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Aircraft Accident Investigation Bureau AAIB

Final Report No. 2018 by the Aircraft Accident Investigation Bureau

concerning the serious incident (AIRPROX)
involving the Dassault Falcon 900EX aircraft, registration HB-IUX
operated by Tag Aviation under flight FPG 328
and the Raytheon Beechcraft Be58P aircraft, registration D-IIHS,
on 24.02.2006
8 NM NNW of waypoint MOLUS,
at a distance of 5 km N of Lausanne

General remarks concerning this report

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

In accordance with art 3.1 of the 9th edition, applicable from 1 November 2001, of Annex 13 to the Convention on International Civil Aviation (ICAO) of 7 December 1944 and article 2001 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 no concern of the incident 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 coordinated universal time (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

Aircraft

FPG 328, HB-IUX, Dassault Falcon 900EX
Operator: Corporate Jet Management SA
Owner: Rolex SA

Geneva (LSGG) to Moscow-Vnukovo (UUWW)

Type of use: Ferry flight, IFR

D-IIHS, Raytheon Beechcraft 58P
Operator: Private
Owner: Private

Turin (LIMF) to Luxembourg (ELLX)

Type of use: Private flight, IFR

Crews

FPG 328
CMDR: French nationality
FO: French nationality

D-IIHS
CMDR: Italian nationality

Location

8 NM NNW MOLUS

Date and time

24.02.2006, 08:03 UTC

ATS unit

Terminal Control Geneva - TCG, Sector INS/E

Controllers

Radar controller Swiss citizen,
Year of birth 1951

Radar coordinator Canadian citizen,
Year of birth 1965

Airspace

C

1 Factual information

1.1 History of the flight

On Friday 24 February 2006, a Beechcraft 58P type aircraft, registration D-IIHS, was making a private IFR flight from Turin to Luxembourg. At 07:43 UTC, its pilot contacted Geneva INS control sector and was assigned a new transponder code. The aircraft was then identified and cleared to fly via waypoints MOLUS – PENDU, at flight level FL 200. For the next twenty minutes, no radiotelephony exchange took place between control and flight D-IIHS.

Control sector INS was combined with sector INE and, according to the statement by the duty radar controller, the workload in the sector was average to heavy: the management of numerous flights departing from Lyons required sustained attention in view of the complex procedures to be followed.

Just before 08:00, a Falcon 900EX operated by the Tag Aviation company, making ferry flight FPG 328, destination Moscow, took off from runway 05 in Geneva and followed the standard instrument departure (SID) route MOLUS 1 NOVEMBER.

At 08:00:16 UTC, when it had just passed waypoint PETAL, its commander reported to sector INE that the aircraft was climbing to flight level FL 150 on heading 050°. The radar controller cleared him to continue to flight level FL 180 and, in order to ensure separation from another aircraft, destination Zurich, requested him to continue on the heading. The route of aircraft FPG 328 was converging perpendicularly with that of aircraft D-IIHS.

At 08:01:29 UTC, FPG 328 was cleared to climb to flight level FL 240, a higher level than that maintained by D-IIHS, which had just passed MOLUS. At this moment, it was passing flight level FL 168 at an average rate of climb of 3600 ft/min and was 9 NM from this aircraft.

The radar coordinator stated that at the time his colleague gave this clearance to FPG 328, he was busy on the telephone coordinating with Lyons approach control. Once this was completed, he resumed traffic monitoring and very quickly became aware of the imminent conflict. He immediately reported it to the radar controller by pointing to it on the radar screen. He then suggested that he stop flight FPG 328's climb below the flight level of D-IIHS and turn it to the right. Taken by surprise and unsettled by this situation, the radar controller lost a little time before reacting.

At 08:02:21 UTC, when flight FPG 328 was passing flight level 192 in its climb and was 4.4 NM from D-IIHS, the radar controller, using the emergency phraseology, instructed it to stop its climb at flight level FL 190 and to make a right turn, but without specifying the radar heading to follow: *"Tag...three two eight, stop the... climb at level one...nine zero, and turn ri, immediately right."* At the same time, the short term conflict alert (STCA) was activated in the control sector. The pilot requested confirmation of this instruction and the radar controller replied by asking him to follow his TCAS traffic collision avoidance system.

The pilots stated that they had had TCAS information concerning traffic whose route was converging from right to left. Their onboard collision avoidance system issued a traffic advisory (TA) and then, about 5 seconds later, a "descend" resolution advisory (RA).

Meanwhile, flight FPG 328 had reached flight level FL 200. At 08:02:41 UTC, the co-pilot, who was pilot flying, made a right turn whilst initiating a descent. The commander was monitoring the TCAS indications and the airspace but was unable to establish visual contact with the threat.

The radar recordings show that 11 seconds later the aircraft was at flight level FL 192 and that it had therefore descended at an average rate of approximately 4000 ft/min. It then maintained flight level FL 193 and crossed the trajectory behind aircraft D-IIHS at 08:03:06 UTC. At this point the two aircraft had a lateral distance of 0.9 NM and an altitude difference of 700 ft.

The flight crew of flight FPG 328 did not report any resolution advisory to control.

The pilot of aircraft D-IIHS stated that instrument flight rules conditions prevailed in the region of MOLUS and that he had not noticed anything exceptional during his flight; his aircraft was not equipped with an onboard collision avoidance system.

1.2 SID - MOLUS 1 NOVEMBER departure route

(Ref. AIP Switzerland, LSGG AD 2.24.7 – 7).

Climb on R046 GVA. Proceed via PETAL to MOLUS. Cross PETAL at 5000 ft or above, MOLUS at FL 100 or above. Initial climb clearance FL 90.

1.3 Extracts from the ATMM TCG – Section ATC, General Working Methods and Working Methods

Tasks and responsibilities – radar controller (Radar Executive - RE) and radar coordinator (Radar Planner – RP)

The collective tasks (.....) are performed in close co-operation between the RE and RP controllers. However, RE primarily ensures the monitoring of the frequency(ies). RP primarily ensures co-ordination with other sectors or adjacent centres, and ensures the monitoring of any additional frequencies such as the emergency or UHF frequencies.

1.4 Working methods at the control position of the lower and upper sectors

The working methods and tools of air traffic control are not the same in the lower and upper sectors.

In the lower sectors – Terminal Control Geneva TCG – control is exercised according to the classic procedures: aircraft are displayed on the radar screen by labels and materialised by paper flight progress strips which the controller manages. They include “flight plan data” such as the estimated time of entry into the Geneva control area, the flight level and the aircraft’s route. They enable the traffic situation to be analysed and the progression to be planned. The controller updates them by writing on them the cleared flight levels, the radar headings given to pilots and any other action taken or information received; this data processing constitutes stripmarking.

Conflicts are detected by means of the scanning technique, which involves comparing the information entered on the strips with the positions of the aircraft on the radar screen. This operation is carried out in particular before any level change clearance is transmitted.

Since December 2005, air traffic control in the Geneva upper sectors – Upper Area Control UAC – has been carried out using the stripless system, i.e. without any paper flight progress strips. It shows an aircraft's "flight plan data" directly on its radar label. In addition, lists used to analyse and manage traffic are displayed in electronic windows on the radar screen. Stripmarking is replaced by management of these data using a computer mouse: for example, any new cleared flight level, instructed radar heading or assigned direct route is inserted directly into the radar label.

In order to help controllers detect and resolve potential conflicts between aircraft, electronic conflict detection tools have been incorporated. The risks of horizontal conflicts due to "flight plan data" incompatible with the current traffic are reported by the horizontal scanning tool – HST – whilst the dynamic scanning tool – DST – draws controllers' attention to conflict risks generated by a potentially conflicting instruction inserted into an aircraft's label. These detection tools warn the controller by opening an alert window on the radar screen and activating a visual alert on the radar label.

By combining the main control principle on the radar screen alone, the stripless system improves the conflict detection systematic. It also simplifies controllers' routine tasks and reduces the workload. The essential information concerning an aircraft is provided to all the sectors involved; coordinations take place essentially electronically.

1.5 Air traffic controllers' qualifications

At the time of the incident, there were two categories of controllers in the Geneva area control centre. On the one hand, those who held the "Area control with radar, Geneva" qualification, which authorised them to work in any of the lower – TCG – and upper – UAC – sectors; and on the other hand those who possessed a qualification specific to the TCG or UAC sectors only.

Controllers in the first category, which included the two controllers involved in the incident, were termed "versatile". They worked in series of several days in the TCG or UAC sector groups and thus switched frequently from a highly assisted control system to a classic system and vice versa.

The INS and INE sectors belong to the TCG group. The controllers stated that the availability of electronic conflict detection tools in these sectors would have made it possible to avoid this incident.

1.6 Air traffic controllers

1.6.1 The radar controller

The radar controller came on duty at 06:10 LT. At the time of the incident, he had occupied the position of radar controller in the combined ISN/INE sector for about thirty minutes.

Shortly after the incident, the controller was replaced at his workstation by the radar coordinator from the same sector.

He stated that he was unsettled by alternately working at the control positions of the TCG and UAC sectors, with very different working methods and tools each time.

1.6.2 The radar coordinator

On the day of the incident, the radar coordinator came on duty at 07:30 LT. He had occupied the position of radar coordinator in the combined INS/INE sector since he came on duty. According to his statements, the workload at the time of the incident was average.

1.7 Simulation TCAS

On the basis of the radar track recordings, EUROCONTROL's InCAS computer tool made it possible to reconstruct the trajectories of the aircraft involved in the incident and to simulate the alerts probably issued by the onboard collision avoidance system of the only aircraft equipped with it, the Dassault Falcon 900EX. The coherence of the results of this simulation must be verified with other information sources such as the flight crews' statements, the recording of the TCAS parameters, the S mode data, etc. Within the framework of this investigation, it was only possible to obtain the statements of the pilots of FPG328.

1.8 Meteorological conditions

Automatic Terminal Information Service - ATIS (Infonet data, Skyguide):

INFO PAPA RWY: IN USE 05 D 0549 N1739

GRASS RWY is IN OPERATION FOR VFR TRAFFIC
QAM LSGG 0750Z 24.02.2006
050 DEG 8 KT. VARYING BTN 020 AND 100 DEG
VIS 6 KM

CLOUD FEW 1500 FT. SCT 2500 FT. BKN 6000 FT.
+03/-01
QNH 1009 ZERO NINE

QFE THR 05 959

QFE THR 23 960

NOSIG

QAO-A1: 03h09Z FL180 150/020 FL240 160/040

2 Analysis

2.1 Air traffic control aspects

2.1.1 The radar controller

Up to the time of the incident, the Beechcraft 58P D-IIHS was flying on a route and at a flight level which did not pose any strategic problem or overall control problem. In this context, it represented traffic to which less attention could be paid, as on the one hand its ground speed was low in relation to other aircraft and on the other the management of numerous flights departing from Lyons demanded constant attention.

To prevent such traffic from being forgotten, the control technique consists of performing systematic scanning of aircraft on the radar screen and on the control strips before transmission of any clearance (see section 1.4).

However, the radar controller integrated FPG 328 into his traffic, taking account only of a separation which he had to ensure from an aircraft, destination Zurich, on which the Falcon 900EX would have converged if it had followed its assigned departure route. Then, having noticed that it was approaching its cleared flight level FL 180 at a high rate of climb, he wanted to avoid intermediate level off and cleared it directly to flight level FL 240, without taking the presence of D-IIHS into consideration. The fact that he did not include aircraft D-IIHS in his traffic management implies incomplete scanning.

For the radar controller, the fact that his colleague brought his attention to the potential conflict constitutes the first indication that the clearance he had just given to FPG 328 was inappropriate. This intervention provoked his reaction, which occurred at the same time as the STCA proximity alert; the instruction to stop the climb at a level 1000 feet lower than the conflicting traffic was given late, when the Falcon 900EX was too close to this level to avoid it. The instruction to turn right was an additional way of avoiding the dangerous convergence.

2.1.2 The radar coordinator

At the time the coordinator resumed traffic scanning he became aware of the conflict between flight FPG 328 and aircraft D-IIHS. He proposed to resolve the conflict by stopping the climb of flight FPG 328 below aircraft D-IIHS. Because of the very short time between the end of the telephone call with Lyons and resumption of scanning, he was probably not aware of the Falcon's very high rate of climb.

2.2 Flight management aspects

2.2.1 Flight FPG 328

The pilots stated that they had had TCAS information concerning traffic whose route was converging on their own from right to left. Their onboard collision avoidance system issued a traffic advisory and then, about 5 seconds later, a "descend" resolution advisory. The ACAS simulation provides trajectories consistent with these testimonies and the same alerts. However, their sequence exhibits a time shift of some ten seconds, due to the fact that the operations of the TCAS algorithms follow

a cycle which repeats at a nominal rate of once a second, whereas the radar data have a longer refresh time.

Analysis of all the data shows that for flight FPG 328, the traffic advisory, the instruction from the radar controller to stop the climb at flight level FL 190 and turn right and finally the "descend" resolution advisory are events which occurred within some fifteen seconds and which, as far as the first two are concerned, were probably simultaneous. At this point the aircraft was passing flight level FL 192 at a rate of climb of 3000 ft/min, thus slowing down the level acquisition manoeuvres and then the TCAS descent manoeuvres. Nevertheless, these were implemented correctly and rapidly; the radar recordings even indicate a slight right turn initiated at the end of the radar controller's instruction to obey the TCAS.

2.2.2 Aircraft D-IIHS

In this conflict dynamic with a high rate of convergence, the minimum vertical separation between the two aircraft would have been greater if D-IIHS had been equipped with an onboard collision avoidance system; the involvement of the TCAS would have been coordinated and the aircraft in level flight would have received a "climb" corrective resolution advisory, an action which would have reduced the risk of collision. The reduction in danger following a coordinated TCAS intervention is expressed in figures by the International Civil Aviation Organisation (ICAO): the collision avoidance logic is such that the predicted number of collisions is reduced by a factor of 4.5 if the intruder (D-IIHS) is equipped with ACAS and reacts to the alerts. Without such a reaction, however, the risk is 1.8 times higher if the intruder is not equipped with an onboard collision avoidance system.

In terms of flight management, this airprox incident raises the question of the requirement relating to equipping aircraft with onboard collision avoidance systems. Coordination of collision avoidance systems considerably reduces the risk of collision, on condition that the flight crews react appropriately to resolution advisories. The obligation to fit an aircraft with a TCAS system should depend not on its maximum take-off mass, number of passenger seats or type of operation but on the airspace in which it flies.

3 Conclusions

3.1 Findings

- The incident occurred 8 NM NNW of waypoint MOLUS, at flight level FL 200, in class C airspace.
- The incident occurred within the combined sectors INS/INE.
- At 08:02:21 UTC, the radar controller instructed flight FPG 328 to stop its climb at flight level FL 190 and to make a right turn.
- At 08:03:06 UTC, the radar recordings show that at the point of closest approach the two aircraft crossed with a lateral distance of 0.9 NM and an altitude difference of 700 ft.
- The Dassault Falcon 900EX (FPG 328) was equipped with an onboard collision avoidance system.
- The Raytheon Beechcraft 58P (D-IIHS) was not equipped with an onboard collision avoidance system.

- The flight crew of flight FPG 328 stated that they had received a TA traffic advisory followed 5 seconds later by a corrective “descend” RA resolution advisory.
- The radar controller was in possession of an appropriate licence, issued in 1973.
- The radar coordinator was in possession of an appropriate licence, issued in 2001.
- The radar controller stated that he had cleared flight FPG 328 to flight level FL 240 without taking the presence of flight D-IIHS into account.
- In the TCG sectors in which the incident occurred, radar control was performed by means of paper flight progress strips, without any electronic conflict detection tools.
- The controllers involved in the incident possessed the “Area control with radar, Geneva” qualification, which authorised them to work on both the lower sectors – TCG – and on the upper sectors – UAC.

3.2 Cause

The serious incident is due to the fact that ATC cleared an aircraft to climb through the flight level of another aircraft on a converging trajectory.

Factors which played a part in the evolution of the incident:

- The two controllers were working alternately using different methods.
- TCG sectors were not equipped with conflict detection tools of the type used in the upper sectors.
- The Raytheon Beechcraft 58P (D-IIHS) was not equipped with an onboard collision avoidance system.

4 Safety recommendation

4.1 Safety deficit

A Falcon 900EX, climbing to flight level FL 180, was converging on a Raytheon Beechcraft 58P which was cruising at flight level FL 200. The lower sector radar controller handling these aircraft cleared it to continue to flight level FL 240 without taking account of the presence of the aircraft on a converging trajectory. The conflict was quickly reported to him by the radar coordinator who suggested that he stop the Falcon 900EX at flight level FL 190 and turn it to the right. The radar controller complied but the two aircraft were now too close to avoid loss of separation. The Falcon 900EX, equipped with an onboard collision avoidance system, obeyed the controller’s instruction as well as the corrective “descend” resolution advisory issued at this point. The Raytheon Beechcraft 58P, which was not equipped with a TCAS, maintained its cruising level.

Only the Geneva upper sectors are equipped with conflict detection tools.

Some controllers are called upon to perform tasks in sectors which do not have working tools of the same type.

4.2 Safety recommendation No. 404

The Federal Office of Civil Aviation should ensure that Skyguide equips the ATM system with conflict detection tools.

4.3 Safety recommendation No. 378

In the investigation report on the serious incident on 28 May 2004 involving flight AZA 8TB and aircraft HB-GJN, safety recommendation No. 378 was issued:

“It is recommended that all aircraft flying in controlled airspace be equipped with an onboard collision avoidance system”.

Payerne, 27.03.2009

Aircraft Accident Investigation Bureau

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

Investigation into the **incident** that occurred on **24.02.2006**

- Subject of transcript: **FPG328 / DIIHS**
- Centre concerned: Swiss Radar Area West
- Designation of unit: Terminal Control Geneva, sector INI South / East
- Frequency / Channel: 128.9 MHz + 124.22 MHz
- Date and period (UTC) covered by attached extract: 24.02.2006
07:43 - 08:06 UTC
- Date of transcript: 09 March 2006
- Name of official in charge of transcription:

- 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, 09 March 2006

Abbreviations

Sector Designation of sector

INE - Terminal Control Geneva, sector INI South / East

<u>Aircraft</u>	-	<u>Callsign</u>	<u>Type of acft</u>	<u>Flight rules</u>	<u>ADEP</u>	-	<u>ADES</u>
328	-	FPG328	F900EX	IFR	LSGG	-	UUWW
DHS	-	DIIHS	BE58	IFR	LIMF	-	ELLX

DMO / 09 March 2006

TRANSCRIPT SHEET

Occurrence: FPG328 / DIIHS of 24.02.2006



To Col.1	From Col.2	Time Col.3	Communications Col.4	Observations Col.5
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Coupled Frequencies: 128.9 MHz & 124.22 MHz

INE	DHS	07:43:28	????? Swiss Radar, Delta India India Hotel Sierra, flight level two zero zero.	Unreadable
DHS	INE	32	Delta Hotel Sierra, good morning XXXXX, squawk now five seven six six.	Madam or Sir
INE	DHS	39	Five seven six six, is coming down, XXXXX.	Probably " Delta Hotel Sierra "
			_____	Sector in contact with: - MAH560 - AUA571F
DHS	INE	07:45:12	Delta Hotel Sierra, direct to MOLUS, PENDU next at two hundred.	
INE	DHS	17	XXXXX PENDU at two hundred, Delta Sierra, merci.	Could be " Next "
			_____	Sector in contact with: - RAE412XO - MAH560 - TCW9468 - DWT011 - AFR3472 - EZS9822 - HKY130 - ONG002 - BZH834 - EZS922 - BBO116 - BZH880
INE	328	08:00:16	Swiss, from Tag Aviation three two eight, bonjour, climbing flight level one five zero, heading zero five zero.	
328	INE	23	Bonjour, Tag three two eight, you're cleared to flight level one eight zero.	
INE	328	29	We climb to flight level one eight zero, three two eight.	

TRANSCRIPT SHEET

Occurrence: FPG328 / DIIHS of 24.02.2006



To Col.1	From Col.2	Time Col.3	Communications Col.4	Observations Col.5
				Sector in contact with: - BZH834 - BZH880 - EZS922
328	INE	08:01:29	Tag trois deux huit, montez au niveau deux quatre zéro.	
INE	328	33	On poursuit la montée vers le deux quatre zéro, deux cents... trois cents,pardon, Tag Aviation trois cents vingt- huit .	
				Sector in contact with: - AFR1102
328	INE	08:02:21	Tag... three two eight , stop the... climb at level one... nine zero and turn ri, immediately right.	
INE	328	29	We turn right immediately... Tag Aviation three two eight... we have... you confirm right ?	
328	INE	36	Follow TCAS.	
				Sector in contact with: - RAE412XO
INE	328	08:03:14	Ouais, pour Tag Aviation trois cents vingt-huit, vous aviez ce trafic au radar ?	
328	INE	17	Oui, affirme trois cents vingt-huit... c'est une erreur de notre part.	
INE	328	22	Ah...il est passé très près hein.	
328	INE	24	Oui, j'ai l'impression, oui.	
INE	328	25	Oui...deux nautiques je pense et même altitude.	
328	INE	28	Oui trois cents vingt-huit, merci.	

TRANSCRIPT SHEET

Occurrence: FPG328 / DIIHS of 24.02.2006



To Col.1	From Col.2	Time Col.3	Communications Col.4	Observations Col.5
328	INE	08:03:33	Trois cents vingt-huit, montez maintenant au niveau deux quatre zéro, vous pouvez virer sur KORED.	
INE	328	38	On monte deux quatre zéro sur KORED, trois cents vingt-huit.	
				Sector in contact with: - BZH880 - RAE412XO - BBO116 - AFR1102
INE	328	08:05:17	Oui, Tag... trois cents vingt-huit... pour Swiss.	
328	INE	20	Oui, je vous écoute.	
INE	328	22	Oui XXXXX, ben je vais déposer un... Airprox pour le... le trafic heu...donc... conflit à huit heure zéro trois Zulu.	" madam or sir "
328	INE	29	Oui, Tag trois vingt-huit... nous également, excusez nous.	
INE	328	34	Ah, ça peut arriver mais enfin là c'est... c'est vraiment passé très près quand même...	
328	INE	37	Oui, trois vingt-huit, merci... on fait également un rapport et vous appelez maintenant... Zurich... sur cent trente-trois zéro cinq, au revoir.	
INE	328	47	Cent trente-trois zéro cinq... trois vingt-huit... bonne journée.	
328	INE	50	Pareillement.	
DHS	INE	59	Delta Hotel Sierra, call Radar on... one...two four... two two... .. correction, one <u>three</u> four zero two.	
INE	DHS	08:06:13	One... <u>three</u> four zero two, Delta Hotel Sierra.	



△ KONIL

G230
DIIHS STCA NRV
G230 PDU200
1403
08:02:32
G229
200
08:02:24
G229
200
08:02:21

G347
FPG328 STCA RV
199 KOR240

G347
197
08:02:29
G347
194
08:02:25

4.4 NM
800 ft
75

G229
200
08:02:20
G228
200
08:01:56

G227
199
08:02:04
G218
202
08:01:39

G218
201
08:01:47

G217
202
08:01:23

G217
202
08:01:31

G217
201
08:01:07

G217
201
08:00:51

G217
201
08:00:59

G216
201
08:00:35

G217
201
08:00:43

G217
201
08:00:19

G216
201
08:00:27

G216
201
08:00:03

G217
201
08:00:11

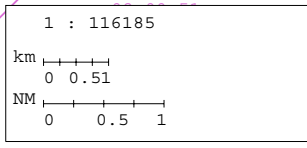
G217
201
07:59:55

G217
201

SPR VOR/DME

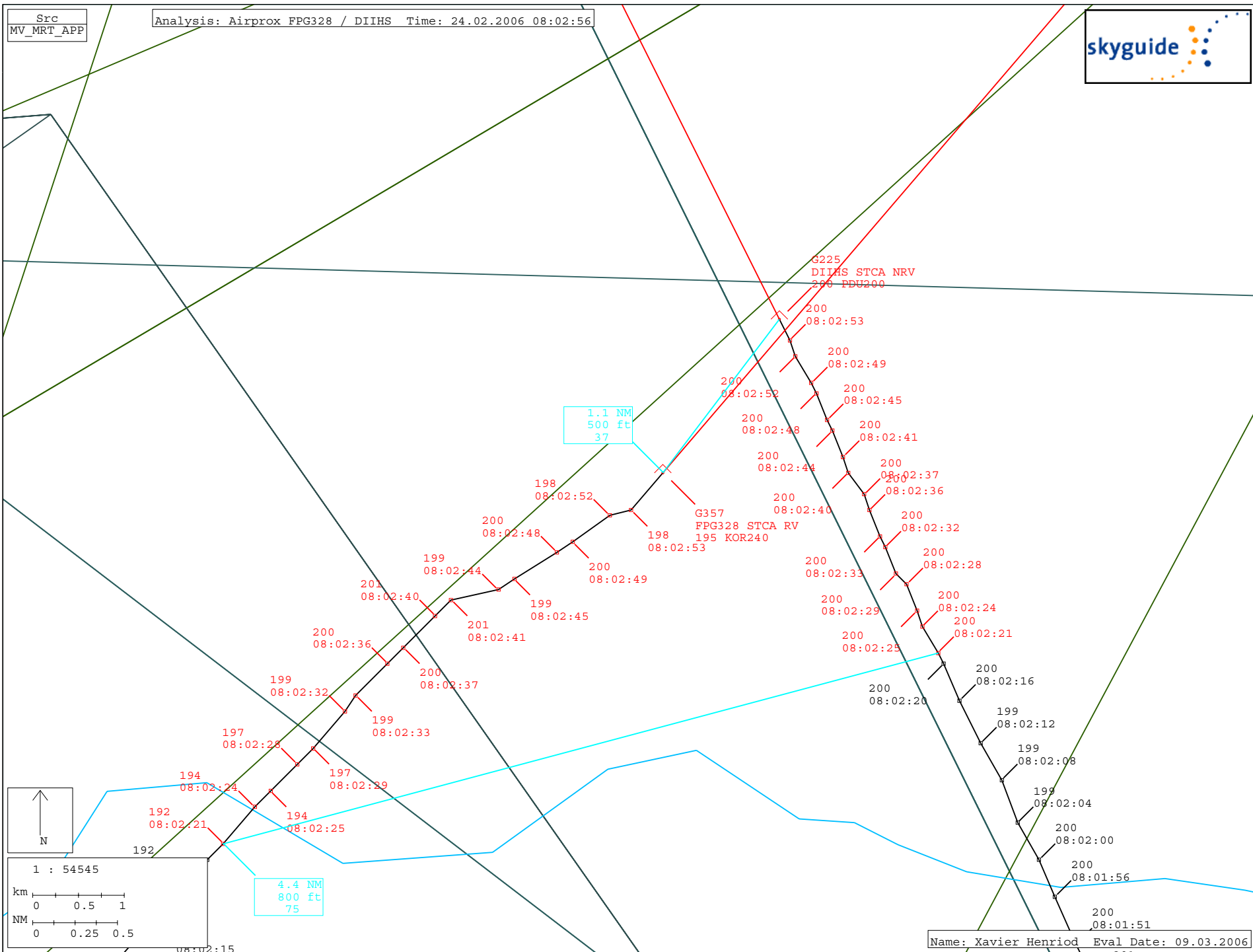
MOLUS

51
50512



Src
MV_MRT_APP

Analysis: Airprox FPG328 / DIIHS Time: 24.02.2006 08:02:56



Name: Xavier Henriod Eval Date: 09.03.2006

Src
MV_MRT_APP

Analysis: Airprox FPG328 / DIIHS Time: 24.02.2006 08:03:32

