

# Final Report of the Aircraft Accident Investigation Bureau

concerning the incident (Airprox)

between IBE3483 and SWR353

on 28 June 2003

Geneva Airport

Bundeshaus Nord, CH-3003 Berne

Aircraft Accident Investigation Bureau (AAIB)

# FINAL REPORT

# AIR TRAFFIC INCIDENT REPORT (ATIR)

# AIRPROX (NEAR MISS)

This report has been prepared solely 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). The masculine form is used in this report regardless of gender for reasons of data protection.

PLACE/DATE/TIME	Geneva airport, 28 June 2003 10:18 UTC
AIRCRAFT	IBERIA 3483, MD87, EC-FHD Flight Geneva – Madrid-Barajas SWR353, Airbus 319, HB-IPX Flight London-Heathrow – Geneva
ATC UNIT	Terminal Control, Geneva TWR, Aerodrome Control
CONTROLLER	Aerodrome controller

# AIRSPACE

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# HISTORY

On Saturday 28 June 2003, at 10:09, aircraft IBE3483, type MD87, taxied onto the taxiway for runway 05 and reported on the Geneva Control Tower frequency that it was ready for departure.

At 10:13 UTC, aircraft SWR353, type Airbus 319, contacted the Control Tower and reported that it was established on the ILS for runway 05.

A light aircraft (HB-ERM) was flying on the grass runway circuit under VFR conditions to land on grass runway 05.

The aerodrome controller was handling a high volume of traffic which necessitated tight management to ensure smooth traffic movement. He was handling a succession of landings and take-offs at very short intervals.

At 10:16, the aerodrome controller cleared IBE3483 to line up behind a Boeing 737 which was landing, flight Tunisair7101, and requested it to prepare for immediate departure; he then cleared HB-ERM, a light aircraft, to land on grass runway 05. At this time, SWR353 was 3.75 NM from the threshold of runway 05. The aerodrome controller requested its pilots to reduce speed "to their minimum" and informed them of the light aircraft traffic on its final approach to the grass runway, to their left in front of them, as well as of IBE3483, on the runway, which was starting its take-off roll.

As soon as Tunisair7101 had vacated the runway, the aerodrome controller cleared IBE3483 for take-off. The pilot of IBE3483 read back this clearance. SWR353 was on its final approach at a distance of 2.2 NM from the threshold of runway 05.

About 30 seconds after receiving the take-off clearance, IBE3483 was still immobile on runway 05. SWR353 was about 1.5 NM from the runway threshold and the aerodrome controller had no solution other than to cancel IBE3483's take-off clearance and to instruct the aircraft on final approach to go around.

The aerodrome controller cancelled the take-off clearance for IBE3483, instructing the pilot to maintain his position. While doing so, he "confirmed" the cancellation of the take-off clearance a second time, "cancel, stop take off" and informed him that the incoming traffic was going around above his aircraft. He completed his intervention by "confirming" the cancellation of the take-off clearance a third time. Since he obtained no response, he repeated the instruction to cancel the take-off a fourth time, still with no success.

At 10:18, the aerodrome controller instructed the pilot of SWR353 to go around and informed him of the traffic occupying the runway.

IBE3483 began its take-off roll.

The pilot of SWR353 interrupted his approach and reported that he was turning slightly to the right. He carried out this manoeuvre to distance himself from the trajectory of the light aircraft on its final approach on the grass runway, with which he did not have visual contact and, as a priority, to maintain visual contact with IBE3483 which was taking off in front of him.

The aerodrome controller instructed the pilot of SWR353 to turn left onto a heading of 020°. The pilot obeyed this order only after assuring himself visually that he was maintaining separation with aircraft IBE3483.

As IBE3483 had taken off in the meantime, the aerodrome controller instructed its pilot to stop the climb immediately, to maintain an altitude of 4000 FT and to continue flying straight ahead.

As he was getting no response, the aerodrome controller performed a radio check with IBE3483, asking if he was receiving his calls. The pilot of IBE3483 answered in the affirmative.

At this time, SWR353 was 0.6 NM behind IBE3483, at the same altitude and on a heading of 020° moving slowly away from the latter's trajectory. During this manoeuvre, the pilot of SWR353 confirmed that he had visual contact with the traffic (IBE3483).

IBE3483 continued its climb, passing altitude 4000 ft, on the runway heading.

After travelling for 3.5 NM, the standard altitude difference of 1000 ft between the two aircraft was re-established. The lateral separation was 0.8 NM.

The pilot of SWR353 stated on the frequency that he would submit a report.

The aerodrome controller stated on the frequency that he would do the same.

# FINDINGS

- Runway in operation 05.
- Grass runway open to VFR traffic.
- The aerodrome controller was in possession of an appropriate licence.
- All radio communications on the TWR frequency 118.7 MHz between the pilots of flights SWR353, IBE3483 and the aerodrome controller took place in English.
- 14 aircraft were controlled on frequency 118.7 MHz over a period of 12 minutes 20 seconds; 6 departures and 8 arrivals, including 1 VFR flight on the grass runway.
- At 10:16:14, the aerodrome controller instructed the pilot of aircraft IBE3483 to line up behind a Boeing 737 which was landing and to wait on runway 05 in preparation for a rapid departure.
- At 10:16:21, the pilot of IBE3483 read back this clearance.
- At 10:17:01, the aerodrome controller cleared the pilot of the Rallye aircraft HB-ERM, a VFR flight, to land on grass runway 05.
- At 10:17:09, the aerodrome controller asked the pilot of SWR353 to reduce his speed to the minimum and informed him of VFR light aircraft traffic on its final approach to grass runway 05, on his left, 2 NM in front of him, and of an MD80 type aircraft which was commencing its take-off roll.
- The pilot of SWR353 confirmed reception and reported that he was reducing his speed.
- At 10:17:31, the aerodrome controller instructed the pilot of Tunisair7101, which had just landed on runway 05, to vacate the runway quickly.
- At 10:17:41, according to the radar recording, SWR353 was 2.2 NM from the threshold of runway 05.
- At 10:17:41, the aerodrome controller cleared the pilot of IBE3483 for immediate takeoff from runway 05.

- At 10:17:48, the pilot of IBE3483 read back this clearance, without mentioning the word "immediate".
- At 10:18:02, the aerodrome controller cancelled the take-off clearance for IBE3483 and instructed the pilot to maintain his position. He confirmed the cancellation of the take-off clearance a second time to the pilot, "cancel, stop take-off", and informed him that the incoming traffic was going around above his aircraft. While doing so, he confirmed the cancellation of the take-off clearance a third time, saying: "stop take-off".
- At 10:18:12, the aerodrome controller repeated the instruction to cancel the take-off, "IBE3483 stop take-off please".
- At 10:18:14, the aerodrome controller instructed the pilot of SWR353 to go around, and informed him of the traffic on the runway. According to the radar recording, SWR353 was at an altitude of 1800 ft.
- At 10:18:18, the pilot of SWR353 confirmed reception of the message, stating that he was turning slightly to the right.
- At 10:18:34, the aerodrome controller instructed the pilot of SWR353 to turn left onto a heading of 020°. At 10:18:44, the aerodrome controller confirmed the instruction given to the pilot of SWR353 to turn left onto a heading of 020°.
- At 10:18:47, the pilot of SWR353 read back this message.
- According to his report, the pilot of aircraft SWR353 had indeed received this instruction but did not start the left turn onto a heading of 020° until he had first assured himself visually that he was definitely maintaining separation with aircraft IBE3483 which was a short distance in front of him and climbing.
- At 10:18:48, according to the radar recording, appearance of the uncorrelated radar trace of aircraft IBE3483 at an altitude of 1600 ft.
- At 10:18:59, the aerodrome controller instructed the pilot of IBE3483 to stop his climb immediately, to maintain an altitude of 4000 ft and to continue flying straight ahead.
- At 10:19:11, the aerodrome controller contacted IBE3483 to ask if it was receiving his calls on the frequency.
- At 10:19:13, the pilot of IBE3483 answered in the affirmative.
- 1 minute and 25 seconds had elapsed since the last radio contact with the pilot of IBE3483.
- At this time, according to the radar recording, SWR353 was at the same altitude, 0.6 NM behind IBE3483, on a heading of 020°, moving slowly away from its trajectory.
- According to the radar recording, IBE3483 did not stop its climb at 4000 ft.
- At 10:19:24, the aerodrome controller asked the pilot of SWR353 if he had the conflicting traffic in sight. The pilot answered in the affirmative, saying that there was no problem for him.
- The pilot of SWR353 informed the controller that he had heard all the latter's radio calls to the pilot of IBE3483: "We read you all the time, Iberia wasn't listening".
- At 10:19:39, the aerodrome controller cleared the pilot of SWR353 to climb to an altitude of 7000 ft.
- At 10:19:57, the aerodrome controller cleared the pilot of IBE3483 to climb to flight level FL 90.

- At 10:20:02, according to the radar recording, the standard altitude difference of 1000 ft between the two aircraft was re-established. The altitude of SWR353 indicated 3700 ft and that of IBE3483, 4700 ft. The lateral separation indicated 0.8 NM, on diverging headings.
- According to the report of the IBERIA company, the pilot of IBE3483 declared that he had been cleared for take-off by the Control Tower, that he had confirmed reception of the clearance and that he had started to roll for take-off. He declared that at an approximate altitude of 3000 ft, the Control Tower had carried out a radio check to which he had replied "loud and clear". When asked whether he had received the messages from control to stop the take-off and if he had an aircraft in sight, he answered in the negative to both questions.

 Weather: Geneva, bulletin at 10:20 UTC Wind 070 degrees 5 knots, variable between 340 and 210 degrees Visibility: 10 KM Cloud: scattered at 3800 ft, broken at 30000 ft Temperature: + 25° C QNH 1015 hPa NOSIG (no significant change).

Additional information:

In order to document the problem posed by the take-off clearances, when traffic is on final approach, the Investigation Bureau took measurements of pilot reaction times and runway occupancy time. The said measurements relate to a total of 83 movements, 39 take-offs and 44 landings, observed on runway 05 in Geneva, during peak periods and on ILS type approaches. The meteorological conditions permitted visual approaches (VMC), and the meteorological parameters were those in effect for CAT I.

- 1. The average interval between the instruction to line up and rotation was 1 min 40 seconds.
- 2. The shortest interval between the instruction to line up and rotation was 63 seconds.
- 3. The longest interval between the instruction to line up and rotation was 2 min 16 seconds.

These three values include the aircraft alignment times, the pilots' reaction times and the roll time until rotation. Furthermore, these values take into account any standing time on the runway before the roll.

4. The average time required to line up on the take-off runway is 40 seconds.

Without being exhaustive, these observations contribute to an understanding of the case which concerns us.

# ANALYSIS

Landings and take-offs followed one another at brief intervals. The volume of traffic on the frequency was high and it was evident that the aerodrome controller's instructions should be carried out promptly.

# SWR353

The crew of the aircraft ensured visual separation with the conflicting traffic IBE3483, keeping the situation under control.

Initially, the crew had to maintain separation from the light aircraft on its final approach on the grass runway, traffic about which they had been informed but with which they did not have visual contact, and then distance themselves from the trajectory of the conflicting aircraft which was taking off in front of them.

The crew obviously wanted to remain below the altitude of the climbing aircraft which was in front of it.

By common agreement, the aerodrome controller and the pilot estimated that the reaction and the procedure followed by the flight crew were adequate.

# IBE3483

The pilot of IBE3483 had received clearance to line up on runway 05 and to be ready for a rapid departure. He was subsequently cleared to take off immediately.

Despite these urgent departure instructions, the crew did not react as expected by the aerodrome controller and the aircraft remained immobile for about 30 seconds on the runway.

For reasons which have not been determined, the crew did not respond to the Control Tower's radio communications from the time they read back the take-off clearance. It was only one minute and 25 seconds later, when the aircraft had taken off, that the pilot responded to a radio check from the Control Tower. Before this, the multiple instructions to stop the take-off and the urgent restriction to stop the climb at 4000 ft remained without effect.

The pilot's declarations, contained in the report of the IBERIA company, give neither explanations nor details of the reasons and circumstances of the incident. This may be due to the facts being forgotten, since the report was sent to the Aircraft Accident Investigation Bureau two months after the incident.

# ATC aerodrome

The volume of traffic at the time of the incident was very high; more than 14 aircraft over a period of 12 minutes. In addition, a light aircraft was making a circuit over the grass runway, near the main runway, interfering with IFR traffic on final approach to runway 05.

Taking these circumstances into account, the aerodrome controller took the appropriate decision, i.e. to stop the aircraft which was preparing to take off and to have the aircraft on its final approach go around.

In view of the proximity of the two aircraft, the aerodrome controller intervened adequately, but without following the go-around procedure for runway 05; he was certainly disconcerted by the fact that IBE3483 was not following received instructions and that SWR353 was carrying out its own evasive manoeuvre.

Although the controller did not overstep the limits of the local procedures, the complexity and volume of traffic at the time of the incident left very little margin for manoeuvre.

However, the desire to speed up traffic flow must not be realised to the detriment of safety.

Separation of aircraft:

The aim of the observations undertaken by the AAIB in Geneva is merely to give a physical dimension to the practical situation, regardless of local regulations.

From these observations undertaken in Geneva, it is apparent that on average an aircraft takes 1 minute 40 seconds between the time the instruction to line up is given and its rotation. Assuming an approach speed of 155 kts for an A320 or B737 type aircraft, i.e. 0.043 NM/s, the aircraft on final approach must be at least 4.3 NM distant at the time the controller clears the departing aircraft to line up. This distance takes into account a separation which ensures that at the time the landing aircraft passes the runway threshold, the departing aircraft performs its rotation.

# CAUSE

The dangerous proximity between an aircraft in go-around phase and another in take-off phase is due to the non-compliance of the crew of IBE3483 with the instruction to execute an immediate take-off and with the subsequent instructions to cancel this clearance.

Berne, 29 July 2005

Aircraft Accident Investigation Bureau

This report serves exclusively to prevent accidents. The legal assessment of accident/incident causes and circumstances is no concern of the incident investigation (art. 24 of the Air Navigation Law). The masculine form is used in this report regardless of gender for reasons of data protection.



# TRANSCRIPT OF TELEPHONY

# **OR RADIOTELEPHONY COMMUNICATION TAPE-RECORDINGS**

Investigation into the incident that occured on 28.06.2003

- Subject of transcript:	IBE3483 / SWR353
- Centre concerned:	Swiss Radar Area West
- Designation of unit:	Terminal Control, Geneva Tower
- Frequency / Channel:	118.7 MHz
- Date and period (UTC) covered by attached extract:	28.06.2003 10:09 - 10:37 UTC
- Date of transcript:	14 July 2003
- Name of official in charge of transcription:	Didier JAVET

- Certificate by official in charge of transcription:

I hereby certify:

- That the accompanying transcript of the telephony or radiotelephony communication tape-recordings, retained at the present time in the premises of the Analysis Department, has been made, 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, 14 July 2003

Didier JAVET



# Abbreviations

## TWR - Terminal Control, Geneva Tower

<u>Aircraft</u>		<u>Callsign</u>	Type of acft	Flight rules	ADEP		ADES
3483	-	Iberia 3483	MD87	IFR	LSGG	-	LEMD
1929	-	KLM 1929	B733	IFR	EHAM	-	LSGG
1843	-	Air France 1843	A320	IFR	LSGG	-	LFPG
VA	-	British 4VA	E145	IFR	EGCC	-	LSGG
292	-	Privatair 292	B752	IFR	LSGG	-	LEMD
HRM	-	HB-ERM	RALL	VFR	LSGB	-	LSGG
705	-	Tunair 705	A306	IFR	LSGG	-	DTTJ
HOT	-	HB-LOT	PA31	VFR	LFLS	-	LSGG
5342	-	Air Portugal 5342	A319	IFR	LPPT	-	LSGG
7101	-	Tunair 7101	B736	IFR	LSZH	-	LSGG
353	-	Swiss 353	A319	IFR	EGLL	-	LSGG
136	-	Olympic 136	B733	IFR	LSGG	-	LGAV
214	-	Cedar Jet 214	A321	IFR	LSGG	-	OLBA
603	-	Swiss 603	E145	IFR	LFPG	-	LSGG

OGED / 14 July 2003

Occurence: IBE3483 / SWR353 of 28.06.2003



То	From	Time	Communications	Observations
<u>Col.1</u>	<u>Col.2</u>	<u>Col.3</u>	<u>Col.4</u>	<u>Col.5</u>

# Frequency: 118.7 MHz Geneva Tower

TWR	3483	10 :09 :08	Tower ?????, bonjour, Iberia three four eight three, on the ?????.	Unreadable
3483	TWR	12	lberia three four eight three, bonjour.	
1929	TWR	20	KLM one nine two nine, Geneva?	
1843	TWR	24	Air France dix-huit quarante-trois, le vent du zéro vingt degrés, quatre nœuds, piste zéro cinq, autorisé décollage immédiat.	Two stations at the same time
TWR	1843	29	Décollage immédiat, zéro cinq, Air France dix-huit quarante-trois.	
TWR	1929	34	Tower, hello, KLM one nine two nine, established ILS zero five.	Two stations at the same time. (other unreadable)
1929	TWR	38	Two stations, KLM one nine two nine, number one continue approach, an Airbus three two zero is rolling for departure, preceeding landing traffic reported birds, large birds at two miles final, on the glide.	
TWR	1929	48	Roger, KLM one niner two nine, thank you.	
VA	TWR	50	British four Victor Alfa, are you on the frequency.	
TWR	VA	53	Affirm, fully established, eight and a half.	
VA	TWR	56	XXXXX, British four Victor Alfa, report two miles and preceeding landing traffic reported… large birds at two miles final on the glide.	Could be « Roger »
TWR	VA	10 :10 :03	Four Victor Alfa, thank you.	
TWR	292	05	Privatair two nine two, we are now fully ready.	
292	TWR	07	Privatair two nine two, roger, I call you back.	
1929	TWR	10	KLM one nine two nine, wind three four zero degrees, four knots, runway zero five, cleared to land.	
TWR	1929	15	Cleared to land zero five, KLM one nine two nine.	
TWR	HRM	18	Hotel Romeo Mike, November, three thousand.	





To <u>Col.1</u>	From <u>Col.2</u>	Time <u>Col.3</u>	Communications <u>Col.4</u>	Observations Col.5
HRM	TWR	10 :10 :21	Hotel Romeo Mike, report November Whiskey.	
TWR	HRM	23	Next November Whiskey.	
1843	TWR	27	Air France dix-huit quarante-trois, contactez Départs, cent vingt et un décimal trois, au revoir.	
TWR	1843	30	Vingt et un trois, bonne journée, dix-huit quarante-trois.	
VA	TWR	34	British four Victor Alfa, the required speed now one six zero knots to permit departure.	
TWR	VA	39	????? one sixty, now.	Unreadable
VA	TWR	41	Thank you.	
292	TWR	43	Privatair two nine two, behind the landing Boeing seven three seven short final, line up and wait zero five, keep ready for rapid departure.	
TWR	292	48	Roger, behind the KLM on short final, we line up… zero five, behind and wait, Privatair two … nine two.	
TWR	705	59	Tower, good afternoon, Tunair seven zero five.	
705	TWR	10 :11 :01	Tunair seven zero five, good afternoon.	
TWR	НОТ	13	Genève bonjour, Hotel Bravo Lima Oscar Tango?	
НОТ	TWR	15	Hotel Oscar Tango, bonjour.	
TWR	НОТ	18	Oscar Tango, en provenance de… Grenoble en direction de Mont de Sion, six mille cinq cents pieds, … en descente.	
НОТ	TWR	25	Oscar Tango, reçu, je vous rappelle pour l'intégration.	
TWR	НОТ	28	Oscar Tango.	
1929	TWR	35	KLM one nine two nine, rapidly first right Bravo.	
TWR	1929	39	Yes, we do our best, KLM one nine two nine.	
VA	TWR	41	British four Victor Alfa, reduce speed minimum, Boeing seven five seven shortly rolling for departure.	
TWR	VA	45	British four Victor Alfa.	





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>
НОТ	TWR	10 :11 :50	Hotel Oscar Tango, contact Arrival one three six decimal four five, goodbye.	No reply
292	TWR	56	Privatair two nine two, wind three four zero degrees, four knots, runway zero five, cleared immediate take-off.	
TWR	292	10 :12 :00	Cleared immeadiate take-off zero five, Privatair two nine two.	
HOT	TWR	04	Hotel Bravo Lima Oscar Tango, contact Arrival on one three six decimal four five.	
TWR	HOT	08	One three six four five, Oscar Tango.	
TWR	1929	13	XXXXX, KLM one nine two nine.	Could be « Runway is vacated »
1929	TWR	17	KLM one nine two nine, Apron, one two one seven five, goodbye.	
TWR	1929	20	One two one seven five, goodbye.	
VA	TWR	22	British four Victor Alfa, continue approach normally, wind three two zero degrees, four knots, seven five seven rolling for departure.	
TWR	VA	28	British four Victor Alfa, thanks.	
5342	TWR	30	Portugal five three four two, are you on the frequency ?	
TWR	5342	33	Affirm, bonjour.	
5342	TWR	35	Bonjour, catching up preceeding, reduce speed to the minimum.	
TWR	5342	37	XXXXX minimum, Portugal five three four two.	Could be « With »
VA	TWR	40	British four Victor Alfa, wind calm, runway zero five, cleared to land.	
TWR	VA	42	Cleared to land, four Victor Alfa.	
TWR	7101	49	Genève, Tunisair seven one zero one, bonjour, final, fully established, speed one six zero knots.	
7101	TWR	58	Tunair seven one zero one, bonjour, your speed ?	
TWR	7101	10 :13 :01	Speed one six zero knots.	





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>
7101	TWR	10 :13 :03	Roger, report two miles final.	
TWR	7101	05	XXXXX.	Noise of microphone.
292	TWR	10	Privatair two nine two, contact Departure on one two one decimal three, goodbye.	
TWR	292	12	One two one decimal three, Privatair two nine two, au revoir.	
TWR	353	27	Tower, bonjour, Swiss three five three, established ILS zero five, speed one sixty.	
353	TWR	31	Swiss three five three, bonjour, report two miles.	
TWR	353	34	Wilco.	
VA	TWR	39	British four Victor Alfa, right by Charlie, hold on Charlie, contact Apron, one two one decimal seven five, goodbye.	
TWR	VA	44	One two one seven Cha, five, hold on Charlie, wilco.	
5342	TWR	48	Portugal five three four two, wind three one zero degrees, four knots, runway zero five, cleared to land.	
TWR	5342	53	Cleared to land zero five, Portugal five three four two.	
136	TWR	56	Olympic one three six, behind the landing traffic, Airbus three one nine short final, line up and wait zero five behind.	
TWR	136	10 :14 :02	Behind landing traffic, on short final, line up and wait behind, Olympic one three six.	
HRM	TWR	07	Hotel Romeo Mike, join a left hand downwind for zero five grass, report end of downwind.	
TWR	HRM	12	Left hand downwind zero five.	
HRM	TWR	14	Zero five grass, I confirm.	
TWR	HRM	16	Zero five grass.	
TWR	214	34	Tower, bonjour, Cedar Jet two one four.	
214	TWR	38	Cedar Jet two one four, bonjour, continue taxi.	





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>
TWR	214	10 :14 :41	Two one four.	
7101	TWR	57	Tunair seven one zero one, number one, continue to reduce speed to your minimum	
TWR	7101	10 :15 :01	Yes, reducing to minimum, seven one zero one.	
136	TWR	23	Olympic one three six, wind is calm, runway zero five, cleared immediate take-off.	
TWR	136	28	Cleared for immediate take-off, runway zero five, Olympic one three six.	
5342	TWR	32	Air Portugal five three four two, contact Apron on one two one decimal seven five, goodbye.	
TWR	5342	35	Two one seventy-five, bye. Air Portugal five three four two.	
HRM	TWR	45	Hotel Romeo Mike, look out for traffic, Airbus three… , Boeing seven three seven on final, turn base for the grass, report final zero five grass.	
TWR	HRM	52	Okay, traffic in sight, next turning base for zero five grass.	
HRM	TWR	56	Next call on final zero five grass.	
TWR	HRM	59	Next final zero five grass.	
7101	TWR	10 :16 :07	Tunair seven one zero one, wind calm, runway zero five, cleared to land.	
TWR	7101	11	Cleared to land, Tunisair seven one zero one.	
3483	TWR	14	lberia three four eight three, behind the landing Boeing seven three seven short final, line up and wait zero five behind, keep ready for rapid departure.	
TWR	3483	21	XXXXX, the traffic on landing, line up runway zero five, lberia three four eight three.	Could be « Behind »
136	TWR	50	Olympic one three six, contact Departure on one two one decimal three, goodbye.	
TWR	136	53	Departure, one two one three, Olympic one three six, bye.	
HRM	TWR	10 :17 :01	Hotel Romeo Mike, wind zero four zero degrees, five knots, runway zero five grass, cleared to land.	





To <u>Col.1</u>	From <u>Col.2</u>	Time <u>Col.3</u>	Communications Col.4	Observations <u>Col.5</u>
TWR	HRM	10 :17 :06	Cleard to land, zero five grass for Romeo Mike.	
353	TWR	09	Swiss three five three, continue to reduce speed to your minimum, on your left, two miles ahead, light traffic on final for the grass, traffic MD eighty shortly rolling for departure.	
TWR	353	17	XXXXX reducing, Swiss three five three.	Could be « I'm »
7101	TWR	31	Tunair seven one zero one, rapidly Bravo, when vacated, contact Apron, one two one decimal seven five, goodbye.	
TWR	7101	38	Bravo, one two one seven five.	
3483	TWR	41	lberia three four eight three, wind is calm, runway zero five, cleared immediate take-off.	
TWR	3483	48	Cleared for take-off, Iberia three four eight three on runway zero five.	
3483	TWR	51	XXXXX.	Could be « Correct »
TWR	603	53	Genève, bonjour, Swiss six O three, final nine miles.	
603	TWR	58	Swiss six zero three, bonjour, report two miles.	
TWR	603	10 :18 :00	Report two, six O three.	
3483	TWR	02	<i>Iberia three four eight three, cancel the… take-off clearance, hold position, I confirm, cancel the, stop take-off and the traffic is going around above. I confirm Iberia three four eight three, stop take-off.</i>	No reply
3483	TWR	12	lberia three four eight three, stop take-off please.	No reply
353	TWR	14	Swiss three five three, go around, I say again, go around, traffic… on the runway.	
TWR	353	18	Okay, go around we go slightly to the right, Swiss three five three.	
353	TWR	23	Swiss three five three, roger, expect a left turn shortly, traffic on the runway still departing.	
353	TWR	34	Swiss three five three, turn left, I confirm, left turn heading zero two zero.	No reply





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>
TWR	НОТ	10 :18 :42	La Tour, bonjour, Hotel Bravo Lima Oscar Tango.	No reply
353	TWR	44	Swiss three five three, I say again, turn left heading zero two zero.	
TWR	353	47	Okay, we turn left now heading zero two zero, Swiss three five three.	
TWR	НОТ	56	La Tour, re-bonjour, Hotel Bravo Lima Oscar Tango.	
3483	TWR	59	<i>lberia three four eight three, stop … climb now, stop immediately climb, maintain four thousand feet, continue straight ahead.</i>	No reply
3483	TWR	10 :19 :11	Iberia three four eight three, do you read me ?	
TWR	3483	13	Yes, go ahead for Iberia three four eight three.	
3483	TWR	15	Yeah, I told you to stop take-off, before your take- off how do you read me now ?	
TWR	3483	21	Yes five by five, Iberia three four eight three.	
353	TWR	24	Swiss three five three, confirm the traffic on your right in sight ?	
TWR	353	27	Yeah, we have the traffic always in sight, it's no problem for us.	
353	TWR	30	Did you read me, heu… before when I, heu stopped the Iberia, heu, I was calling Iberia ?	
TWR	353	36	Yes, we read you all the time, Iberia wasn't listening.	
353	TWR	39	Okay, thank you for this in… information, … climb to seven thousand feet, heading zero one zero, now.	
TWR	353	45	Heading zero one zero and climbing to seven thousand, Swiss three five three.	
603	TWR	51	Swiss six zero three, wind is calm, runway zero five, cleared to land.	
TWR	603	54	Cleared to land, zero five, Swiss six O three.	
3483	TWR	57	<i>lberia three four eight three, heu continue straight ahead, climb to flight level nine zero.</i>	



#### Occurence: IBE3483 / SWR353 of 28.06.2003



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>
TWR	3483	10 :20 :04	Nine zero, straight in, ahead, Iberia three four eight three.	
353	TWR	12	Swiss three five three, did you turn to the left heading zero one zero ?	
TWR	353	15	Ja, we're just turning now, Swiss three five three.	
TWR	НОТ	27	Tower from Hotel Bravo Lima Oscar Tango, established.	
HOT	TWR	30	Hotel Oscar Tango, bonjour, report two miles.	
TWR	НОТ	32	Oscar Tango, will do.	
3483	TWR	39	<i>Iberia three four eight three, traffic on your left, three miles ahead at four thousand feet, an Airbus three two zero, do you have the traffic in sight ?</i>	
TWR	353	45	Heu negative, Swiss three five three.	
3483	TWR	49	<i>No… I'm calling lberia three four eight three, traffic on your left , Airbus three two zero at four thousand feet, on a heading zero one zero.</i>	
TWR	3483	57	We have traffic in TCAS, Iberia three four eight three.	
3483	TWR	10 :21 :00	Roger, Iberia three four eight three, continue straight ahead, level nine zero, contact Departure, one two one decimal three.	
TWR	3483	04	Two one three, straight in ahead, nine thousand, Iberia three four eight three.	
353	TWR	07	Swiss three five three, turn right heading zero two zero and I confirm the altitude clearance, seven thousand feet, QNH one zero one five.	
TWR	353	15	XXXXX, right heading zero two zero and we are climbing to seven thousand on one zero one five, Swiss three five three.	Could be « Okay »
353	TWR	23	Roger, Swiss three five three, contact Arrival again on frequency one three six two five, please.	
TWR	353	28	One three six two five, bye-bye.	
				Soctor in contact

Sector in contact with other aircraft





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>
				Changement of controller
TWR	353	10 :34 :57	???? Tower, the Swiss three five three again, established zero five.	Unreadable
353	TWR	10 :35 :02	Bonjour Swiss three five three, report short final, preceeding is just about to touch down.	
TWR	353	06	Wilco, short final, Swiss three five three.	
TWR	353	20	And just for information, we'll also file a report for the lby, Iberia, the Swiss three five three.	
353	TWR	28	Yes Sir, the preceeding controller is just about to file the operation, operational internal report.	
TWR	353	34	Okay, thanks.	
353	TWR	36	You're welcome.	
				Sector in contact with other aircraft
353	TWR	10 :36 :18	Swiss three five three, runway zero five, cleared to land, zero five zero degrees, seven knots.	
TWR	353	22	Cleared to land, zero five, Swiss three five three.	
				Sector in contact with other aircraft
353	TWR	10 :37 :41	Swiss three five three, one two one seven five for taxi, au revoir.	
TWR	353	45	One two one seven five, Swiss three five three.	
353	TWR	47	Merci.	

D.J.A



