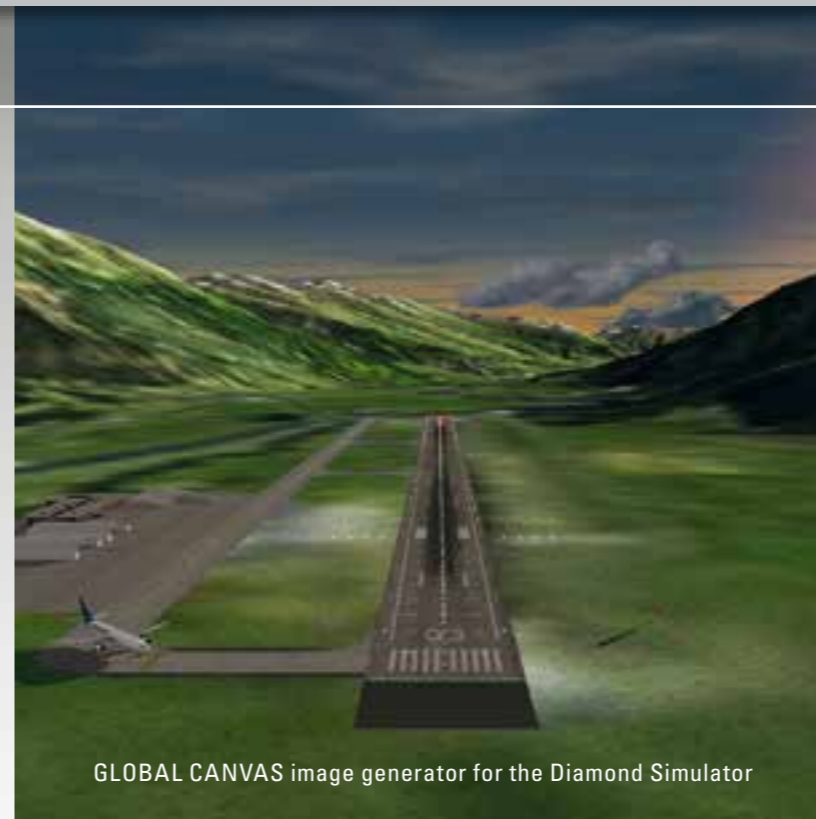
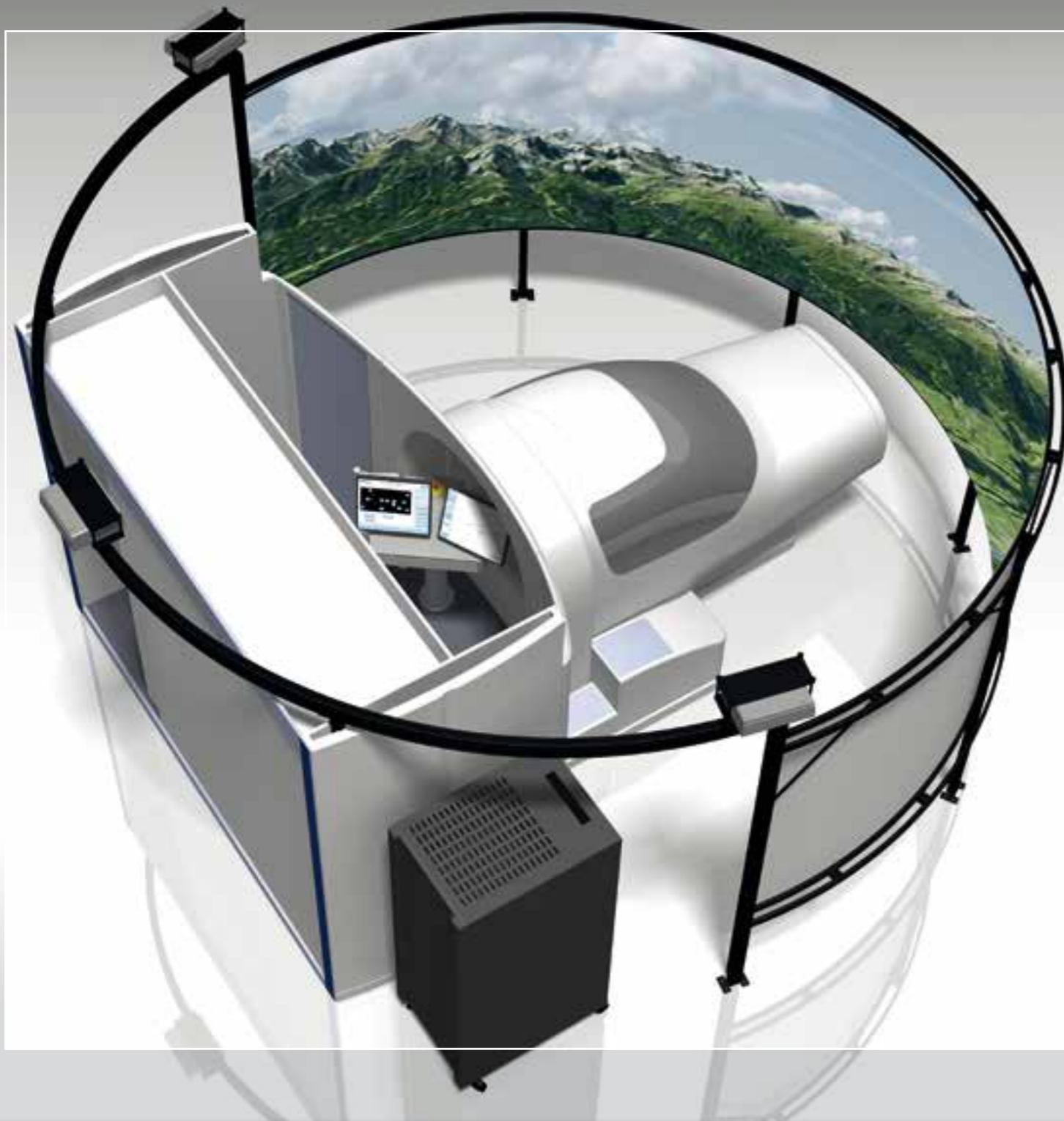


# Diamond Simulation

Get ready for reality





GLOBAL CANVAS image generator for the Diamond Simulator



## Flight Simulation Training Devices

### **Be the next.**

As aviation pioneers we are used to going beyond the expected and have taken flight training to the next level. Only Diamond Aircraft offers a complete line-up of type-specific flight training simulators. Operators and students alike benefit from economical practice time, including honing skills for emergency situations that can be scheduled irrespective of weather conditions. Built with real avionics, high-end visuals and sophisticated instructor operating stations, our Simulators increase safety, efficiency and effectiveness plus offer a cleaner, greener way to train.

“Thank You, Diamond Simulation! We run a very busy schedule at CTC Training UK and both our FNPTII have performed impeccably, logging a total of 22.000 hrs of training details [...] since August 2008. To maintain this high level of usage would not be possible without the tremendous back-up facility your service advisors deliver. Diamond Simulation was the correct choice for CTC training UK.”

*Drew Guyat, Simulator Manager, Bournemouth*



### JUST LIKE THE REAL AIRCRAFT

The Diamond Flight Simulation Training Devices (FSTD) has been precisely modelled after the DA40 and the DA42 aircraft. The instrument panel is fitted with the Garmin G1000 avionics suite and standby instruments. It is built with original aircraft parts to achieve the most realistic cockpit environment, including aircraft specific cockpit switches, primary flight controls, the throttle quadrant and flight crew seats.



The FSTD features accurate aerodynamics, comprehensive systems replication, realistic aircraft instruments simulation, as well as sophisticated environmental and visual effects. The flight dynamics model is validated with aircraft reference data from our flight test department. Nobody knows it better than the manufacturer! The Diamond FSTD is the only training device for the DA40/DA42 fleet available on the market that is based on approved Diamond Aircraft data. The Diamond FSTD guarantees an optimal transfer of training and behaviour between simulator and aircraft. The FSTD can be used for basic and advanced pilot training including instrument, navigation and aircraft-specific procedures training. Due to the original cockpit and high fidelity software the Diamond FSTD can also be utilised for aircraft type specific training, such as cockpit



familiarisation, Garmin G1000 training and flight instructor training. It thus provides a distinctive added business value in comparison to more generic procedures trainers.

### THE FLIGHT INSTRUCTOR WORKPLACE

The instructor operating station (IOS) has been designed with the goal to provide a pleasant and efficient work environment for the instructor. The FSTD is equipped with an IOS cabin including two 17" touch screen monitors and a laser printer. The IOS cabin is enclosed on all sides with a sliding door at the rear end. It includes a desk and book shelves at the right (standard) or left side and dimmable ceiling lights. A highly recommended option is the flight instructor workstation (FIWS) which is a small desk just behind the crew seats. It allows the instructor to operate from a position directly behind the pilots while having a good view into the cockpit and full control over the training session. The FIWS is equipped with two touch screen monitors on swivel arms and a retractable keyboard. The comprehensive IOS software provides the flight instructor the same capabilities as she normally would find in a full flight simulator. The instructors are working with a self-explanatory touch screen system with logical system pages that can be operated intuitively.

### VISUAL SYSTEM

The Diamond FSTD comes with the GLOBAL CANVAS image generator (IG) that is ideally suited for ATPL / MPL training. The worldwide resolution of the satellite pictures allows cross-country VFR training to be performed on the FSTD.

The IG features two cloud levels and realistic cumulus clouds. It also includes weather phenomena, such as wind (movement of windsocks), rain, snowfall, and lightning. The standard database includes worldwide satellite image coverage (15m resolution) and worldwide generic representation of airports. The advanced generic airport models contain all runways with correct threshold elevations based on data provided by Jeppesen. Generic taxiways and terminal buildings can easily be added.

Custom visual databases can be created on request. The visual databases are based on the OpenFlight format which is the international standard for the creation of real time 3D environments. The image generator can render terrain textures with a resolution of up to 5cm per pixel.

In order to provide maximum flexibility to our customers we can also provide the tool-chain for the creation of visual databases.



The following display solution is available:  
Cylindrical Screen 200°x35°

## Simulator Options



### DSIM-CONVERTIBLE (NOT FOR LYCOMING)

Conversion Kit for DA42 and DA40. The entire instrument panel is interchangeable between the different configurations and automatic detection of the hardware will load the correspondent simulation software. The configuration change can be performed within 15 min. Most National Aviation Authorities will grant full credits for both single-engine and multi-engine IR training.

### DSIM-FIWS

Flight Instructor Work Station for IOS cabin. This included two touch screen monitors on swivel arms and a retractable keyboard.

### DSIM-UPS

The uninterrupted power supply protects your FSTD from occasional power surges and allows a safe shut down of the system in case of prolonged power cuts.

#### DSIM-DE-ICE (DA42 ONLY)

The TKS anti ice system of the DA42 is fitted to the simulator which includes the original De-Ice panel and the simulation of the system.

#### DSIM-AP

Original Garmin GFC 700 integrated in MFD or Replica of Bendix King KAP140. Aural alerts and all operating modes are simulated.

#### DSIM-AIRPORT

Custom airport models can be created. This includes high resolution satellite images and exact replication of airport layout. Pricing will depend on airport size and level of detail.

#### DSIM-AC

Simulation of the air condition system including the original AC control panel.

#### DSIM-MPP

A special MPP (Multi Purpose Platform) edition of the DA42 simulator including MPP cockpit interior, Mission Control Panel (not functional), Garmin SAR option, and performance modifications.

tures an Automatic QTG recording tool which allows automatic creation of test reports in pdf format.

#### MQTG AND E-QTG

Our engineers will prepare the master qualification test guide including the statement of compliance section that you will submit to the national aviation authority. With the e-QTG you have access to a 1 hour self executing QTG, your recurrent is only a few clicks away.

#### QUALIFICATION SUPPORT

We support you during the initial qualification of your FSTD with the authority. During this important phase our Lead Engineer will answer all technical questions concerning subjective and objective testing, provide explanations and rectify all findings straight away. Diamond FSTDs comply with regulations from EASA, FAA and all major aviation authorities worldwide. Your simulator can be qualified as FTD Level 5 or Level 6 FAA 14 CFR Part 60 and as FNPT II according to EASA CS-FSTD(A). We support you anytime and guide you through the necessary steps!

## Global Services

GTS – Global Technical Services is your single point of contact for Field Services and After Sales Services of your Diamond FSTD.



## Qualify your FSTD

We Support You! The FSTD is delivered with the Qualification Test Guide (QTG) containing all information required for qualification in accordance to the respective national requirements and regulations. The QTG contains several tests (objective tests, subjective and function tests) which describe the simulator's functionalities and behaviour in detail and allow comparison of the simulator's characteristics with the respective reference data. The IOS fea-

#### FACTORY ACCEPTANCE TEST

When the hardware is assembled and the software is installed Diamond Aircraft (DAI) will thoroughly test all components of the FSTD. After the internal test DAI invites the customer for the Factory Acceptance Test (FAT) which will be performed at the DAI Factory in Austria.

#### DELIVERY AND INSTALLATION

After customer acceptance the FSTD will be prepared and packed in special crates for safe shipment. With the installation and delivery service the device will be sent to the final destination. The GTS Team will travel to the customer's premises and install the device in the simulator room which has been prepared by the customer according to DAI's site requirements.

#### RELOCATION

Disassembly, transportation and installation at new location. Full maintenance check and recurrent QTG check as well as support for requalification after relocation with the national aviation authority.

#### MAINTENANCE TRAINING

Minimize your downtime with our maintenance training. We help you in the formation of your simulator engineers. With modern and effective teaching methods as well as a valid simulator maintenance manual designed as an aircraft manual your personnel will be able to operate the system in normal operation and troubleshoot the most common failure mode with the basic training and fix the least predictable with the advanced training.

#### FLIGHT INSTRUCTOR TRAINING

We train you to set up your training session, selecting malfunctions, set the weather and all the rest. With our immediate trouble



shooting training no session will be interrupted!

#### QTG (QUALIFICATION TEST GUIDE) TRAINING

Running the automatic QTG is easy, but could you perform all tests manually? With our QTG training we provide the skills to run, evaluate and present the QTG recurrent check to the National Aviation Authority.

#### SERVICE AND SUPPORT

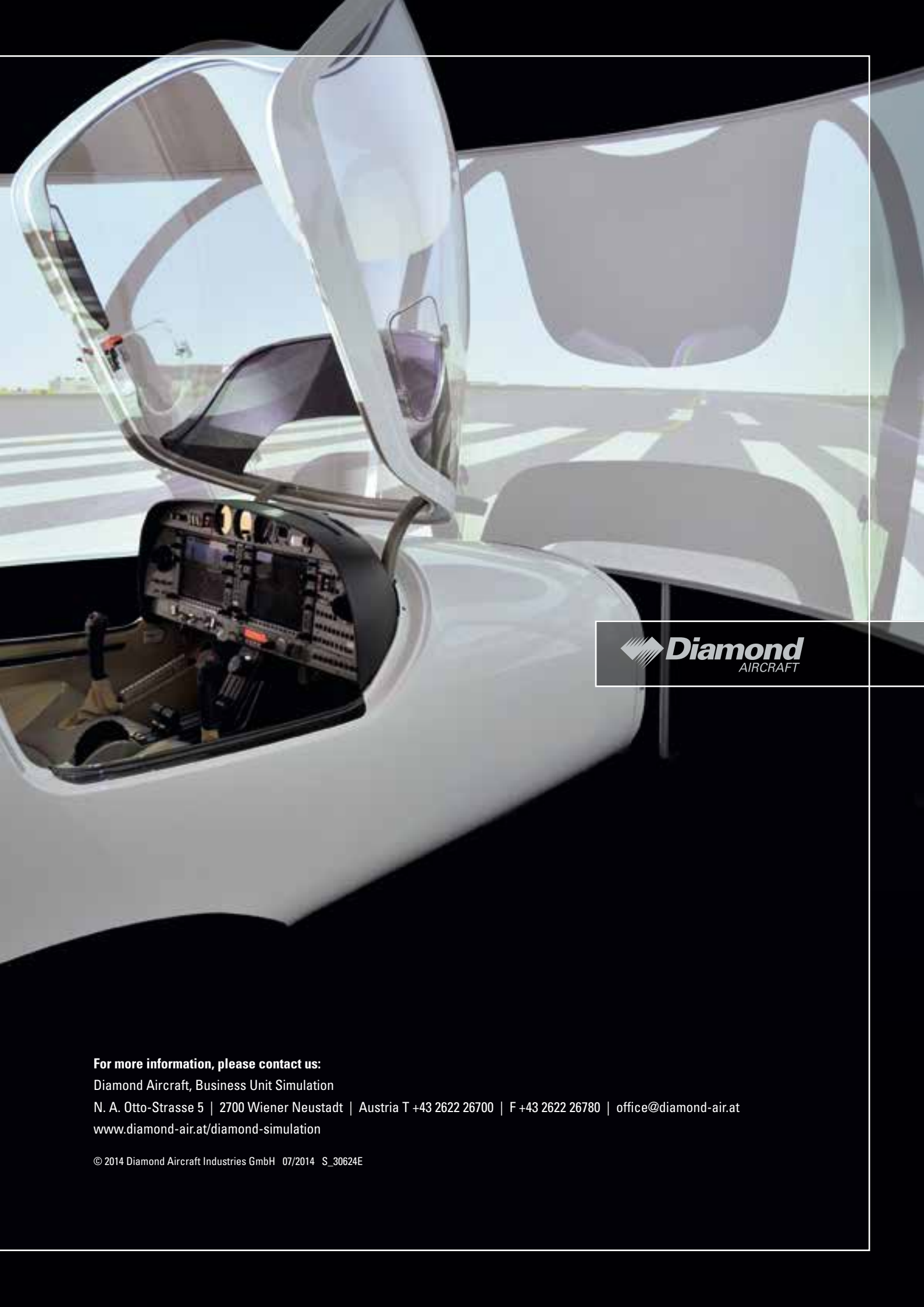
Over telephone, e-mail or during our Field Service we identify your needs and address your issues.

#### MAINTENANCE CONTRACT

One year or more, with the maintenance contract you have access to free remote support, 50% discount on field services, free quarterly navigation data update, and the guarantee to bring back your device into service should any fault occur.

#### WARRANTY

Diamond Aircraft warrants all devices for the period of 24 months.



**For more information, please contact us:**

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