



**VIGIPLANE™**

BUSINESS JET SECURITY SYSTEM

A white business jet is parked on a tarmac. The nose landing gear is visible, and a yellow ground support unit is attached to it. The aircraft is viewed from a low angle, emphasizing its nose and cockpit. The background shows a clear blue sky and some trees.

## WHAT HAPPENS IF...?

A business jet can be subject to a variety of risks, usually when it is parked, often at minor airfields where security can be rudimentary. These risks, quite apart from the obvious dangers that terrorism brings in today's world, include : being the unknowing transporter of illegal materials and substances ; damage caused by unidentified traffic movements on the airfield ; theft of parts and aviation fuel. Envy vandalism is also a growing cause for concern.

It is imperative that your plane is under constant surveillance with the people responsible for its security always made aware of any threat to its integrity. The Vigiplane system has been developed to provide a 24/7 guard - one with 360 degree night and day vision, wherever you or your plane are in the world. The actual cost of not having your plane available when you need it can be more than the insurable risk - it could mean inconvenience at least or more seriously the failure to keep a deadline for an important business meeting.

**Vigiplane™** has been designed for business jets (from 18 to 30 meters length) and heavy business jets (from 30 to 70 meters length).

**Vigiplane is Wi-Fi compatible.** A friendly web based interface allows users, wherever they are, to set up the Vigiplane configuration parameters with a tablet or a computer.

**Vigiplane is completely autonomous.** It installs in less than 2 minutes on the front landing gear of the aircraft. The system once locked on, cannot be released or removed. Once armed, it provides the function of intrusion detection : shooting real time pictures and videos, backing up all received information, and transmitting alarms via cellular networks or satellites to the Vigiplane web server.

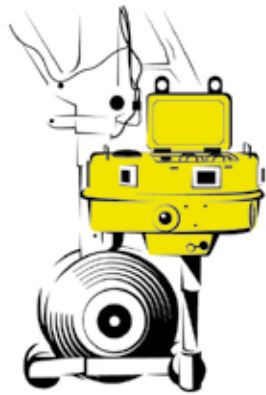
**The Vigiplane web server receives its reports and alarm pictures from user's Vigiplane systems.** For security reasons, all communications between Vigiplane

systems and the Vigiplane web server are encrypted. Data are accessible for users via Vigiplane web server.

**The Vigiplane web server is accessible from a tablet, computer or a smartphone via Internet connection.** Access is secured by username and password. Once informed of a serious alarm, the accredited users connect to the Vigiplane web server and watch the pictures corresponding to alarms. They can then take the appropriate action (save a record of events for later analysis and inform staff or airport security immediately). In all cases accredited users are informed of the situation with any attendant potential risks before joining their plane.

## The Vigiplane solution provides a 24/7 guard on your aircraft...

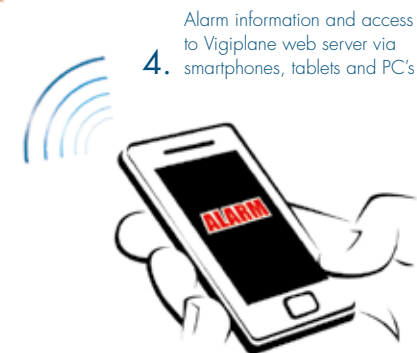
1. Vigiplane system installed on the front landing gear of the aircraft



2. Vigiplane 24/7 surveillance of the aircraft



3. Vigiplane web server



4. Alarm information and access to Vigiplane web server via smartphones, tablets and PC's

# Vigiplane guarantees 24/7 worldwide monitoring of your aircraft

Vigiplane monitors the aircraft perimeter and detects intrusions night and day. Its rechargeable battery ensures 6 days of system autonomy. A triple system of radar, infrared detection and video analysis ensures enhanced surveillance.

## Users are informed of risks and threats almost in real time.

The alarm messages and corresponding photos are transmitted in less than a minute by cellular phone network or satellite to the Vigiplane web server. The satellite network provides communications between the Vigiplane system and host, wherever the plane is situated.

The risk of false alarms triggered by animals or random traffic is filtered via a very powerful motion detection algorithm which is able to extract «object in motion» in the defined intrusion area and to analyse it. Only alarms that are a risk or a threat to the aircraft will lead to an alert.

Users access alarm pictures and videos either locally via a Wi-Fi connection to the Vigiplane mode or remotely by connecting to the Vigiplane web server.

A PC or Smart Phone and Internet access are all users need to connect to the Vigiplane web server. Once informed of a risk or a threat the owner can display photos and take appropriate action. The time stamped photos are saved on the server for later analysis.



- ✈ Can be installed on business jets and heavy business jets
- ✈ Fast and easy installation
- ✈ No need for aircraft certification
- ✈ Worldwide surveillance via Vigiplane server
- ✈ Real time picture and video alarms

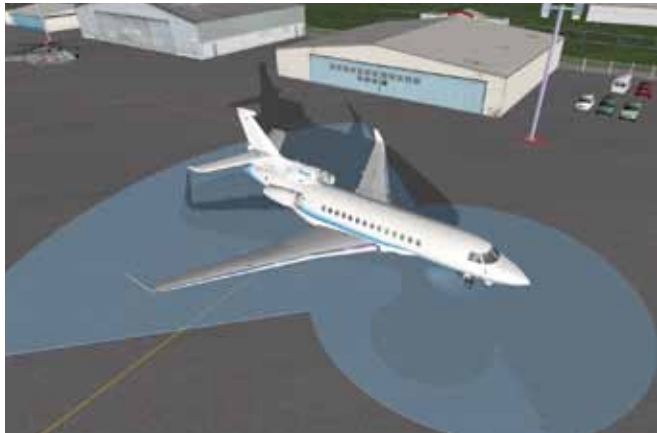


Picture alarms



Video alarms

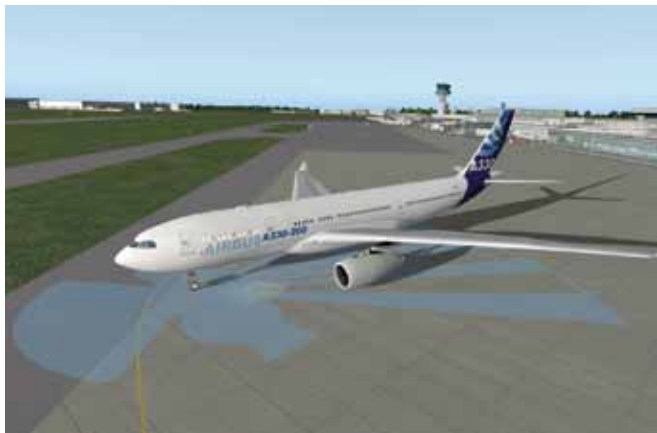
# Vigiplane has been designed for business jets and heavy business jets.



Vigiplane surveillance area for business jets



Vigiplane installed on front landing gear of Dassault Falcon 7x



Vigiplane surveillance area for heavy business jets



Vigiplane installed on front landing gear of Airbus A340

Vigiplane allows owners to define the surveillance area depending on the size of the aircraft. Vigiplane embeds surveillance patterns with different sensors' detection range which can be activated by the user depending where the aircraft is parked.

Several versions of chocks are available depending on the size of landing gear wheels.

The Vigiplane chock can match wheels between 14 & 51 inches covering most of the business jets aircraft fleet.

For very heavy business jets over 60 metres in length and wingspan, users should consider the installation of 2 Vigiplanes (one on the front landing gear and one on the rear). Such configuration will optimise the surveillance area.

**The Vigiplane system consists of:**

- a chock in aluminum and composite material which is installed on the nose-wheel undercarriage of the aircraft. Four versions of the chock are available, depending on the type of aircraft and relevant size of wheels ;
- the Vigiplane, which when locked on the chock guarantees a 360° field of detection. Vigiplane is powered by a rechargeable built-in Lithium battery, rendering it completely autonomous for up to 6 days. Vigiplane has been designed for harsh environments ;
- battery charger including one battery compartment.

**VIGIPLANE**

**Material**

Composite

VIGIPLANE DIMENSIONS	VIGIPLANE WEIGHT
538 x 388 x 418 mm (21,18" x 15,27" x 16,45")	12 kgs (26 lbs)



**THE CHOCK**

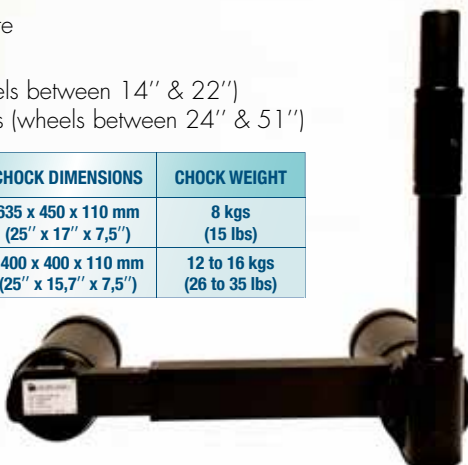
**Material**

Aluminium composite

**Available for:**

- business jets (wheels between 14" & 22")
- heavy business jets (wheels between 24" & 51")

AIRCRAFT	CHOCK DIMENSIONS	CHOCK WEIGHT
BUSINESS JET	635 x 450 x 110 mm (25" x 17" x 7,5")	8 kgs (15 lbs)
HEAVY BUSINESS JET	1400 x 400 x 110 mm (25" x 15,7" x 7,5")	12 to 16 kgs (26 to 35 lbs)



# Vigiplane system

**PACKAGING**

- Rugged suit case including Vigiplane and batteries.

SUIT CASE DIMENSIONS	SUIT CASE WEIGHT
559 x 432 x 323 mm (22" x 17" x 12.7")	21.4 kgs (47 lbs)

- Toughened canvas holdall including the chock and the battery charger, key, remote control and user manuals.

AIRCRAFT	CANVAS DIMENSIONS	CANVAS WEIGHT
BUSINESS JET	640 x 400 x 190 mm (25" x 15,7" x 7,5")	10 kgs (19,8 lbs)
HEAVY BUSINESS JET	1500 x 550 x 150 mm (59" x 21,6" x 5,9")	22 kgs (55 lbs)



# The Vigiplane web server

The Vigiplane web server is hosted by computer security professionals. Back-up systems ensure permanently active continuity of service. The Vigiplane web server allows Vigiplane accredited people to access a number of services.

For confidentiality of information, a Vigiplane web server can also be installed on the user's own site.



## ALARM

The alarm pictures transmitted by Vigiplane are available to be analyzed, processed and stored in the log book.



## REPORT

Users can read a periodic report transmitted by the system for status autonomy, remaining battery charge state, system functioning, availability and quality of telecommunications networks etc.



## DASHBOARD

With dashboard interface users have immediate access to their Vigiplane fleet. The GPS location of the aircraft under surveillance by Vigiplane is displayed on Google earth.



## EVENTS

Users can read all events related to the Vigiplane system.

- System Alerts
- System Failures
- Alarms
- System Status



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