

## Foreword by the Secretary General

Malaysian aviation has grown tremendously for the past two decades with almost double in the number of flying activities. The expansions of the low cost airlines and growing numbers of flying training establishments have contributed to the growth of the Malaysian economy. These diversified growths are expected to continue into the future.



With the growth activities and opportunities creates significant challenges to ensure that the industry continues to reduce risk and improve in aviation safety and security.

Recognising these challenges, the International Civil Aviation Organization (ICAO) has come up with new amendment on the Annex 13. This new amendment requires Accident Investigation Authority to be independent from the Department of Civil Aviation as a regulatory body. BSKU has been established in anticipation to the Annex 13 requirement.

Besides that ICAO has come up with Annex 19 which require states to established State Safety Programme and State Safety Management System, where the SSP is the roadmap for maintaining and improving aviation safety and security in Malaysia. Consequently, Malaysia is coming up with the documentation on the SSP which will also evolve to accurately reflect Malaysian safety framework.

DATUK SERI HJ SARIPUDDIN HJ KASSIM  
SECRETARY GENERAL  
MINISTRY OF TRANSPORT

*“The sole objective of an accident or incident investigation is the prevention of future accidents and incidents. It is not the purpose to apportion blame or liability”*

- Ch 3.1 Annex 13

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This Safety Bulletin is the first issue of Biro Siasatan Kemalangan Udara (BSKU) or Air Accident Investigation Bureau. I am very privileged to be appointed as the Chief Inspector of Air Accident in BSKU. Even though this Bureau is a small unit but we will do all we can to meet industry safety need and ICAO requirement on accident investigation and safety risk management. The State Safety Programme (SSP) is a key means of demonstrating how each ICAO contracting states intend to achieve an acceptable level of safety performance in Civil Aviation. Ultimately, safety management system (SMS) is the essence for the SSP in the state.

The detailed requirements for SSP and SMS are set out in Annex 19 to the Convention on International Civil Aviation (Chicago Convention) and hoping Malaysia will establish the SSP programme which will specify safety activities which will continue to perform to meet the ICAO state responsibilities.

BSKU will continue to conduct investigation on any accident and serious incident to identify the root cause of the occurrence. Sometimes investigation will take longer time before the final report is completed. Nevertheless the safety corrective action will be taken immediately through Department of Civil Aviation. Risk management by the industry under SMS programme is very vital in identification of hazard, mitigating them without any intervention by BSKU. In order to identify the precursors to any occurrences, safety manager can examine carefully the comparison of accident rate between us and the regional or world standard for analysis. The area of concern to be focussed on are runway excursion, loss of control inflight and abnormal runway contacts.

I wish all stake holders will be able to identify any safety hazards inflight or on ground and mitigate them before it resulted to accident, that may take life of our friends and our loved one.

#### **CAPT DATO' YAHAYA ABDUL RAHMAN**

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Capt Dato' Yahaya was transferred to BSKU as the Chief Inspector from 17<sup>th</sup> April 2016 after serving as the Director of Flight Operations in Flight Operations Sector, Department of Civil Aviation (DCA) as a contract officer for one year effective from 23<sup>rd</sup> May 2016 until 22<sup>nd</sup> May 2017.

Prior to joining BSKU, he has been conducting several aircraft accident investigations on top of his duty as Director of Flight Operations. To date he has been involved in more than 20 aircraft accident investigations involving aircraft with Malaysian registrations.

His transfer was timely to prepare for the ICAO USOAP CMA audit on BSKU that took place from 2 to 12 May 2016.

**BIRO SIASATAN KEMALANGAN UDARA (BSKU) OR AIRCRAFT ACCIDENT INVESTIGATION BUREAU (AAIB) of MINISTRY OF TRANSPORT**, established on 28 Mac 2013 in accordance with the Cabinet decision dated December 14, 2011 Memorandum of the Minister of Transport No. 1002/2011 which was agreed with the establishment of BSKU in the Ministry of Transport as an independent entity to conduct the investigation to the safety of all air accidents that occurred in the country and outside the coun-



**AAIB Staff**  
 L to R (Top) : En Mat Zaki, Mr Hafiz, Capt Dato' Yahaya, Ms Ruzana, Ms Rozita, Ms Salwana  
 L to R (Bottom): Kol Shamsudin RMAF, Lt Kol Marzuki RMAF, Mr Khairulnizam, En Amirudin, Dato' Paduka Jalil, Kol Saidey RMAF, Brig Gen Dato' Lau RMAF, Kol Izani RMAF

**AAIB Task in Hand**

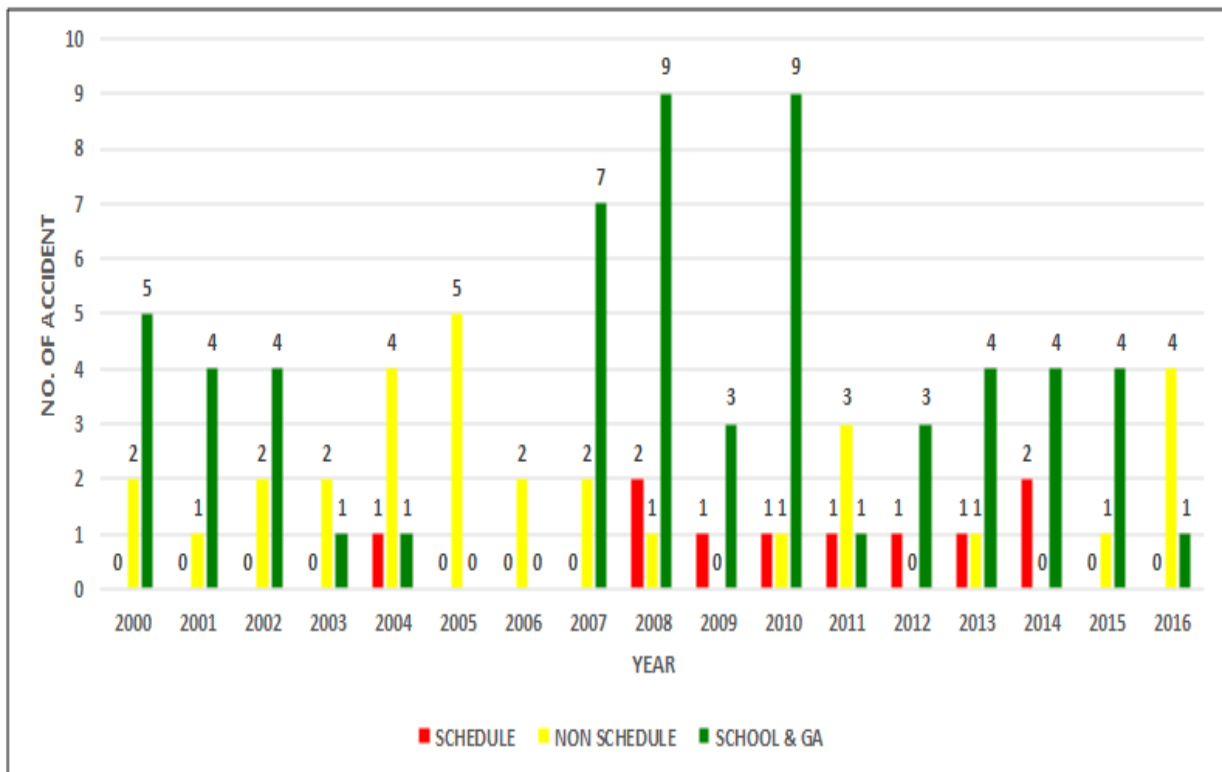
BSKU is in the Ministry of Transport as an independent entity to conduct the investigation to the safety of all air accidents that occurred in the country and outside the country in which the aircraft is with the national registration Malaysia, reports directly to the Minister of Transport, as recommended by the International Civil Aviation Organization (ICAO).

BSKU also carry out the tasks of air accident prevention through research and development activities to be carried out continuously. All records and data on cases of air accidents that occurred in Malaysia and overseas under the registration of Malaysia shall be kept by BSKU.

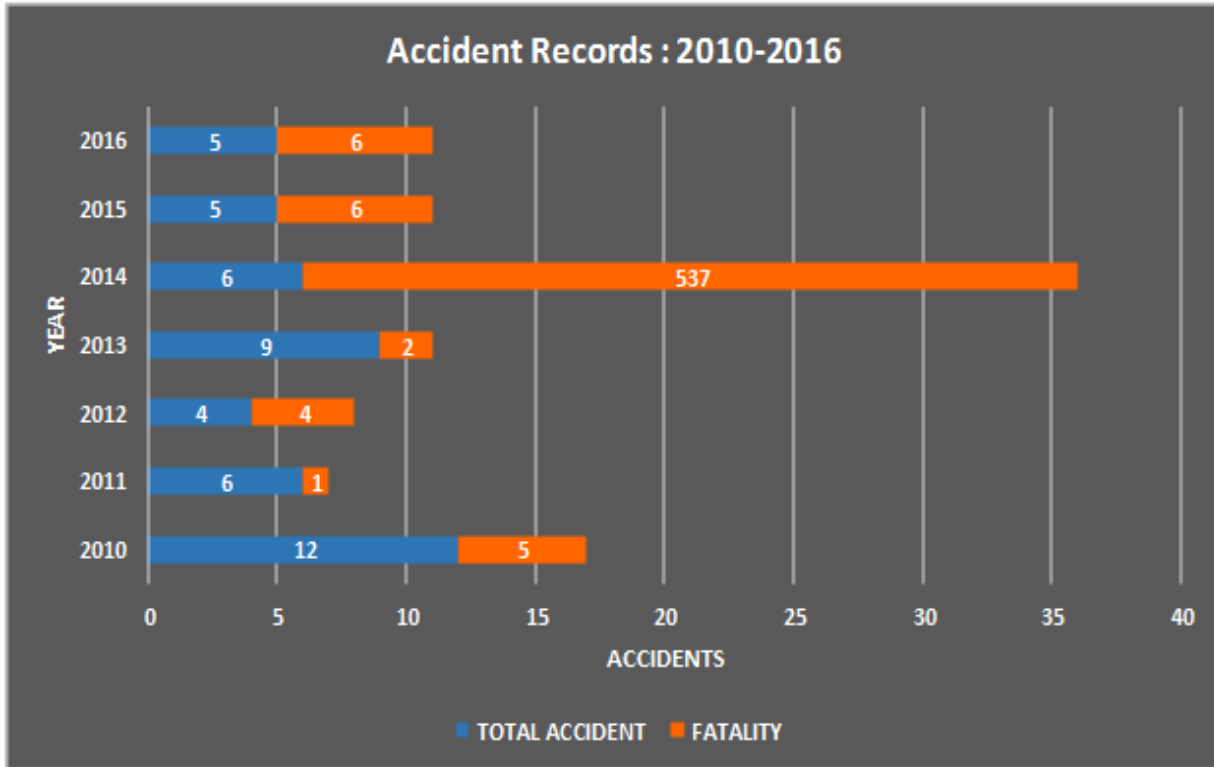
BSKU will conduct study on cases of air accidents occurred and any findings and measures of improvements in terms of safety will be proposed to the parties concerned to rectify the weaknesses that led to the occurrence of the air crash. This in turn will be able to avoid or at least reduce the risk of air accidents in the future.

## Accidents and incidents statistics Year 2000 until 2016

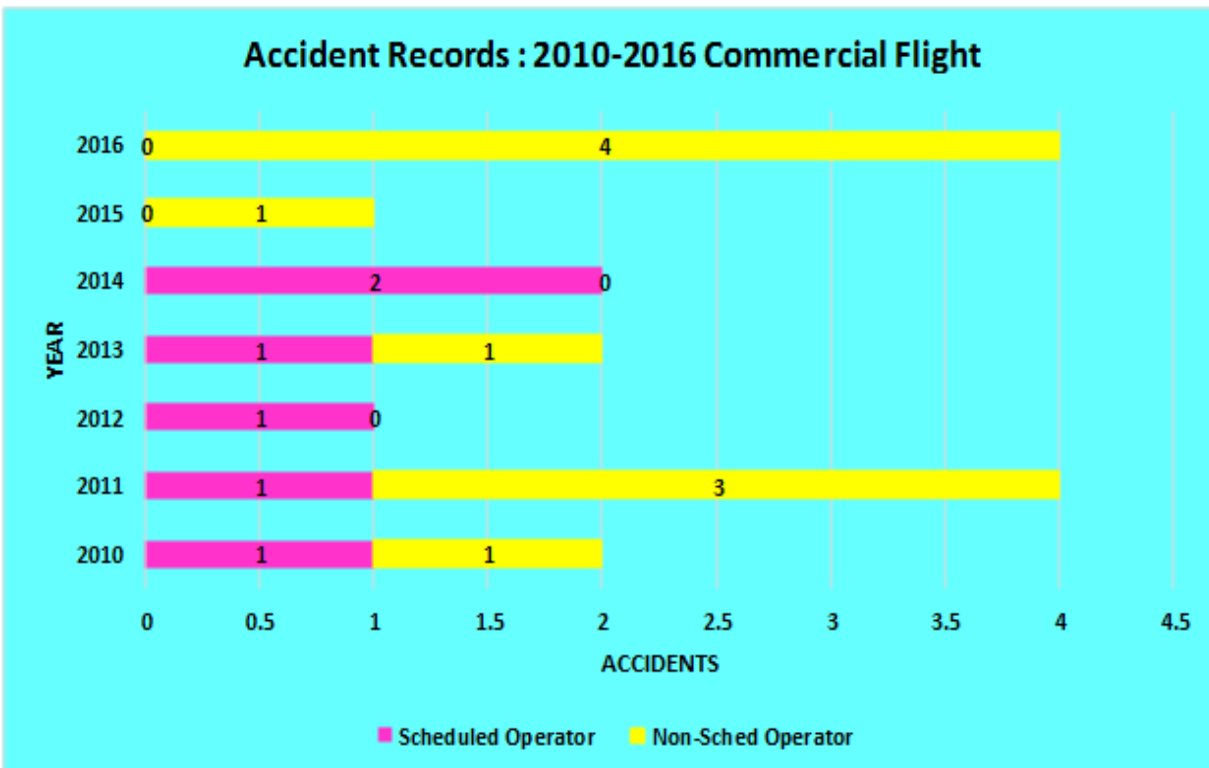
**These statistics are for all industry player to focus on their prevention as well as mitigation. The Safety Management Programme should take consideration on all the occurrence trend and category for this year safety program and budgetary allocation so that the focus will be on the weak safety areas.**



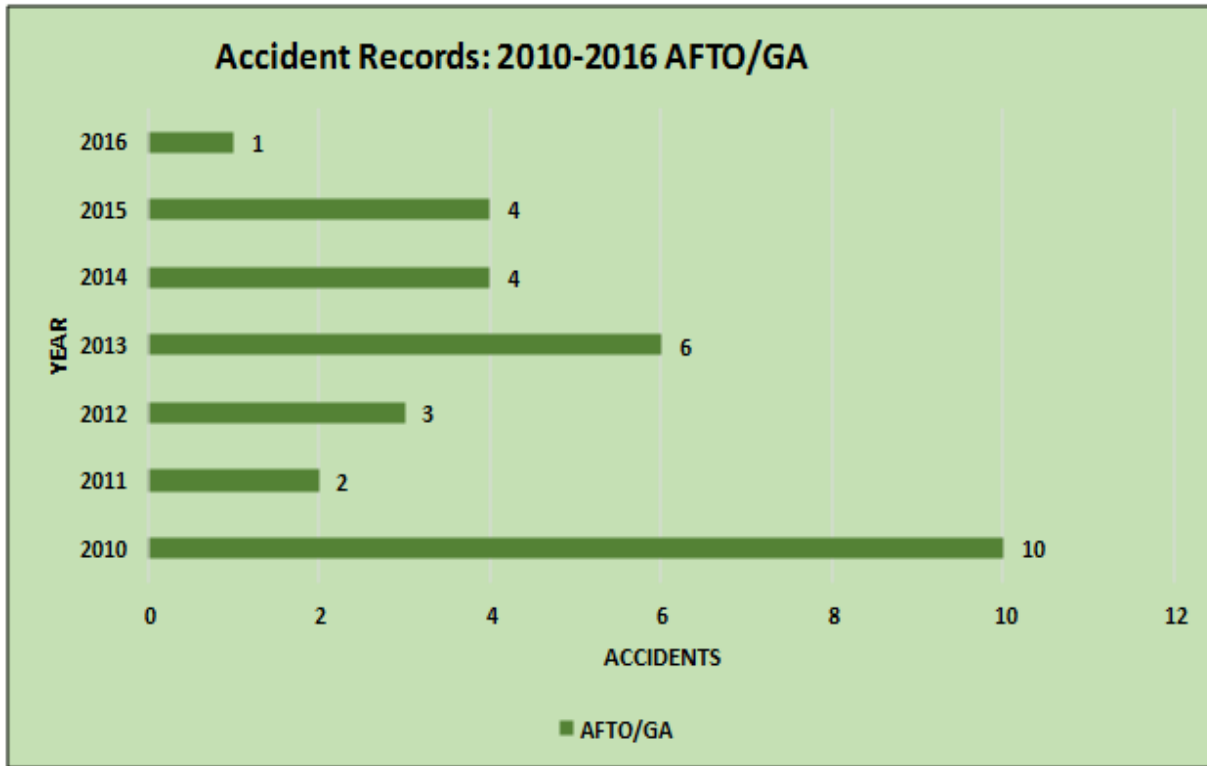
***Number of accidents based on sectors***



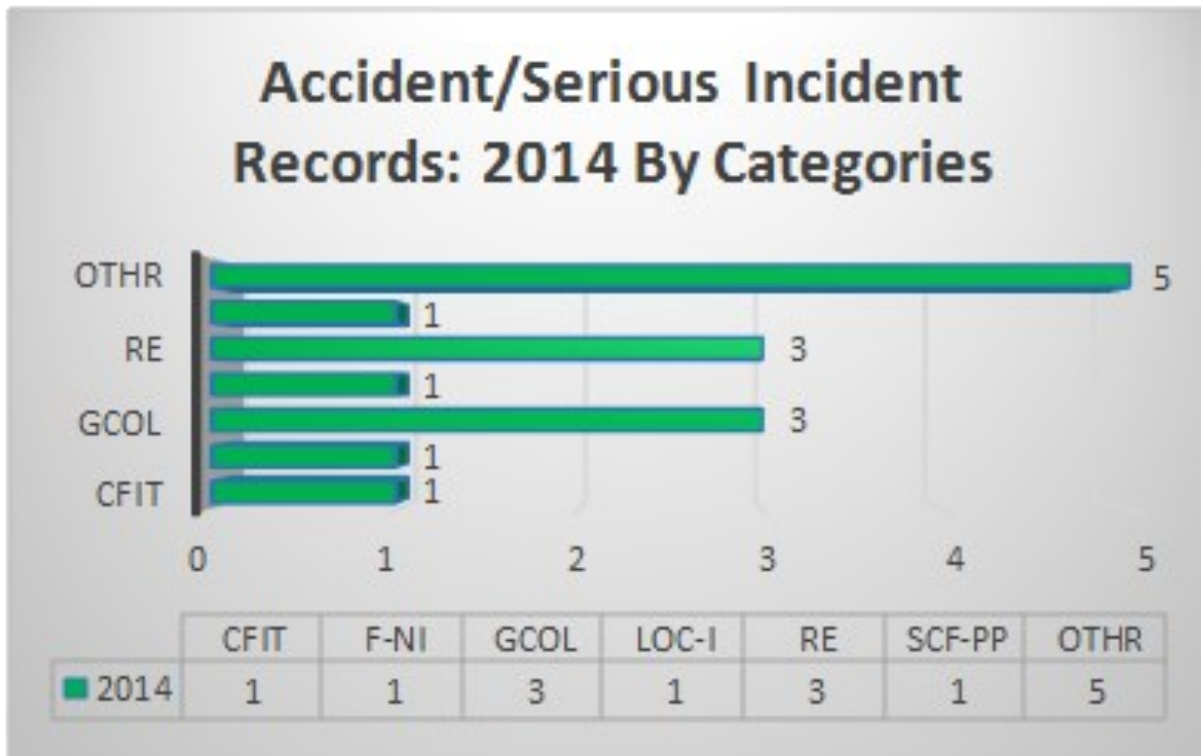
**Total number of accidents and fatality**



**Accident records for commercial air transport  
Scheduled and unscheduled**

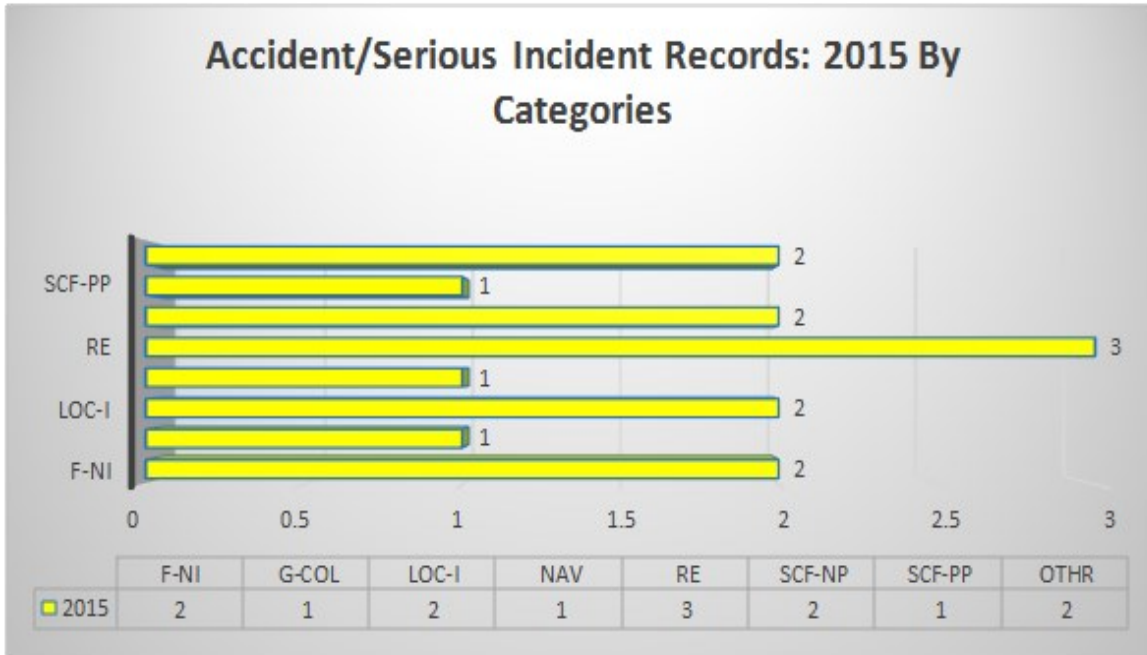


**Accident records for Flying Training School and General Aviation**



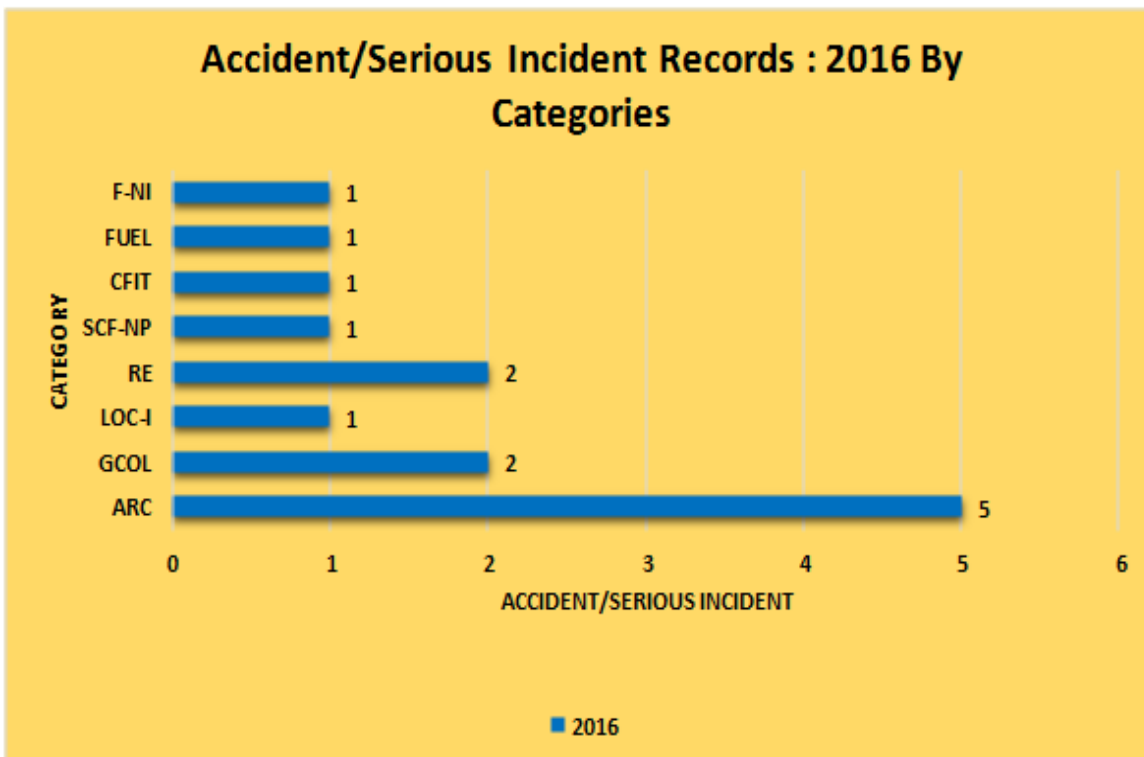
**Accident and serious incident record by category for 2014**

ARC – Abnormal runway contact, F-NI – Fire/smoke, GCOL - Ground Collision, LOC-I – Loss of control in flight, NAV – Navigation error, RE- Runway excursion, SCF-NP – System/component failure, SCF-PP – Power plant failure or malfunction, OTHR – Others



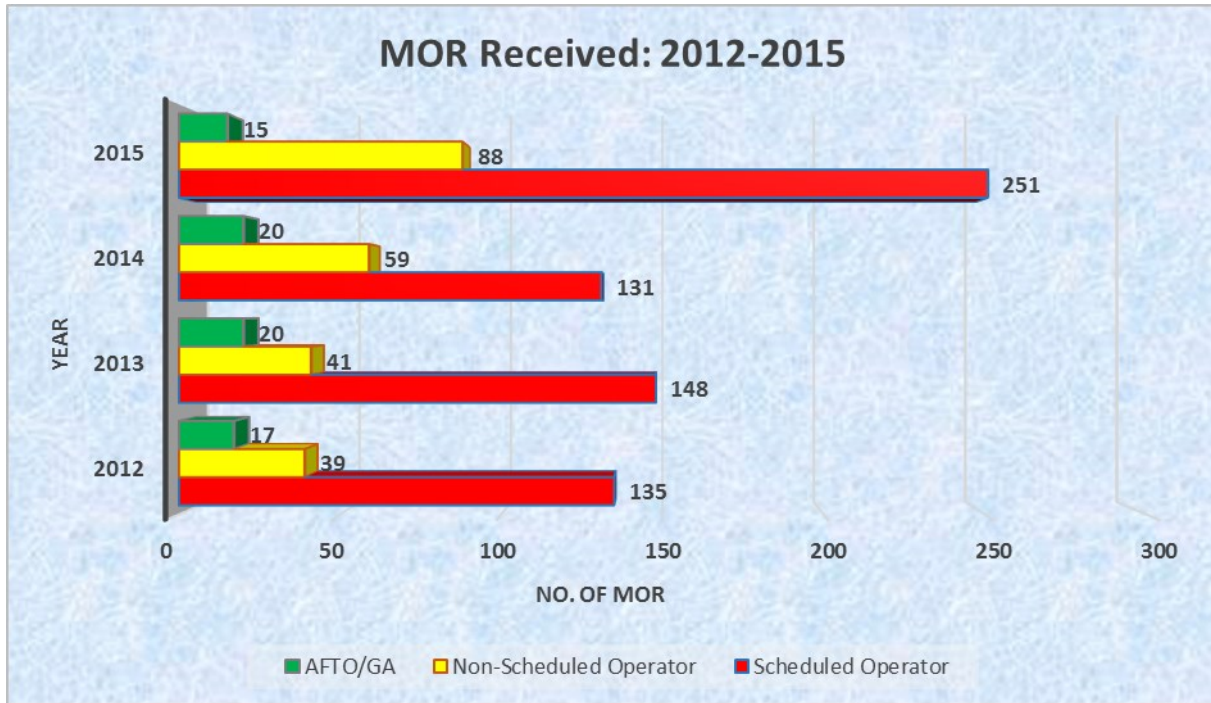
**Accident and serious incident records by category for 2015**

ARC – Abnormal runway contact, GCOL - Ground Collision, LOC-I – Loss of control in flight, , RE- Runway excursion, SCF-NP – System/component failure, WSTRW – Wind shear or turbulence, OTHR - Others

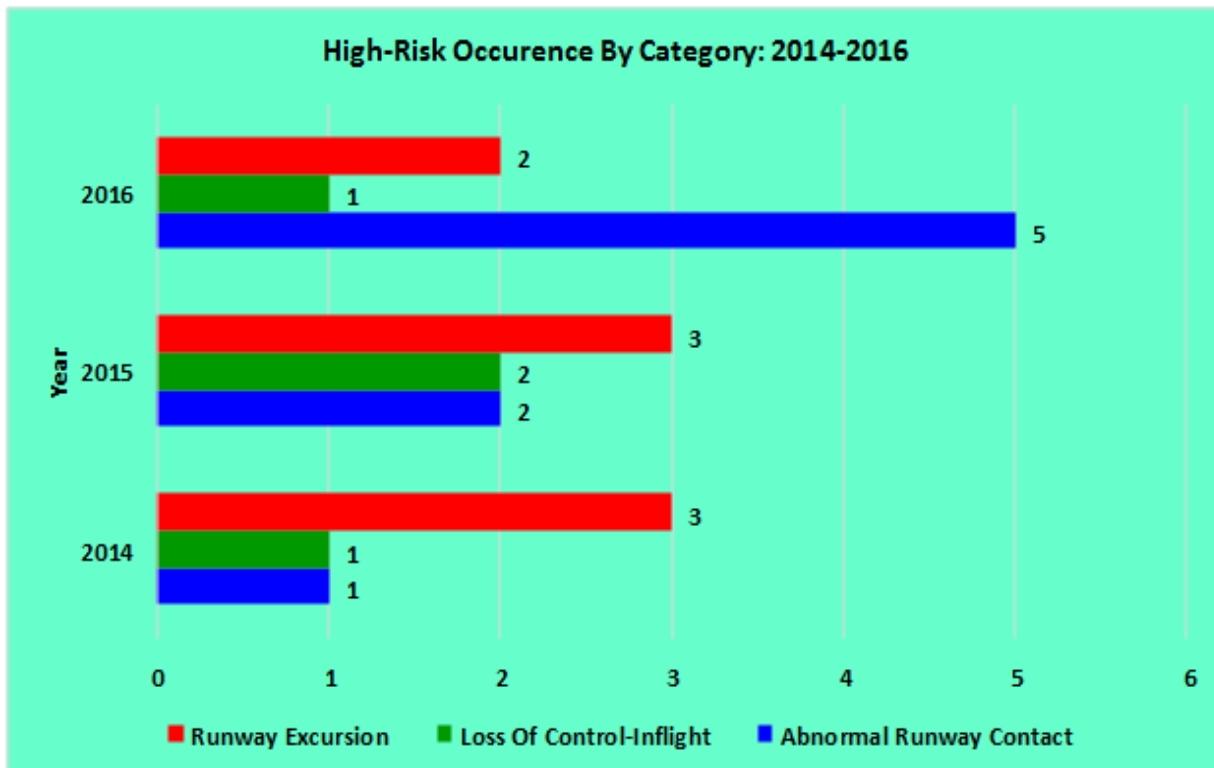


**Accident and serious incident records by category for 2016**

ARC – Abnormal runway contact, GCOL - Ground Collision, LOC-I – Loss of control in flight, , RE- Runway excursion, SCF-NP – System/component failure, WSTRW – Wind shear or turbulence, OTHR - Others



***Mandatory Occurrence Reporting received by DCA/BSKU 2012 to 2015 ( reportable occurrence as required by CAR 2016)***





**AIR ACCIDENTS (A)/SERIOUS INCIDENTS(SI) FOR 2016**

File No.	Date Of Occ.	Aircraft Reg.	Aircraft Type	Place Of Occ.	Owner/ Operator	Cat	Nature Of The Occ.
A 01/16	1/1/2016	9M RBI	PA34-220T	Seletar Air- port	Afshin Farouzani	ARC	Hard landing
SI 02/16	8/1/2016	9M-ATM	CL605	Miri	Hornbill Skyways	GCOL	A/C wing collided with hangar pillar
SI 03/16	6/3/2016	9M-AJS	A320	KLIA2	Air Asia	SCF- NP	Hydraulic failure
SI 04/16	31/3/2016	9M-MTB	A330	Melbourne Australia	MAB	GCOL	Door collided with aerobridge
A 05/16	5/5/2016	RP-C6828	AS350B3	Kuching	Skyline	CFIT	A/C crashed into river
SI 06/16	11/5/2016	9M-LNK	B737- 900ER	Kota Kinabalu	Malindo	ARC	Tail strike on landing
A 07/16	22/5/2016	9M-IMI	Grummond	Cameron Highland	SAS	FUEL	A/C crashed land into vegetation
A 08/16	14/7/2016	9M-SKE	PA28	Melaka Air- port	MFA	ARC	A/C nose wheel collapsed
A 09/16	4/8/2016	9M-SKC	PA28	Melaka Air- port	MFA	F-NI	Engine caught fire
SI 10/16	27/8/2016	9M-SSB	DHC6-400	Marudi	MasWing	RE	A/C veered off runway
SI 11/16	10/10/2016	9M-SOM	SOCATA TB20	Subang Airport	MHS	ARC	Belly landing
SI 12/16	1/11/2016	9M-AFU	A320	Kota Bharu	Air Asia	RE	A/C veered off runway
A 13/16	18/11/2016	9M-APL	AS350B3e	Jeli Kelantan	Aerial Powerline Sdn. Bhd.	LOC-I	Tail rotor hits ground
SI 14/16	21/12/2016	9M-AFC	A320	KLIA	Air Asia	ARC	Tyre burst during landing



AFTO &amp; GA

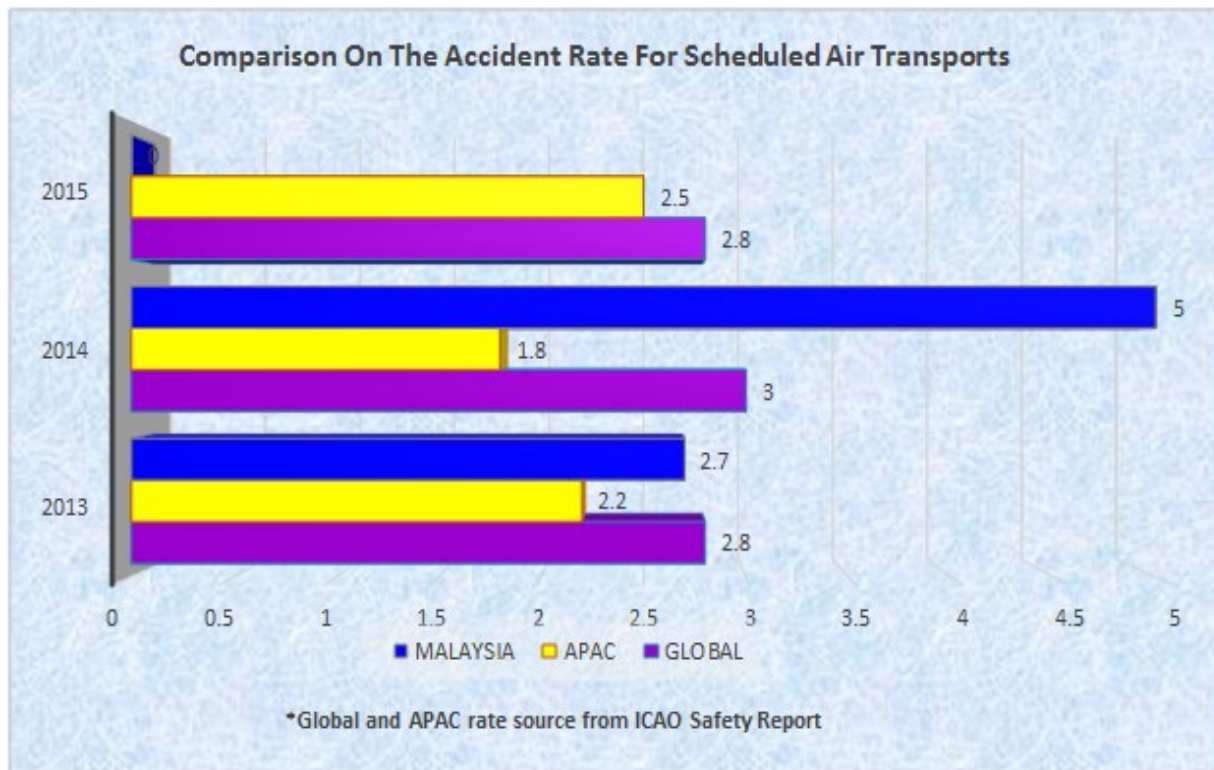


NON SCHEDULED OPERATOR



SCHEDULED OPERATOR

ARC – Abnormal Runway Contact, CFIT - Controlled Flight Into Terrain, GCOL - Ground Collision, FUEL - Fuel related, FNI - Fire/Smoke (Non Impact), LOC-I – Loss Of Control Inflight, RE- Runway Excursion, SCF-NP – System/Component Failure



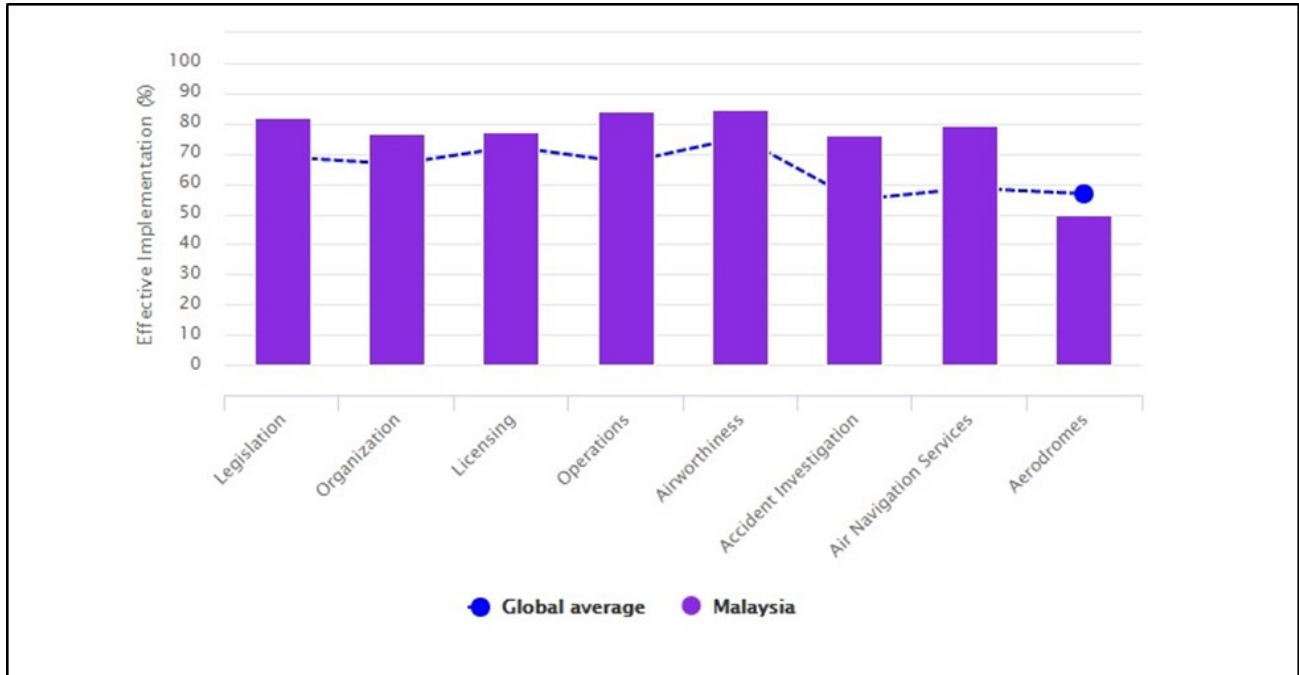
***Comparison on the rate of accident for schedule air transport above 5700 kilogram ( per million flight departure )***

## **The Bottom Line**

**There is a reduction on the rate of accident for scheduled commercial operations in 2015 and 2016 which represent the lowest rate in recent history. Malaysia did not have any fatal accident for scheduled commercial operations in 2015 and 2016, however 2014 has been the worst number of fatality accident in the Malaysian civil aviation history, involving schedule commercial operations that killed 537 passengers and crew of MH 370 and MH 17. Additionally nonscheduled commercial operations especially helicopters has 8 accidents with fatality of 13 from 2010 to 2016.**

**BSKU will remains focus on achieving the highest level of cooperation amongst the stake holders. To keep pace with the expansion and progress of the Sector wide, BSKU continues to promote the development and implementation of new safety initiatives in support of emerging safety issues.**

**The Universal Safety Oversight Audit Programme – Continues Monitoring Approach (USOAP-CMA) audit was carried out by ICAO officials from 2 to 12 May 2016. The audit was carried out smoothly with 109 Protocol Questions. There were 26 PQs that were classified as not satisfactory.**



### ***Overall results of the audit***



**The corrective action plan has been prepared and submitted to ICAO headquarters on 28 November 2016. BSKU had made request for budget allocation to implement the corrective actions.**

# *BSKU Safety Seminar*

**3 August 2016**



The aim of the seminar was to introduce BSKU and its role. It also shared and exposed matters pertaining to aircraft accident investigation in order to improve safety management and safety awareness in the aviation industry.

The seminar provided a platform by BSKU to all aircraft operators and agencies to interact amongst themselves. In addition, the seminar provided the latest

updates about BSKU and ICAO Annex 13 SARP - Aircraft Accident and Incident Investigation.

There were 5 presentations during the seminar.

*-AAIB Malaysia Roles & Responsibilities by Chief Inspector BSKU.*

*-Regulation Update by Capt Tan Poh Keat - DCA Flight Ops.*

*-Search & Recovery of RP-C6828 Case Study by Col Izani bin Ismail - BSKU Inspector.*

*-Annex 13 Aircraft Accident and Incident Investigation by Prof Ir Abu Hanifah bin Hj Abdullah - UniKL MIAT.*

*-Emergency Response Plan (ERP) by En Rusli bin Bakar Training & Consultant – ADOM.*

It was the first seminar conducted by BSKU, initially planned for 40 participants, however, BSKU received an overwhelming requests from participants and has recorded 82 participants overall.



*Workshop on Civil Aviation Regulations 2016 held in Port Dickson from 9-13 March 2016*



*Workshop on Policy and Procedures Manual held in Bagan Lalang from 27 March—2 April 2016*



*CI attending the Fourth Meeting of the Asia Pacific Accident Investigation Group held in Tokyo, Japan on 1-2 September 2016.*



*Another interesting project coming up in the setting of BSKU's own 'Black Box' Lab in Kajang. The lab is due to be operational by end of 2017.*





**Debris inspection of the tragic air accident occurred in Batang Lupar Sarawak involving RP-C6828 on 5 May 2016.**



**On site investigation done on an aircraft 9M-IMI which crashes in Cameron Highlands, Pahang on 25 May 2016.**



**Initial investigation on 9M-SKE of the Malaysian Flying Academy. The aircraft's nose wheel collapse on landing on 14 July 2016.**



**BSKU participated in SAREX INDOPURA, a bilateral exercise between the Government of Indonesia and Singapore held in Tanjung Pinang on 29 August to 2 September 2016. Malaysia has been invited for the first time to be involved in the exercise. BSKU investigators involved are:**

**Lt Col Marzuki bin Ramli RMAF and Mr Khairulnizam bin Jamaludin. Tn Hj Aziz bin Noor - Malaysia Institute Aviation Technology (MIAT)/BSKU Pool Investigator.**



**CI during the Fourth Meeting of the Asia Pacific Accident Investigation Group**



**BSKU Special Investigators**



**Visit by University Tun Hussein Onn Malaysia's Aeronautic Engineering students**



**BSKU supporting staff during BSKU Seminar registration**



**BSKU Investigators with RP-C6828 debris**



**MOT monthly assembly**

# *BSKU Get Together*



# *BSKU Farewell*



## **Clockwise:**

**Farewell to BSKU former CI Tuan Hj Yusof Ahmad, CC Ms Rauhah Adam and EO Ms Faridah Novijoyo.**



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