

Final Report of the Aircraft Accident Investigation Bureau

concerning the incident (Airprox)

between EZY872 and LBT534

on 13th April 2002

South of waypoint IRMAR, UAC, Geneva

Bundeshaus Nord, CH-3003 Berne

FINAL REPORT

AIR TRAFFIC INCIDENT REPORT (ATIR)

AIRPROX (NEAR MISS)

THIS REPORT HAS BEEN PREPARED FOR THE PURPOSE OF ACCIDENT/INCIDENT PREVENTION. THE LEGAL ASSESSMENT OF ACCIDENT/INCIDENT CAUSES AND CIRCUMSTANCES IS NO CONCERN OF THE INCIDENT INVESTIGATION (ART. 24 OF THE AIR NAVIGATION LAW)

| AIRSPACE | А | |
|-----------------|-------------------------|--|
| | | Coordinator |
| | MOLUS4 | Radar controller |
| | | Coordinator |
| | | Trainee controller |
| CONTROLLER | MOLUS3 | Radar controller |
| ATC UNIT | Swiss Rad | ar Area West UAC |
| | | |
| | | LBT534, MD-83, astir to Brussels. |
| AIRCRAFT | | ZY872, Boeing 737-33V, to Amsterdam. |
| PLACE/DATE/TIME | South of v 16:40 UTC | vaypoint IRMAR, UAC, Geneva, 13 April 2002, C |
| | | |

HISTORY

On Saturday 13 April 2002 at 16:36, an aircraft Boeing, type 737 of the Easy Jet company, EZY872, on a scheduled flight from Nice to Amsterdam, reported on the sector INS frequency 125.55 MHz climbing towards flight level 260 in the direction of IRMAR. Its position was 44 NM south of IRMAR. The radar controller cleared it on route IRMAR – MOLUS – PENDU and asked the pilot if his requested flight level was level 320. The pilot answered that he wished to climb to flight level 360. Flight EZY872 was then transferred to the sector MOLUS3 frequency 126.05 MHz for clearance to climb.

The pilot of flight EZY872 reported on frequency 126.05 MHz, at flight level 260 and requested flight level 360. The sector MOLUS3 radar controller identified him and cleared him to climb to flight level 300 and, after coordination with sector MOLUS4, to flight level 350.

A few minutes later, the radar controller instructed the pilot of flight EZY872 to make a 30° left turn. The pilot read back the message and stated that he had the other aircraft on his TCAS (Traffic Collision Avoidance System). The radar controller acknowledged and asked the pilot to state his heading on the sector MOLUS4 frequency of 124.030 MHz.

An aircraft type MD-83 of the Nouvelair company, LBT534, on a scheduled flight from Monastir to Brussels, reported on the sector MOLUS4 frequency 124.030 MHz flight level 320 in the direction of IRMAR. The radar controller identified it and cleared it for IRMAR – MOLUS – PENDU at flight level 320.

The radar controller informed the pilot of conflicting traffic, at his 11 o'clock at a distance of 2 NM, climbing through his flight level. The pilot stated the he had the traffic in sight.

The pilot of flight EZY872 reported on the sector MOLUS4 frequency 124.030 MHz climbing towards flight level 350 heading 324°. The radar controller requested him to resume own navigation on the route MOLUS – PENDU and cleared him to climb to flight level 360.

The two aircraft got closer dangerously with, according to the radar plots, a lateral distance of 1.5 NM and an altitude difference of 200 FT.

FINDINGS

- Instrument flight rules were being applied.
- The radar operators as well as the coordinators were in possession of a valid licence.
- Radiocommunications between the pilots of flights EZY872, LBT534 and the radar operators were conducted in English.
- Flying conditions were VMC (Visual Meteorological Conditions).
- The route of flight EZY872 as well as that of flight LBT534 was IRMAR MOLUS PENDU.
- On sector MOLUS3, a trainee radar controller was under supervision.
- At 16:36:06, the Aix controller telephoned the sector INS coordinator to inform him that he could continue the climb of flight EZY872 in function of flight LBT534 which was at flight level 320. This flight was following the same route and its position was 9 NM to the left of flight EZY872.

All times are specified in the universal time coordinated (UTC) format

- At 16:36:10, the pilot of flight EZY872 reported on the sector INS frequency 125.55 MHz, climbing towards flight level 260, and requested the final flight level of 360.
- At 16:37:11, the radar controller asked the pilot of flight EZY872 to report on the sector MOLUS3 frequency 126.05 MHz to be able to continue his climb.
- At 16:37:25, the pilot of flight EZY872 reported on frequency 126.05 MHz, at flight level 260 and requested flight level 360. The radar controller identified him and informed him that he would call him back about the climb.
- At 16:37:41, flight EZY872 was initially cleared for flight level 300.
- At 16:38:36, a coordination on the climb of flight EZY872 took place between the coordinators of sectors MOLUS3 and MOLUS4. The MOLUS4 coordinator requested the position of the aircraft, assigned it flight level 350 and requested the transfer of the aircraft to his frequency.
- At 16:39:08, a coordination took place between the coordinators for sectors MOLUS4 and MOLUS5 on the climb of flight EZY872. The MOLUS5 coordinator gave clearance for flight level 360.
- At 16:41:34, the STCA (Short Term Conflict Alert) indicated a proximity alert to the radar controllers.
- The incident took place at 16:41:59, 5 NM south of IRMAR, in non-delegated class A French airspace, at flight level 320, in the Aix area of jurisdiction.
- At the time of the incident, flight EZY872 was in contact with and under radar control of sector MOLUS3. Flight LBT534 was in contact with and under radar control of sector MOLUS4.
- At 16:41:51, the radar controller for sector MOLUS3 asked the pilot of flight EZY872 to make a 30° left turn. The pilot answered him "Ok, heading left 30°, heading 323°, we've got the guy on our TCAS".
- At 16:41:59, according to the radar plots, the distance between the two aircraft was a lateral separation of 1.5 NM and an altitude difference of 200 FT.
- At 16:42:02, the Aix controller telephoned the sector MOLUS4 coordinator to inform him of the incident over IRMAR. The coordinator replied to him that the pilots of the two aircraft had seen each other and that it was a matter of a Swiss control error.
- At 16:42:04, the radar controller gave the pilot of flight LBT534 traffic information. "At your 11 o-clock, 2 NM, traffic climbing through your flight level". The pilot replied "in sight".
- At 16:42:11, according to the radar plots, the minimum distance between the two aircraft was a lateral separation of 1.3 NM with an altitude difference of 700 FT.
- At 16:42:13, flight EZY872 was instructed to make contact on frequency 124.030 MHz and to inform them of his heading. At this time he was climbing through flight level 327.
- At 16:42:43, the pilot of flight EZY872 called on the MOLUS4 frequency, climbing towards flight level 350, heading 324. The radar controller asked him to resume own navigation on the route MOLUS PENDU. He was passing through flight level 330 and was 1000 FT above flight LBT534.
- At 16:44:14, flight EZY872 was cleared for flight level 360.

All times are specified in the universal time coordinated (UTC) format

- At 16:45:29, the radar controller asked the pilot of flight EZY872 to report on the frequency 124.030 MHz. The pilot remarked to him that he was currently on that frequency. The radar controller asked him to remain on that frequency.
- At 16:46:37, in order to ensure separation from other traffic, the radar controller instructed the pilot of flight LBT534 to make a 20° left turn and at 16:47:56 to fly at a speed of mach 0.74 or less.
- According to the statements of the MOLUS4 coordinator, at the time the sector MOLUS3 requested for a flight level for EZY872, the latter was about 30 NM from waypoint IRMAR. Therefore, the aircraft was not yet visible on his main radar screen. He had to zoom the image of his auxiliary radar screen to be able to visualise flight EZY872, but he could not visualise flight LBT534.
- The pilot of flight EZY872 did not indicate on the frequency that he was going to submit an incident report. He merely informed the sector MOLUS4 radar controller that his TCAS has issued a traffic advisory (TA) but not a resolution advisory (RA).
- The pilot of flight LBT534 did not comment on the incident on the sector MOLUS4 frequency.
- An incident report was received from the Easy Jet company on 20 May. According to the memories of the pilot flying, he was in visual conditions with another aircraft which was approaching from the side but not at less than 5 NM. Moreover, he indicated that his TCAS had not issued an alert.
- The sector MOLUS4 coordinator submitted an AIRPROX report.
- The report from the pilot flying of flight LBT534, received on 27 May, indicated that he had seen unidentified traffic on his TCAS, on his left and at the same altitude. This traffic was approaching from behind and had begun a slow descent. He assumed that it was a military aircraft on an intercept mission and added that, flying for 11 years in ex-Yugoslav airspace, this had happened almost every day. Furthermore, he claimed that he had not received any information from Geneva control nor heard any comments on the frequency.
- Weather: Geneva 16:20

Wind: variable, 2 KT Visibility: 6 KM Light rain Clouds: few at 500 FT, scattered at 3000 FT, broken at 4500 FT Temperature: + 09°C QNH 1000 hPa NOSIG (no significant change).

ANALYSIS

Flight LBT534 was following an identical route and was alongside flight EZY872, on its left and at a lateral separation of about 9 NM. The Aix controller had informed the sector INS coordinator that flight EZY872 was cleared to continue its climb in function of flight LBT534 which was at flight level 320.

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When the sector MOLUS3 coordinator asked the sector MOLUS4 coordinator for a flight level, the latter requested the position of the aircraft and, without further ado, gave flight level 350. He then requested transfer of the aircraft to his frequency. He did not take into account flight LBT534 which was on his right with a lateral separation of 6 NM. The two aircraft were, at that time, 27.5 NM from IRMAR.

According to the deposition of the sector MOLUS4 coordinator, flight EZY872 was at this time at a distance of about 30 NM from IRMAR and was not visible on his main radar screen. He had to zoom on his auxiliary radar screen and visualised flight EZY872, but not flight LBT543. According to the recording of the radar plot, the two aircraft were visible.

The radar controller cleared flight EZY872 for flight level 350. The sector MOLUS4 coordinator telephoned sector MOLUS5 and requested a flight level for EZY872. The coordinator assigned it flight level 360.

When the STCA indicated a proximity alert to the controllers, flight EZY872 was still on the sector MOLUS3 frequency even though it was climbing through flight level 315 and the coordinator of sector MOLUS4 had specified that he wanted the aircraft on his frequency 124.030 MHz.

The coordinator of sector MOLUS3 asked sector MOLUS4 if flight LBT534 was really at flight level 320. The replay was: "apparently yes but I didn't know that." To which the sector MOLUS3 coordinator replied: "Ok, I'll turn it left immediately".

At 16:42, flight EZY872 was finally instructed to make contact on frequency 124.030 MHz and to indicate his heading on that frequency. At that time, he was climbing through flight level 327.

Flight LBT534 had been in contact on the sector MOLUS4 frequency of 124.030 MHz since 16:39. It had been identified and cleared on the route IRMAR – MOLUS – PENDU, at flight level 320.

The Aix controller was concerned because he could see the incident occurring over IRMAR on his screen. He telephoned sector MOLUS4 to inform it of the matter. The coordinator replied to him that the two aircraft were in visual contact with each other and that it was a matter of a Swiss control error.

The radar controller gave the pilot of flight LBT534 traffic information. The pilot indicated that he had the traffic in sight. However, the pilot's report mentioned that he did not receive any information. This discrepancy between the recording of frequency 124.030 MHz and the pilot flying's report is probably due to the fact that the report was written after some delay.

The radar controller asked the pilot of flight EZY872 to report on frequency 124.030 MHz. The pilot then remarked to him that he was on this frequency. The radar controller, realising his mistake, asked him to remain on this frequency.

The radar controller asked the pilot of flight EZY872 if he intended to make a report. He explained to him that his trajectory had crossed the flight level of another aircraft which was on his right, with a lateral separation of about 1 NM. The pilot replied that his TCAS had issued a traffic advisory (TA) but not a resolution advisory (RA) and that he had had the traffic in sight.

The discrepancy between the recording and the report by the Easy Jet company can be explained by the time which elapsed between the incident and the writing of the report.

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CAUSE

The incident is due to a coordination error in the assignment of a flight level following a lack of attention by the coordinator and to the fact that an aircraft was kept on a sector frequency whilst this aircraft was flying into a different sector's altitude block. In addition, the transfer was made prematurely as a conflict situation was evolving.

SAFETY RECOMMENDATION NR. 100

On the occasion of several investigations (SWR162/SWR3451, CRX667/HB-FLK, CRX3009/HB-FKT), the AAIB has found that the quality of the phraseology used during telephone and radio communications has been the cause of misunderstandings.

A phraseology adapted to telephone coordinations between the different control sectors should be introduced and used.

Berne, 1 March 2004

Aircraft Accident Investigation Bureau

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TRANSCRIPT OF TELEPHONY

OR RADIOTELEPHONY COMMUNICATIONS TAPE-RECORDING

Investigation into the incident that occurred on 13 April 2002

| - Subject of transcript: | EZY872 / LBT534 |
|--|------------------------------------|
| - Centre concerned: | Geneva |
| - Designation of unit: | ACC |
| - Frequencies / Channel: | 125.55 / 126.05 / 124.030 MHz |
| - Date and period covered by attached extract: | 13 April 2002 16:36 - 17:00 UTC |
| - Date of transcript: | 13 May 2002 |
| Name of official in charge of transcription service: | Monica Simonet |

- Certificate by official in charge of Analysis Department:

I hereby certify:

- That the accompanying transcript of the telephony or radiotelephony communication tape-recording, retained at the present time in the premises of Analysis Department, has been made under my supervision.
- That it was examined and checked by me.
- That no changes have been made to the entries in columns 2, 3 and 4, which contain only clearly understood indications in their original form.

Geneva, 13 May 2002

M. Simonet

U. River

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Abbreviations

| INS | - | Geneva Area Control Centre, INS sector | | | | | |
|---|---|---|--|--|--|---|--|
| MS3 | - | Geneva Area Control Centre, MS3 sector | | | | | |
| MS4 | - | Geneva Area Control Centre, MS4 sector | | | | | |
| 872 2085 2023 964 344 2009 534 131 178 976 394 132 | • | Easy 872 Swiss 2085 Swiss 2023 Topswiss 964 Alitalia 344 Swiss 2009 <i>Nouvelair 534</i> Viking 131 Viking 131 Viking 178 Merair 976 Air Malta 394 Alitalia 132 | B733 A321 A320 B733 A321 C145 MD83 A320 A320 MD82 B733 MD82 | IFR flight IFR flight | LFMN LPPT LEMD LEBL LIMC LEMD DTMB ESSA GCLP LIRN LMML LIRF | | EHAM LSZH LSZG LFPG LFSB EBBR LEPA ESSA LFPG EHAM EHAM |
| 34Y | - | Virgin Express 34Y | B733 | IFR flight | LIRF | - | EBBR |
| 4034 | | Lufthansa 4034 | A321 | IFR flight | GMMN | - | EDDF |

GED/ 02/03/2004

| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications Col.4 | Observations Col.5 |
|--------------------|----------------------|----------------------|--|---------------------------------------|
| Frequence | cy 125.55 N | IHz: Genev | va Area Control Centre, sector INS | |
| | | | | Telephone AIX-INS 16:36:06, page 9 |
| INS | 872 | 16:36:10 | Geneva bonsoir, Easy eight seven two, climbing flight level two six zero, to IRMAR. | |
| 872 | INS | 19 | Heu, hello, is that Easy eight seven two calling ? | |
| INS | 872 | 23 | Affirm, we are levelling flight two six zero, to IRMAR. | |
| 872 | INS | 26 | Okay, hm, proceed IRMAR and then MOLUS - PENDU, and… are you requesting three two zero ? | |
| INS | 872 | 34 | Heu requesting three six zero, if available. | |
| 872 | INS | 36 | Okay, initially maintain two six zero, please. | |
| INS | 872 | 38 | Okay, initially maintaining flight level two six zero reaching, IRMAR - MOLUS then PENDU, Easy eight seven two. | |
| 872 | INS | 43 | Thanks. | |
| 2085 | INS | 45 | Swiss two zero eight five contact Zurich on one three five decimal six seven, au revoir. | no reply |
| 872 | INS | 16:37:06 | Easy eight seven two for climb clearance contact Radar on one two six decimal zero five, good day. | |
| INS | 872 | 11 | One two six zero five, Easy eight seven two, good-bye. | |
| | | | | |
| Frequence | <u>cy 126.05 N</u> | IHz: Genev | va Area Control Centre, sector MS3 | |
| MS3 | 872 | 16:37:25 | Geneva bonsoir, Easy eight seven two, flight level two six zero, to IRMAR, requesting flight level three six zero. | |
| 872 | MS3 | 31 | Easy eight seven two bonsoir, identified, I call you back for climb. | |
| MS3 | 872 | 36 | XXXXX reaching IRMAR, then MOLUS - PENDU. | probably: "Yea, we are" |



| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications <u>Col.4</u> | Observations Col.5 |
|--------------------|----------------------|----------------------|--|--|
| 872 | MS3 | 16:37:41 | Easy eight seven two, climb to flight level three zero zero, initially. | |
| MS3 | 872 | 49 | Climb flight level three hundred, Easy eight seven two. | |
| MS3 | 2023 | 16:38:26 | Swiss Radar bonsoir, Swiss two zero two three, level three hundred reaching. | |
| 2023 | MS3 | 31 | Swiss two zero two three, Swiss Radar bonsoir, identified, direct LAMUR, flight level three zero zero. | |
| MS3 | 2023 | 36 | Direct LAMUR, level three hundred, Swiss two zero two three. | Telephone MS3C - MS4C, 16:38:36, page 9 |
| 964 | MS3 | 40 | Heu Topswiss niner six four, descend to flight level two seven zero. | |
| MS3 | 964 | 45 | Descend to flight level two seven zero, Topswiss nine six four. | |
| 344 | MS3 | 55 | Alitalia three four four turn left one zero degrees. | |
| MS3 | 344 | 58 | Left one zero degrees, Alitalia three four four. | |
| 872 | MS3 | 16:39:01 | Easy eight seven two climb to flight level three five zero. | |
| MS3 | 872 | 05 | Climb flight level three <u>five</u> zero, Easy eight seven two. | |
| 2009 | MS3 | 09 | Swissair two zero zero niner contact Radar, one two eight decimal niner, good-bye. | Telephone MS3C - MS4C, 16:39:08, page 10 |
| MS3 | 2009 | 14 | One two eight decimal niner, good-bye, two double O niner. | |
| 964 | MS3 | 30 | Topswiss niner six four descend with Geneva on one two five decimal five five, good-bye. | |
| MS3 | 964 | 37 | One two five five, Topswiss nine six four, bye-bye. | |
| 344 | MS3 | 43 | Alitalia three four four, report heading on one two four decimal zero three, good-bye. | no reply |
| 344 | MS3 | 58 | Alitalia three four four, heading on one two four decimal zero three. | |
| MS3 | 344 | 16:40:03 | One two four decimal zero three, confirm ? | |
| 344 | MS3 | 06 | Affirm, bye-bye. | |



Page no.3 Date: 13.APR.2002

TRANSCRIPT SHEET

| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications <u>Col.4</u> | Observations <u>Col.5</u> |
|--------------------|----------------------|----------------------|---|--|
| MS3 | 344 | 16:40:08 | XXXXX. | probably: "Hello" |
| 872 | MS3 | 16:41:51 | Easy eight seven two turn left now…, thirty degrees. | Telephone MS3C - MS4C, 16:41:42, page 10 |
| MS3 | 872 | 54 | Okay, left heading…, thirty degrees, three two three, Easy eight seven two, having got the guy on TCAS now. | |
| 872 | MS3 | 16:42:02 | Roger. | |
| 872 | MS3 | 13 | Easy eight seven two report heading on one two four decimal zero three, good-bye. | |
| MS3 | 872 | 18 | Heading, one two four zero three, Easy eight seven two, good-bye. | Telephone MS3C - MS4C, 16:42:21, |

Channel 124.030 MHz: Geneva Area Control Centre, sector MS4

Telephone calls MS3C - MS4C, 16:38:36 and 16:39:08, page 9 and 10

page 11

| MS4 | 534 | 16:39:28 | Geneva bonjour, Nouvelair five three four, three two zero, inbound IRMAR. | |
|-----|-----|----------|---|---|
| 534 | MS4 | 35 | Nouvelair five three four, Swiss Radar good day, identified, maintain flight level three two zero, you are cleared IRMAR - MOLUS - PENDU. | |
| MS4 | 534 | 45 | IRMAR - XXXXX, Nouvelair five three four, ?????. | probably "MOLUS - PENDU" / unreadable |
| MS4 | 131 | 49 | ?????, Viking one three one, good ?????, maintaining level three five zero, inbound AOSTA. | unreadable 2x |
| 131 | MS4 | 55 | Good evening Viking one three one, identified, level three five zero, MILPA - BALSI. | |
| MS4 | 131 | 16:40:01 | Direct to MILPA, Viking one three one. | |
| 178 | MS4 | 04 | Viking one seven eight, due to traffic turn now left, one zero degrees. | |
| MS4 | 178 | 16:40:09 | Due traffic left ten degrees, Viking one seven eight. | |



| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications <u>Col.4</u> | Observations Col.5 |
|--------------------|----------------------|----------------------|---|--|
| MS4 | 976 | 14 | Genève Control bonsoir, Merair nine seven six, with you, three four zero, level. | |
| 976 | MS4 | 19 | Buona sera, Merair niner seven six, squawk five seven five seven. | |
| MS4 | 976 | 23 | Five seven five seven, nine seven six. | |
| MS4 | 394 | 26 | Heu Genève bonjour, Air Malta three nine four, level three two zero. | |
| 394 | MS4 | 33 | Air Malta three niner four, Swiss Radar, good afternoon, squawk five seven four three. | |
| MS4 | 394 | 38 | Five seven four three. | |
| MS4 | 132 | 41 | Heu Genève, Alitalia one three two, do you confirm the frequency for us ? | |
| 132 | MS4 | 45 | Alitalia one three two, it's Reims Control, channel one three three, eight three zero. | |
| MS4 | 132 | 50 | Ciao, Alitalia one three two. | |
| MS4 | 344 | 55 | Heu bonsoir Genève, Alitalia three four four, crossing heu three niner five up to three four zero. | |
| 344 | MS4 | 16:41:03 | Alitalia three four four, Swiss Radar good evening, you are identified. Maintain flight level three four zero when reaching and continue on present heading. | |
| MS4 | 344 | 12 | Roger, still on the heading three zero seven. | |
| ??? | MS4 | 15 | Other station calling Swiss Radar ? | |
| MS4 | 131 | 17 | Viking one three one, confirm direct MILPA then BALSI ? | |
| 131 | MS4 | 22 | Affirm, that's correct. | |
| MS4 | 131 | 23 | XXXXX. | probably: "Thank you" |
| 976 | MS4 | 26 | Merair niner seven six, you are identified, maintain flight level three four zero, and you are cleared MOLUS then TINIL. | |
| MS4 | 976 | 16:41:34 | MOLUS - TINIL, Meridiana nine seven six, three four zero. | |
| 394 | MS4 | 40 | Air Malta three niner four, you are identified, maintain flight level three two zero, direct PENDU. | Telephone MS3C - MS4C, 16:41:42, page 10 |



| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications Col.4 | Observations <u>Col.5</u> |
|--------------------|----------------------|----------------------|--|--|
| MS4 | 394 | 46 | Roger, direct to PENDU, Air Malta three nine four. | |
| MS4 | 34Y | 53 | Radar good afternoon, Virgin Express three four Yankee, maintaining three four zero to AOSTA. | no reply |
| 534 | MS4 | 16:42:04 | Nouvelair five three four, traffic information, at your, at your eleven o'clock, two miles, a traffic is just climbing there through your level. | Telephone AIX - MS4C, 16:42:02, page 11 |
| MS4 | 534 | 16 | Heu in sight, Nouvelair five three four. | |
| ??? | MS4 | 22 | ????? ????? ????? | unreadable / two stations calling at the same time |
| ??? | MS4 | 23 | Other station calling Swiss Radar ? | Telephone MS3C - MS4C, 16:42:21, page 11 |
| MS4 | ??? | 25 | ????? flight level three four zero, to AOSTA. | unreadable / two stations calling at the same time |
| 34Y | MS4 | 33 | Heu Virgin Express three four Yankee, squawk five seven two two. | |
| MS4 | 34Y | 37 | Five seven two two heu coming down, Virgin Express three four Yankee. | |
| MS4 | 872 | 43 | Radar bonjour, Easy eight seven two is climbing to flight level three five zero, we're heading three two four. | no reply |
| MS4 | 872 | 57 | Radar from, for Easy eight seven two ? | |
| 872 | MS4 | 16:43:00 | Eight seven two, Swiss Radar good day, own navigation MOLUS - PENDU. | |
| MS4 | 872 | 06 | Own navigation MOLUS then PENDU, Easy eight seven two. | |
| 178 | MS4 | 21 | Viking one seven eight, own navigation KORED. | |
| MS4 | 178 | 24 | Own navigation KORED, Viking one seven eight. | |
| 344 | MS4 | 33 | Alitalia three four four, own navigation TINIL. | |
| MS4 | 344 | 16:43:36 | Own navigation direct to TINIL, Alitalia three four four. | |
| ??? | ??? | 43 | ????? company ? | unreadable |
| 4043 | MS4 | 52 | Lufthansa four zero four three contact Swiss Radar, channel one three four decimal six zero five. | |



| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications Col.4 | Observations <u>Col.5</u> |
|--------------------|----------------------|----------------------|---|------------------------------|
| MS4 | 4043 | 16:44:02 | Lufthansa four zero four three, one three four six zero five, confirm ? | |
| 4043 | MS4 | 07 | It's one three four six zero five. | |
| MS4 | 4043 | 10 | One three four six zero five, Lufthansa four zero four three, good-bye. | |
| 872 | MS4 | 14 | Easy eight seven two climb to flight level three six zero. | |
| MS4 | 872 | 18 | Heu climb flight level three <u>six</u> zero, Easy eight seven two. | |
| 34Y | MS4 | 49 | Virgin Express three four Yankee, you are identified, maintain flight level three four zero, cleared MOLUS - PENDU. | |
| MS4 | 34Y | 55 | MOLUS - PENDU heu Virgin Express three four Yankee, merci. ????, maintaining three four zero. | unreadable |
| 394 | MS4 | 16:45:04 | Air Malta three niner four, are you able to take level three four zero ? | |
| MS4 | 394 | 09 | Heu, we like to stay at three two zero. | |
| 394 | MS4 | 13 | Air Malta three niner four, Swiss Radar, are you able to take level three four zero ? | |
| MS4 | 394 | 16 | Heu negative. | |
| 394 | MS4 | 20 | Roger, maintain flight level three two zero. | |
| 872 | MS4 | 29 | Easy eight seven two contact Swiss Radar, channel one two four decimal zero three zero. | |
| MS4 | 872 | 36 | One three four zero three zero. Heu, we are on one three four zero three zero, Easy eight seven two. | |
| 872 | MS4 | 42 | It's Swiss Radar, one two four zero three zero. | |
| 872 | MS4 | 48 | Easy eight seven two, Swiss Radar ? | |
| MS4 | 872 | 16:45:51 | Yea, Easy eight seven two, did you say one two four zero three zero ? | |
| 872 | MS4 | 54 | Okay, Easy eight seven two, remain this frequency, please. | |
| MS4 | 872 | 58 | Yea, we are on one three four zero three zero. | |



| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications <u>Col.4</u> | Observations <u>Col.5</u> |
|--------------------|----------------------|----------------------|---|------------------------------|
| 534 | MS4 | 16:46:37 | <i>Nouvelair five three four… for spacing turn right … two zero degrees.</i> | |
| MS4 | 534 | 44 | To the right two zero degrees, Nouvelair five three four. | |
| 344 | MS4 | 54 | Alitalia three four four climb to flight level three six zero. | |
| MS4 | 344 | 59 | Say again, Alitalia three four four ? | |
| 344 | MS4 | 16:47:01 | Three four four climb to flight level three six zero. | |
| MS4 | 344 | 04 | Climbing level three six zero, Alitalia three four four. | |
| 178 | MS4 | 08 | Viking one seven eight contact Swiss Radar, channel one three four decimal six zero five. | |
| MS4 | 178 | 14 | One three four six zero five, Viking one seven eight, bye-bye. | |
| 178 | MS4 | 19 | Bye-bye. | |
| 394 | MS4 | 45 | Air Malta three niner four, report mach number? | |
| MS4 | 394 | 48 | Mach number right now is decimal seven four. | |
| 394 | MS4 | 51 | Roger, that's the maximum you can make ? | |
| MS4 | 394 | 54 | That's affirmative. | |
| 534 | MS4 | 56 | Roger, Nouvelair five three four, mach number seven four or less. | |
| MS4 | 534 | 16:48:01 | Confirm it's seven four or less, Nouvelair five three four ? | |
| 534 | MS4 | 04 | <i>Nouvelair five three four mach number seven four or less.</i> | |
| MS4 | 534 | 08 | Wilco, Nouvelair five three four. | |
| 872 | MS4 | 16:48:15 | Easy eight seven two, Swiss Radar ? | |
| MS4 | 872 | 17 | Easy eight seven two, go ahead. | |

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TRANSCRIPT SHEET

| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications <u>Col.4</u> | Observations <u>Col.5</u> |
|--------------------|----------------------|----------------------|--|---|
| 872 | MS4 | 19 | Yes, eight seven two, are you going to file a report because of climb through a level, through another level, I mean, you have climbed through the level of another traffic that was at your right side and there was about one mile of separation. Are you going to file a report ? | |
| MS4 | 872 | 43 | Heu ????? conflicting with us, and we did not get, we had a hm… a TA, we did, didn't ask us to manoeuvre for that, and we had him visual. | unreadable |
| 872 | MS4 | 51 | Roger, but you had no TCAS resolution, that's it ? | |
| MS4 | 872 | 56 | Heu affirm, no, no TCAS resolution. | |
| 872 | MS4 | 16:49:00 | Okay Sir, thank you very much. | |
| 872 | MS4 | 03 | And Easy eight seven two contact now Swiss Radar on channel one two eight one five five. | another station is calling at the same time |
| ??? | MS4 | 10 | Blocked. | |
| 872 | MS4 | 13 | Easy eight seven two, Swiss Radar, channel one two eight one five five. | two stations calling at the same time |
| MS4 | 872 | 20 | ????? Easy eight seven two, good-bye. | unreadable, two stations calling at the same time |
| 872 | MS4 | 24 | Blocked, break break, Easy eight seven two, I say again, Swiss Radar channel one two eight one five five. | |
| MS4 | 872 | 30 | One two eight one five five, Easy eight seven two, bye. | |

Channel 124.030 MHz: Geneva Area Control Centre, sector MS4, continuation for LBT534 only

| | | 16:52:00 | change of controller |
|-----|-----|----------|--|
| 534 | MS4 | 16:53:28 | Nouvelair five three four, direct to PENDU now. |
| MS4 | 534 | 32 | Direct PENDU, Nouvelair five three four. |
| 534 | MS4 | 17:00:47 | <i>Nouvelair five three four contact Reims, one three three eight three, good-bye.</i> |



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| To | From | Time | Communications | Observations |
|--------------|--------------|--------------|---|--------------|
| <u>Col.1</u> | <u>Col.2</u> | <u>Col.3</u> | <u>Col.4</u> | <u>Col.5</u> |
| MS4 | 534 | 52 | Three three eight three, Nouvelair five three four, au revoir. | |

Telephone AIX - INSC

| INS | AIX | 16:36:06 | Dit, le Liberté | |
|-----|-----|----------|--|-------------------------------------|
| AIX | INS | | Allô ? | |
| INS | AIX | | Oui, j'vais t'envoyer l'Easy huit cent soixante-douze. Tu peux le monter en fonction de Liberté cinq trente- quatre que je vois, que tu vois certainement. | |
| AIX | INS | | Attends voir | internal discussions about Topswiss |
| INS | AIX | | Okay ? | |
| AIX | INS | | Le huit | |
| INS | AIX | | oui, le Liberté cinq trente-quatre, c'est pas chez toi. C'est un type qui est à trois vingt. Donc tu vois, vous | |
| AIX | INS | | Non, j'le vois pas. | |
| INS | AIX | | Ah bon, il est juste derrière l'Easy huit cent soixante- douze. | |
| AIX | INS | | Ah okay. C'est pas, c'est pas… | |
| INS | AIX | | ?????? quoi. | unreadable |
| AIX | INS | | Okay. | |
| INS | AIX | 16:36:35 | Voilà. | |

Telephone MS3C - MS4C

| MS3C | MS4C | 16:38:36 | Allô ? |
|------|------|----------|--|
| MS4C | MS3C | | Sur IRMAR |
| MS3C | MS4C | | Oui. |
| MS4C | MS3C | | Easy eight seven two. |
| MS3C | MS4C | | Le Easy eight seven two, il est où lui, <u>trois</u> cinquante, chez moi. |

<u>uignature of</u> person in charge:



TRANSCRIPT SHEET

| To | From | Time | Communications | Observations |
|--------------|--------------|--------------|------------------------|--------------------|
| <u>Col.1</u> | <u>Col.2</u> | <u>Col.3</u> | <u>Col.4</u> | <u>Col.5</u> |
| MS4C | MS3C | 18:38:47 | Three five zero, okay. | This communication |

This communication continues for another flight

Telephone MS4C - MS5C

| MS4C | MS5C | 16:39:08 | What ? |
|------|------|----------|---|
| MS5C | MS4C | | Deux choses: A ROLAV l'Ali deux quarante- quatre |
| MS4C | MS5C | | Trois cinquante. |
| MS5C | MS4C | | Trois cinquante, d'accord. |
| MS4C | MS5C | | Ca ťva ? |
| MS5C | MS4C | | Il sera hm disons, on a un croisement à faire, alors on te le donnera vers GALBI. |
| MS4C | MS5C | | Oui, ou je te rappellerai d'ici là. |
| MS5C | MS4C | | D'accord, et puis il y a aussi sud IRMAR le Easy huit sept deux. |
| MS4C | MS5C | | Allez, trois six, on verra. |
| MS5C | MS4C | | Trois six. |
| MS4C | MS5C | 16:39:40 | Okay. |

Telephone MS3C - MS4C

| MS3C | MS4C | 16:41:42 | Hello. |
|------|------|----------|---|
| MS4C | MS3C | | Heu is Liberté five three four really at three two zero ? |
| MS3C | MS4C | | Apparently he is. I did not know that. |
| MS4C | MS3C | | Oh yea, okay, well we're turning left immediately. |
| MS3C | MS4C | 16:41:50 | Okay. |

Telephone AIX - MS4C

MS4C AIX 16:42:02 Genève, là sur IRMAR.

Signature of person in charge:



Observations

<u>Col.5</u>

TRANSCRIPT SHEET

| To <u>Col.1</u> | From <u>Col.2</u> | Time <u>Col.3</u> | Communications <u>Col.4</u> |
|--------------------|----------------------|----------------------|--|
| AIX | MS4C | | Allô ? |
| MS4C | AIX | | Oui, je dis sur IRMAR ce trafic, là. |
| AIX | MS4C | | Oui, oui, c'est, c'est, ils se voient. |
| MS4C | AIX | | Okay. |
| AIX | MS4C | | C'est notre erreur. |
| MS4C | AIX | 16:42:12 | C'est pas grave, okay. |

Telephone MS3C - MS4C

| MS3C | MS4C | 16:42:21 | Oui. |
|------|------|----------|---|
| MS4C | MS3C | | What happened ? |
| MS3C | MS4C | | What happened is, we just didn't see him. |
| MS4C | MS3C | 16:42:27 | Ah, okay. |

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Signature of person in charge:

U. Rive



