



# **FINAL REPORT**

## **AIRCRAFT INCIDENT**

### **FLY SOUTHERN (PVT) LTD CESSNA 172N, 4R-FSA RUNWAY EXCURSION AT RUNWAY 22 COLOMBO INTERNATIONAL AIRPORT - RATMALANA, ON 01<sup>ST</sup> NOVEMBER 2023**

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## ABBREVIATIONS AND DEFINITIONS

AAIB	- Aircraft Accident Investigation Board
AASL	- Airport and Aviation Services (Sri Lanka) (Private) Limited
AIP	- Aeronautical Information Publication
AMSL	- Above Mean Sea Level
AOC	- Airline Operator Certificate
ATC	- Air Traffic Controller
CAASL	- Civil Aviation Authority of Sri Lanka
C of A	- Certificate of Airworthiness
C of R	- Certificate of Registration
CVR	- Cockpit Voice Recorder
DGCA	- Director General of Civil Aviation
DMI	- Deferred Maintenance Item
FDR	- Flight Data Recorder
FL	- Flight Level
ft	- Feet
IATA	- International Air Transport Association
ICAO	- International Civil Aviation Organization
LT	- Local Time
METAR	- Meteorological Aerodrome Report
MOR	- Mandatory Occurrence Report
MSN	- Manufacturers' Serial Number
NOTAM	- Notices to Airmen
PIC	- Pilot In Command
PPL	- Private Pilot License
RMA	- Colombo International Airport, Ratmalana
RWY	- Runway
UTC	- Coordinated Universal Time
VHF	- Very high frequency

	<p>FINAL REPORT- FLY SOUTHERN (PVT) LTD CESSNA 172N, 4R-FSA RUNWAY EXCURSION INCIDENT AT RUNWAY 22, COLOMBO INTERNATIONAL AIRPORT, RATMALANA ON 01<sup>ST</sup> NOVEMBER 2023</p>	<p>iii</p>
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## SYNOPSIS

On 1<sup>st</sup> November 2023, Cessna 172N aircraft, bearing registration 4R-FSA was being operated by Fly Southern (Pvt) Ltd, took-off from Colombo International Airport, Ratmalana (RMA) for a training flight as a first solo mission of the student pilot who was the Pilot in Command (PIC) during the incident. Aircraft made a safe touchdown on runway 22 (RWY 22) and during landing roll aircraft veered off to the right side of the runway and stopped on right side grass patch of RWY 22.

The incident was notified to the Civil Aviation Authority of Sri Lanka (CAASL) by Fly Southern (Pvt) Ltd, on 1<sup>st</sup> November 2023 via telephone call first and subsequently through a Mandatory Occurrence Report (MOR), which was received by CAASL.


Therefore, the CAASL, appointed an Aircraft Accident Investigation Board (AAIB) on 02<sup>nd</sup> November 2023, to investigate this incident as per the provisions of Section 56 of Civil Aviation Act No 14 of 2010.

The report is based upon the investigation carried out by the AAIB in accordance with Annex 13 to the Convention on International Civil Aviation Organization (ICAO) and the Sri Lanka Civil Aviation Act, No. 14 of 2010.



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## 1 FACTUAL INFORMATION

### 1.1 History of Flight

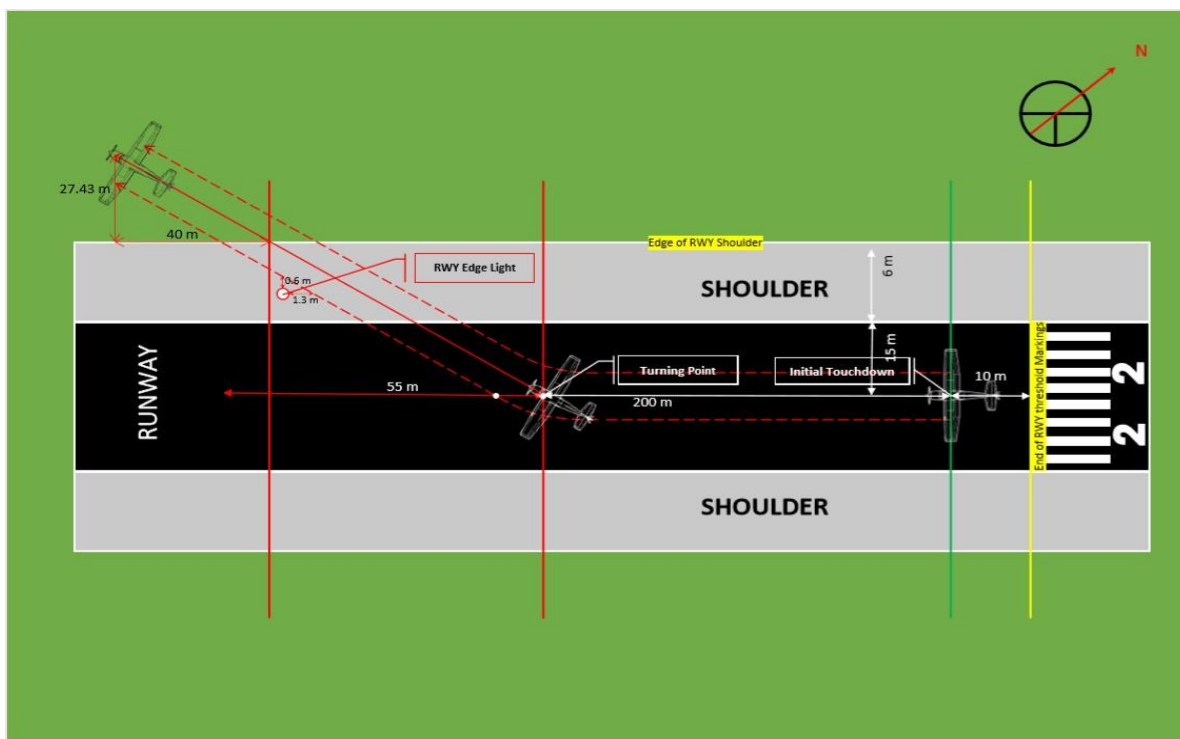
On 1<sup>st</sup> November 2023, Cessna 172N aircraft bearing registration 4R-FSA, MSN 17268555 was being operated by Fly Southern (Pvt) Ltd, for flying training from RMA. The 4R-FSA aircraft was released by their maintenance staff with nil defect and also there was no defect during last six months period, as per the technical logs. The aircraft was in satisfactory and airworthy condition for flight.

PIC was a student pilot on his first solo flight. On 1<sup>st</sup> November 2023, student pilot has carried out two training flights with his instructor (dual flights) at 0815 hrs (Local Time) to 0915 hrs (Local Time) with eight (08) landings and a second flight with the same instructor and the same aircraft (4R-FSA) at 1030 hrs (Local Time) to 1105 hrs (Local Time) with three (03) landings. The instructor was satisfied with the student's performances and therefore, students was authorized to fly his solo flight.

The student obtained the taxi clearance from the ATC tower and taxied the aircraft to the holding point and carried out the engine power checks. Then he got the line-up and take-off clearances and aircraft took-off at approximately 1114 hrs LT (0544 UTC) for one circuit solo flight. Safe take-off was carried out and student continued on circuit pattern. On final, ATC clearance was obtained for landing and student carried out a safe touchdown on centerline of the RWY 22 approximately at 1120 hrs LT (0550 UTC).

During the landing roll student felt that the aircraft tend to yaw to the left of the centerline and he has applied right rudder and breaks to position back the aircraft on to the centerline. However, the aircraft was veered off to the right and entered into the runway right side grass patch and stopped 33.43m away from the runway edge.





**Figure 01: Illustration of the aircraft path during and after landing**



**Figure 02: Picture of the Aircraft after Incident**





*Figure 03: Incident site picture*





*Figure 04: Incident site picture -aircraft resting on grass patch*



*Figure 05: Incident Aircraft*



## 1.2 Injuries to Persons

None

## 1.3 Damage to Aircraft

Nil

## 1.4 Other Damages

Nil

## 1.5 Personnel Information

### 1.5.1 Pilot-In-Command

Licence : Valid SPL issued by the DGCA Sri Lanka (SPL/A/3219) valid  
till 05<sup>th</sup> September 2027 based on medical category Class II

Age & Gender : 18 years, Male

Flying experience:

***Table 01; Flying experience of the PIC (Student Pilot)***

Total hours	30 hrs 00 mts (training)
Total on type	30 hrs 00 mts (training)
Last 90 days	06 hrs 25 mts (training)
Last 30 days	05 hrs 30 mts (training)
Last 7 days	05 hrs 30 mts (training)
Last 24 hours	02 hrs 20 mts (training)
Incident flight	00 hrs 30 mts (training solo)

1.5.2. Other Persons: Nil

## 1.6 Aircraft Information:

1.6.1 Type and Model : Cessna 172N

1.6.2 Manufacturer's Serial No. : 17268555

1.6.3 Certificate of Registration : Registry No. 336,  
Registered in Sri Lanka Civil Aircraft Register

1.6.4 Certificate of Airworthiness : Registry No.289 and valid till 04<sup>th</sup> October 2024

1.6.5 Total Airframe Hours : 5208 hrs (as at 01<sup>st</sup> November 2023)

1.6.6 No. of Engines & Type : 01 number & Lycoming-O-360-A4M

1.6.7 Propeller Type : 76EM8SPY-0-60

**Table 02; Engine and Propeller details**

	Serial Number	Total Hours (as at 01 <sup>st</sup> November 2023)
Engine	RL-24487-36A	1130 hrs and 7mts
Propeller	106255K	1105 hrs

## 1.7 Maintenance Informations

1.7.1 Last Major Maintenance carried out: 100 hrs inspection work package

1.7.2 Deferred Maintenance Items (DMI): Nil

## 1.8 Meteorological Information

METAR; VCCC 015000Z 27004KT 8000 SCT016 30/25 Q1012

METAR; VCCC 010600Z 27006KT 8000 SCT016 FEW018CB(SW) 31/24 Q1011

### (Appendix 01)

Based on the ATC recordings the wind direction and speed given to 4R-FSA by ATC during his landing clearance was 240/05 knots.

## 1.9 Aids to Navigation

Nil

## 1.10 Communication

During the flight two-way communication was established with RMA tower on VHF 119.1 MHz.

## 1.11 Aerodrome Information

Airport type : Public / Military  
 Owner : Government of Sri Lanka  
 Operator : Airport and Aviation Services (Sri Lanka) (Private) Limited (AASL)



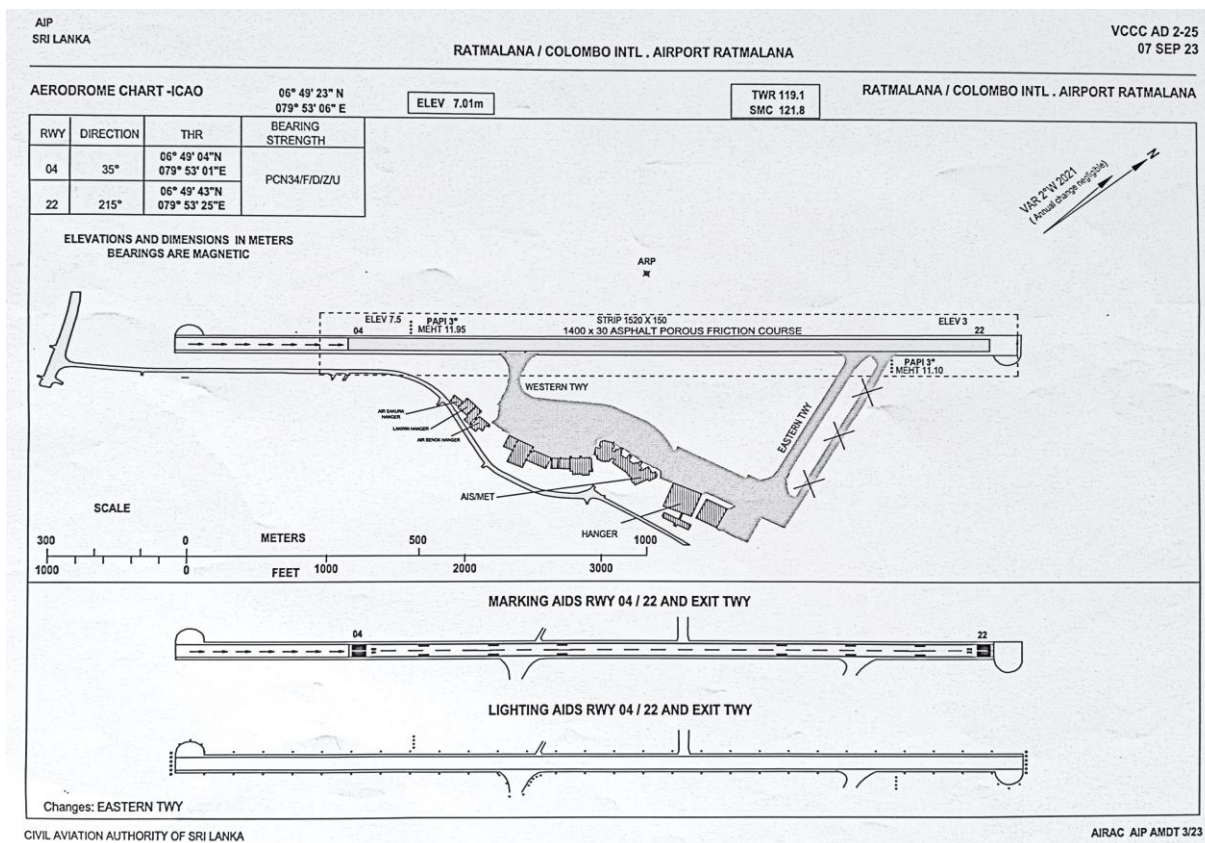


Figure 06: Aerodrome Chart – Colombo International Airport, Ratmalana

(Source: AIP Sri Lanka) (Appendix 02)

## 1.12 Flight Recorders

The aircraft is not fitted with Flight Data Recorder (FDR) or Cockpit Voice Recorder (CVR).

## 1.13 Wreckage and Impact Information

None

## 1.14 Medical and Pathological Information:

As a result of this occurrence, no medical or pathological investigations were required. Breathalyzer test of the PIC was conducted after the incident and was found to be negative.

## 1.15 Fire

Nil

## 1.16 Survival Aspect

Nil

## 1.17 Test and Research

Not Applicable.



### 1.18 Organizational and Management Information

Operator (as per Flying School Licence) : Fly Southern (Pvt) Ltd  
Registered Owner (as per C of R) : Fly Southern (Pvt) Ltd  
Address of Registered Owner : Level 3, No. 09, Station Road,  
Colombo 04, Sri Lanka  
Flying School Licence : No. 13, issued by the DGCA, Sri Lanka  
valid up to 14<sup>th</sup> July 2024.

### 1.19 Additional Information

Nil

### 1.20 Useful or Effective Investigation Techniques

Nil

## 2. ANALYSIS

### 2.1 Student pilot's flying training programme

The student pilot started his flying training on 22<sup>nd</sup> February 2023 and it was observed that continuation of his training was broken-down in several occasions for a considerable period as mentioned below; ( **Appendix 03- Student's record of flight training**)

***Table 03; Students Flying Details – Number of Days not flown***

From	To	No. of Days not flown	Total flying
01 <sup>st</sup> April 2023	12 <sup>th</sup> May 2023	42	09hrs and 20 mts
19 <sup>th</sup> May 2023	15 <sup>th</sup> June 2023	28	12hrs and 40 mts
27 <sup>th</sup> July 2023	13 <sup>th</sup> August 2023	18	23hrs and 36 mts
15 <sup>th</sup> Aug 2023	25 <sup>th</sup> October 2023	72	24hrs and 40 mts

Further, while going through his training records, they indicate that the student's performance was evaluated by instructor, as below average during circuit and landing phases in the presence of his breakdown of flying training. Also, student trained for 30.00 hrs as dual training to obtain his maiden solo flight, due to inconsistent training programme and below average performance.

Training records indicate that the student's performance evaluated by his instructors, as below average specially during landing phases till the previous day of the incident flight.



## 2.2 Company training procedure

As per the section 5.6.2.1 of the Training & Procedure Manual of Fly Southern (Pvt) Ltd, one training session shall not exceed forty (40) minutes unless otherwise instructor is satisfied that the student is able to carry on. However, this extended session shall not exceed a further twenty (20) minutes.

### (Appendix 04)

On 01<sup>st</sup> November 2023, the student has flown 1.00 hour dual training as his first training sortie of the day. Further, before his solo flight, student has flown another dual training sortie for another 35mts. The solo flight (incident flight) was his third flight of the day.

According to section 5.6.2.3 of the Training & Procedure Manual of Fly Southern (Pvt) Ltd, one student pilot shall not fly more than two (02) training flights during any one (01) day. Therefore, it clearly indicates a non-compliance to the approved Organisation Training & Procedure Manual guidelines. **(Appendix 05);**

## 2.3 Post-incident emergency procedure

With the incident, RMA airport authority activated the emergency protocol and after immediate inspection it was decided to instruct two aircraft (one civil and one military helicopter) on flying training to land immediately. Further, another military fixed wing aircraft was diverted to Bandaranayake International Airport, Katunayake.

Subsequently, NOTAM was issued ((A0616/23) mentioning that, RMA airport is closed for fixed wing aircraft operation w.e.f. 0704 UTC to 1115 UTC. After aircraft moved back to respective hanger area with the presence of CAASL Inspectors, NOTAM was re-issued (A0617/23) at 1102 UTC, indicating that RMA airport is resumed for normal operation.





### 3. CONCLUSION

#### 3.1 FINDINGS

3.1.1 Aircraft had valid Certificate of Airworthiness and Certificate of Registration.

3.1.2 The aircraft was properly maintained and airworthy.

3.1.3 The Pilot in Command (student pilot) held a valid pilot license and a medical certificate.

3.1.4 The student pilot started his flying training on 22nd February 2023 and his flying training was not in continuous pattern. It was observed that his training was broken-down in several occasions for a considerable period

3.1.5 Training records indicate that the student's performance evaluated by his instructors, as below average specially during landing phases till the previous day of the incident flight.

3.1.6 The incident flight was student pilot's third flight of the day and previously he completed two (02) dual sorties for total 01.35hrs. Procedure followed to authorise the student pilot for his first solo flight (03rd training flight of the day) by the Head of Training of Fly Southern (Pvt) Ltd. was non-complying with the operators approved Training and Procedure Manual guidelines.

3.1.7 Runway condition was dry at the moment of landing and the wind was about 05 kts at 240 degrees as per the ATC records.

3.1.8 Correct and adequate emergency procedures were adopted by AASL management after the incident.



### 3.2 PROBABLE CAUSE

The probable cause of this incident was student pilot's inability to maintain directional control during landing roll by applying correct flight control inputs and wheel breaks due to fatigue induced by the number of dual trainings carried out on the same day and lack of experience due to non-continuous training pattern.

## 4. SAFETY RECOMENDATIONS

4.1 Operators/Owners are to adhere and implement their approved procedures for flying training.

4.2 All flying training instructors of flying training organizations shall prepare procedures to conduct pre-flight emergency briefing, including handling errors which may experience during landing roll, especially when their students are on solo flying training.

4.3 Operators/Owners of flying training organizations shall establish procedures liaison with CAASL for SPL and PPL holders' for conducting flying training when there exists any non-continuation flying periods during their whole flying training period.

4.4. CAASL has to have a workable approach to carry out more frequent checks on flying training records of student pilots' in order to identify non-compliance of safety procedures by flying training organizations.

## APPENDICES;

**Appendix 01: METAR.**

**Appendix 02: AIP Aerodrome Chart-Ratmalana/ Colombo International airport.**

**Appendix 03: Student's record of flight training.**

**Appendix 04: Fly Southern Training & Procedure Manual extract 01.**

**Appendix 05: Fly Southern Training & Procedure Manual extract 02.**



## Appendix 01: METAR

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Q1011 A2986=.

METAR

4R-FSA

Appendix 01

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Appendix 02: AIP Aerodrome Chart- Ratmalana/Colombo International Airport.

Appendix 02  
VCCC AD 2-25  
07 SEP 23

RATMALANA / COLOMBO INTL. AIRPORT RATMALANA

RATMALANA / COLOMBO INTL. AIRPORT RATMALANA

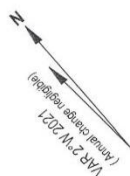
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SMC 121.8

ELEV 7.01m

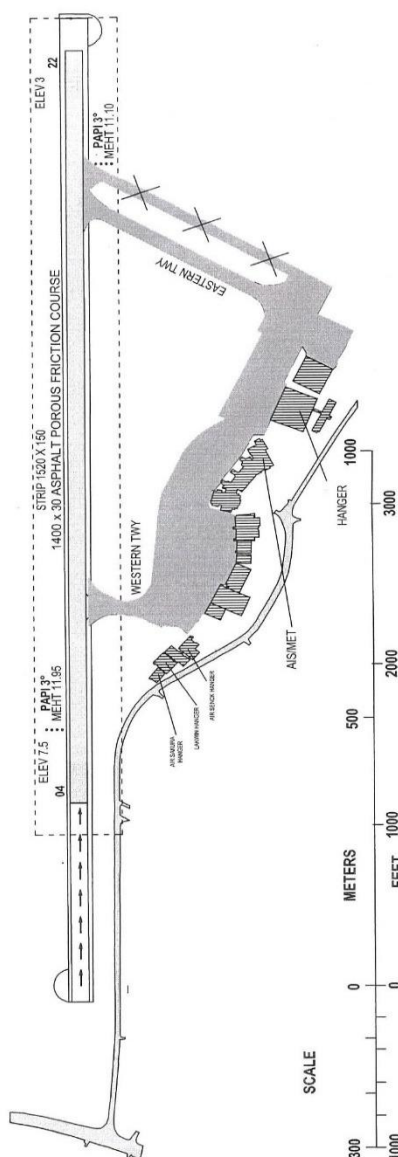
06° 49' 23" N  
079° 53' 06" E

RWY	DIRECTION	THR	BEARING STRENGTH
04	35°	06° 49' 04"N 079° 53' 01"E	PCN34/F/D/Z/U
22	215°	06° 49' 43"N 079° 53' 25"E	

ELEVATIONS AND DIMENSIONS IN METERS  
BEARINGS ARE MAGNETIC



ARP



MARKING AIDS RWY 04 / 22 AND EXIT TWY

LIGHTING AIDS RWY 04 / 22 AND EXIT TWY

Changes: EASTERN TWY

CIVIL AVIATION AUTHORITY OF SRI LANKA

AIRAC AIP AMDT 323





#### Appendix 04: Fly Southern Training & Procedure Manual extract 01

FLY SOUTHERN	TRAINING & PROCEDURES MANUAL	Manual Reference FS 001	
	TRAINING PLAN	Chapter 5	P 5-16

handling training flights in the training area.

2) However, if the Student is on a Solo Cross Country Flight, the Student shall follow the diversion procedures.

5.6.1.5 Instructors shall follow the guidelines on above before authorizing Students on Solo Flights.

5.6.1.6 Instructor shall not send a Student on FIRST SOLO if the cross wind component exceeds 8kts. However when Students are sent Solo thereafter, the wind component shall be at the discretion of the Instructor.

#### 5.6.2 Maximum Student Training Times

5.6.2.1 It is the general view that a Students Training session shall not exceed Forty (40) minutes unless the Instructors is satisfied that the Student is able to carry on.


However, if further extended on the training session, the second success shall not exceed a further Twenty(20) minutes.

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**Appendix 05: Fly Southern Training & Procedure Manual extract 02**

	TRAINING & PROCEDURES MANUAL	Manual Reference FS 001	
	TRAINING PLAN	Chapter 5	P 5-17

5.6.2.2 Students may fly for more than One (01) hour if the Student is authorized to fly on a cross country which shall not exceed:

- a) One hour Thirty minutes (1:30) for PPL Students;
- b) Three hours (3:00) for CPL students.

5.6.2.3 No Student shall fly more than Two(02) training Flights during any One (01) day.

**5.6.3 Restriction for Student Training Periods**

5.6.3.1 A Student shall fly a second training flight if the instructor is satisfied with the Students progress.

5.6.3.2 The Student shall fly during the second session:.....

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- The End -