



Interim Statement

Russian Aircraft crash at Sinai on 31-10-2015
Aircraft type Airbus A321 Registration EI-ETJ Operated by
KOGALYMAVIA Airline LTD, (DbA METROJET) Flight Number
KGL 9268 from Sharm El Sheikh Airport (HESH), Egypt to
Pulkovo (St. Petersburg) Airport (ULLI), Russia

31st October, 2016

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SYNOPSIS:

- Aircraft type: Airbus 321.
- Aircraft Registration: EI-ETJ.
- Flight Number: KGL 9268.
- Date: October 31, 2015.
- Operator: KOGALYMAVIA Airline LTD DbA trading name METROJET.
- The Russian flight was being operated under The Air Legislation of the Russian Federation.
- Departure Airport: Sharm El Sheikh (HESH), Egypt.
- Wreckage Location: 243.921 Miles North of Sharm El Sheik city, Sinai, Egypt.
- Airborne time: 0350 UTC.
- Time of flight recording termination: 4:13:24 UTC.
- Number of cockpit crew members: 2.
- Number of Cabin Crew members: 5.
- Number of passengers onboard: 217 passengers onboard (200 Adults, 17 Child).
- The airplane was destroyed.
- Wreckage was scattered along an area of almost 16 km distance (only explored).
- There were no survivors.



I. Preliminary reaction after receiving the notification:

- Immediately after receiving the notification about the accident from the "Operation Center" of the Egyptian Civil Aviation Authority, the investigation work group from the Egyptian Aircraft Accidents Investigation Directorate, Ministry of Civil Aviation, gathered and moved to Almaza Air force base to take a military helicopter aircraft to the accident site amid Sinai.

II. Actions done in the first day of the accident, to examine the wreckage at the accident site:

- Upon arrival of the investigation team to the accident site, and because the wreckage was spreaded out into a very large area, the team had been divided into 3 groups to examine the wreckage. The area that had been surveyed was more than 9 km length from the wreckage center in the direction of Shoaairat mountain.
- Photos were taken for the wreckage in its preliminary condition and before the accurate search for the human remains.
- Top Egyptian Government Officials had reached site including the Prime Minister, and the Ministers of Defense, Health, Tourism and the Commander of the Air Force, for offering support to the investigation team.
- The Flight Data Recorder FDR, and the Cockpit Voice Recorder CVR, were recovered from the aircraft wreckage.
- The Flight Recorders were accompanied and taken to the Flight Recorders Analysis Lab at the Egyptian Aircraft Accidents Investigation Directorate for data download and analysis.



III. Starting the Air Bridge between Almaza Air force Base and the wreckage site in the middle of

Sinai:

- Immediately after the accident, co-ordination had been established between the Ministry of Civil Aviation and the Ministry of Defense to make an Air Bridge and daily flights to transfer the Egyptian Investigators, representatives and advisers from the concerned countries.
- 19 flights had been carried out, in addition to one flight that was not completed because of the bad weather and some flights that had been cancelled for the same reason.

IV. Preliminary Actions after the accident:

- After the accident, a ministerial decree was issued for the formation of the investigation team and identifying the Investigator in Charge IIC.
- Notifications had been sent to the countries that have the right to participate in the Investigation according to Annex 13 of the International Civil Aviation Organization ICAO, including:
 - Russia, State of Operator,
 - France, State of Design,
 - Germany, State of Manufacturer,
 - Ireland, State of Registration,
 - U.S.A State of Engine Manufacturer.
- Notifications from the concerned States had been received, identifying their Accredited Representatives and advisers participating in the investigation.
- Investigation teams for the States concerned about the accident had been received to participate in the investigation according to Annex 13.

V. Collecting information about the accident:

The Investigating Committee started collecting the concerned information from Egypt and from outside Egypt, including:

- Information related to Sharm El Sheikh Airport.
- The services that have been offered to the aircraft at Sharm El Sheikh Airport until the takeoff of the flight.



- Air Traffic records received from the "National Company for Air Navigation Services" for all that Air Traffic units that served the aircraft, in addition to the documents related to these units.
- Radar records related to the accident flight .
- Taking fuel samples from the fuel that was used to fuel the aircraft for analysis at the specialized labs
- Documents related to the accident had been received.

VI. Co-ordination with judicial authorities:

- Samples of the wreckage had been examined by Criminal Evidences Experts under instruction of the General Prosecutor.

VII. Press news and Press Conference about the accident:

- Several Press Reports had been issued and published to inform the local and international media about the progress of the investigation.
- Press Conference has been made by the head of investigation committee after the accident.

VIII. Transfer of the aircraft units to Cairo:

- 38 electronic units had been lifted from the wreckage and collected by a number of specialized engineers and technicians.
- The units had been transferred to Cairo through two flights because of the weight limits
- These units had been classified and sorted. Photos had been taken. Units had been examined for condition. In addition, the memories included within the units that might be of use for retrieving information from them, were determined.

IX. Reception of the delegates at the Egyptian Aircraft Accidents Investigation Directorate:

- The Russian Minister of Emergency and the accompanying team were received.
- Delegates representing the Russian Judiciary were received.
- Insurance companies representative for the aircraft were received.
- Russian team experts specialized in metallurgy was received for four days. Through these days, the team made a visit to the "Metallurgy Research and Development Center" that belongs to Ministry of Scientific Researches to check its facilities.

The Egyptian Aircraft Accidents Investigation Directorate offered all the facilities to enable all the teams' members to properly perform their duties according to the international regulations.



X. Insurance companies representatives:

The insurance companies' representatives for the event aircraft were received at the Directorate. Procedures for transferring the wreckage had been reviewed, including, special requirements the facilities and provisions related to the transfer of the wreckage.

XI. Study of the reports, information and documents received from internal and external entities regarding the investigation:

- The investigation committee studied all the reports, information and documents received from internal and external entities. These reports included the reports received from the aircraft manufacturer and the manuals, training and maintenance within the operator.

XII. Issuing of the Preliminary Report:

- Based on Annex 13 of the International Civil Aviation Organization, the investigation team should issue a preliminary report about the accident, including information reached by the investigation committee until the date of issuing the report.
- The investigation team issued the preliminary report on 13/12/2015 including 19 articles according to the above mentioned Annex, it was submitted to the Accredited Representatives for the States that have the right to participate in the investigation and the ICAO.
- On 19/12/2015, the investigation committee received one common report including the remarks of all the States participating in the investigation, as a response to the preliminary report.
- The investigation committee studied all the remarks from the Accredited Representatives and responded to these remarks in 29/12/2015.

XIII. Work groups:

- The Egyptian investigators and other participants including the Accredited Representatives and their advisers had been divided into work groups according to document DOC9756, issued by the International Civil Aviation Organization ICAO (Manual of Aircraft Accident and Incident Investigation). Every group was chaired by a member from the Egyptian Investigation team.
- Seven groups had been formed covering all areas of investigation as follows:

1. Wreckage Group:

- This group had located all the wreckage parts according to their longitudes and latitudes, using the Global Positioning System GPS. A survey was made on the whole wreckage area to



identify and locate all the wreckage parts that was scattered in an circle area of a diameter exceeding 16 km from the main wreckage site.

2. Filming and photos Group:

- This group took photos for all the wreckage parts in the actual position of the wreckage after the accident, in addition to taking photos during the transfer and positioning of the wreckage at the wreckage storing site at Cairo Airport.

3. Operation Group:

- This group studied and analyzed the documents related to:
 - Pilots, Pilots training, qualifications and pilots licenses.
 - All documents related to the operator working Manual.

4. Aircraft technical Airworthiness Group:

- This group studies the technical history through its whole operation.

5. Flight Recorders Group:

- This group had downloaded and analyzed the contents of the Flight Data Recorder and the Cockpit Voice Recorder at the lab of the Egyptian Aircraft Accident Investigation Directorate. Following actions had been done with regards to the flight recorders FDR, CVR:
 - Downloading the FDR, CVR in the presence of the Accredited Representatives for the states participating in the investigation.
 - Documenting the downloading process through photos and videos.
 - Because of the damage in the FDR, and the failure of the main wiring, the unit memory has been moved to another unit that was used as a "Bench Unit". New wiring was connected to the unit. Information downloading was done successfully.
 - This information had been processed by the Insight Program used at the Egyptian Aircraft Accident Investigation Directorate lab. All of this information e.g. altitude, speed,, have been thoroughly examined using tables and plots.
 - Audio information had been downloaded from the CVR. The 4 Audio channels were separated for individual listening.



- Time correlation between the extracted FDR information and the CVR had been written. A complete transcript had been made for the cockpit conversations as extracted from the CVR. .

6. Air Traffic Control Group:

- This group had studied the recorded information at the Air Traffic units that were dealing with the aircraft throughout the flight since its departure from Sharm El Sheik Airport until the moment of vanishing from the radar screen.

7. Medical and Pathology Group:

- This group had arranged and identified the reports related to the human remains anatomy, issued by the forensic doctors belonging to the Egyptian Forensic Medicine Department

XIV. Preparations for transferring the wreckage:

- A comprehensive plan had been established to securely and safely transfer the wreckage to the planned site, including constructing a wreckage grid map.
- Required facilities for achieving this task had been received from concerned entities, including the following:
 - Arranging for the financial resources required to purchase the equipment and special provisions related to the wreckage transfer.
 - Co-ordination had been made between the Ministry of Civil Aviation and the Ministry of Defense to obtain the support from the Egyptian Army to the investigation committee to transfer the wreckage. The investigation committee held several meetings with the army officials to arrange for the necessary equipment and provisions required for wreckage transfer.
 - The committee had chosen a closed space (maintenance hangar), and opened space at the storage area, Cairo Airport as a preparation step to transfer the wreckage to it.
 - In addition, necessary equipment for the transfer of the wreckage had been made available by the committee, including suitable baggage of special nature, capable of transferring the wreckage parts.



XV. Transfer of the wreckage from its site at the middle of Sinai to Cairo Airport:

- The investigation committee prepared the wreckage for the transfer from the middle of Sinai through 6 working days starting from 24/2/2016.
- The work was done at the wreckage site, with a full support and security from the Egyptian Army including lodging.
- The loaded cars were moved progressively from their location to the storage area, the wreckage parts were unloaded at the assigned areas at Cairo Airport through 3 days.

XVI. Downloading and analyzing information from the cabin pressure controllers CPC1, CPC2:

- Some members of investigation committee had been sent to Frankfurt, Germany to download the content of the CPC1 and CPC2 memories under the supervision of the unit's manufacturer NORD MICRO.
- Representatives from the states that have the right to participate in the investigation had attended in the downloading and the analysis of the information.
- A report was issued by the unit's manufacturer including technical information about the units and was made available to the investigation committee.

XVII. Spectrum Analysis for the CVR Recording:

- Some members of investigation committee had been sent to Germany to make a spectrum analysis for the last second of the CVR recorded audio, with the presence of the Accredited Representatives of the participating states. Comparison of the spectrum analysis had been made with some database audio files at the German investigation Bureau and some files from the French investigation bureau.
- A report was issues for the care of the investigation team.

XVIII. Submitting the report issued by Federal Security Service of the Russian Federation to the General Prosecutor:

- In the scope of continuous mutual work among the States participating in the investigation, and to reach all the available information about the accident, the committee received a report issued by Federal Security Service of the Russian Federation. After studying the report, the committee decided to submit the report to the General Prosecutor, implementing the article 108 of the Civil Aviation law, as, it included some suspects of accident criminal act.



XVIII. Surface layout of the aircraft wreckage parts:

- Co-ordination had been established between the Accredited Representatives of the states participating in the investigation to perform a surface layout process for the wreckage at the storage area in an area at Cairo Airport, the period between 28/08/2016 and the end of 08/09/2016 in co-ordination with the Judicial Authorities, as an attempt to identify the area of the first disintegration point of the aircraft fuselage and its propagation.
- Several investigation committee members, Accredited Representatives, advisors, from the States participating in the investigation, in addition of assistants from the companies belonging to the Egyptian Civil Aviation, participated in the surface layout process as follows (Total number of 56 participant):-

Serial	Departments	Number
1	Investigation committee and its coordinators	15
2	Metallurgy experts, Cairo University	2
3	Coordinators from companies belonging to Ministry of Civil Aviation	18
	Total	35

- Participants from other states participating in the investigation:

Serial	Departments	Number
1	French Investigation Bureau, BEA	7
2	Airbus	5
3	Interstate Aviation Committee (IAC) for Russia	4
4	German Investigation Bureau, BFU	2
5	Air Accident Investigation Unit, AAIU-Ireland	1
6	American National Transport Safety Board, NTSB	1
7	Pratt and Whitney, engines manufacturer	1
	Total	21



- Several equipment and provisions had been used to fulfill the mission successfully, from companies belonging to the Ministry of Civil Aviation.
- By the termination of the surface layout process, a report was issued about the works that had been done and the recommendations, including sending 18 part of the wreckage to the "Metallurgy Research and Development Center" for analysis.
- Wreckage examination had been made by officials from the French forensic (assisting the BEA) and Russian Criminal investigation in co-ordination with Egyptian Prosecution and forensic.
- On 21/09/ 2016 co-ordination has been established with the General Prosecution regarding separating some parts of the wreckage and moving them to the "Metallurgy Research and Development Center" to implement the recommendations of the surface layout report issued by investigation committee and the Accredited Representatives.
- Separation for the agreed parts had been made in the presence of experts from the "Metallurgy Research and Development Center" and specialized structure engineers
- These parts have been moved from the wreckage storage site to from the "Metallurgy Research and Development Center" into two groups, the first group on 16/10/2016, the second group on 24/10/2016.
