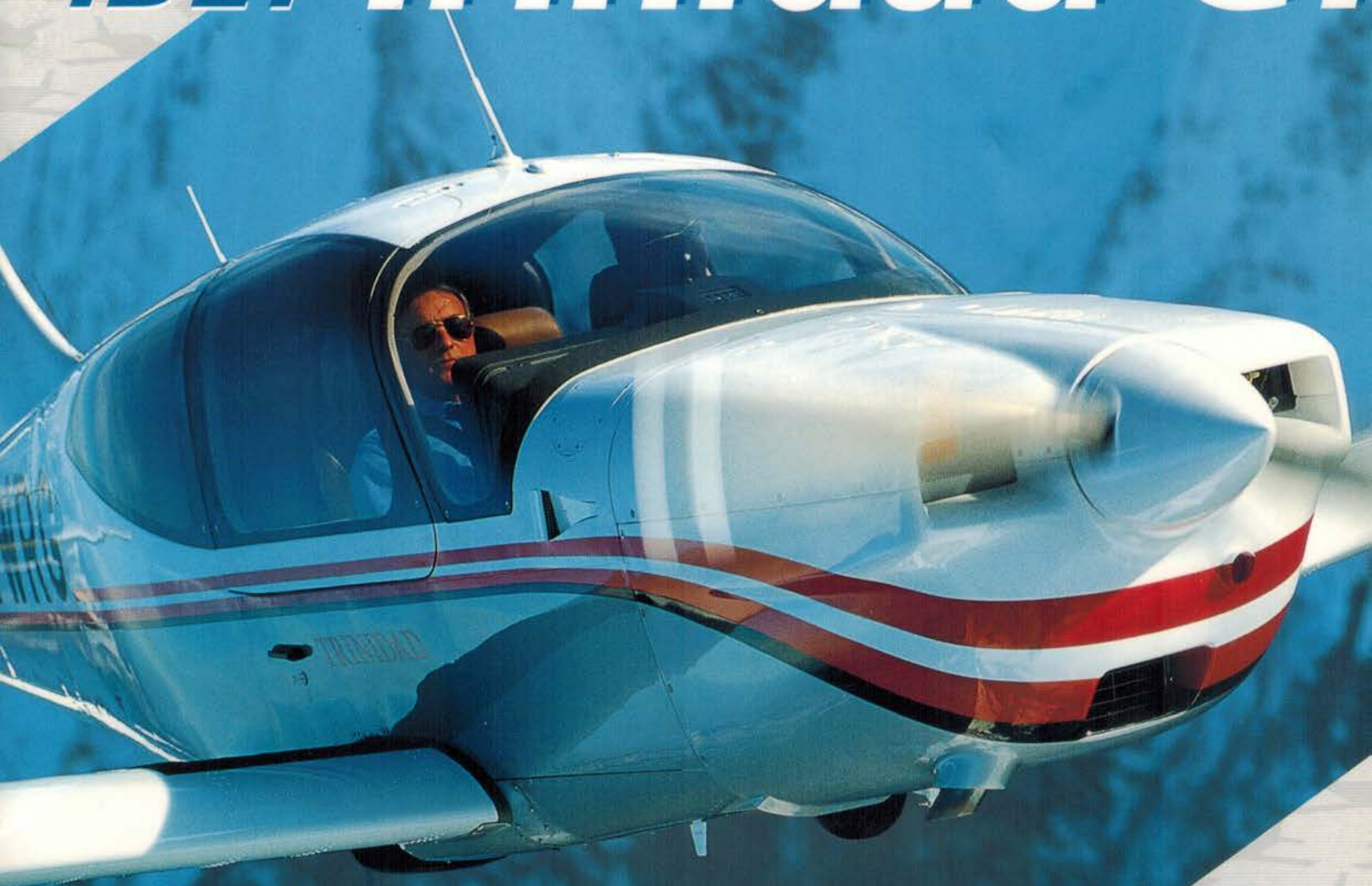


**TB 20
TB 21**

Trinidad GT



 **SOCATA**

AEROSPATIALE MATRA





The Socata Trinidad has long been the benchmark in high-end single-engine aircraft.

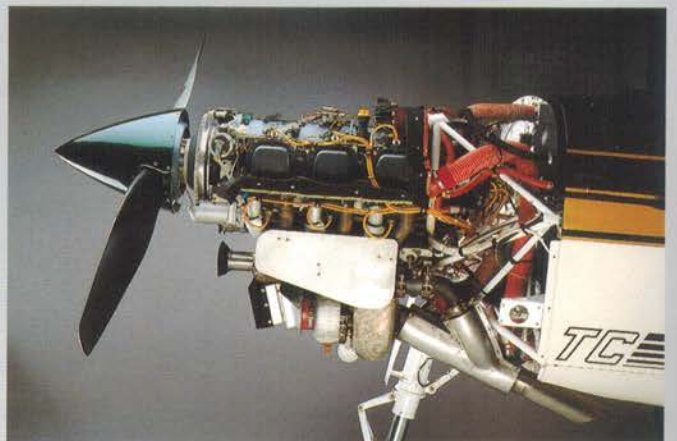
A new generation of high-end single-engine aircraft

Designed from the ground up for easy flying and passenger comfort, the Socata Trinidad set a new standard for comfort in general aviation, while delivering performance among best in class.

But despite this enviable track record, we thought we could do even better. Today, we are proud to introduce the second-generation Trinidad GT.



Trinidad GT



The Socata TB 20 Trinidad GT is a metallic semi-monocoque single-engine aircraft with a constant-speed propeller and retractable landing gear.

Looks, performance and safety in a single streamlined package

It combines the proven airframe of the Trinidad with the latest aviation technology, driven by Socata's major role as an aerostructure supplier on the Airbus A330/A340. For example, the upper fuselage panels are made of a carbon-fiber/honeycomb sandwich, a light, extremely robust material that can be used to make complex forms. Windows are flush-mounted for maximum streamlining.

With the Trinidad GT, we've made a nearly perfect blend of comfort and performance even better. We rounded the fuselage to give you more cabin space, while also improving aerodynamics. The wingtips are derived from those on our famous TBM 700, the fastest single-turboprop aircraft in the world. As a final touch, the foot-steps retract automatically along with the landing gear.

Elegant, yet powerful, the Socata Trinidad GT is one of the most beautiful planes flying today.

Safety is of course paramount. Certified to all international safety standards, the Trinidad GT also offers a redesigned windscreen for greater visibility. Not only is this more enjoyable for the pilot, it also helps avoid collisions in heavy traffic.

The wings are equipped with flaps to enable very-low-speed approaches and maneuvers. With flaps in regular position, changes in angle-of-attack during gear extension are moderate but distinct, enabling pilots to fly high-precision approaches.

Because of its high wing loading, the Trinidad is remarkably stable, even under difficult conditions.

The aircraft's trailing-arm landing gear guarantees an exceptionally smooth ground roll, and allows the use of unprepared runways.

We can also deliver the Trinidad GT with a complete glycol-based de-icing system, for operation under known icing conditions (in countries where this option has been certified). Also available on option is a propeller de-icing system.

An oxygen system is available on option for the turbocharged TB 21 GT version.

In short, the Trinidad GT is designed to give users a virtually perfect blend of low cost and high performance, comfort and safety.



It is available in two basic versions: the TB 20 GT, with the Textron Lycoming IO-540 piston engine and the TB 21 GT, powered by the turbocharged Lycoming TIO-540. Both of these engines deliver 250 horsepower at sea level.



Trinidad GT



Welcome aboard

Avionics

Both the TB 20 GT and TB 21 GT are designed for a complete avionics suite for optimum IFR flying.

For users with even more stringent demands, an electronic flight instrument system (EFIS) is also available.

The instrument panel layout is very similar to that of a jetliner, including throttle on the center console, and positioning of lights, alarms, switches and fuses, facilitating student transition to larger aircraft.

Matchless comfort

You access to the Trinidad through two large gullwing doors. Measuring over four feet (1.28 meters) across at shoulder level, the Trinidad offers the most spacious cabin in its class. It can seat up to five people, also unique in its class. Because of the new fuselage

panels, the ceiling has been raised 2 inches (5 cm) over the front seats and 1-1/2 inches (4 cm) over the rear seats - 20 percent more "living" space than before.

The wide seats provide excellent support and can be upholstered in fabric or leather. New headrests (also on the rear bench seat) easily adapt to all head positions and shapes.

The Trinidad GT's baggage door is now 21 inches (56 centimeters) high, for easy loading and unloading of even bulky bags.

Woven velvet upholstery adds the final touch, to make sure passengers are as satisfied as pilots!



 **Trinidad GT**



Touring and training

Touring

The Socata Trinidad GT is the perfect single-engine plane for long trips. It carries enough fuel for nearly five hours of flight, and offers a range of 800 Nm (1,500 km) in total security.

The TB 21 GT's turbocharger means it can fly at higher altitudes to conserve power; i.e., at flight levels where winds are more favorable, to cruise at higher speed and over bad weather.

The Socata Trinidad GT also offers a generous baggage compartment, accessible from the cabin and holding 143 lb (65 kilograms). Removing the rear bench converts the Trinidad into a cargo version, with payload capacity of 550 lb (250 kilograms).



Training

Carrying on the long tradition of Morane-Saulnier, Socata has long been one of the world's leading suppliers of aircraft for flying schools. The Trinidad has already been chosen by a number of military and civil training organizations for a wide range of assignments, from ab-initio training, to IFR training, and transitioning to heavier or faster aircraft.

The Socata Trinidad GT is a fantastic training tool. Students rapidly learn their way around a modern aircraft, from the initial pre-flight check facilitated by easy inspection points to even the most complex flight procedures.

At the same time, the enhanced visibility offered by the Trinidad GT, in flight and on the ground, makes it a very safe plane around crowded airfields.

What's more, it boasts a high degree of commonality with other aircraft in Socata's TB family, which makes fleet maintenance management easier and less expensive.



The Socata Trinidad GT is a truly multirole plane, which can be used for high-speed business or touring, advanced training, including IFR, and military liaison or surveillance missions.

 **Trinidad GT**

Worldwide product support

Built by Socata, subsidiary of aerospace industry leader AEROSPATIALE MATRA, the Socata Trinidad GT enjoys truly global support. Socata guarantees users quick, effective support, wherever they may be:

- technical assistance on site and in the plant;
- personalized documentation;
- custom-tailored training of ground and flight crews;
- spare parts (even major airframe, engine and avionics components) via a 24-hour hot-line;
- maintenance contracts that meet user's specific needs: "power by the hour" or on-site maintenance;
- onboard equipment repair: electrical, hydraulic, avionics, engine, etc.

Our vast network of certified repair stations means that we can guarantee the dispatch reliability of our aircraft near their operating bases throughout the world.

Socata provides a complete range of technical support services around the world for its entire range, from the TB 9 GT up to the TBM 700.



Socata TB 20 Trinidad GT specifications

Single-engine, low-wing monoplane with semi-monocoque metal construction, certified to FAR part 23, amendments 1 through 16.

- **Powerplant:** Textron Lycoming IO-540 C4D5D fuel injected six-cylinder engine developing 250 HP at 2,575 rpm
- **Fuel:** 100 LL
- **Propeller:** Hartzell twin-blade, constant speed, 2.03 m (80 in) diameter
- **Seating :** 2 forward; 2 or 3 aft

DIMENSIONS

- **Wing airfoil:** RA 16 3C3
- **Dihedral:** 6°30
- **Wing span:** 32.3 ft (9.85 m)
- **Wing area :** 128.5 sq ft (11.9 m)
- **Length:** 25. 7/2 ft (7.75 m)
- **Height :** 9.35 ft (2,85 m)
- **Cabin length:** 8.30 ft (2,53 m)
- **Cabin width:** 4.20 ft (1.28 m)
- **Cabin height:** 3.84 ft (1.17 m)
- **Wheel track:** 7.11 ft (2,17 m)

FUEL

- **Type:** 100 LL
- **Total tank capacity:** 88.8 US gal (336 l)
- **Usable fuel:** 86.2 US gal (326 l)

OIL

- **Tank capacity:** 13.3 US quarts (12,6 l)

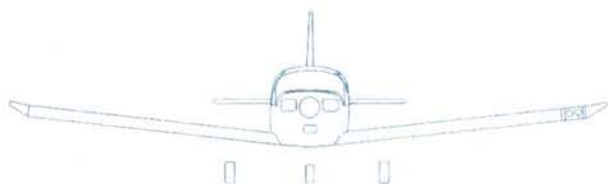
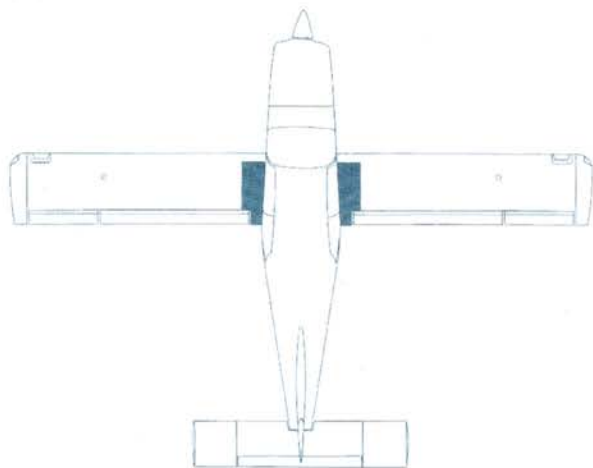
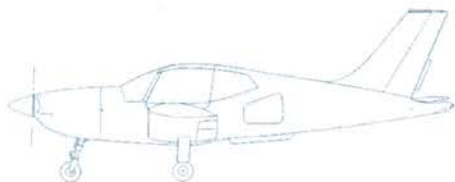
LOADING

- **Empty weight:** 1,764 lbs (800 kg)
- **Maximum takeoff weight:** 3,080 lbs (1,400 kg)
- **Maximum landing weight:** 3,080 lbs (1,400 kg)
- **Maximum useful load:** 1323 lbs (600 kg)
- **Maximum baggage compartment load:** 143 lbs (65 kg)
- **Maximum wing loading:** 24 lbs/sq.ft (117.6 kg/m)

PERFORMANCE

(ISA conditions at maximum take-off weight)

- **Maximum cruising speed:** 163 kt at 75% power at 6,500 ft
- **Best economy cruising speed:** 157 kt at 65% power at 6,500 ft
- **Maximum range:** 1,110 nm
- **Takeoff run over 50 ft obstacle:** 655 m (2,150 ft)
- **Landing run over 50 ft obstacle:** 555 m (1,820 ft)
- **Demonstrated crosswind :** 25 kt
- **Rate of climb (at sea level) :** 1,200 ft/min.
- **Certified ceiling:** 20,000 ft



TB 20 Trinidad GT Standard definition

AIRFRAME

Metal structure and skin panelling
Complete protection treatment
Electrically operated flaps
Retractable gear with electro-hydraulic control
Hydraulic disc brakes
2 lockable cabin doors
1 lockable baggage hold access door
2 Footsteps
3 Tie-down attachments
3 Jacking points
Tow bar
Complete painting
2 Navigation lights
2 Landing and taxiing lights
2 flashing navigation lights on wing tips

POWERPLANT

Engine : Lycoming IO 540 C4 D5D 6 cylinders
Dynafoal suspension
Hartzell constant speed propeller
Spinner
Electric starter
Oil cooler
Oil quick drain
Air filter
Exhaust system
Vacuum pump capability
Radio shielding
Water trap filter on fuel circuit

ELECTRICAL EQUIPMENT

Battery 24 V/10 Ah
Alternator 28 V/70 A
External electrical power plug
Regulator with over-voltage relay
Circuit breakers
VHF-VOR feeder
2 VHF antennas - Rigid
Additional avionics ventilation

FUEL EQUIPMENT

2 wing fuel tanks
Fuel drains
Tank draining glass
Fuel selector with filter and decanting tank
Electrical fuel pump

INSTRUMENT PANEL

Antiglare instrument panel
Instrument panel lighting
Aispeed indicator (TAS)
Sensitive altimeter
Rate of climb indicator
Electronic tachometer with hourmeter
Manifold pressure indicator
Stall warning indicator
General warning lights panel
Fuel low level warning light
Vacuum circuit warning light
Landing gear pump warning light
Compass
Oil pressure indicator
Oil temperature indicator
Fuel pressure indicator
Fuel quantity indicator (2)
Voltmeter
Raised avionics panel

BASIC NAVIGATION PACKAGE TB 20 GT

Artificial horizon, directional gyro with vacuum pump, electrical turn & bank indicator with flag, dual EGT/CHT indicator, digital OAT indicator, COM/NAV capability (loud speaker, jacks, control on wheels, radio master switch, microphone, interference proofing, static discharge wicks VOR 1 antenna)

CONTROLS

Dual control by wheels with locking system

Map light on LH control wheel

Central control console including :

- switches
- preselection electric flaps control
- throttle control
- propeller control
- mixture control
- pitch trim control
- rudder trim control

Landing gear control

Emergency landing gear control

Steerable front wheel

Foot brake on the left and on the right pedals

Parking brake

Alternate air

CABIN FITTINGS

Carpeted floor and woven velvet upholstery

Sound proofing

Cabin heating and windscreen demisting

4 individual cabin air vents

Sun visors

Individual lights (3)

Adjustable front seats with

3- point reel-type belts

Removable rear bench with two

3-point reel-type belts

Side armrests for front and rear seats

Glass holders

Ashtrays

Cigarette lighter

Map bags

Flight manual storage compartment

Baggage hold equipped with strap and pegs for clothes and spare oil container storage

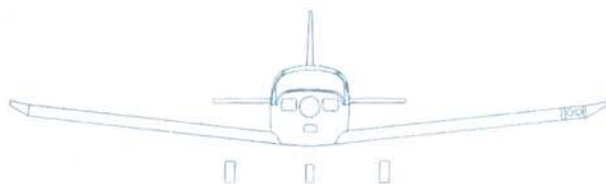
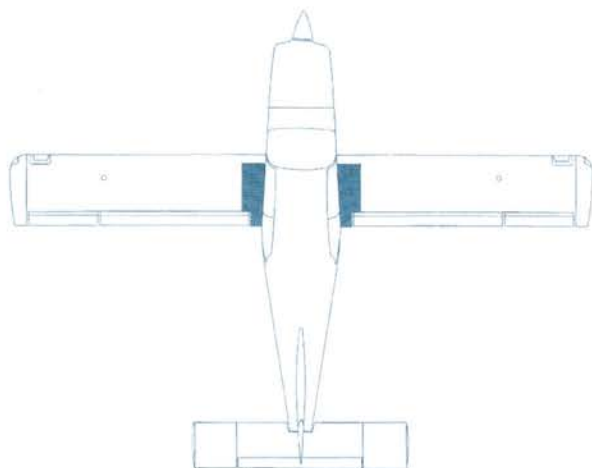
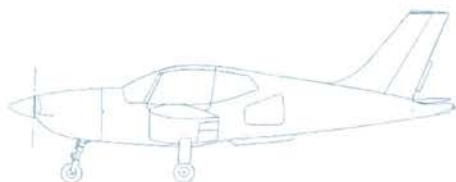
Protection for pitot head and static pressure antennas

OPERATIONAL COMPLEMENT TB 20 GT

Heated pitot head, emergency static vent, elements for VFR / IFR classification, tinted windows and windscreen

Socata TB 21 Trinidad GT specifications

Single-engine, low-wing monoplane with semi-monocoque metal construction, certified to FAR part 23, amendments 1 through 16.



- **Powerplant:** Textron Lycoming TIO-540 AB1AD turbocharged fuel injected six-cylinder engine developing 250 HP at 2,575 rpm.
- **Recommended Time between overhaul:** 2,000 hours
- **Propeller:** Hartzell twin-blade, constant speed, 2.03 m (80 in) diameter
- **Seats:** 2 forward; bench for 2 or 3 aft

DIMENSIONS

- **Wing airfoil:** RA 16 3C3
- **Dihedral:** 6°30
- **Wing span:** 9.85 m (32.3 ft)
- **Length:** 25. 7/2 ft (7.75 m)
- **Height:** 9.35 ft (2,85 m)
- **Cabin length:** 8.30 ft (2,53 m)
- **Cabin width:** 4.20 ft (1.28 m)
- **Cabin height:** 3.84 ft (1.17 m)
- **Wheel track:** 7.11 ft (2,17 m)

FUEL

- **Type:** 100 LL
- **Total tank capacity:** 88.8 US gal (336 l)
- **Usable fuel:** 86.2 US gal (326 l)

OIL

- **Tank capacity:** 13.3 US quarts (12.6 l)

LOADING

- **Empty weight:** 1,860 lbs (844 kg)
- **Maximum takeoff weight:** 3,080 lbs (1 400 kg)
- **Maximum landing weight:** 3,080 lbs (1 400 kg)
- **Maximum payload:** 1,226 lbs (556 kg)
- **Maximum baggage compartment load:** 143 lbs (65 kg)
- **Maximum wing loading:** 24 lbs/sq.ft (117.6 kg/m²)

PERFORMANCE

(ISA conditions at maximum take-off weight)

- **Maximum cruising speed:** 190 kt at 75% power at 25,000 ft
- **Best economy cruising speed:** 169 kt at 65% power at 25,000 ft
- **Maximum range:** 1,000 Nm
- **Takeoff over 50 ft obstacle:** 1,952 ft (595 m)
- **Landing over 50 ft obstacle:** 1,770 ft (540 m)
- **Demonstrated crosswind:** 25 kt
- **Rate of climb (at sea level):** 1,126 ft/min.
- **Certified ceiling:** 25,000 ft

TB 21 Trinidad GT Standard definition

AIRFRAME

Metal structure and skin panelling
Complete protection treatment
Electrically operated flaps
Retractable gear with electro-hydraulic control
Hydraulic disc brakes
2 lockable cabin doors
1 lockable baggage hold access door
2 Footsteps
3 Tie-down attachments
3 Jacking points
Tow bar
Complete painting
2 Navigation lights
2 Landing and taxiing lights
2 flashing navigation lights on wing tips

POWERPLANT

Engine : Lycoming TIO AB 1 AD 6 cylinders
Dynafoal suspension
Hartzell constant speed propeller
Spinner
Electric starter
Oil cooler
Oil quick drain
Air filter
Exhaust system
Vacuum pump capability
Radio shielding
Water trap filter on fuel circuit

ELECTRICAL EQUIPMENT

Battery 24 V/10 Ah
Alternator 28 V/70 A
External electrical power plug
Regulator with over-voltage relay
Circuit breakers
VHF-VOR feeder
2 VHF antennas - Rigid
Additional avionics ventilation

FUEL EQUIPMENT

2 wing fuel tanks
Fuel drains
Tank draining glass
Fuel selector with filter and decanting tank
Electrical fuel pump
Instrument Panel
Antiglare instrument panel
Instrument panel lighting
Aispeed indicator (TAS)
Sensitive altimeter
Rate of climb indicator
Electronic tachometer with hourmeter
Manifold pressure indicator
Stall warning indicator
General warning lights panel
Fuel low level warning light
Vacuum circuit warning light
Landing gear pump warning light
Compass
Oil pressure indicator
Oil temperature indicator
Fuel pressure indicator
Fuel quantity indicator (2)
Voltmeter
Raised avionics panel

BASIC NAVIGATION PACKAGE TB 21 GT

Artificial horizon, directional gyro
with vacuum pump, electrical turn & bank indicator with flag, dual TIT/CHT indicator, digital OAT indicator, COM/NAV capability (loud speaker, jacks, control on wheels, radio master switch, microphone, interference proofing, static discharge wicks VOR 1 antenna)

CONTROLS

Dual control by wheels with locking system

Map light on LH control wheel

Central control console including :

- switches
- preselection electric flaps control
- throttle control
- propeller control
- mixture control
- pitch trim control
- rudder trim control

Landing gear control

Steerable front wheel

Foot brake on the left and on the right pedals

Parking brake

Alternate air

CABIN FITTINGS

Carpeted floor and woven velvet upholstery

Sound proofing

Cabin heating and windscreen demisting

4 individual cabin air vents

Sun visors

Individual lights (3)

Adjustable front seats with

3- point reel-type belts

Removable rear bench with two

3-point reel-type belts

Side armrests for front and rear seats

Glass holders

Ashtrays

Cigarette lighter

Map bags

Flight manual storage compartment

Baggage hold equipped with strap and pegs for

clothes and spare oil container storage

Protection for pitot head and static pressure

antennas

OPERATIONAL COMPLEMENT TB 21 GT

Heated pitot head, emergency static vent,
elements for VFR / IFR classification,
tinted windows and windscreen



International Sales : SOCATA

Le terminal - Bâtiment 413
Zone d'aviation d'affaires
Aéroport de Paris-Le Bourget
93350 Le Bourget cedex
France

Tel : 33 (0)1 49 34 69 69

Fax : 33 (0)1 49 34 69 71

North America sales : Socata Aircraft

North Perry Airport 7501 Pembroke Road
Pembroke Pines Florida 33023
USA

Tel: (1) 954-8 93 14 00

Fax: (1) 954-893 14 02

Germany sales : SOCATA GmbH

Siegerland Flughafen
Werfstrasse 1-Halle D
D-57299 Burbach

Germany

Tel : (49) 2736 49 69 21

Fax : (49) 2736 49 11 47

Industrial Park : SOCATA

Aéroport de Tarbes-Lourdes-Pyrénées BP 930
65009 Tarbes cedex
France

Tel : 33 (0)5 62 41 73 00

Fax : 33 (0)5 62 41 73 55