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Aircraft Accident Investigation Bureau AAIB

Final Report No. 1961 by the Aircraft Accident Investigation Bureau

concerning the serious incident (airprox)

involving XLA 6038, G-XLAA

and SVW 306W, LX-SVW

on 6 March 2005

Region of VOR CBY, TMA Geneva

Bundeshaus Nord, CH-3003 Berne

General information on this report

This report contains the AAIB's conclusions on the circumstances and causes of the serious incident which is the subject of the investigation.

In accordance with appendix 13 of the Convention on International Civil Aviation of 7 December 1944 and article 24 of the Federal Air Navigation Law, the sole purpose of the investigation of an aircraft accident or serious incident is to prevent future accidents or serious incidents. The legal assessment of accident/incident causes and circumstances is expressly no concern of the accident investigation. It is therefore not the purpose of this investigation to determine blame or clarify questions of liability.

If this report is used for purposes other than accident prevention, due consideration shall be given to this circumstance.

The definitive version of this report is the original in the French language.

All times in this report, unless otherwise indicated, follow the universal time coordinated (UTC) format. At the time of the accident, Central European Time (CET) applied as local time (LT) in Switzerland. The relation between LT, CET and UTC is: $LT = CET = UTC + 1 \text{ hour}$

For reasons of protection of privacy, the masculine form is used in this report for all natural persons, regardless of their gender.

Final report

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	North of Chambéry (CBY) VOR, in the Geneva TMA, 6 March 2005, 17:24 UTC	
Aircraft	XLA 6038, Boeing 737-800, G-XLAA, Excel Airways U.K. from London Gatwick (EGKK) to Chambéry (LFLB) SVW 306W, Falcon 2000 F2TH, LX-SVW, Silver Arrows, S.A. from Moscow-Vnukovo (UUWW) to Geneva (LSGG)	
Crews	XLA 6038	CMDR FO
	SVW 306W	CMDR FO
ATC unit	Geneva Terminal Control, Intermediate Approach INT	
Controllers	Arrival PRE Final FIN Chambéry Approach Control	
Airspace	C	

1. History of the incident

1.1 History

On Sunday 6 March 2005, flight SVW 306W, a Falcon 2000 aircraft was making a scheduled flight from Moscow-Vnukovo to Geneva. During the intermediate approach to Geneva, it was vectored by the Geneva Approach radar controller on route VADAR THREE NOVEMBER TRANSITION to make an approach on the Geneva runway 05 ILS.

At the same time, flight XLA 6038, a Boeing 737-800 aircraft was making a regular scheduled flight from London Gatwick to Chambéry. It was vectored by the Geneva Approach controller PRE on route LIRKO – GVA – SALEV – CBY, to make an approach on the Chambéry airport ILS.

The PRE radar controller coordinated the approach with Chambéry control by telephone and received clearance SALEV CBY at flight level FL 080. CBY is the clearance limit and the point to which the pilot is granted by Geneva Approach.

The arrival route prescribed by the Letter of Agreement (LoA) between Chambéry Approach and Geneva Approach "SALEV 5R" was issued neither by Geneva Approach nor by Chambéry Approach.

Because of the high volume of traffic, flight XLA 6038 was informed by the Geneva radar controller that he was number four in the Chambéry airport arrival sequence and that he should reduce his speed to 210 kt. The pilot asked if he should enter the Chambéry holding pattern (Chambéry/VOR). The Geneva radar controller replied *"Affirm, Charlie Bravo Yankee and hold and descend now flight level eight zero"* clearing it to join the CBY/VOR holding pattern and to descend to flight level FL 080. The aircraft was then approximately 4 NM north-west of the CBY VOR.

The aircraft was then transferred to the Chambéry Approach control frequency. The Chambéry Approach controller cleared it to join the VIRIE holding pattern at flight level 080 to fly two circuits. The pilot read back flight level FL 080 as well as the two circuits he was to fly, without mentioning the VIRIE pattern for which he had been explicitly cleared. At this time, the aircraft was 2.5 NM north-east of the Chambéry VOR and its speed was 245 kt. When it was directly over the Chambéry VOR, XLA 6038 reached flight level 080 and its speed was 250 kt. It then turned left onto approximate heading 190 degrees, a heading which it maintained for 1 minute and 23 seconds before starting the right turn in the direction of the VOR.

Having been informed of the latest unfavourable weather conditions for an approach, the pilot of aircraft XLA 6038 confirmed on the frequency that he wanted to continue in the holding pattern, without specifying which. Chambéry Approach then asked him to maintain flight level FL 080 in the VIRIE holding pattern. The pilot reacted by reporting that he was in the CBY holding pattern as cleared previously.

The controller confirmed that he had to wait in the VIRIE pattern. The pilot answered that there was no problem and that he would change the holding pattern.

A few moments before flying over the CBY VOR for a second time, the aircraft initiated a left turn. This action was observed by the Chambéry radar controller, who corrected it by ordering an immediate right turn and a climb to flight level FL 090. The controller subsequently used emergency phraseology to instruct the pilot again to make a right turn onto heading 180° and climb rapidly.

The urgency of this action was imposed by the unexpected incursion of the aircraft into the Geneva TMA. The Chambéry radar controller observed conflicting traffic at flight level FL 080, on an opposing route converging on that of aircraft XLA 6038. This was

aircraft SVW 306W, the Falcon 2000 which was in the approach phase for runway 05 in Geneva, under radar vectoring on the Geneva FIN Approach control frequency.

The Geneva FIN approach radar controller noticed the intrusion of aircraft XLA 6038 on his radar screen. He warned the pilot of aircraft SVW 306W, issuing him with essential traffic information, then he took avoiding action by instructing him to turn right onto heading 320° and to descend rapidly to an altitude of 7000 ft.

At the time of the telephone coordination which was immediately established between Geneva Approach and Chambéry Approach, the coordinators were unable to prevent the convergence. The crews of the two aircraft involved registered a TA (traffic advisory) TCAS alert.

According to the radar recordings, the two aircraft closed to a point with a lateral separation of 2.5 NM and an altitude difference of 100 ft.

1.2 Additional information:

Proximity to the Chambéry TMA (ref. ATM-GE)

Any convergence with the boundaries of the respective TMAs necessitates coordination between the Approach controls when this proximity is less than 2.5 NM. This rule does not apply to aircraft visible on the SSR and navigating on published routes (SID / STAR / AWY's). When such traffic is visible, a minimum separation of 5 NM / 1000 ft must be maintained.

Ref. STAR LSGG and Letter of Agreement between Chambéry and Geneva

The CBY VOR/DME holding pattern interferes with the Geneva TMA between 6500 ft and flight level FL 090.

In the event of holding in the CBY circuit, Geneva must obtain the clearance of Chambéry Approach above flight level FL 115, because of the interference with the Chambéry 3 TMA.

Note: the VIRIE holding pattern (071° CBY, 5 NM DME) is separate from the Geneva ILS 05 procedure.

(See Jeppesen approach chart for the CBY and VIRIE holding patterns, annex 1)

Clearance limit (Réf.: Doc.4444 ICAO Chap.4 / 4.5.7.1 - 3.)

Definition : The point to which an aircraft is granted an air traffic control clearance.

"... the appropriate ATC unit will then be responsible for issuing, as soon as practicable, an amended clearance to the destination aerodrome."

" ... a coordination shall be expedited so that a clearance to the destination aerodrome may be issued as soon as possible. "

Route SALEV 5R (SALE5R) published as arrival route to LFLB – AIP FRANCE.

SALEV - R228° – PINOT – COLLO – CBY – R233° D8 CBY MAX 170 KT – VIRIE (IAF) HLDG

(See Jeppesen approach chart for the arrival route SALEV 5R, annex 1)

Procédures des vols de Genève Approche vers Chambéry Approche ; réf. : Lettre d'Accord Chambéry APP – Genève TCG du 18.03.2004

D.3.2 Vols de Genève Approche vers Chambéry Approche

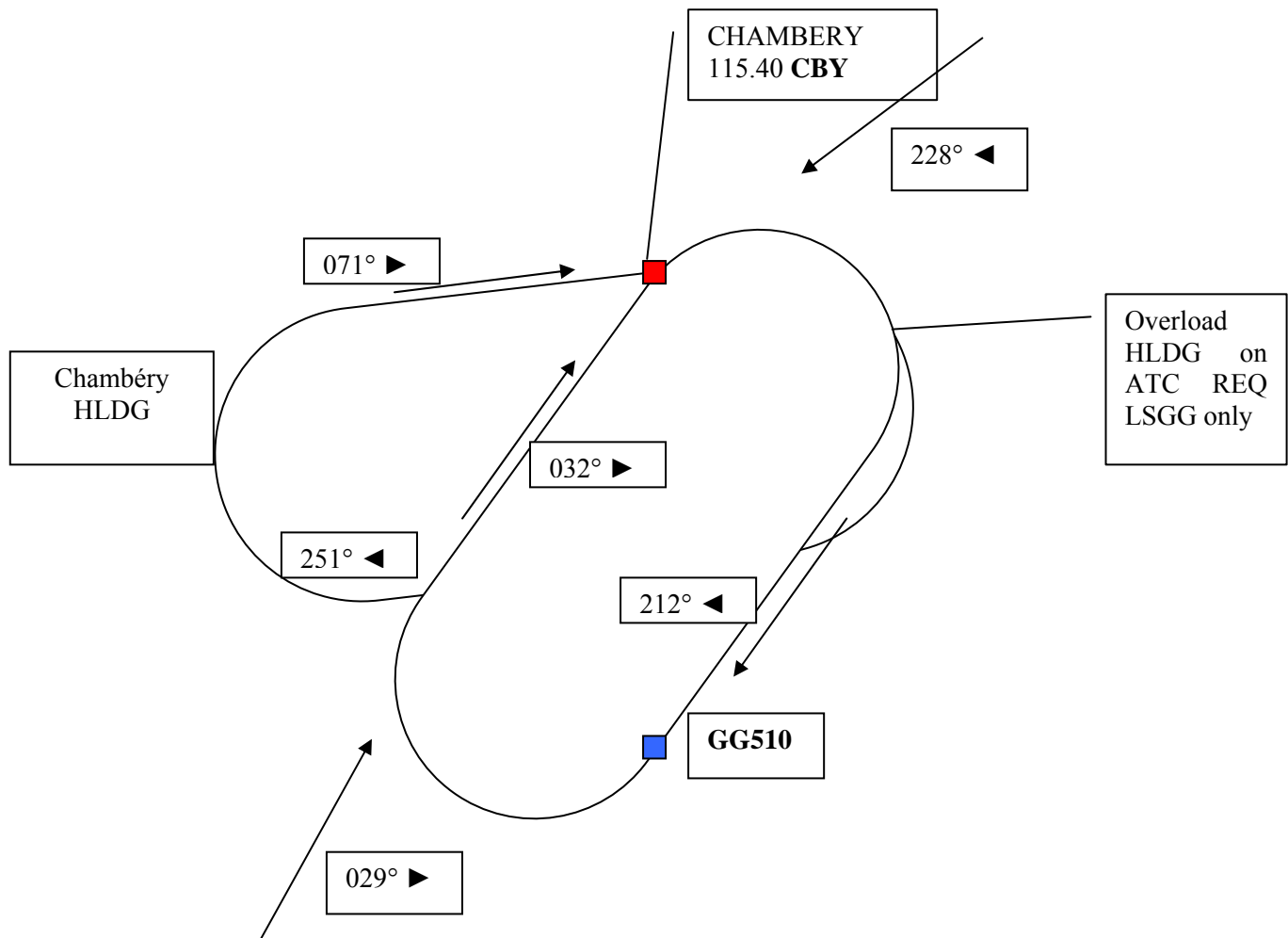
D.3.2.1 Arrivées sur la STAR SALEV

- Les arrivées TMA Chambéry s'effectuent en utilisant les routes de transition alimentant le point SALEV.
- Les aéronefs à destination de Chambéry sont autorisés par Genève APP sur la STAR de Chambéry SALEV 5R.

Description on 29 January 2007 of the CBY/VOR overload circuit and the CBY/VOR holding circuit

Overload circuit, Jeppesen chart 10-2F for Geneva	Holding circuit, Jeppesen chart 10-2A for Chambéry
HOLDING POINT CBY	HOLDING POINT CBY
INBOUND TRACK 032°	INBOUND TRACK 071°
URNS Right	URNS Right
OUTBOUND LEG 212° to GG510	OUTBOUND LEG 251°
Minimum Holding Altitude FL 100 Maximum Holding Level FL 140	Minimum Holding Altitude 6500 ft Maximum Holding Level FL 90
MAX IAS 220 KTS	MAX IAS 170 KTS
<i>Although the CBY RNAV holding is demonstrated to be safe, with respect to terrain, down to a true altitude of 7,200ft, it can be used below FL120 only after coordination with Chambéry Approach.</i>	

Superimposition of Chambéry circuit CBY and overload holding circuit of Geneva



2. Analysis

2.1 ATC aspects

A succession of failings eventually led to a dangerous convergence of the two aircraft involved.

- The incorrect clearance given by Geneva Approach after the telephone coordination with Chambéry Approach regarding the transfer of the aircraft. Chambéry Approach gave Geneva Approach, as the procedure to follow, the route SALEV – CBY, without specifying which holding pattern, CBY or VIRIE, aircraft XLA 6038 should join. Geneva Approach, however, cleared flight XLA 6038 to join the Chambéry holding pattern.
- The arrival route prescribed by the Letter of Agreement (LoA) between Chambéry Approach and Geneva Approach "SALEV 5R" was issued neither by Geneva Approach nor by Chambéry Approach.

- After the pilot had called Chambéry Approach, reporting that he was in the Chambéry holding pattern, he received clearance to join the VIRIE holding pattern. He did not read back the holding pattern change and the Chambéry controller did not correct him.
- When the error became apparent, the Chambéry controller asked the pilot to join the VIRIE holding pattern, without specifying which direction to take. Aircraft XLA 6038 turned left, the shortest route (FMS) to join VIRIE. The Chambéry Approach controller intervened and instructed the aircraft to turn right.
- A clear misunderstanding occurred during the coordination between Chambéry Approach and Geneva Approach. This misunderstanding concerned the direction of rotation of the turn to be made by the aircraft. Whereas Chambéry Approach insisted that it make a right turn, Geneva Approach insisted that it make a left turn.
- Chambéry Approach probably wanted the aircraft to make its turn in the direction of the holding circuit, whereas Geneva Approach clearly wanted to take it away from the conflicting trajectory of aircraft SVW 306W.
- As the aircraft was in communication with Chambéry, the pilot obeyed the orders given by Chambéry Approach.

2.2 TCAS and flight management aspect

According to the statements of the crew of aircraft XLA 6038, the pilot entered the data for the VIRIE holding pattern in the FMS and the orientation of the aircraft generated a left turn for him, as the shortest route to this point. Subsequently, when the aircraft was making the left turn, Chambéry control instructed it to turn right. During this action, the crew noted a brief TCAS alert lasting approximately one second. They did not judge it necessary to submit a report.

The analysis determined that the traffic alert and collision avoidance system on the two aircraft simultaneously registered a TA (traffic advisory) at 17:23:43 UTC. At this moment, XLA 6038 was stable at FL 081 (true altitude), whilst SVW 306W had just left FL 081 and was passing FL 080 descending at a rate of 933 fpm. The two aircraft had a lateral separation of 2.43 NM and an altitude difference of 100 ft. The calculated rate of convergence was 199 kt/-933 ft.

It must be noted that no RA (resolution advisory) was generated, since at the moment the TA appeared, vertical separation was increasing.

Given the trajectory adopted by XLA 6038 (right turn), the lateral separation between the two aircraft reduced and attained 1.7 NM, at the closest point, for an altitude difference of 617 ft.

The risk of collision between the two aircraft began to reduce at the very moment the TA was activated and the level of sensitivity corresponding to the situation did not necessitate the activation of an RA.

3. Conclusions

3.1 Findings

- The runway in use in Geneva was runway 05.
- The Geneva Approach controllers were in possession of an appropriate licence.
- All radio communications between the pilots of flights XLA 6038, SVW 306W and the controllers in the Geneva and Chambéry Approach units were recorded and took place in English.
- At 17:04:48 UTC, the pilot of aircraft XLA 6038 made contact with Geneva Arrival PRE on frequency 136.250 MHz.
- At 17:09:35 UTC, XLA 6038 was informed that it was number 4 in the Chambéry approach sequence. The Approach controller asked the pilot to reduce his speed to 210 kt.
- At 17:10:24 UTC, a telephone coordination between Geneva Approach and Chambéry Approach for the transfer of aircraft XLA 6038 took place. Chambéry radar reports: " ... *eighty and still SALEV – Charlie Bravo Yankee.*"
- At 17:16:45, the pilot asked if he should enter the CBY holding pattern. The Geneva PRE radar controller replied: "*Affirm, Charlie Bravo Yankee and hold and descend now flight level eight zero*".
- At 17:16:55, Geneva Arrival handed over aircraft XLA 6038 to the Chambéry Approach frequency of 123.700 MHz.
- At 17:17:16 UTC, Chambéry Approach gave the following clearance to the pilot of aircraft XLA 6038: "*descend level 80 enter VIRIE holding pattern, expect two holds.*"
- The pilot read back: "*Descending flight level 80 expect two holds XPO 038*".
- At 17:22:12 UTC, Chambéry Approach informed the pilot of aircraft XLA 6038 that he would call him back to give him weather information and asked him to remain at flight level FL 080 in the VIRIE holding pattern.
- The pilot replied that he was in the CBY holding pattern at flight level FL 080 as cleared.
- At 17:23:03 UTC, according to the radar recordings, XLA 6038 initiated a left turn.
- At 17:23:12 UTC, a telephone coordination took place between Chambéry Approach and Geneva Approach.
- At 17:23:14 UTC, the Chambéry Approach controller intervened: "*XLA 6038, confirm you turn right, right*"
- At 17:23:24, the Chambéry Approach controller instructed the pilot to climb immediately to flight level FL 090. He repeated this instruction as well as the instruction to turn right 7 seconds later.

- At 17:23:43 UTC, aircraft XLA 6038 initiated the right turn and had not yet left flight level FL 080.
- At 17:23:15 UTC, the Geneva Approach STCA alert (an automatic alert predicting loss of the required separation between aircraft) was generated. According to the radar recording, the flight level of aircraft XLA 6038 was at that time FL 081.
- At 17:23:31 UTC, the Geneva Approach controller informed SVW 306W of the conflicting traffic and ordered an avoiding action with a right turn onto a heading of 320 degrees.
- At 17:23:37 UTC, the Chambéry Approach controller instructed the pilot of aircraft XLA 6038 to climb rapidly: "*expedite climb, expedite climb*".
- At 17:23:39, SVW 306W reported to the Geneva radar controller that he had the conflicting traffic on his TCAS.
- At 17:23:41 UTC, the Geneva Approach controller instructed the pilot of aircraft SVW 306W to descend rapidly to an altitude of 7000 ft, informing him that the conflicting traffic was maintaining flight level FL 080.
- At 17:23:47 UTC, the Chambéry Approach controller instructed XLA 6038 to make a right turn onto heading 180° followed by an instruction to climb.
- At 17:24:11 UTC, according to the radar recording, aircraft XLA 6038 was passing flight level FL 087, climbing.
- At 17:24:42, the pilot informed the Approach controller that he was maintaining flight level FL 090 on a heading of 180°.
- According to the radar recordings, the minimum distance of the converging routes of the two aircraft was a lateral separation of 2.5 NM and an altitude difference of 100 ft.

INFONET Data Geneva

ATIS GENEVA 06.03.2005 17:23:38

INFO LIMA RWY IN USE 05 D 0531 N 1754

GRASS RWY is CLOSED

QAM LSGG 1720Z 06.03.2005

040 DEG 13 KT. VRB BTN 010 AND 080 DEG

VIS 9 KM

FEW 1500 FT. SCT 3500 FT. BKN 5000 FT

- 01 / - 03

QNH 1015 ONE FIVE

NOSIG

SLA 220KT.

ATIS Chambéry 06.03.2005

INFO Xray 1701Z

ILS Approach 18. Runway in use will be given on first contact

Runway is wet

Transition level 070

Wind 030 degrees 6 knots maximum 8 knots

Visibility 6 kilometres

Light snow shower

Clouds scattered 600 Broken 2300

Temperature 0 due point minus 1

Quebec November Hotel 1014 Quebec Fox Echo 986

3.2 Causes

The serious incident is attributable to the absence of confirmation by the pilot of aircraft XLA 6038 of the holding pattern assigned by Chambéry Approach in his clearance (READ-BACK) and absence of verification of this confirmation by Chambéry Approach control (HEAR-BACK).

Contributing factors:

Incorrect clearance to enter holding pattern CBY issued by Geneva Approach control.

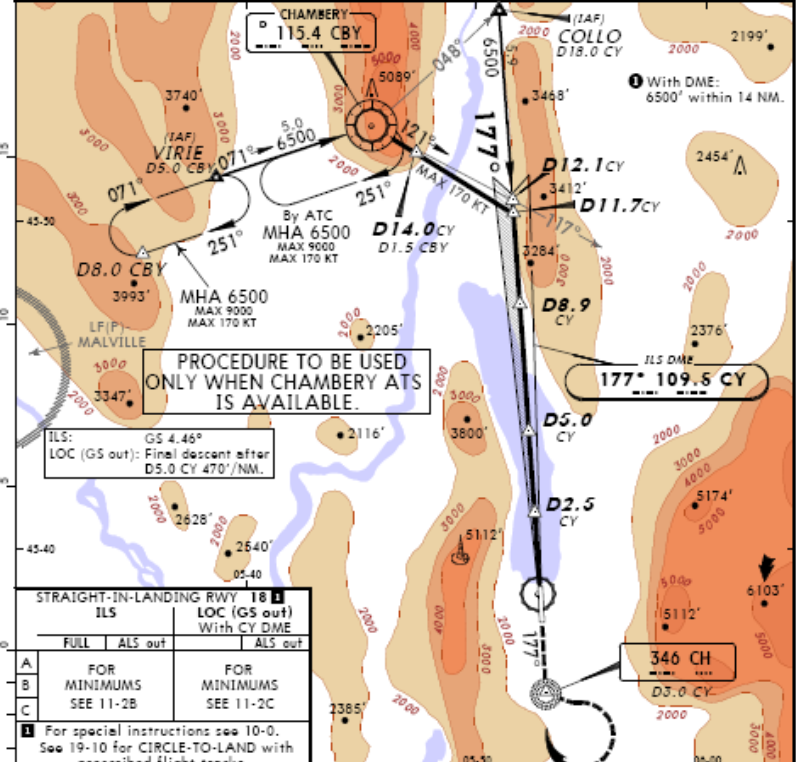
Berne, 8 November 2007

Aircraft Accident Investigation Bureau

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.

LFLB/CMF **JEPPESEN** **CHAMBERY, FRANCE**
AIX-LES-BAINS 5 JAN 07 **(11-1)** **CAT A, B & C** via **VIRIE** ILS or LOC DME Rwy 18

*ATIS 124.57	*CHAMBERY Approach 123.7	*CHAMBERY Tower 118.3
LOC CY 109.5	Final Aptch Crs 177°	GS D8.9 CY 5000' (4231')
	ILS DA(H) Refer to Minimums	Apt Elev 779'
MISSED APCH: Climb STRAIGHT AHEAD. At CH Lctr execute a climbing 080°/260° procedure turn LEFT (bank 20°, MAX 160 KT) to rejoin CH Lctr. Continue climb on 358° from CH Lctr to intercept LOC back crs. At 6500' rejoin VOR. Acceleration segment not calculated.		RWY 769'
Alt Set: hPa Rwy Elev: 28 hPa Trans level: By ATC Trans alt: 6500'		MSA CBY VOR



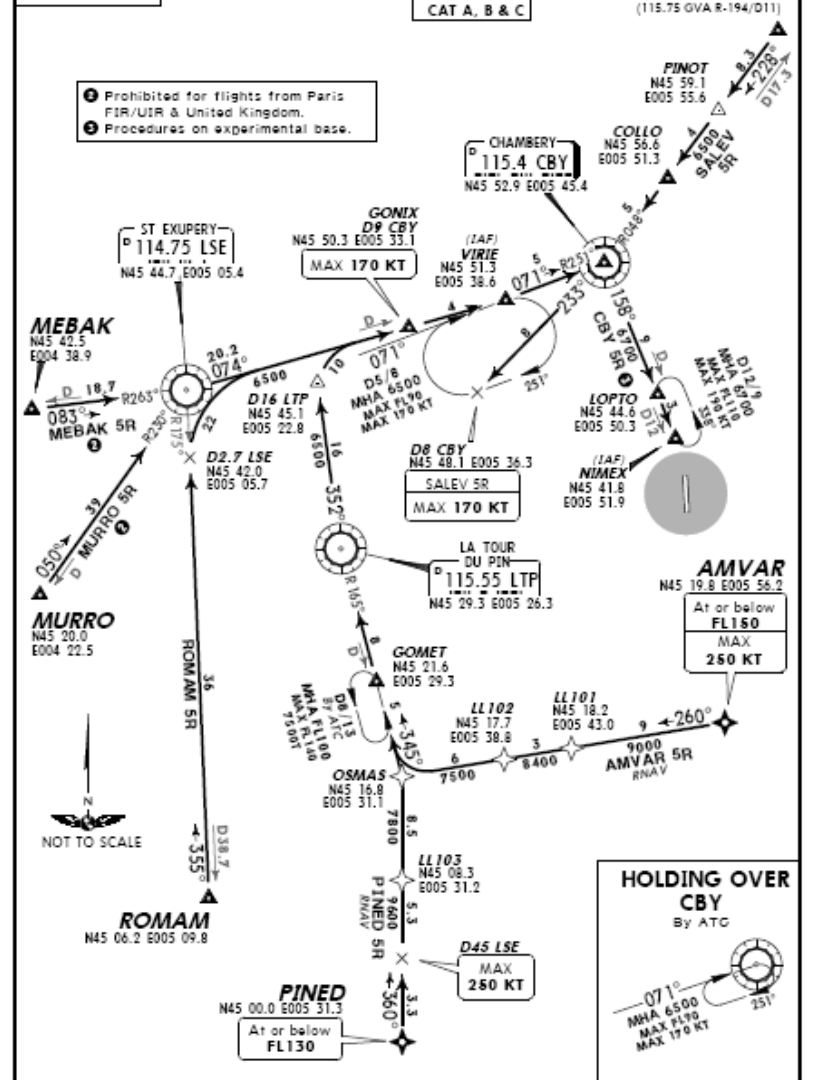
STRAIGHT-IN-LANDING RWY 18							
ILS	LOC (GS out) With CY DME						
FULL ALS out	ALS out						
A FOR MINIMUMS SEE 11-2B	B FOR MINIMUMS SEE 11-2C						
C							
For special instructions see 10-0. See 19-10 for CIRCLE-TO-LAND with prescribed flight tracks.							
LOC (GS out)	CY DME	8.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE	4570'	4090'	3620'	3140'	2670'	2200'

D14.0 CY D1.5 CBY 6500'	D12.1 CY 6500'	D8.9 CY GS 5000'	D5.0 CY GS 3139'	D2.5 CY	TCH displ thresh 46'
VOR 6500'		LOC 3140'		RWY 18 769'	
FAF via COLLO		FAF via VIRIE			
2.8		3.9		2.5 2.4	

CHANGES: Procedure title. © JEPPESEN SANDERSON, INC., 1999, 2007. ALL RIGHTS RESERVED.

LFLB/CMF **JEPPESEN** **CHAMBERY, FRANCE**
AIX-LES-BAINS 12 JAN 07 **(10-2A)** **Eff 16 Jan** **STAR**

*ATIS 124.57	Apt Elev 779'	Alt Set: hPa Trans level: By ATC Trans alt: 6500'
AMVAR 5R [AMVA5R], CBY 5R MEBAK 5R [MEBA5R], MURRO 5R [MURO5R] PINED 5R [PINESR], ROMAM 5R [ROMA5R] SALEV 5R [SALE5R]		
ARRIVALS CAT A, B & C		



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**TRANSCRIPT OF TELEPHONY
OR RADIOTELEPHONY COMMUNICATION TAPE-RECORDINGS**

Investigation into the **incident** that occurred on **06.03.2005**

- Subject of transcript: **SVW306W / XLA6038**

- Centre concerned: Swiss Radar Area West

- Designation of unit: Terminal Control Geneva, sector Final and Arrival

- Frequency / Channel: 120.300 MHz & 136.250 MHz

- Date and period (UTC) covered by attached extract: 06.03.2005
17:05 - 17:27 UTC

- Date of transcript: 29 March 2005

- Name of official in charge of transcription: Xavier HENRIOD

- 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, 29 March 2005


Xavier HENRIOD

Abbreviations

Sector Designation of sector

FIN - Terminal Control Geneva, sector Final
 PRE - Terminal Control Geneva, sector Arrival

<u>Aircraft</u>	-	<u>Callsign</u>	<u>Type of acft</u>	<u>Flight rules</u>	<u>ADEP</u>	-	<u>ADES</u>
306W	-	SVW306W	F2TH	IFR	UUWW	-	LSGG
6038	-	XLA6038	B738	IFR	EGKK	-	LFLB

DMO/xh / 29 March 2005

TRANSCRIPT SHEET

Occurrence: SVW306W / XLA6038 of 06.03.2005



To Col.1	From Col.2	Time Col.3	Communications Col.4	Observations Col.5
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Frequency: 120.300 MHz, Geneva Final

FIN	306W	17:16:47	Geneva Final, bonjour, Silver Arrows... three zero six Whiskey.	
306W	FIN	52	Silver Arrows three zero six Whiskey, bonjour, continue present heading, flight level nine zero.	
FIN	306W	58	Present heading, flight level nine zero, Silver Arrows three zero six Whiskey.	

Sector in contact with:
-SWR1335
-BAW734
-AFR2442

306W	FIN	17:19:33	Silver Arrows three zero six Whiskey, descend to flight level eight zero.	
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FIN	306W	37	Descending eight XXXXX, Silver Arrows three zero six Whiskey.	Probably " zero "
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Sector in contact with:
-BAW734
-SWR1335
-EZS988

306W	FIN	17:20:31	Silver Arrows three zero six Whiskey, reduce speed one eight zero knots.	
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FIN	306W	36	One eight zero, Silver Arrows... three zero six Whiskey.	
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Sector in contact with:
-KLM1933
-EZS988
-BAW734

306W	FIN	17:22:00	Silver Arrows three zero six Whiskey, turn right heading two five five.	
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FIN	306W	04	Right heading two five five, Silver Arrows three zero six Whiskey.	
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Signature of person in charge of transcription

X H

TRANSCRIPT SHEET

Occurrence: SVW306W / XLA6038 of 06.03.2005



To Col.1	From Col.2	Time Col.3	Communications Col.4	Observations Col.5

			_____	Sector in contact with: -AZA578 -EZS988
306W	FIN	17:23:12	Silver Arrows three zero six Whiskey, turn right on heading three zero zero for base leg.	
FIN	306W	17	Heading three zero zero base leg, Silver Arrows... three zero six Whiskey.	
306W	FIN	22	Silver Arrows three zero six Whiskey, descend seven thousand feet, one zero one five, expedite.	
FIN	306W	26	Descend seven thousand feet, QNH one zero one five, Silver Arrows three zero six Whiskey.	
306W	FIN	31	I've got a traffic... that is not with me, on your left hand side, avoiding action, turn right on heading three two zero.	
FIN	306W	39	Heading three two zero, we have XXXXX on TCAS.	Could be " it "
306W	FIN	41	Thank you, descend rapidly to seven thousand feet, the traffic... maintain eight zero.	
FIN	306W	47	... main... descending seven thousand feet.	
306W	FIN	17:24:06	Silver Arrows three zero six Whiskey, turn right heading zero one zero to intercept localizer zero five, cleared ILS approach.	
FIN	306W	14	Heading... zero one zero to intercept the ILS zero five and confirm the QNH one zero zero five ?	
306W	FIN	21	QNH one zero one five, sir.	
FIN	306W	23	One zero XXXXX, thank you.	Probably " one five "
306W	FIN	17:24:31	Silver Arrows three zero six Whiskey, speed one sixty to maintain to four miles.	
FIN	306W	35	One sixty to four, Silver Arrows three zero six Whiskey.	

Signature of person in charge of transcription

X H

TRANSCRIPT SHEET

Occurrence: SVW306W / XLA6038 of 06.03.2005



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>
				Sector in contact with: -EZS988
306W	FIN	17:24:48	Silver Arrows three zero six Whiskey, for your information, the traffic was holding overhead Charlie Bravo Yankee and... he made something wrong, we will make a report about it.	
FIN	306W	58	No problem for us.	
306W	FIN	17:25:00	Thank you.	
				Sector in contact with: -KLM1933 -DLH4EY
306W	FIN	17:26:19	Silver Arrows three zero six Whiskey, speed one sixty to maintain to four miles, contact tower one one eight seven, goodbye.	
FIN	306W	25	Merci, au revoir, Silver Arrows three zero six XXXXX.	Probably "Whiskey"

Frequency: 136.250 MHz, Geneva Arrival

PRE	6038	17:04:48	Geneva Arrival, Expo six zero three eight, is flight level one six zero and direct LIRKO.	
6038	PRE	54	Expo six zero three eight, bonjour, proceed LIRKO – GVA – SALEV, then Charlie Bravo Yankee, flight level one four zero.	
PRE	6038	17:05:01	XXXXX flight level one four zero, LIRKO – GVA – SALEV and Charlie Bravo Yankee.	Could be "descend"

Signature of person
in charge of transcription

X H

TRANSCRIPT SHEET

Occurrence: SVW306W / XLA6038 of 06.03.2005



To Col.1	From Col.2	Time Col.3	Communications Col.4	Observations Col.5
				Sector in contact with : -AFR2442 -XLA7106 -GMA451 -EZS988 -SWR1335 -BAW734
6038	PRE	17:09:35	Expo six zero three eight, you're number four for the approach in Chambéry, reduce speed two ten.	
PRE	6038	40	Number four and... speed two ten, Expo six zero three eight.	
6038	PRE	17:10:24	Expo six zero three eight, descend flight level one three zero.	
PRE	6038	26	Descend flight level one three zero, Expo six zero three eight.	
				Sector in contact with : -SWR1335 -DLH4EY -BAW734
6038	PRE	17:11:19	Expo six zero three eight, descend flight level one two zero.	
PRE	6038	21	Descend flight level one two zero, Expo six zero three eight.	
				Sector in contact with: -BAW734 -SWR1335 -EZS988 -SVW306W
6038	PRE	17:12:22	Expo six zero three eight, descend flight level one one zero.	
PRE	6038	26	Descend flight level one one zero, Expo six zero three eight.	

Signature of person in charge of transcription

X H

TRANSCRIPT SHEET

Occurrence: SVW306W / XLA6038 of 06.03.2005



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>
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Sector in contact with:
-SVW306W
-BAW734

6038	PRE	17:13:21	Expo six zero three eight, descend flight level one zero zero.	
PRE	6038	25	Descend flight level one hundred, Expo six zero three eight.	
6038	PRE	17:14:08	Expo six zero three eight, descend flight level niner zero.	
PRE	6038	10	Descend flight level niner zero, Expo six zero three eight.	

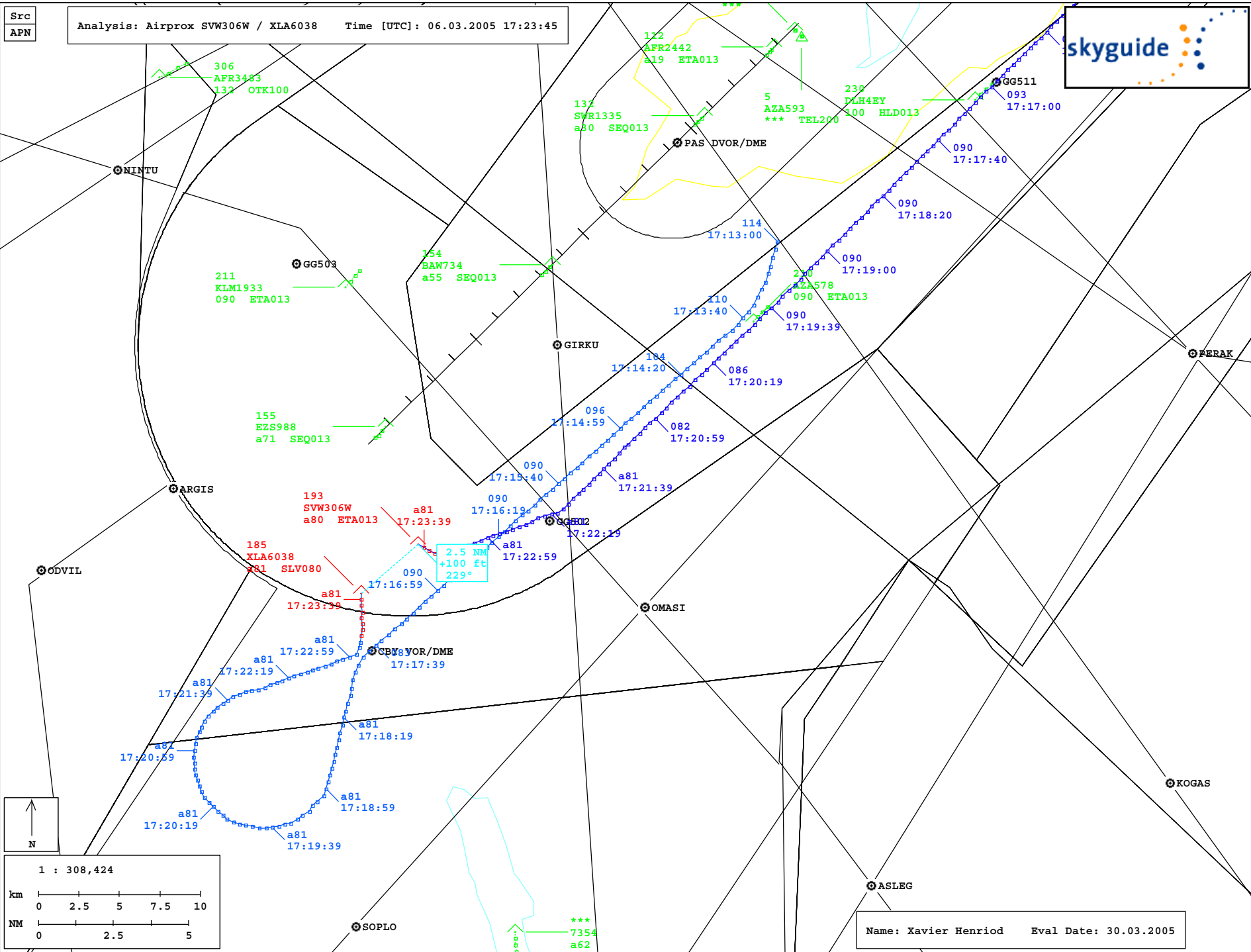
Sector in contact with:
-EZS988
-KLM1933
-SVW306W

PRE	6038	17:16:45	Swiss , Expo six zero three eight, you wish us to take up the hold at Charlie Bravo Yankee ?	
6038	PRE	48	Affirm, Charlie Bravo Yankee and hold and descend now flight level eight zero.	
PRE	6038	52	Descend now flight level eight zero, Charlie Bravo Yankee to hold, Expo six zero three eight.	
6038	PRE	55	Correct, for further, contact Chambéry Approach, one two three decimal seven, goodbye.	
PRE	6038	59	Chambéry, one two three seven, Expo six zero three eight, bye bye.	

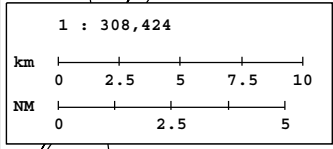
Signature of person in charge of transcription

Src
APN

Analysis: Airprox SVW306W / XLA6038 Time [UTC]: 06.03.2005 17:23:45



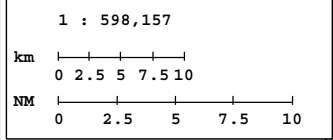
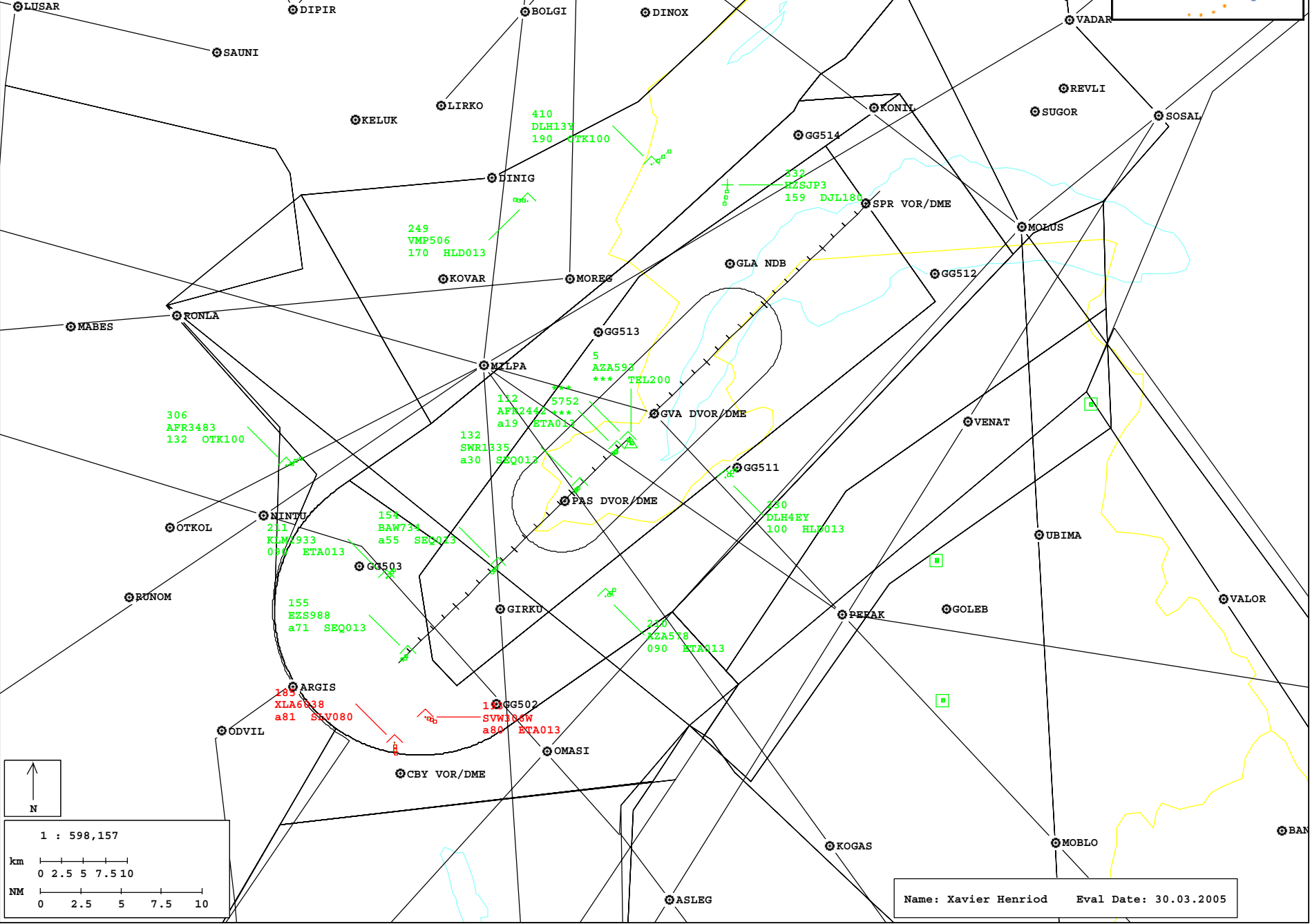
2.5 NM
+100 ft
229°



Name: Xavier Henriod Eval Date: 30.03.2005

Src
APN

Analysis: Airprox SVW306W / XLA6038 Time [UTC]: 06.03.2005 17:23:46 IROD



Name: Xavier Henriod Eval Date: 30.03.2005