEM (ahrs)  
TWO AIR DATA MODULES (ADM)s  
TWO FLUX VALVES  
TWO DISPLAY CONTROLLERS (DCs)  
TWO CURSOR CONTROL DEVICES (CCDs)  
ONE REVERSION CONTROL PANEL (RCP)  
ONE DISPLAY DIMMING CONTROL PANEL (DCP)  
ONE STABILITY AUGMENTATION SYUSTEM (SAS) CONTROL PANEL  
TWO MODULAR AVIONICS UNITS (MAUs) INCORPORATING THE FOLLOWING MAJOR SUBSYSTEMS AND OR FUNCTIONS: