



BT-67

Basler Turbo Conversions LLC



The Legend

"The DC-3 was a beautiful, stable and virtually indestructible airframe going to waste. We realized that by turbinizing and modernizing the airplane it would go on for many years.

"...for years the aviation industry had been searching for a replacement for this rugged and reliable aircraft... at Basler Turbo Conversions we're building it."

- Warren Basler



Future

Everyday, all over the world, DC-3s add to an amazing record of achievement. From ice cap to desert, this aircraft continues to log productive hours. Its usefulness has been proven in every imaginable application, from passenger, to cargo, to military and special purpose missions. At the heart of this outstanding airplane lie its toughness, simplicity, spaciousness and performance.

The characteristics of the DC-3 provide a truly unique combination of high-revenue payload capability in the world's most reliable airframe. Proven time and time again through effective use in STOL operations and delicate special missions, the DC-3 provides low-cost and simplicity of operation which is unmatched in the market of aviation.

Over the years the DC-3 has shown by experience that it can have a virtually unlimited service life with a standard level of care and simple preventive maintenance practices.

Basler Turbo Conversions takes the legendary airframe and puts it through the industry's most

extensive remanufacturing process. Built into each airframe is the sum of our knowledge and our proprietary processes, along with state-of-the-art components, world-class Pratt & Whitney Canada PT6A-67R engines and Hartzell propellers.

The Basler BT-67, without question the world's most experienced all-purpose aircraft, is engineered to meet competitive challenges for generations to come.

The BT-67 modernization includes a complete airframe overhaul, aerodynamic improvements, structural modifications that increase strength and improve performance and new systems that improve reliability.

The end product is an essentially new aircraft with its gross take-off weight increased to 28,750 lbs and



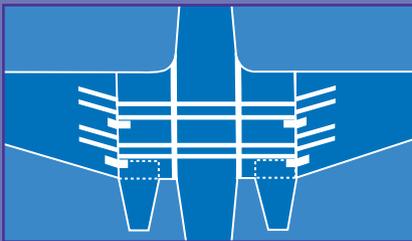
an unbeatable combination of simplicity, reliability and operating performance.

All changes are certified through extensive testing to FAR Part 25, the same tough criteria applied to the latest generation of commercial jet liners. The resulting product, the BT-67, defies standard comparison. It is unquestionably the most highly evolved and proven transport system in its class both in terms of productivity and cost effectiveness.



Mission Ready

After thousands of hours of design, each BT-67 is engineered to assure that every component, assembly, or system is either new or the equivalent of new. All workmanship and materials meet the highest standards of the U.S. Federal Aviation Administration. The philosophy inherent in our manufacturing process is to exceed industry standards by following an uncompromising approach to excellence that produces a product of the highest quality.



Airframe

- Inspected and overhauled to fully re-engineer and strengthen airframe. Returns airframe to original specification, or exceeds original specification. Includes a structural reinforcement package.
- Fuselage stretched 40-inches (forward of wing)
- Cockpit bulkhead moved forward 60-inches to increase payload cabin volume and aerodynamic performance
- Redesigned outer wing leading edge and wing tip

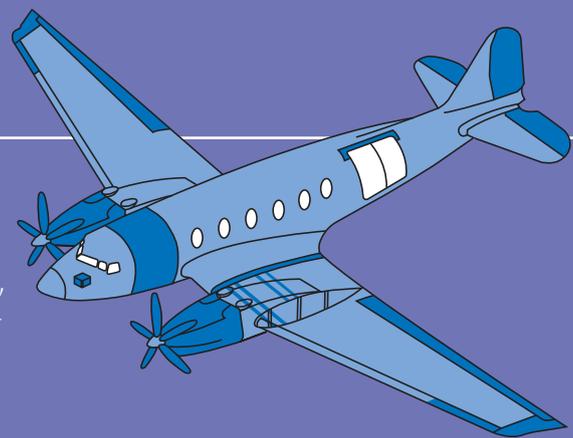
- All metal control surfaces
- Center and outer wings reinforced to reduce loads on lower wing attach angles, and to support the increased maximum gross weight

Documented 12,000 Hour Overhaul

- Douglas Supplemental Inspection (SID)
- FAA Airworthiness Directives incorporated
- Service bulletin compliance
- New skin and ribs as required:
 - Corrosion repair
 - Damage repair
 - Aesthetics
- New interior corrosion protection
- New or overhauled:
 - Main landing gear
 - Tail gear assembly
 - Landing gear retract and compensating cylinders
 - Tail wheel shock strut
 - Hydraulic accumulator
 - Wing flap actuating cylinder

Standard Conversion Items Cockpit

- Overhead system panels
- Circuit breakers
- Electrical junction box
- New instrument panel



Engines

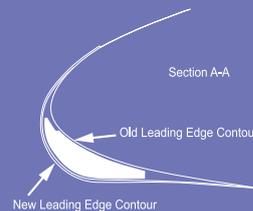
- PT6A-67R engines, accessories
- Components and hardware
- Cowlings
- Nacelles
- Control quadrant

Propellers

- 5-Blade metal propeller
- Spinner and all accessories

Wings

- Modified wing tips
- Outer wing leading edge, upper
- Lower wing center section reinforcement



Fuselage Extension

- 40-inch fuselage extension
- Cabin floor
- Flight control cable extensions

Flight Control System

- Including bob weight and down springs on elevator system
- Servo assisted ailerons

BT-67

Payload and Performance

Compared to the standard DC-3, the BT-67 has:

- 35% more interior volume
- 43% more useful load
- 24% more speed
- 76% more productivity
- Up to 100% more fuel capacity
- Lower stall speed
- Lower approach speed
- Fuel mileage equal at equal speeds



De-Icing Equipment

- Complete propeller
- Engine air inlet de-icing system
- Bleed air supply for wing
- Empennage de-icer boots (wing and empennage boots available as options)
- Electronically heated one-piece windshields

Electrical Systems

- Four-buss systems (left and right generator, essential and emergency busses)
- 300 amp starter generators
- (2) complete wiring harnesses
- (2) New higher energy 12-volt dry cell batteries

Hydraulic System

- Engine driven variable displacement pumps

Fuel System

- Electrically driven fuel pumps (2) left and right main, and (2) left and right standby
- Electrically driven transfer pumps (2)
- New fuel lines and fittings
- New leak-proof filler caps
- New fuel quantity transmitters and indicators
- Fuel computer and flow indication system

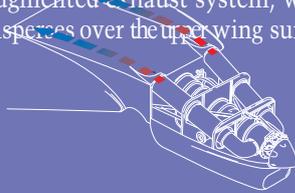
New Design Fire Detection & Fire Extinguishers System

Documentation

- Maintenance manual
- Flight manual
- Structural repair manual
- Illustrated parts catalog supplied with conversion

Systems Replaced

- Electrical system replaced by complete new system designed to FAR part 25
- Hydraulic system upgraded for improved gear retraction time
- Fuel system engineered to FAR part 25
- Brakes, B.F. Goodrich H2-445 expander tube brake assembly installed
- Anti-ice and de-ice equipment
 - Propellers
 - Inlets
 - Windshields
- New bleed-air heating system (muffled)
- Low infrared signature due to an augmented exhaust system, which disperses over the upper wing surface



Power Plant:

- Effective proven and powerful Pratt & Whitney Canada PT6A-67R certified to FAR part 33 amendment 10 with Hartzell 5-blade aluminum reversing propeller. Reliable, clean, efficient and quiet...certified to FAR part 36 stage III

Avionics

- Full IFR
- Multi-function display
- GPS (single or dual)
- Weather radar
- HF

Systems

- Power plant
- De-ice
- Hydraulics
- Avionics
- Autopilot
- Air conditioning
- Fuel
- Stall warning
- Electrical
- Oxygen
- Fire protection

Options

- Exclusive long-range fuel with dumps (800 gal)
- Autopilot
- De-ice boots
- Exclusive high utility lightweight floor
- Exclusive upper-cargo door
- Forward facing fold-up seats
- Air conditioning
- Enhanced GPWS
- TCAS
- CVR, FDR

Mission Options

- Mission consoles
- FLIR
- Worldwide communications
- Side facing fold-up seats
- Gunship configuration
- Retractable skis
- Insect spray system
- Fire fighting
 - 1,000 gallon retardant tank (exclusive)
 - Static line and signal system
- Custom MPA



Power - PT6A-67R

Essential to the performance of any aircraft is its power plant. The BT-67 is superbly equipped in this respect with the PT6A-67R Turboprop engines from Pratt & Whitney Canada and 5-blade metal propellers from Hartzell.

The PT6 engine type has been the engine of choice for commuter airlines for over 20 years. It has established itself in terms of the highest reliability and durability in conjunction with the lowest operating cost. It powers over 12,000 aircraft (100 types) in 160 countries around the world and has accumulated over 162 million hours of service.

The PT6A-67R represents the latest evolution of its type. Over 3,800 of the PT6A-60 family of engines have flown more than 31 million hours.

The engines and propellers provide the BT-67 with the optimal combination of power, efficiency, reliability and product support.

Features

- Ease of maintenance
- System simplicity
- True modular construction
- On-the-wing maintenance
- Fewer man hours / faster turn arounds
- Daily inspections – 5 minutes (visual)
- 100-hours inspection – 2 hours
- Hot-section inspection – 10 hours
- Engine change – 20 hours
- Quick engine change – 14 hours (built-up engine available)
- Unscheduled maintenance – 2 hrs/100 flying hrs

Accessories Replacement

- Ignition box – 15 minutes
- Propeller control – 25 minutes

Engine Run-Up and Performance

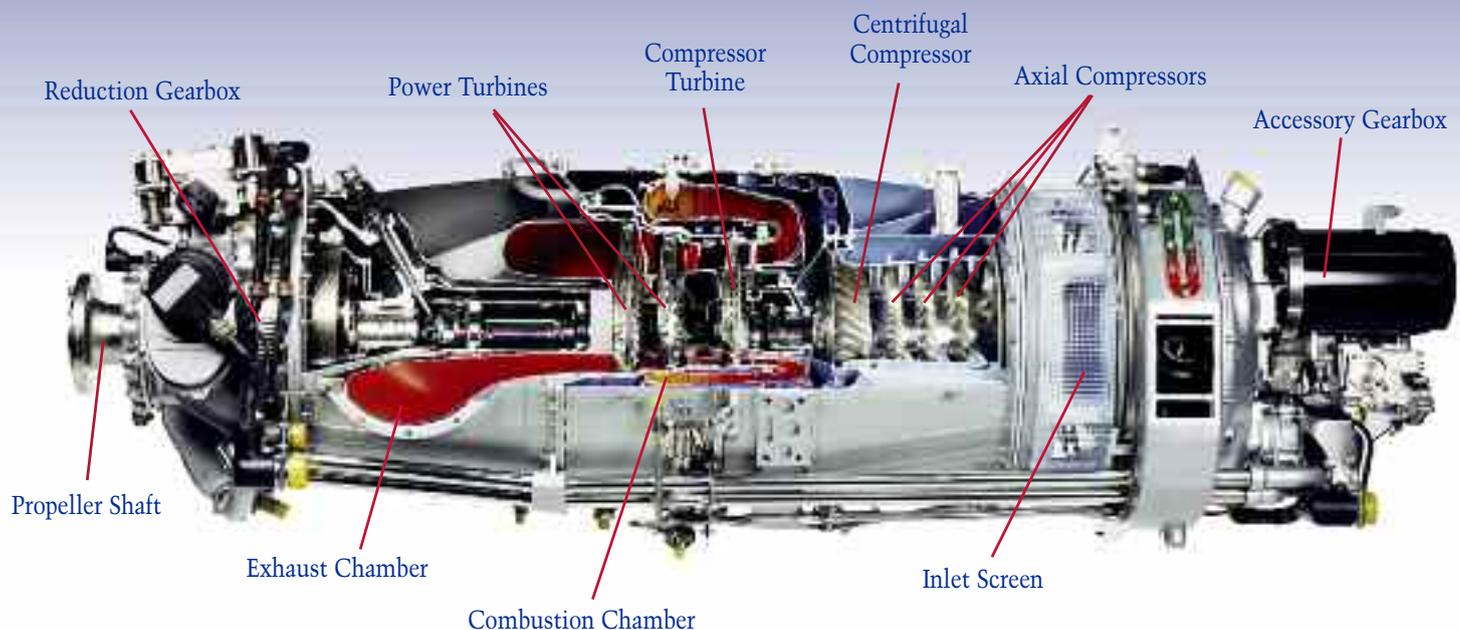
- Check (stabilized) – 20 minutes

Engine Operating Limits

- Take off (5 min) 1424 shaft H.P. to 99° F (37.2°C)
- Take off (5 min) (ALT.) 1281 shaft H.P. to 91° F (32.8°C)
- Max continuous 1220 shaft H.P. to 119° F (48.3°C)
- Propeller speed – 1700 rpm at take off, 1200-1700 rpm at cruise
- Dry weight – 515 pounds

Reliability – PT6A-67R

- Time between overhauls – 6,000 hours initial, with increases based on operator experience
- Basic inflight shut-down rate – one per 200,000 hours
- Basic unplanned removal rate – one per 75,000 hours
- Less investment in spares



PT6A-67R

PRATT & WHITNEY

Interior

Flight Deck

Pilots will find a new level of sophistication on the flight deck. It is virtually 100-percent new, right down to the flight control wheel.

Flight and systems management is efficient with very low crew workload. Tedious and routine tracking chores that burden pilots of other lesser equipped aircraft have been eliminated through the use of state-of-the-art avionics and superior systems design.

The visibility is excellent and all instruments & controls are easily accessible.

Dramatic improvements from the DC-3 cockpit environment in the areas of noise control, vibration, heating, ventilation and lighting afford the BT-67 a level of ergonomic comfort that is second to none.

Seating

Seating arrangement choices include forward facing, side facing or a combination of both. Folding features are consistent with the high utility

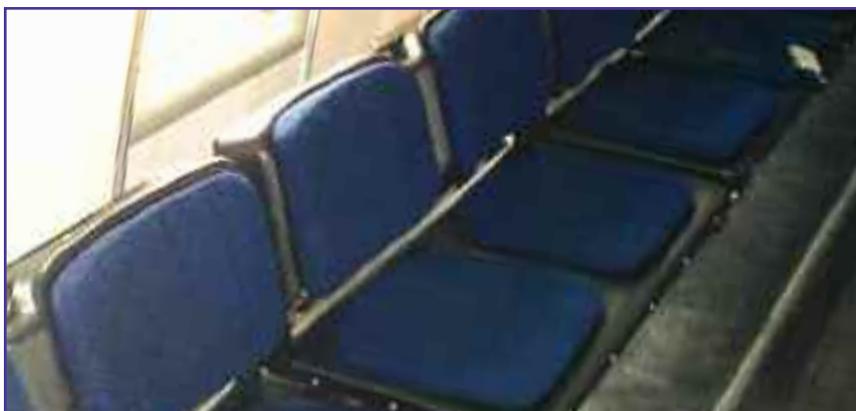
design of the BT-67 interior. Configuration changes are quick and easy, providing users maximum versatility.

Cargo

The cargo system of the BT-67 is in essence your revenue and profitability system. This airplane has an extraordinary capacity for carrying bulky cargo. It is ideal for a wide range of cargo operations from scheduled airport route service (handling up to five LD-3 containers) to rugged remote field assignments.

The optional oversized door and 1225 cubic foot interior accepts a variety of heavy or oversized cargo. The floor is Basler's exclusive high-strength design, corrugated and lightweight, with lifetime durability. Loading takes only minutes and has been made easy thanks to the remote controlled on-board winch.

Bulk materials are kept in place with an FAA approved tie-down and net system. The cargo area is also equipped with smoke detectors and has earned a Class-E designation.



Performance

For missions from Sub-Saharan Africa to the Antarctic, the BT-67 offers unequalled performance.

- Short, rough, remote airstrips
- High cubic volume, high payload
- Long range
- High versatility
- Brutally rough missions
- No-nonsense reliability

Comparison of Turbo-67 and Piston Engine DC-3

	BT-67	Piston Engine DC-3
Engines	PW & C PT6A-67R (1281 SHP)	P & W R-1830 (1200 HP)
Propellers	HARTZELL 5 Blade 115"	HSD 3 Blade 138"
Weight - Pounds		
Maximum take-off	28,750	26,900
Cargo Basic		
Operating weight	15,750	17,815
Maximum useful load	13,000	9,085
Maximum Fuel Capacity - Gal.		
Standard	772 (5,172 LB)	800
Long-range tanks	1542 (10,332 LB)	N/A

	BT-67	Piston Engine DC-3
Cruise Speed - Knots		
Maximum Cruise (12,500 ft)	215 (95% Torque)	173 (700HP)
Standard Cruise (12,500ft)	205 (90% Torque)	160 (600HP)
Low	174 (70% Torque)	N/A

	BT-67	Piston Engine DC-3
Fuel Flow - Gal/Hour		
Maximum cruise (12,500ft)	152	119
Standard cruise	145	100
Low	122	N/A

Range - Nautical Miles (Standard Cruise - 45 Min. Reserve)		
Standard fuel	950 (80% Torque)	1160
Long-range fuel	2140 (80% Torque)	N/A
Single engine ceiling	14,000 ft @ 27,000 lbs	9,000 ft @ 26,200 lbs

Climb Data @ Gross WT. 28,750 lbs. - 95% Torque, 1425 rpm

KTAS	ALT.AGL	Fuel flow lbs/hr	Fuel burned lbs	Rate of climb
133	1000	1140	53	1000
138	3000	1110	99	800
143	5000	1080	166	750
149	7000	1050	216	725
149	9000	1040	271	700
154	11000	1010	333	700

Loiter Air Speed Data

5000 MSL	Torque - 40%	IAS - 110	Fuel Flow - 680 lbs/hr
9000 MSL	Torque - 42%	IAS - 110	Fuel Flow - 650 lbs/hr
12000 MSL	Torque - 50%	IAS - 110	Fuel Flow - 680 lbs/hr

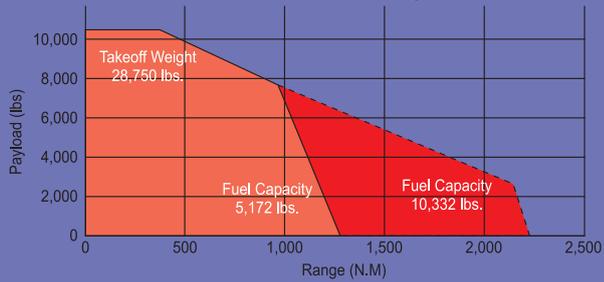




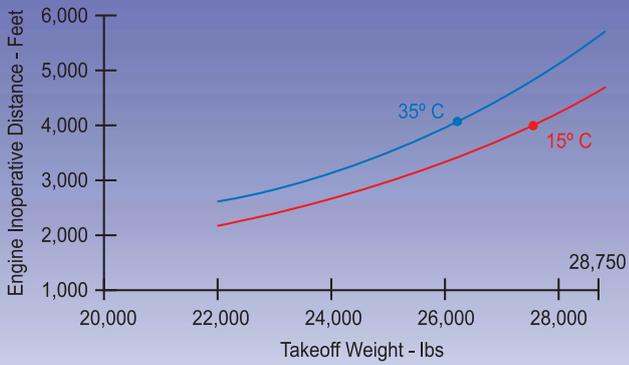
Payload - Range Performance

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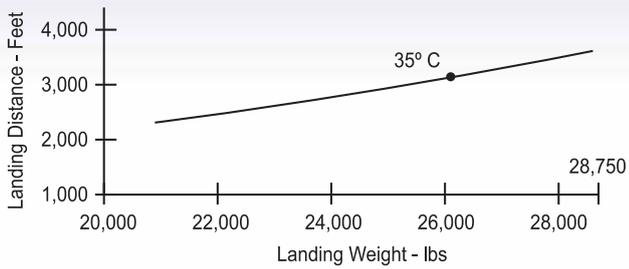
- 1) IFR Reserves; 45 minutes continued cruise
- 2) Cargo configuration basic operating weight 15,827 lbs.
- 3) Cruise at 80% torque, 210 KTS @ 25,000 ft., 18/C



FAR Part 25 - One Engine Inoperative
Takeoff Distance to 35 Feet Sea Level



FAR Part 25 - One Engine Inoperative
Landing Distance Over 50 Feet Obstacle Sea Level



Cruise Data

9500 ft OAT + 11°C

Torque	TAS	Fuel Flow lbs/hr
90%	196	1020
85%	182	970
80%	177	932
70%	167	860

10500 ft OAT + 10°C

Torque	TAS	Fuel Flow lbs/hr
95%	207	1040
90%	200	1000
85%	186	950
80%	180	920
70%	169	850

12500 ft OAT + 7°C

Torque	TAS	Fuel Flow lbs/hr
95%	215	1020
90%	205	1000
85%	191	950
80%	185	920
70%	174	850

14500 ft OAT + 6°C

Torque	TAS	Fuel Flow lbs/hr
95%	220	1000
90%	210	960
72%	180	840

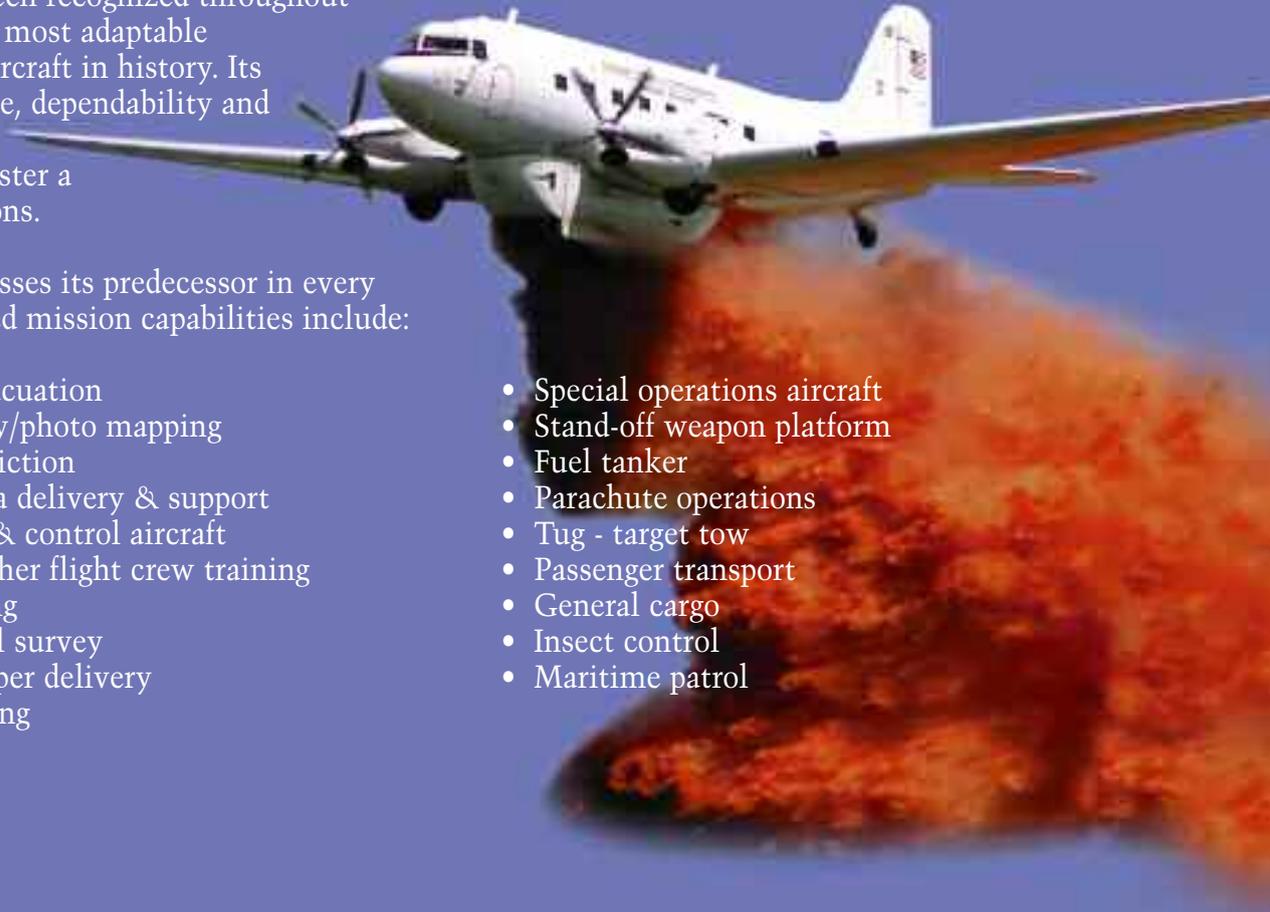


Versatility

The DC-3 has been recognized throughout the world as the most adaptable multi-purpose aircraft in history. Its size, performance, dependability and low cost have allowed it to master a variety of missions.

The BT-67 surpasses its predecessor in every way. Its improved mission capabilities include:

- Medical evacuation
- Photography/photo mapping
- Drug interdiction
- Remote area delivery & support
- Command & control aircraft
- Pilot and other flight crew training
- Fire bombing
- Geophysical survey
- Smoke jumper delivery
- Cloud seeding
- Special operations aircraft
- Stand-off weapon platform
- Fuel tanker
- Parachute operations
- Tug - target tow
- Passenger transport
- General cargo
- Insect control
- Maritime patrol





Smoke Jumper Delivery



Cloud Seeding



Geophysical Survey



Gunship



Insect Control



Remote Delivery



Troop & Cargo



Special Operations



Cargo Operations



Fuel Tanker



Support

Since perfecting the very first BT-67 in 1990, Basler Turbo Conversions has continued to earn its world-wide reputation for superior service and support. We take pride in supplying you with the information that you will need to maximize your aircraft investment.

It all begins with an organization that is totally dedicated to ensuring your success. Basler Turbo Conversions' experienced professionals know every aspect of your aircraft and understand its value to your mission.

Basler Turbo Conversions provides you with the answers you need when you need them. Basler also provides detailed, customized training for your pilots and maintenance personnel with on-site visits available to accommodate your needs.

We maintain an extensive manufacturing facility and spare parts inventory to insure that our customers are properly cared for and flight-ready at all times.



Basler Turbo Conversions LLC World-Wide Product Support Network



-  *Basler Turbo Conversions LLC Support Centers*
-  *Pratt & Whitney Customer Support Centers*
-  *Hartzell Customer Support Centers*



BT-67

The BT-67 is a world-class transport aircraft with an impressive resume of performance. Its robust airframe and state-of-the-art components stand ready to deliver a range of mission capabilities that will provide unlimited opportunities.

It is an affordable aircraft with:

- Low acquisition costs
- Low operating costs
- Heavy payload capability
- Excellent short field capability
- Stage III quiet

Contact Basler Turbo Conversions LLC to learn how this aircraft can be customized to meet your needs.





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