

AIR ACCIDENTS INVESTIGATION
INSTITUTE
Beranových 130
199 01 PRAHA 99

Ref. No 135/05/ZZ

Copy No: 4

FINAL REPORT

**Investigation into separation infringement between
EEZ 1978 and OK-RMA.
at CTR/TMA LKPR
on 22th of April 2005**

Prague
September 2005

A) Introduction

Operator:	EUROFLY S.P.A.	/	Aeroklub Praha-Letňany
Call sign:	EEZ 1978	/	OK-RMA
Aircraft type:	A320	/	L 200 D Morava

Place of Incident: TMA II LKPR, VOR/DME landing approach for RWY 31 LKPR
on distance cca 6,2 NM from THR RWY 31.

Date: 22th of April 2005.

Time: 11:41 UTC (All times in this report are UTC).

B) Synopsis

On 22 April 2005 the Air Accident Investigation Institute of the Czech Republic, UZPLN, received a report on an incident (separation infringement) between a charter flight of Eurofly S.P.A. Airline Comp., Airplane type A320, call sign EEZ 1978 and an airplane registered to Aeroklub Praha-Letňany, type L 200 D Morava, call sign OK-RMA.

In accordance with the standards set in ICAO Annex 13, the Czech Republic was the State of Occurrence and AAI carried out the investigation.

Investigator in charge:	Ing. Radomír Havíř AAI Czech Republic
Member:	Ing. Josef Procházka AAI Czech Republic
	Pavel Prošek, ANS Czech Republic
	Milan Zikmund ANS Czech Republic

The Final report was released by:

ÚSTAV PRO ODBORNĚ TECHNICKÉ ZJIŠŤOVÁNÍ PŘÍČIN LETECKÝCH NEHOD
Beranových 130
199 01 PRAHA 99

On the 7th of September 2005.

C) The Final report includes the following main parts:

- 1) Factual information
- 2) Analysis
- 3) Conclusions
- 4) Safety recommendation
- 5) Annexes (to copy No.1 stored in UZPLN archive)

1 Factual information

1.1 History of the incident

On 22 April 2005, PIC of the L 200 D Morava airplane, register mark OK RMA, flew from Praha-Letňany Airport (LKLТ) to take aerial photographs of the Prague region. The flight over the Prague centre as defined in AIC no.A11/95 was allowed by respective authorities (Approval no.6 by Civil Aviation Authority, ÚCL).

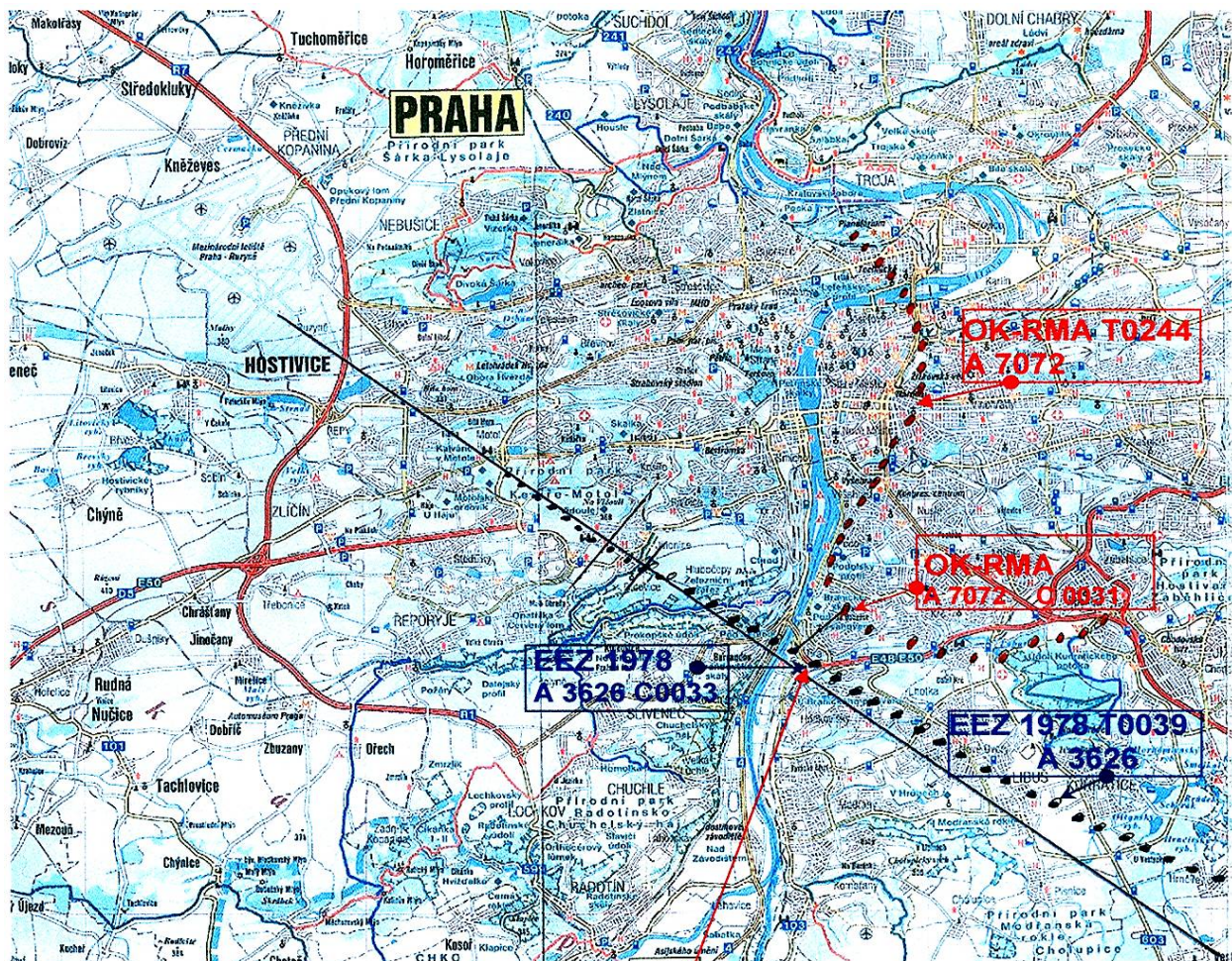
After takeoff from LKLТ the PIC OK-RMA contacted TEC LKKB on frequency 120.875 MHz requesting to climb to 2,500 ft ALT and fly toward the Prague centre.

After being cleared by TEC LKKB, the PIC OK-RMA commenced to climb to 2,500 ft ALT. At the border of MTMA LKKB airspace, instructed by TEC LKKB, he tuned in to frequency 118.300 MHz Ruzyně Radar on which he reported his working plan.

After flying round the city centre, the PIC OK-RMA requested of IEC APP Praha to be cleared to climb up to 3,500 ft ALT and continue south, east of the Vltava river.

At the same time the crew of a charter flight EEZ 1978 VOR/DME began landing approach for RWY 31 LKPR.

At about 6.2 NM from THR RWY 31 it came to lowering minimums of separations set between EEZ 1978 and OK-RMAo 0.87 NM horizontally and 200 ft vertically.



1.2 Injuries to persons

NIL

1.3 Aircraft damage

There was no damage to the aircraft.

1.4 Other damage

There was no other damage.

1.5 Personnel information

1.5.1 PIC EEZ 1978

The competent office in Italy did not send details about the EEZ 1978 crew.

1.5.2 PIC OK-RMA

PIC: age 22 years, valid PPL holder, valid SEP, MEP, NIGHT class rating, 1st class medical certificate, he had 570 flown hours.

1.5.3 Personnel information ATCO

Job function		IEC APP Praha
Age		39
Day on duty		1
Duty duration (hours)	from beginning of workshift (including breaks)	6:42
	From the latest duty rotation	1:42
Practice (years)		11
Qualification good till		20.4.2006
Latest qualification training		18.5.2004

1.6 Information about aircraft

1.6.1. EEZ 1978

Aircraft type: A 320
Registration: I-EEZH
Manufacturer: Airbus Industrie, France

1.6.2. OK-RMA

Aircraft type: L 200 Morava D
Registration: OK-RMA
Manufacturer: Strojírny první pětiletky n.p. Kunovice

1.7 Meteorological information

According to the ČHMÚ meteorological service the conditions at Praha/Ruzyně Airport on 5 October 2004 at the time of EZY 6503 landing were as follows:

Ground wind: 340° / 7-8 kts,
Visibility: CAVOK
QNH: 1016 HPa,

1.8 Radio navigation and visual aids

ILS RWY 31 was out of service due to construction work at LKPR (see NOTAM A0277/05).

1.9 Communications

Communications between the EEZ 1978 crew and flight service stations were on frequencies 127.575 MHz Praha Radar and 118.100 MHz Ruzyně TWR. Communications were legible.

Communications between OK-RMA crew and flight service stations were on frequencies 120.875 MHz Kbely TWR and 118.300 MHz Ruzyně Radar. Communications were legible.

1.9.1 General procedures for air traffic services

Procedures for flight services for EEZ 1978 and OK RMA at the time of incident were in agreement with airspace class C where all IFR and VFR flights are provided with air traffic control service. IFR flights are provided with separations from VFR flights.

1.10 Aerodrome information

At the Praha/Ruzyně Airport, RWY 31 was in use for takeoffs and landings at the time of incident and VOR/DME approaching procedures were applied according to AIP ČR AD 2-37-9.

1.11 Flight recorders

Flight recorders were not used. The incident reconstruction was made using the radar information record and ATCO communications at APP Praha and TWR Praha-Ruzyně.

1.12 Description of incident site

The incident took place on the VOR/DME approach centre line for RWY 31 cca 6.2 NM from THR RWY 31.

1.13 Medical and pathological information

NIL

1.14 Fire

NIL

1.15 Survival aspects

NIL

1.16 Tests and research

NIL

1.17 Organizational and management information

NIL

1.18 Additional information

NIL

1.19 Useful or effective investigation techniques

The incident has been investigated in accordance with Annex 13.

2 Analysis

The analysis concerned the activities of EEZ 1978 and OK-RMA crews, operational procedures, radio communication, and ATCO work.

2.1 The crew of EEZ 1978

The crew received the instruction from AEC APP Praha to execute VOR/DME approach for RWY 31 and reported the plane was established on radial 120° VOR OKL. After tuning in to frequency 118.100 MHz Ruzyně TWR the EEZ crew obtained the instruction from TEC LKPR to continue approach which the crew acknowledged.

Then the EEZ 1978 crew obtained information from TEC LKPR about an important operation. The EEZ 1978 crew reported it was making a manoeuvre to avoid the operation according to ACAS RA which was in the close vicinity at the same ALT.

After finishing the avoidance manoeuvre the EEZ 1978 crew continued the approach.

2.2 The crew of OK-RMA

The OK-RMA PIC was rated for the type and was airworthy.

In order to take aerial photos over Prague, the PIC climbed from LKLT Airport up to 2,500 ft ALT on coordination with TEC LKKB. After flying around the city centre, the pilot asked IEC APP Praha for clearance to fly south (east of the Vltava river) and climb to 3,500 ft ALT, which he obtained.

The PIC had visual contact with a descending transport aircraft executing approach for LKPR RWY 31. Based on the instruction from IEC APP Praha, PIC commenced to descend to 2,500 ft ALT.

2.3 IEC APP Praha Control Procedures

IEC Praha had a required qualification and was qualified to do the job. IEC APP Praha, after coordination with TEC LKKB, cleared OK-RMA to fly at 2,500 ft ALT in airspace CTR Praha-Ruzyně and airspace MCTR Praha-Kbely, falling in Class D airspace.

OK-RMA PIC's request to climb to 3,500 ft ALT and consequently to enter TMA II Praha (Class C airspace) was not coordinated between IEC APP Praha and AEC APP Praha.

IEC APP Praha gave OK-RMA PIC incomplete information on the important operation, "we have descent onto 31" and asked for more information about OK-RMA activity.

On receiving information from PIC OK-RMA (left turn east of Vltava river), IEC APP Praha issued the instruction to descend down to 2,500 ft ALT. The clearance issued contravened the set separation from EEZ 1978 executing VOR/DME approach for RWY 31.

3 Conclusions

3.1 EEZ 1978

- The crew acted in accordance with valid procedures;

3.1.2 OK-RMA

- PIC had proper qualification and was airworthy;
- PIC acted in accordance with the flight clearances issued.

3.1.3 IEC APP

- had proper qualification and skill;
- when OK-RMA was cleared to climb to 3,500 ft ALT, he did not take into account the corresponding change of airspace class in TMA II LKPR from D to C and different services provided (providing IFR flights with separations needed with respect to VFR flights);
- he did not take into account that the supposed OK-RMA trajectory would intersect the EEZ 1978 flight trajectory and he did not assured the separation determined;
- he did not coordinated with AEC APP Praha the change in OK-RMA altitude;
- he gave OK-RMA flight incomplete information about important traffic.

3.2 The Causes

In issuing OK-RMA with clearance to change the altitude, IEC APP Praha did not take into account the change in airspace class and did not assured the set separation between IFR flights and VFR flights.

The event is classified as a **Serious incident/Near collision, runway incursion when avoiding action was necessary**. From the gravity point of view the event is classified as **“Serious Incident/Rare A 4”**.

4 Safety recommendation

I leave it in the competency of ANS Czech Republic State-Owned Comp.

Prague, 7th of September 2005