###### National Assembly

###### Question Number: 761

**761. Mr C H H Hunsinger (DA) to ask the Minister of Transport:**

(a) What is the total number of investigations that the Civil Aviation Authority has undertaken in each province in the past three financial years, (b) what is the nature of each investigation, (c) what did each investigation cost, (d) what are the outcomes of each investigation, (e) what lessons have been learnt from each investigation and (f) what is being done to prevent a repeat of irregular incidents in future? NW820E

**REPLY:**

**South African Civil Aviation Authority (SACAA)**

Below is the South African Civil Aviation Authority’s response to questions (a), (b), (c), (d), (e), and (f).

1. The table below provides details on the total number of investigation conducted over the past three financial years by the South African Civil Aviation Authority’s Accident and Incident Investigation Division. In line with international standards, and as prescribed in Annex 13 of the International Civil Aviation Organization (ICAO), aircraft accidents are classified into two categories, i.e. as either an Accident or Serious Incident.

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| **TOTAL NUMBER OF ACCIDENTS AND INCIDENTS IN THE PAST THREE FINANCIAL YEARS** |
| **Year of Occurrence (Financial Year)** | **Accidents** | **Serious Incidents** | **Total** |
| 2014/2015 | 120 | 77 | 197 |
| 2015/2016 | 110 | 26 | 136 |
| 2016 - Feb 2017  | 69 | 14 | 83 |

NOTE: The 2016/2017 financial year statistics excludes March 2017 occurrences, which will be tallied only at the end of March 2017.

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| **TOTAL NUMBER OF ACCIDENTS PER PROVINCE IN THE PAST THREE FINANCIAL YEARS** |
| **Financial Year** | **GP** | **NW** | **LP** | **FS**  | **EC**  | **WC** | **MP** | **NC** | **KZN** | **O/B** |
| 2014/2015 | 37 | 8 | 10 | 6 | 17 | 12 | 12 | 4 | 10 | 4 |
| 2015/2016 | 33 | 11 | 12 | 3 | 14 | 12 | 9 | 1 | 6 | 9 |
| 2016/2017 | 19 | 7 | 12 | 2 | 4 | 10 | 5 | 0 | 5 | 5 |

NOTES:

* GP Gauteng Province
* NW North West Province
* LP Limpopo Province
* FS Free State Province
* EC Eastern Cape Province
* WC Western Cape Province
* MP Mpumalanga Province
* NC Northern Cape Province
* KZN KwaZulu-Natal Province
* O/B Borders of South Africa.
1. The nature of aircraft accident and incident investigations differ depending on the occurrence. Investigation are conducted in line with requirements outlined in Annex 13 of the International Civil Aviation Organization (ICAO). This means:
2. in instances where an aircraft sustains minor damages and there are no reported injuries, the investigation will commence immediately but will be conducted off site, meaning that the Investigator in Charge and his or her team of Investigators do not need to go to the crash site in order to conduct the investigation; and
3. In instances where the aircraft sustains major damages and there are reported injuries or a fatality or fatalities, the investigating would commence immediately and on site.
4. The table below outlines the total annual costs, over a three financial year period, of activities associated with aircraft accident and incident investigations.

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| **ANNUAL COSTS OF ACCIDENT INVESTIGATION FOR THE PAST THREE FINACIAL YEARS** |
| **Financial Year** | **2014/2015** | **2015/2016** | **2016/2017** |
| Total Cost  | R 16 919 937.45 | R 18 378 990.80 | R 17 736 577.23 |

1. The outcome of investigations revealed the following as main probable cause(s) and contributing factors for the accident or serious incident:

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| **OUTCOMES OF THE AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATIONS** |
| **Occurrence Causals**  | **Contributing factor(s)** |
| Human Error | * Poor technique/airmanship
* Failure to maintain flying speed/stall
* Loss of directional control
* Disregard of standard operating procedures
* Disorientation
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| Aircraft Technical (mechanical failure of a component)  | * Fuel starvation/Exhaustion
* Metal fatigue/fracture
* Engine failure
* Mechanical failure
* Loss of power
* Combustion malfunction
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| Aircraft Operations | * Unsuccessful forced landing
* Sling load operation
* Missed approach
* Wake turbulence
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1. The primary lessons learned from each investigations is that we are then able to determined what caused the accident or serious incident and what are the other factors that contributed to the accident.
2. The SACAA has formed partnerships with the industry aimed at developing and implementing measures that prevent a repeat of similar incidents. The following has thus far been implemented:
3. Safety recommendations emanating from the investigation reports are issued to affected aircraft operators and organisations that maintain the aircraft to implement measures to prevent future accident.
4. Safety awareness notices are issued where there’s a trend of similar incidents even if there’s different types of aircraft involved, e.g. collusion with wires due to low flying.
5. The Safety Management Systems (SMS) was introduced and has been and continue to be implemented by operators. This allows operators to manage their safety risk based on incidents they experience in their organisation.
6. The SACAA continuously hosts round-table discussions with the industry on aviation safety.
7. The SACAA introduced the Annual Safety Seminar and uses it to share safety information with the industry. Local and global trends relating to the causes and contributing factors of accidents and incidents are shared with the industry.
8. Once finalized, accident and serious incidents investigation reports are made public and available through the SACAA website ([www.caa.co.za](http://www.caa.co.za)).

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