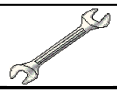
No. 3022-I-25

Information Notice

SUBJECT: EQUIPMENT AND FURNISHINGS

AIRS (Airborne Image Recorder System) "VISION 1000 from Appareo"

For the attention of	
	

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; D-3	D-2m
EC135	T1, T2, T2+, T3, P1, P2, P2+, P3, T3H, P3H	

The purpose of this revision of this Information Notice is:
- To supplement the last chapter concerning the "**Measures to be taken in case of events (incident, serious incident or accident) or other occurrences (exceedance or anomaly)**" in order to differentiate between events that are investigated by an accident investigation body and other events
- To inform you about the necessity to use only SD cards supplied by Appareo in order to guarantee the recording of the data
- To inform you that the Vision 1000 camera is an item of equipment covered by the MMEL. The Vision 1000 camera is part of the helicopter's design and the MMEL authorizes that it can be inoperative for a period of 120 days in maximum. It must therefore not be deactivated deliberately if it is operational.
- To inform you about the vendor SB 600870-000025, rev 1, which gives the new correct firmware reference 501010-000003 R15 or 501010-00055 R03.

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.

No. 3022-I-25

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 two types of memories:

- SD card (4 hours of video - 200 hours of data): the data may be used directly by inserting the SD card into an appropriate reader and using the “Memory Access Utility for Vision 1000” software; then, once the data have been exported the “Vision 1000 Utility Playback” (video replay) software and/or the “AS Flight Analysis” (replay path device in 3D) software. Refer to the applicable maintenance documentation (MMA).

- Internal "hardened” memory (2 hours of video - 200 hours 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 and requires a special downloading procedure. If necessary, please contact the Airbus Helicopters Technical Support.

Other than the potential use of the recorded data to help understand a particular event (incident, serious incident or accident), the data may also be processed by the customers (e.g. training aid, debriefing, etc.) possibly assisted by Airbus Helicopters personnel.

In order to better assist customers in the troubleshooting of 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, if necessary.

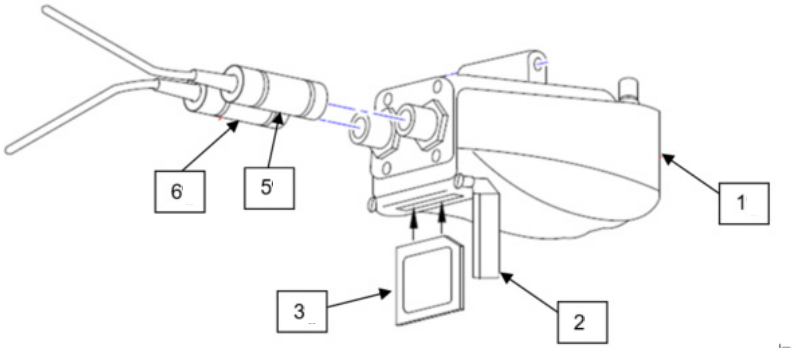
The customer, who is the "owner" of the data, is free to refuse, of course, but will understand that the use of these essential parameters would be of great benefit to the analysis of the event.

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.

No. 3022-I-25

Measures to be taken in case of events (incident, serious incident or accident) or other occurrences (exceedance or anomaly):

1. Regardless of the type of event, save the data of the Vision 1000 camera (1) stored in the SD card (3) and, depending on the cases, in the internal memory of the camera, as soon as possible after the event to prevent losing the data due to loop recording. If the camera remains energized or if flights are resumed, the data of the flight during which the event occurred may be overwritten by the new data recorded and thus be lost. To prevent this situation, it is necessary:
   a. To open the cover (2) and then remove, lock and secure the SD card (3) from its receptacle at the rear of the camera (1).
   b. to cut off the power supply of the camera either through a general cut-out or via the associated circuit breaker, or, if in doubt about damage to the helicopter's circuit, by disconnecting one or both connectors (5) and (6) depending on the helicopter concerned.



2. Event without official investigation by the investigation body of the country in which the event occurred:
   a. Contact Airbus Helicopters for assistance, and update the Vision 1000 data via Keycopter (“Technical request management”) or get in touch with your usual local Airbus Helicopters contact.
   b. If you have special requirements concerning the processing of your data, feel free to communicate these requirements prior to sending your data.
3. Event (serious incident or accident) with an official investigation by the investigation body of the country in which the serious incident or accident occurred:

   The collected data are the property of the investigation body of the country in which the event occurred and must be made available to this body after preservation. The investigation body may request assistance from the French Bureau of Enquiry and Analysis for Civil Aviation Safety (BEA), the German Federal Bureau of Aircraft Accident Investigation (BFU) or Airbus Helicopters to use these data. In this case, it is important to implement the preservation measures as soon as possible (by the occupants of the helicopter or the first persons who arrive on the scene).

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 (if necessary, get in touch with your Airbus Helicopters contact).

The subsequent table contains information on the new Vision 1000 software and hardware configurations. It will help operators easily check the software version installed on their fleet´s cameras.

Helicopter	P/N Camera (hardware)	Associated Amendment	Embedded Software Version
AS350	153070-000016	B	501010-000003 R14
		C	501010-000003 R15
EC135	150575-000009	A	501010-000003 R14
		B	501010-000003 R15
MBB-BK117	150575-000019	C	501010-000003 R14
		D	501010-000003 R15
EC225	153070-000017	A	501010-000003 R14
		B	501010-000003 R15
EC175	153070-000007	A	501010-000055 R02
		B	501010-000055 R03