



**Address by the President of the Council of the
International Civil Aviation Organization (ICAO),
Dr. Olumuyiwa Benard Aliu,
on the occasion of the Presentation of the
Forty-first Edward Warner Award**

(Montréal, 27 September 2016)

It is an honour and great privilege for me to officially open this Forty-first Edward Warner Award Ceremony.

This evening we will be honouring the eminent contributions to aviation safety by the late Dr. David Ronald de Mey Warren, an individual who exemplified to an outstanding degree both the pioneering spirit of innovation which has been so invaluable to international civil aviation progress, and the selfless dedication to aviation safety which so binds us all as committed members of the global air transport community.

Born in Australia in 1925, Dr. Warren later obtained his Honours degree in science from the University of Sydney in 1945.

In 1949 he joined the Department of Defence, trained overseas to become a rocket scientist, and then undertook two years of specialized research in fuels and energy to obtain his PhD.

In 1951, Dr. Warren became a Principal Research Scientist at the Aeronautical Research Laboratories in Melbourne, with a specialization in aviation fuel.

Two years into that mandate, he was invited to join a panel of experts which had been assembled to analyze mysterious mid-air explosions being experienced by the world's first commercial jet aircraft, the de Havilland Comet.

It was in the course of this investigative work when Dr. Warren realized that it would have been extremely beneficial to have a recording of what had transpired on these aircraft – prior to the accidents.

Having recently observed one of the world's first miniature recorders being demonstrated at a trade fair, he began to imagine how such a device could be adapted for use in the cockpits of aircraft, continually recording details which could be recovered after an accident.

While today we all understand and appreciate the safety benefits of Dr. Warren's inspiration, like many innovations his was first met with skepticism.

But consistent with his passion for innovation and his commitment to help prevent aircraft accidents and save lives, Dr. Warren persevered with his idea and designed and built a first demonstration unit using steel wire as the recording medium.

This original "ARL Flight Memory Unit", as it became known, was successfully demonstrated in the United Kingdom, and it was so well-reviewed that the British authorities soon made his recorder mandatory in their civil aircraft.

It is noteworthy that Dr. Warren's early recorder was in fact a "combination" recorder, that is a flight data recorder and cockpit voice recorder in a single unit.

Indeed ICAO has only recently adopted a new Standard, which became applicable this year, for two 'combination recorders' of this nature in new aircraft types.

Flight recorders, or ‘black boxes’ as they are more commonly known, have since become one of our most relied upon resources for the improvement of aviation safety.

Their data has assisted investigators’ understanding of how aircraft perform, both before and during an accident or incident, as well as providing useful information for airline flight data analysis programmes.

Audio recordings from cockpit voice recorders supplement flight data by providing related details on flight crew responses, and by aiding in assessments of how radio communications and other outside aspects may have been a factor in an accident.

As his innovation became widely adopted in the ensuing decades, Dr. Warren went on to enjoy an illustrious scientific career characterized by numerous recognitions and honorariums.

Notable among these from an air transport standpoint was the Lawrence Hargrave Award from the Royal Aeronautical Society, which he received in 2001 in recognition of his outstanding personal contributions to the conception, development and worldwide acceptance of the ‘black box’ data recorder and cockpit voice recorder.

His historic contributions to aviation were further recognized in 2002, when he was appointed *Officer in the General Division of the Order of Australia* for his “*service to the aviation industry, particularly through the early conceptual work and prototype development of the black box flight data recorder*”.

On behalf of ICAO, it's Governing Council, and indeed the entire civil aviation community, I wish to acknowledge here the tremendous debt of gratitude owed to Dr. Warren's vision, commitment and tenacity, and for his far reaching contributions to enhancing international aviation safety.

The Edward Warner Award, which I have the honour to now present on behalf of the Council of ICAO to the late Dr. Warren's two sons, Graham and Peter, and his daughter, Jenny, consists of a medal and a diploma. The citation accompanying the Award reads as follows:

EDWARD WARNER AWARD
conferred posthumously,
by the Council of the
International Civil Aviation Organization,
on
Dr. David Ronald de Mey Warren
in recognition of his eminent
contribution
to the development of
international civil aviation
in the field of aviation safety.

The international aviation community owes a tremendous debt of gratitude to Dr. Warren for the vision and tenacity exemplified in his conceptual work and prototype development of what is known today as the aircraft “black box” flight recorder. Dr. Warren’s innovative work continues to this day to influence ICAO’s initiatives in the field of aircraft accident and incident investigation.

The flight recorder has become internationally recognized as an essential tool for investigators striving to understand what leads to aircraft accidents and incidents. This understanding has contributed greatly to the prevention of accidents, incidents, loss of life and injury.

Dr. Warren's dedication to the enhancement of aviation safety through the development of the flight recorder has created an enduring legacy of safety for the travelling public.