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MINISTÉRIO DAS OBRAS PÚBLICAS, TRANSPORTES E COMUNICAÇÕES
GABINETE DE PREVENÇÃO E INVESTIGAÇÃO DE ACIDENTES COM AERONAVES

AIRCRAFT INCIDENT SUMMARY REPORT

In accordance with Annex 13 to the International Civil Aviation Organisation Convention, Chicago 1944, Council Directive 94/56/EC, 21st NOV 1994, and article 11th n° 3 of Decree-Law n° 318/99, 11th AUG 1999, the sole purpose of this investigation is to prevent aviation accidents. It is not the purpose of any such accident investigation and the associated investigation report to apportion blame or liability.

| | |
|--|---------------------------------|
| Date/Time: 2009 - 07 - 24 @ 16:27 UTC ¹ | Proc. Nr.: 12 / SUM / 09 |
| Operator: Unknown | Type of Incid.: ATM |
| Id. of aircraft: Cessna 182, Reg. EC-JSZ | |
| Local: Oporto TMA | |
| Type of flight: GA, Pleasure | Phase of flight: Enroute |
| People on board: Crew- 2 Pax- Nil | Injuries: Nil |
| Aircraft Damage: Nil | |
| Synopsis: Controlled airspace invasion from a Cessna 182 aircraft, registration EC-JSZ, departing from Maia – Vilar da Luz (LPVL) aerodrome, which didn't follow established procedures and climbed to FL090, without clearance, inside Oporto TMA. After detected by radar controller and instructions to leave controlled airspace were issued, the aircraft returned to LPVL, proceeding later to its intended destination. | |

1. Factual Information

1.1 History of the Flight

On the 24th of July 2009, there was an aeronautical get-together event going on at Maia aerodrome (LPVL), Vilar da Luz, with several Spanish aircrafts taking part. After the event the participants would proceed to their home aerodromes.

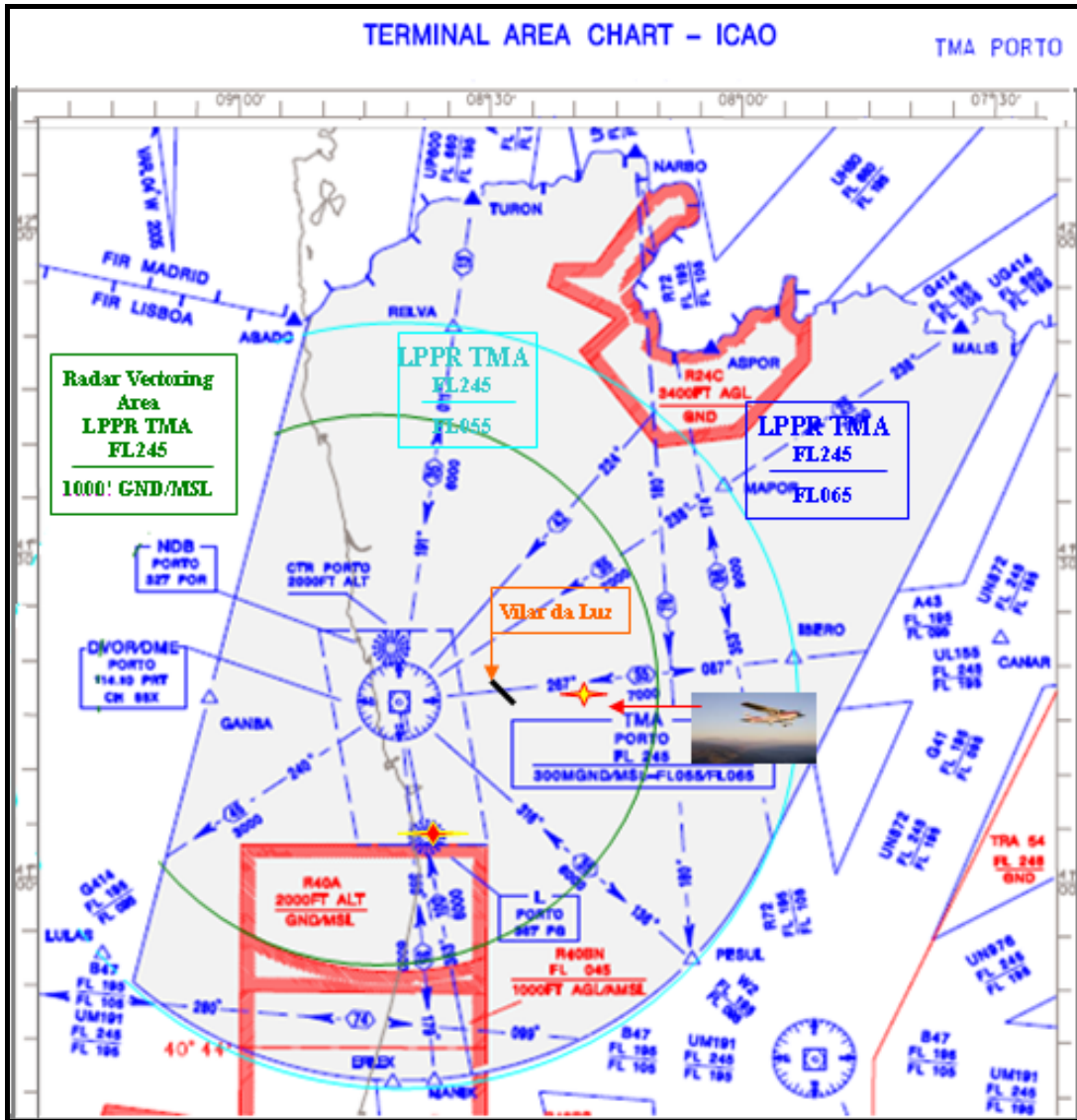
Cessna 182 aircraft, registration EC-JSZ was one of the participating aircrafts and should return to Lugo aerodrome (LERO).

After airborne from Vilar da Luz, by 16:21, the pilot contacted with Oporto Approach Control (LPPR APP), receiving an SSR code (A4775) to be displayed on “transponder” for aircraft radar identification. Only after identified it would be possible for the controller to issue other flight instructions and transmit respective “clearance”.

Six minutes after first contact, without radar contact, the controller questioned the pilot about his position and he answered saying he was crossing FL060, altitude he was not cleared to and it was part of a controlled area (LPPR TMA).

When it was radar identified, the aircraft EC-JSZ was at FL090, on radial 090° and 18NM (DME) from “PRT” (picture nr. 1).

¹ - All times referred in this report, unless stated different, are UTC (Universal Time Coordinated) times. That date, in Portugal, local time was equal to UTC + 1.



Picture Nr. 1

By that time the other traffic in the area was a commercial transport flight at Initial Approach Fix (IAF) for runway 35 of Sá Carneiro airport (LPPR), at an altitude of 4000' (AMSL), constituting no conflicting traffic.

After being instructed to leave controlled airspace, the pilot returned to Vilar da Luz aerodrome, departing later (17:32) to his destination (LERO).

Once on the ground, at Vilar da Luz, the pilot called Oporto Tower Controller and justified its behaviour saying that he entered in clouds at 2000', after airborne, he became a bit disorientated and tried to go out of clouds, in order to keep VFR conditions.

1.2 Research

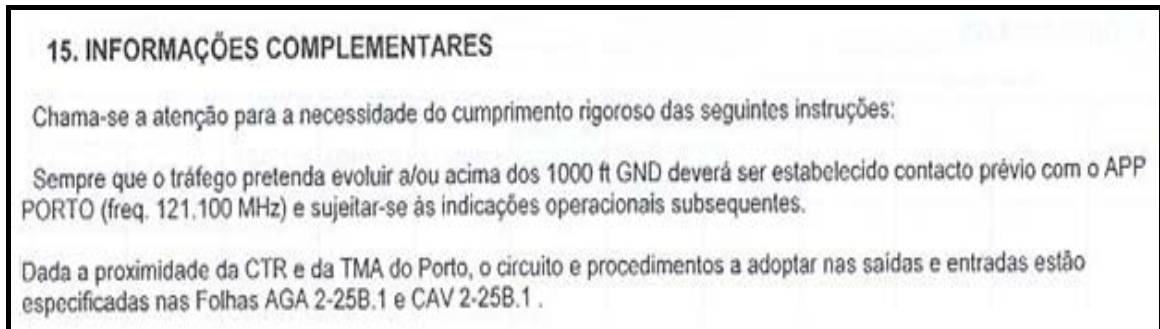
The proximity of Oporto airport and the need to grant safety aircraft operations, brings several restrictions to VFR traffic from Maia –Vilar da Luz aerodrome, even with the modification introduced to LPPR CTR, cutting the circle to the east of the airport, in order to let LPVL outside the CTR.

However, the aerodrome seats inside LPPR radar vectoring area (a 25NM radius from PRP), TMA lower limit, in that zone, being 1000' above ground. Only further those 25NM the lower limit increases to FL055, until 35NM, and FL065, after that limit.

For that reason, some special procedures were introduced for all aircraft flying from/to Vilar da Luz aerodrome, becoming mandatory the use of ATC Transponder and contacting with LPPR approach control (LPPR APP), anytime a VFR flight needs to fly higher then 1000' above ground.

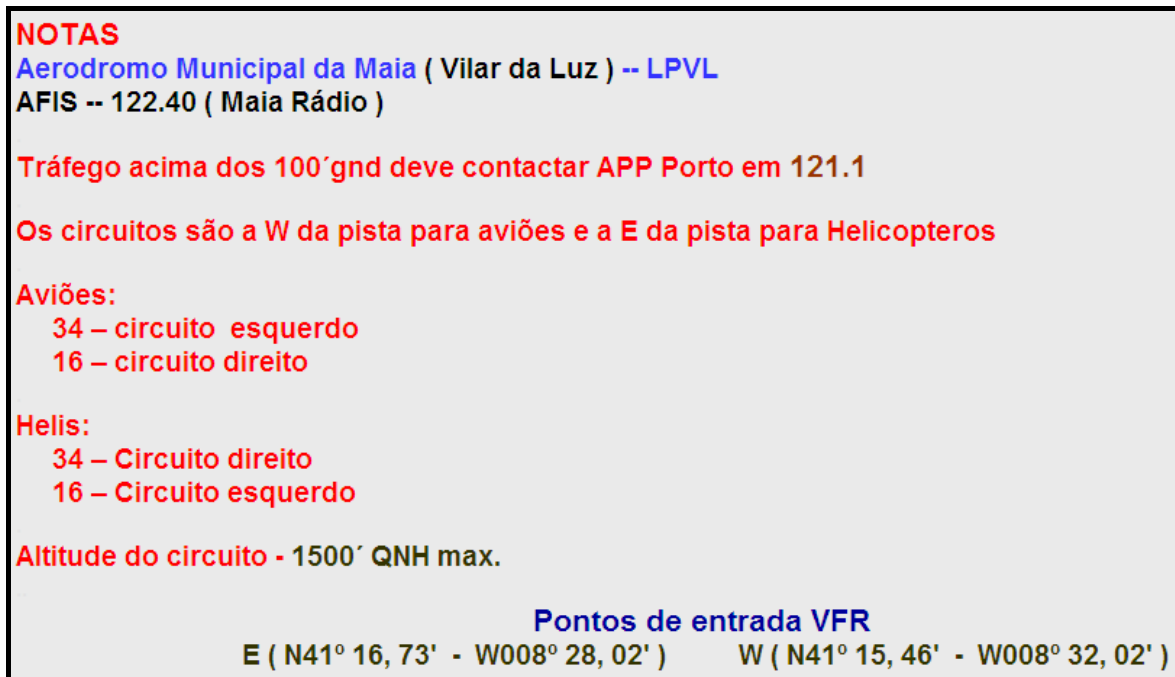
Those procedures to be followed are written in Portuguese Civil Pilot Manual (MPC), on section aerodromes (AGA) and are reproduced in Annex "A" to this report.

Special importance is dedicated to the necessity to contact LPPR APP, as seen on LPVL aerodrome page, complementary information (*picture nr.2*).



Picture Nr. 2

Besides MPC, the "Roteiro das Pistas de Portugal", issued by APPLA, with collaboration of BP and present in Pelicano Web page (http://www.pelicano.com.pt/zp_maia.html) emphasizes the need to contact with Oporto Approach Control and follow the flight paths and entry/exit procedures approved for that aerodrome (*picture nr. 3*).



Picture Nr. 3

According such procedures, all aircraft wishing to fly higher then 1000' GND should maintain 1500' MSL and contact LPPR APP on 121.100 MHz, be equipped with ATC Transponder, with mode C and display an SSR code, following controller instructions until out of controlled airspace.

For approaching traffic to LPVL it must join entry points "E" & "W" at 1500'MSL and proceed to the aerodrome circuit, as described in MPC (AGA 2-25B.1 & CAV 2-25B.1), shown in Annex "A".

2. Analysis

For an aircraft to enter controlled airspace, it's mandatory to have an ATC Transponder installed and display an SSR code.

The aircraft EC-JSZ was equipped with "transponder" and the pilot copied an SSR code (A4775) to be inserted on the equipment, being the controller on standby for the flight to be identified, prior to transmit necessary complementary instructions for the flight.

EC-JSZ pilot was not familiar with local procedures in force at the aerodrome, he didn't insert the code promptly and he didn't wait for ATC clearance to penetrate in TMA.

There was not a traffic conflict because, at that time, there were no more aircrafts flying in that sector, one of the most used by Oporto incoming traffic from Northern Europe.

According year 2009 NAV occurrence reports, until that day, three LPPR TMA incursions have been registered, regarding LPVL traffic, being two of them from foreign registered aircraft.

3. Conclusions

Aircraft Cessna 182, Spanish registration EC-JSZ was involved in a flight to which it has been cleared, having aboard a qualified crew.

After take-off from LPVL the pilot contacted Oporto Approach Control, as established by regulations, but didn't comply with other procedures, entering controlled airspace, without clearance and radar identification.

When questioned about such behaviour, he referred that he was trying to maintain VFR conditions, relating separation from clouds, without clarifying if he was aware of the infringement of local procedures and the rules of the air.

No conflict of traffic was registered because there was no other traffic in that sector, by that time.

The Investigator:

2009 / 12 / 11



ACRÓNIMOS / ACRONYMS

| Português | ITEM | English |
|---------------------------------------|--------------|---|
| Acima do Nível Médio do Mar | AMSL | Above Mean Sea Level |
| Assoc. Portug. Pilotos de Linha Aérea | APPLA | Portuguese Airline Pilot's Association |
| Gestão do Tráfego Aéreo | ATM | Air Traffic Management |
| Empresa de Combustíveis | BP | British Petroleum |
| Região de Controlo de Tráfego Aéreo | CTR | Control Traffic Region |
| Equipamento de Medida de Distância | DME | Distance Measurement Equipment |
| Nível de Voo | FL | Flight Level |
| Aviação Geral | GA | General Aviation |
| Solo | GND | Ground |
| Manual do Piloto Civil | MPC | Portuguese Civil Pilot Manual |
| Nível Médio do Mar | MSL | Mean Sea Level |
| Empresa de Navegação Aérea | NAV | Portuguese Navigation Services Provider |
| Milha Náutica | NM | Nautical Mile |
| Indicativo de rádio ajuda | PRT | Code for Navigation Aid (Porto) |
| Radar Secundário | SSR | Secondary Surveillance Radar |
| Área Terminal de Controlo | TMA | Terminal Control Area |
| Regras de Voo Visual | VFR | Visual Flight Rules |

