Preliminary Report

CLASSIFICATION: ~~Accident~~/Incident

OCCURRENCE FILING INFORMATION:

- File Number: BAAI/13042023

- Responsible entity: Bureau of Air Accident Investigation

- Occurrence status: Investigation ongoing

WHEN:

- Date: 13th April 2023

- Local time: 1536hrs

- UTC: 1336hrs

STATE OF OCCURRENCE: MALTA

- Location: Malta International Airport (LMML)

- Latitude: 35°51'27.15N

- Longitude: 014°28'38.78E

SEVERITY OF DAMAGE:

- Highest damage to aircraft: Minor

- Third Party Damage: None

INJURIES:

- Fatalities: None
- Serious: None
- Minor: None
- None: 191

REPORT:

- Investigating entity: Bureau of Air Accident Investigation
- Investigation type.   ICAO Annex 13 investigation
- Investigation delegated: No
- Final report Date: N/A

ORGANIZATIONS/ENTITIES/PEOPLE INFORMED:

1. ICAO (INT)
2. EASA (EU)
3. European Commission (EU)
4. NTSB (US)
5. Boeing (US)
6. TM-CAD (MT)

AIRCRAFT DETAILS:

- Registration: 9H-VVH
- State of Registry: Malta
- Flight Number: FR9657
- Manufacturer: The Boeing Company
- Model: 737-8200
- Year built: 2022

- Serial Number: 62342

- Aircraft category: Part 25 certified

- Propulsion type: turbine

- Engine manufacturer: CFM International

- Number of engines: 2

- Maximum takeoff mass: 76,200kg

- Actual takeoff mass: 73,712kg

- Maximum landing mass: 68,174kg

- Actual landing mass: --

AIRCRAFT OPERATOR:

- Operator: Malta Air

- State of operator: Malta

- State of registration: Malta

- Type of operation: Airline

FLIGHT/MOVEMENT DETAILS:

- Last departure: Malta International Airport, Malta (LMML)

- Planned destination: Riga International Airport, Latvia (EVRA)

- Actual landing airport: LMML

- Flight phase of occurrence: Take-off

NARRATIVE:

The aircraft suffered a tail strike on rotation during take-off from RWY 31.   The crew reported that they continued the take-off and climbed to 5,500 ft before joining the hold at TIVOR (IAF RWY 31) to burn fuel and returning to land on RWY 31. The aircraft landed 38 minutes after take-off without further incident.

The weather report provided by the airline to the crew prior to departure was:

SA 130945Z 23016KT CAVOK 21/12 **Q1009** NOSIG
FT 130500Z 1306/1406 21005KT CAVOK
BECMG 1309/1312 21015KT
BECMG 1315/1318 29015KT 9999 FEW020

The crew reported that the weather copied from ATIS (Information 'V') was CAVOK, wind 230° / 20kts and that the runway was dry. The wind reported by Tower during the take-off clearance was 230° / 12kts.

On inspection, the tail skid of the aircraft showed evidence of a tail strike. The tail cartridge was found to be compressed, with the fuse pin intact. The operator reported that the aircraft suffered no structural damage.

A strike mark with the colour corresponding to that of the aircraft was found on the centerline of RWY 31 just beyond the intersection with TWY F. The crew reported that the take-off had been initiated at the intersection with TWY C.

The investigation is ongoing and has, to date, focused on the gathering and analysis of data and evidence. The CVR and DFDR have been sent for data download and analysis.
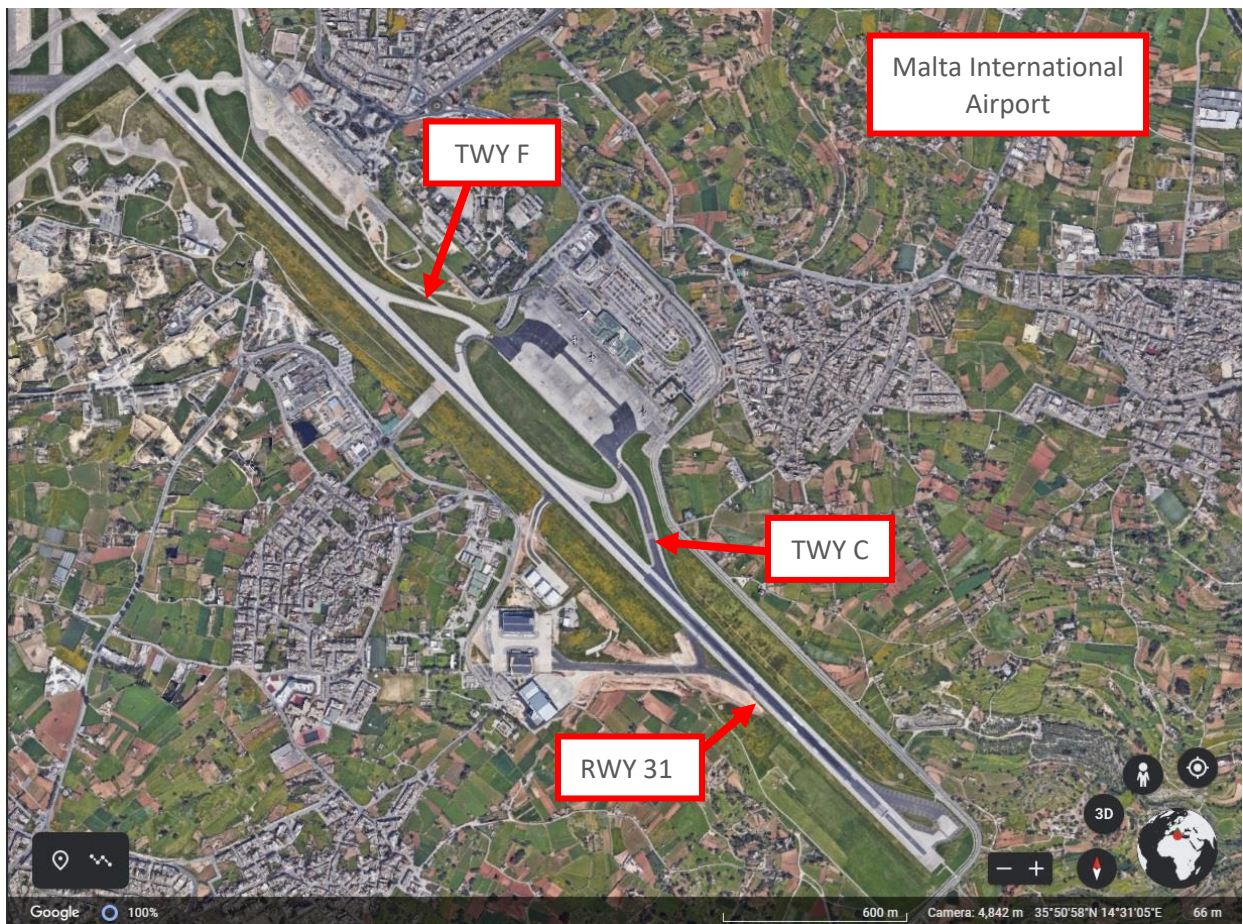

Figure 1: RWY 31 at LMML, showing TWY C and TWY F. (Source: Google Earth)
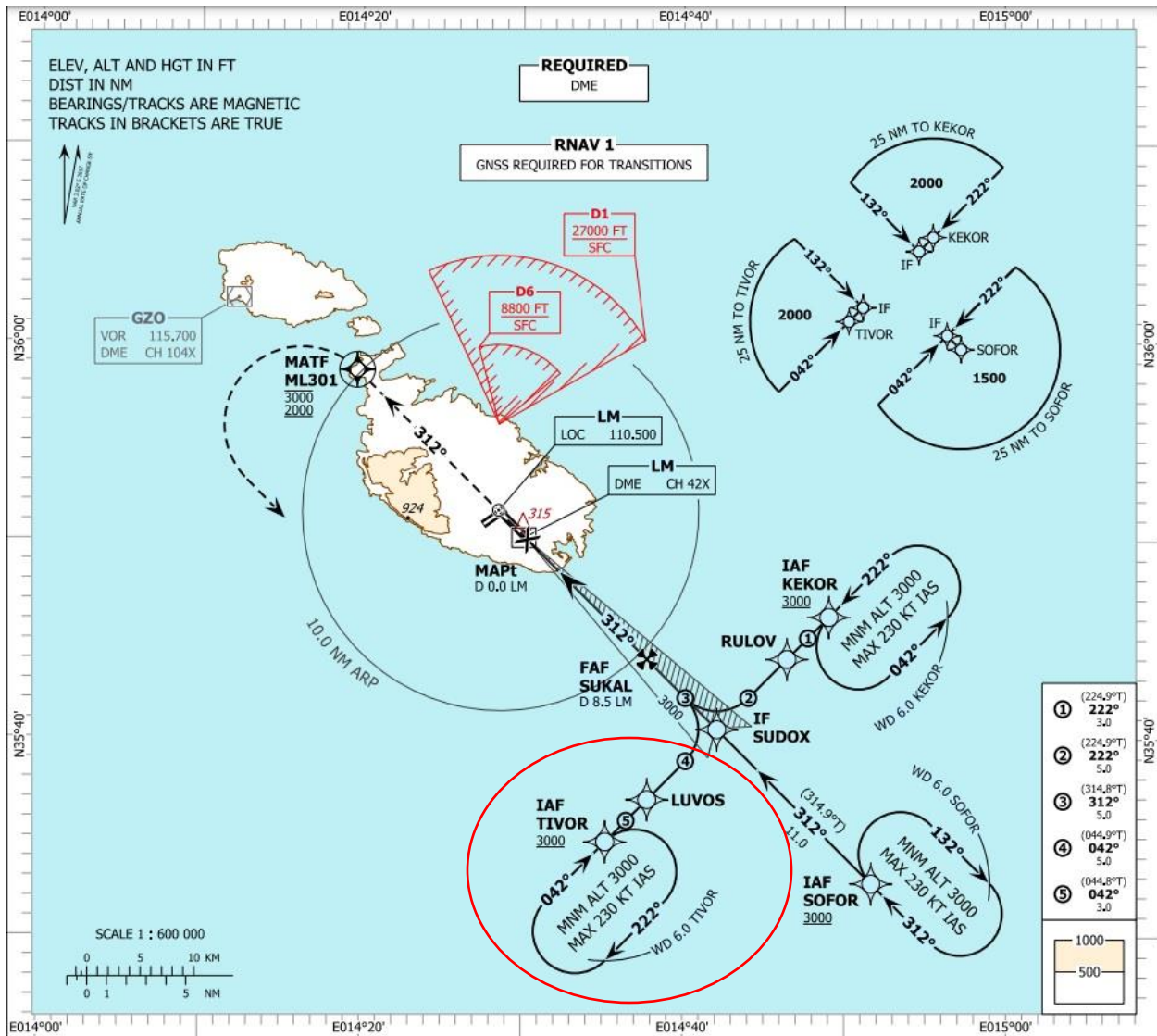
Figure 2: The Instrument approach to RWY 31 at LMML, showing IAF TIVOR (Source: Malta AIP).

ABBREVIATIONS:

ATIS	Automatic Terminal Information Service
BAAI	Bureau of Air Accident Investigation
CAVOK	Cloud and Visibility OK
	(no cloud below 5,500ft; visibility more than 10km; no significant weather at or in the vicinity of the aerodrome)
CVR	Cockpit Voice Recorder
DFDR	Digital Flight Data Recorder
EASA	European Union Aviation Safety Agency
EU	European Union
EVRA	ICAO code for Riga International Airport, Latvia
IAF	Initial Approach Fix
ICAO	International Civil Aviation Organization
INT	International
LMML	ICAO code for Luqa Aerodrome (Malta International Airport)
MT	Malta
N/A	Not Applicable
NTSB	National Transportation Safety Board
RWY	Runway
TIVOR	Waypoint name (IAF RWY 31, LMML).
TM-CAD	Transport Malta – Civil Aviation Directorate
TWY	Taxiway
US	United States
UTC	Universal Coordinated Time