



# **ATTACHMENT 1**

**AIRWORTHINESS GROUP CHAIRMAN'S FACTUAL REPORT**

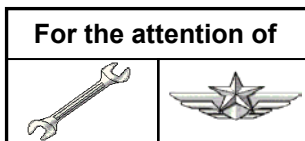
**NTSB No. ERA18MA099**

**Airbus Helicopters Information Notice No. 3022-I-25  
(2 Pages)**

# Information Notice

**SUBJECT: EQUIPMENT AND FURNISHINGS**

**Usage of data recorded in AIRS (Airborne Image Recorder System)  
"VISION 1000"**



AIRCRAFT CONCERNED	Version(s)	
	Civil	Military
AS350	B, BA, BB, B1, B2, B3	
EC130	B4, T2	
AS365	N3	
EC155	B, B1	
EC225	LP	
EC175	B	
MBB-BK117	C-2, C-2e, D-2	
EC135	T1, T2, T2+, T3, P1, P2, P2+, P3, 635 T1, 635 T2+, 635 T3, 635 P2+, 635 P3	

In line with our constant commitment to improve the safety of helicopter operation, Airbus Helicopters is gradually expanding the installation of the Vision 1000 system to its entire aircraft fleet.

This system enables recording the images of the cockpit (instrument panel, caution and warning panel, actions on the flight controls, crew actions and non-verbal communication) as well as the near environment of the helicopter in flight (obstacles, weather conditions, etc.).

This equipment, in addition to the images, also records data from:

- its built-in GPS: position, altitude,
- its IMU (Inertial Measurement Unit): attitude (Roll, Pitch and Yaw), heading, angular velocities and acceleration in the three axes.

The Vision 1000 camera was initially designed for light aircraft and intended to give operators the possibility to perform a basic Helicopter Flight Data Monitoring (HFDM) to improve their operations, maintenance and flight safety. In case of occurrences, incidents and accidents, the data provided by Vision1000 could also strongly support the related analysis, investigations and problem solving. Following its demonstrated effectiveness in several events, it was decided to deploy this innovative feature on the entire Airbus Helicopters range.

**Data are simultaneously recorded within 2 types of memories:**

- SD card (4h of video - 200h of data): the data can be used directly by inserting the SD card into a suitable reader and using the software "Vision 1000 Utility Playback" (video replay) and "AS Flight Analysis" (replay path device in 3D).
- Internal memory "hardened" (2h of video - 200h of data): this internal memory is used only in case of accidents or if the SD card is damaged. It contains the same data as the SD card. In this case, the "Read Access Memory" software must be used to download the memory (user documentation and the required cable are included in the kit supplied with the device).

The recorded data can be processed both by customers (e.g.: training aid, debriefing, etc.) and by Airbus Helicopters personnel.

In order to better assist customers when troubleshooting some systems (which do not have the ability to record fault codes), Airbus Helicopters may ask customers to share the flight data recorded with Vision 1000.

The customer, who is the "owner" of the data, is free to refuse, of course, but will understand that the use of these essential parameters would be of great benefit to the analysis of the event.

Processing and storage of these data will be confidential and will not be disseminated to third parties other than authorized Airbus Helicopters personnel for event investigation purposes.

**Proposed steps in case of occurrences (incident, serious incident or accident) or other events (Exceedance or anomaly):**

1. Save the data of Vision1000 SD card as soon as possible after the occurrence to prevent losing the data due to loop recording.
2. Contact Airbus Helicopters for support and provide the data of Vision1000, via Keycopter (Technical request management service) or contact your usual local Airbus Helicopters correspondent.
3. If you have certain requirements on how to deal with your data, feel free to communicate these requirements before sending the data.

**NOTE:**

For operators whose helicopters are not equipped with this system and who would like to install it as a retrofit, kits (Service Bulletins) are available at the following address:

<http://upgrades.airbushelicopters.com/index.php/catalogsearch/result/?q=vision+1000>