#### **Five Soviet Top-Secret Memos**

In 1992, Russian president Boris Yeltsin disclosed five top-secret memos dating from late 1983, within weeks of the downing of Korean Air Lines Flight 007. These memos were published in the Soviet news magazine, *Izvestia*, Number 228, October 16, 1992, shortly after being made public. They are highly significant in showing the attitude of the Soviet leadership towards the US, the UN, its International Civil Aviation Organization (ICAO) and this flight.

The reference to photographing radar screens in the third and fourth memos corroborates the testimony of "Reuben V., a former map maker assigned to Soviet Air Defense battery – Military unit 1845. This was the radar unit that, according to Shifrin, had tracked KAL 007 to a safe water landing."<sup>1</sup>

Another interesting fact from these memos is an acknowledgement, contrary to public statements, that the Soviet interceptors made no attempt to contact KAL 007 on the international emergency radio frequency nor did they fire tracers or warning shots. The fourth memo, to Soviet Premier, Yuri Andropov, states clearly that the Soviets sought to deceive the US and Japan as to the location of the downed plane by performing "Imitation search efforts in the Sea of Japan..." The final memo, also to Andropov, confirms that the Soviets intentionally deceived the US and Japan as to the fact that they had retrieved the Black Boxes from KAL Flight 007 and that they had decided consciously to keep them secret from the rest of the world.

Reuben's statements, as recorded by Bert Schlossberg in <u>Rescue 007: The Untold Story</u> of <u>KAL 007 and Its Survivors</u>, are appended to this document following the four memos.

We are grateful to Serge Zavyalov for translating these memos and providing them to the International Committee for the Rescue of KAL 007 Survivors, Inc..

<sup>1</sup> <u>Rescue 007: The Untold Story of KAL 007 and Its Survivors</u> Bert Schlossberg Xlibris 2000 Pg. 42 *First Memo* Top-secret

To Comrade Yu. V. Andropov

Following the fall into the Sea of Japan on 1 September this year of a South Korean airplane that intruded into Soviet airspace in the regions of Kamchatka and Sakhalin Island, a search for the plane's digital recorders was undertaken by forces of the Pacific Naval Flotilla. The equipment was needed for a more precise determination of the objectives of the airplane's incursion into our airspace.

The search was conducted in several areas at a depth of 100 to 300 meters. In the course of the search, combat and supportive naval vessels, numbering up to 40, were used along with vessels of the Ministry of Gas Industry and the Ministry of Fishing.

The search was conducted under circumstances complicated by similar operations and surveillance of our vessels by more than 20 ships and other vessels, as well as numerous aircraft of various types, from the US and Japan.

On 20 October this year at the point with coordinates N46°33'E141°19' (located in the international waters at a distance of 8 kilometers from Soviet territorial waters) the fuselage and the cabin of the South Korean airplane were located at a depth of 180 meters.

In the third decade of October this year the equipment in question (the recorder of inflight parameters and the recorder of voice communications by the flight crew with ground air traffic surveillance stations and between themselves) was brought aboard a search vessel and forwarded to Moscow by air for decoding and translation at the Air Force Scientific Research Institute.

Work on the equipment is being conducted by the Ministry of Defense with the KGB of the USSR under a regime of secrecy. At present there is no data at our disposal indicating that any information on the salvage and dispatch of the said equipment to Moscow has been available to the Intelligence Community of the US and Japan.

Imitation search efforts in the Sea of Japan are being performed by our vessels at present in order to disinform the US and Japan. These activities will be discontinued in accordance with a specific plan.

Findings resulting from the translation of the flight crew's voice and the decoding of the in-flight parameters as well as analysis, interpretation of the information and recommendations as to implications will be reported immediately upon completion of the work.

D. Ustinov, V.Chebrikov November 1983

#### *Second Memo:* Secret

# NOTES ON ANALYSIS OF PARAMETERS REGISTERED ON THE TAPE OF DIGITAL FLIGHT DATA RECORDER FROM THE SOUTH KOREAN AIRPLANE, A BOEING-747-200 B

The tape of the flight data recorder contains 18 analog, in-flight variable parameters, 14 linear parameters registered in the form of a line and 19 one-time commands.

(1) The 18 parameters that have been played back and deciphered include:

- Nine parameters indicating fight trajectory and angular positions of the airplane (fine altitude, coarse altitude, radio altimeter, airspeed, pitch attitude, roll attitude, magnetic heading, vertical and longitudinal acceleration);
- Seven parameters indicating control systems (flaps, yaw control (1), pitch control (4) and roll control (1));
- Two parameters indicating engine pressure.

The above parameters have been a basis for specifying the path, mode and profile of the flight.

(2) The 14 linear parameters have not been recognized. During cruise as well as landing in the previous leg of the flight, take-off in the last flight, and in the flight section, which follows missile detonation, a constant rate of signal was registered for all these parameters (no change of signal rate was registered).

While, on the one hand, the above mentioned hinders recognition of these parameters by their physical content without reference to a technical guide to the flight data recorder (system functional manual), on the other hand, it signifies that these parameters do not provide important information regarding path, mode and profile of the flight of the South Korean airplane.

(3) Ten of the nineteen one-time commands registered by the flight data recorder have been deciphered. On the basis of the deciphered one-time commands an assumption has been made about the functioning of VHF and HF radio stations (5 one-time commands), initiation of autopilot (4 one-time commands) and decompression of the passenger cabin after missile detonation. Nine one-time commands have not been recognized.

For analysis of the unrecognized data a technical manual for the flight data recorder from the airplane in question is necessary.

Lieutenant-General-Engineer 28 November 1983 TICHOMIROV

### *Third Memo* Top-secret

# CONCLUSIONS BY THE GROUP OF EXPERTS OF THE DEFENSE MINISTRY, KGB OF THE USSR AND MINISTRY OF AEROSPACE INDUSTRY

The Group of Experts consisting of specialists representing Defense Ministry, KGB of the USSR and Ministry of Aerospace Industry has completed work on the analysis of parameters deciphered from the tapes of the flight data and voice recorders of the South Korean airplane, a Boeing 747 which intruded into the airspace of the USSR and was shot down over Sakhalin Island on 1 September 1983. (Enclosure # 4) [sic. Enclosure not available. Ed.]

In the course of work a few specialists from the navigation service as well as other services of Ministry of Aerospace Industry and Ministry of Civil Aviation has been consulted on specific issues.

## THE ANALYSIS HAS REVEALED THE FOLLOWING

The continuation of flight of above mentioned airplane from the start of taxi at the airport in Anchorage till its termination is 5 hours 26 minutes and 18 seconds. From 0 hours 4 minutes 18 seconds in the flight and an altitude of 1450 meters the command of the airplane was carried out by autopilot set in a constant magnetic heading of 249° automatic stabilization mode without connection of the Inertial Navigation System [INS] to the autopilot. (INS command mode is required for transoceanic flights). The flight level of the airplane was progressively 9450, 10050 and 10650 meters and the airspeed was 910-920 kilometers per hour.

INS operability within the full time of the flight is confirmed by regular reports of the crew on wind force and direction available only from INS information during transoceanic flight. Another confirmation of INS operability is regular reports by the crew to ATC [Air Traffic Control] on estimated and allegedly exact time of passing the compulsory reporting points along the international airway which, according to the reports, the airplane followed. The time of passing waypoints (also confirmed by information published by the US State Department) was known by the crew only from INS information. Besides the data on wind and time of passing waypoints along the actual flight path fits our calculations. (Map enclosed) [sic. Enclosure not available. Ed.]

The actual flight path of the airplane crossed Kamchatka Peninsula and Sakhalin Island with gradually increasing deviation from the international airway reaching 660 kilometers in the last section.

In the region of Kamchatka and Sakhalin the actual flight path basically fits the data obtained by radar tracking of Air Defense Forces.

The time of flight termination as registered by the flight recorder is practically the same as indicated on the photographic images of the radar screen by Air Defense Forces being

6 hours 24 minutes 56 seconds of the local Sakhalin time on 1 September (22 hours 24 minutes 56 seconds of Moscow time on 31 August).

With a high degree of probability, it may be stated that the analyzed flight data and voice recorders are in fact from the South Korean airplane. The above is confirmed by the external and internal damage to the recorders that cannot be associated with impact other than from the airplane disintegration as well as exactly simultaneous end of functioning by both recorders caused by cut of power supply due to destruction of the airplane in 1 minute 42 seconds after it was attacked and a specific pattern of change of parameters in the last section of the flight which cannot be practically reproduced in exact correlation.

### IT HAS BEEN ESTABLISHED THAT

- 1. Within 5+ hours of the flight there was no attempt by the crew to take command of the airplane in order to make correction of its flight path. In spite of having all necessary instrumental data indicating a considerable deviation from the international airway the crew made no attempt to exit the airspace of the USSR.
- 2. The crew was not alerted by the instrumental indication of the flight command mode, INS information on the geographical position of the airplane and its significant lateral deviation from the international airway, information by the airborne radar and radionavigatonal system as well as deteriorating radio contact with ATC units to make correction of the flight path for exiting the airspace of the USSR. Moreover, using INS information the crew made false reports to ATC units on the airplane's position in regards to the international airway.
- 3. Constant magnetic heading automatic stabilization mode set by the crew for command of the flight confirms no intention by the crew to follow the international airway with control by INS which is incontrovertible evidence of intentional incursion of the South Korean airplane into the airspace of the USSR. Neither single error nor error combination at programming the flight path by the crew may result in the flight with constant magnetic heading under control by INS.
- 4. The crew regularly reported to ATC units (mostly via companion airplane fulfilling Flight 015) on estimated and allegedly exact time of passing the compulsory reporting points along the international airway as well as wind rate and direction and remainder fuel in order to create (in the view point of the crew) a foolproof alibi.

Taking into account all mentioned above and also high professional skills of the crew and high reliability of navigational equipment of the airplane as well as omission by ATC units in the US and Japan to correct the deviation of the airplane from the international airway it seems reasonable to assume that the South Korean airplane followed a pre-planned flight track and its crew was aware of the actual position of the airplane within the full time of the flight.

However in case the flight recorders shall become available to the western countries their data may be used for:

- Claiming possibility of erroneous use by the crew of airborne navigational equipment to form various theories based on the data analysis;
- Confirmation of no attempt by the intercepting aircraft to establish a radio contact with the intruder plane on 121.5 MHz and no tracers warning shots in the last section of the flight;
- Disputing our specification of the flight termination time (the time of the flight termination may be altered within a range from 30 to 40 seconds);
- Confirmation of no intelligence mission by the plane on the strength of argument that within the last 30 minutes of flight during which the voice recorder registered oral communications of the crew nothing was said that might disclose the reason of incursion of the airplane into the airspace of the USSR. However in our opinion the same argument might equally be used as circumstantial evidence of intentional incursion.

In sum the available objective data by the flight recorder may equally be used by the USSR and the western countries in confirmation of opposite views on nature of the flight by the South Korean airplane. The data by the voice recorder may be expressly favorable for the western countries.

#### CONCLUSION

In connection with above, it seems unnecessary to transfer the flight recorders to the International Civil Aviation Organization (ICAO) or any third party willing to decipher and analyze of their data.

Head of the Group Lieutenant-General of Aviation	MAKAROV
Staff of the Group	
Lieutenant-General Engineer	TICHOMIROV
Major-General Engineer	DIDENKO
Major -General of Aviation	STEPANOV
Major -General of Aviation	KOVTUN
Corresponding Member of Academy of Sciences of the USSR	FEDOSOV

28 November 1983

*Fourth Memo:* Top-secret

CONCLUSIONS By the Experts' Group

The experts' group has, on the basis of data from Digital Flight Data Recorder (DFDR) by the South Korean airplane Boeing-747, together with the data obtained by radar tracking and photographic images of the radar screens of Air Defense Forces, completed work on plotting the actual line of the flight path with its further comparison to the track of the official international airway and the data obtained by radar tracking as well as specifying the exact time of flight termination.

On the basis of the data analysis and calculations made by the group it has been established that:

- 1. The actual flight path of the airplane crosses the territory of Kamchatka and Sakhalin with gradual deviation to the north from the official international airway reaching in the last section of the flight 660 kilometers and indicates that the flight crew maintained a constant magnetic heading of 249°. In the region of Kamchatka and Sakhalin the flight path is almost identical to that resulting from the radar tracking by Air Defense Forces.
- 2. The exact time of flight termination is 22 hours 24 minutes 56 seconds of Moscow Time.

With a high degree of probability, it may be stated that deviation of the airplane from the official international airway is not a result of erroneous actions by the flight crew but rather a consequence of intentional flight in a pre-planned direction, which is confirmed by the following:

- Neither any possible single error nor combination of errors in programming the flight path by the crew can result in a flight with constant magnetic heading
- Magnetic heading automatic stabilization mode set by the crew for the flight instead of INS command mode confirms that the crew had no intention of following the international airway
- Within 5+ hours of the flight, the crew made no attempt to take the flight control in order to make corrections, ignoring indication on the instrument console on the flight command mode and INS information specifying the geographical position of the airplane and its lateral deviation from the international airway as well as current information by the on-board radar and radio navigational systems
- The flight crew regularly reported to the ATC units via companion airplane fulfilling the Flight 015 the estimated and real time of passing the compulsory

reporting points along the international airway as well as force and direction of wind and remainder fuel which is the evidence of the use by the crew the INS information

 Practically, during the full time of the flight, the crew did not establish direct radio contact with ATC, reporting instead via companion airplane fulfilling the Flight 015 that in the understanding of the crew, the plane was following within a range not exceeding 100 kilometers, which was to signify to the crew a considerable lateral deviation from the international airway

In case the DFDR is transferred to ICAO or any third party willing to decipher its content the latter may equally be used in order to:

- Dispute our specification of the exact time of the flight termination;
- Claim possibility of erroneous operation by the flight crew of the on-board navigational equipment;
- Confirm that there were no maneuvers by the intruder plane along its flight path.

#### SIGNED

Deputy Chief Navigator for Air Force Major General of Aviation	KOVTUN
Deputy Chief Navigator for VTA Air Force Colonel	POLEVOI
Chief Navigator-Researcher for LII MAP	IREIKIN
Head of Navigation Equipment Lab at LII MAP	VLASOV
Navigator for Leading Group at TsUMVS MGA	SVISHEV
KGB Representative	KORICHNEV

# *Fifth Memo:* Top-secret

To the Attention of Comrade Yu.V.Andropov

As it has been reported earlier, the electronic equipment from the South Korean airplane (flight number 007) shot down in the region of Sakhalin Island on 1 September of this year (DFDR and CVR) in the third decade of this November was located in the Sea of Okhotsk at a depth of 180 meters and subsequently retrieved and transported to Moscow for deciphering and translation. On the basis of expert investigation it has been objectively established that the above-mentioned equipment is in fact from the South Korean airplane in question.

The Defense Ministry together with KGB of the USSR with participation of experts from Ministry of Aerospace Industry and Ministry of Civil Aviation has completed work on deciphering the tapes from the above-mentioned recorders as well as their thorough analysis and investigation. On the basis of the analysis, it has been established that both inertial and cursory (magnetic) navigation systems responsible for the command of the airplane during the flight were in operable condition. However the actual flight path of the airplane crossed Kamchatka and Sakhalin with gradually increasing lateral deviation from the official international airway reaching 660 kilometers, which has been objectively confirmed by the data obtained from the flight recorder. In sections when the flight was monitored by the command posts of Air Defense Forces the flight path obtained by radar tracking fits basically the actual flight path registered by the flight recorder.

The flight crew of the airplane in question, in spite of all available instrument data indicating significant lateral deviation from the international airway and penetration into the airspace of the USSR, continued the flight with a constant course over a time of 5+ hours making no attempt to take control of the airplane in order to make correction of its flight path in order to exit the airspace of the USSR. As it has been established, the flight of the airplane was commanded by the cursory (magnetic) navigation system in automatic mode. The Inertial Navigation System was not connected to the autopilot and was used only for reference of the position that the airplane should have had on the international airway at any time during the flight. Based on the information from the Inertial Navigation System, deliberately false reports on the position of the airplane on the international airway were made regularly by the crew to the ATC units, which indicates the intention of the crew to create an alibi in case the airplane was forced to land on a Soviet airfield. Flight 007 while in the airspace of the USSR was in constant radio contact with companion Flight 015 following within a short range along the international airway.

Taking into account the above mentioned facts as well as high professional skills of the flight crew in question and high reliability of the navigation equipment of the airplane it should be assumed, as established beyond any doubt, that the incursion of the South Korean airplane into the airspace of the USSR was intentional.

Assessment of the factual data obtained by the analysis of the flight recorders and the stand the US Administration adopted after the airplane was shot down confirm that we encountered a thoroughly planned high scale political provocation by the US Intelligence Community which had two objectives. In the first place incursion of an intruder plane into the airspace of the USSR was to create a situation favorable for gathering intelligence on our Air Defense installations in the Far East by use of various systems including the Ferret spy satellite. If the intruder plane could fly through Soviet airspace unpunished, the US would be likely to launch a campaign to stress inefficiency of our Air Defense in the Far East. In the second place, if the flight is terminated, a global anti-Soviet campaign was ready to be started in order to condemn the Soviet Union. Our unraveling the clandestine and provocative nature of the flight as well as participation of the US Intelligence Community in its preparation prevented the US from achieving their goals in full.

Since the action was thoroughly planned by the US, efforts were made to conceal its real objectives. Though objective confirmation that the incursion into the airspace of the USSR was intentional has been obtained by deciphering the data from the flight recorder, it cannot serve as conclusive evidence that the flight was on a spy mission. Therefore, if the flight recorders shall be transferred to the western countries their objective data can equally be used by the USSR and the western countries in proving the opposite view points on the nature of the flight of the South Korean airplane. In such circumstances a new phase in anti-Soviet hysteria cannot be excluded.

In connection with all mentioned above it seems highly preferable not to transfer the flight recorders to the International Civil Aviation Organization (ICAO) or any third party willing to decipher their contents. The fact that the recorders are in possession of the USSR shall be kept secret.

As far as we are aware neither the US nor Japan has any information on the flight recorders. We have made necessary efforts in order to prevent any disclosure of the information in future.

From now on, in any matter connected with this incident, it seems preferable to maintain the view expressed in the Statement by the Soviet Government dated 6 September of this year categorically refusing compensation of any damages and also putting the whole responsibility for the loss of lives on the US as the initiator of the provocation.

Looking to your approval.

D.Ustinov, V.Chebrikov

\_\_\_\_ December 1983

#### Statements by Reuben V.

*The following is excerpted from the book <u>Rescue 007: The Untold Story of KAL 007 and Its</u> <u>Survivors,</u> by Bert Schlossberg, Xlibris, 2000, pages 43--44, with the author's permission.* 

Over many cups of coffee, Reuben struggled with us in Hebrew, English and hand gestures, demonstrating and illustrating on hotel stationary over and over again, attempting to show us the angle of KAL 007's descent at different altitudes as it gradually came down (and here, Reuben's hand was almost flat palm down a few inches from the top of our coffee table) to an altitude Reuben called "Point Zero." We were later to learn that "Point Zero" is about 1,000 feet above the surface of sea and is the point under which Soviet radar was ineffective due to the curvature of the earth.

Reuben, in such ways, conveyed to us the following story: On September 1, 1983, his commanding officer, while yet a lieutenant on night duty serving at Military Unit 1845 located on Soviet Gavin (the east coast of Russia across from Sakhalin Island), had photographed his radar screen which had been following the flight of KAL 007 for several minutes prior to its being shot down. After missile impact, the radar had continued tracking the jumbo jet for over 12 minutes – until it had descended to Point Zero. The name of Reuben's superior officer was Ryzhkov. Ryzhkov and the whole of Military Unit 1845 were part of the underground staff headquarters located at Komsomolsk-na-amure.

Ryzhkov told Reuben he was certain that KAL 007 had landed safely. Nor was his the only radar station that had followed the flight of the stricken passenger plane to point zero. Another of these was the radar station at Edinke, designated as Air Defense unit 2212 PT6. Reuben drew a map of Soviet Gavin on hotel stationary and placed Edinke northeast of unit 1845. Ryzhkov told Reuben that he had used three rolls of film, each containing 36 exposures, in photographing his radar screen. These rolls, the lieutenant said, were later confiscated by the KGB. All personnel at Unit 1845 as well as at the other radar stations were commanded to maintain silence concerning the tracking of KAL 007. Everyone understood that the penalty for disobeying this order would be death or exile.

"Why would anyone tell you all this?" I asked him. "Especially in light of the penalties?"

"He was drunk," Reuben told us. "And he was bitter. They had humiliated him—he had been passed over for promotion while others involved in the incident went up a grade. And when he inquired of the KGB why this was so, they told him that it was because he had failed to load the camera. But Ryzhkov knew better."

All this was told to Reuben when he served under Ryzhkov – sometime during 1987 – 1989, after Ryzhkov had finally received a promotion, being made captain and commander of the same Unit 1845.