It is with pride that the
American Institute of Aeronautics and Astronautics

F.E. Newbold V/STOL Award
is presented to retired Rolls-Royce Bristol employee,
William J. (Bill) Lewis

William (Bill) Lewis, on right, receives a replica of the F.E. Newbold V/STOL Award from
David Eames, A.I.A.A. representative and Rolls-Royce Indianapolis employee.

The F.E. Newbold V/STOL Award is presented by the American Institute of
Aeronautics and Astronautics (A.I.A.A.) to recognize outstanding creative
contributions to the advancement and realization of powered flight in initiation
definition and/or management of key V/STOL programs. The award is not given
every year and was last presented in 2010. Previous recipients are listed on the
sides of the award base.

F.E. ‘Gene’ Newbold joined Fairchild Aviation in 1944, before moving on to Curtiss
Wright in 1965 where he developed a close working relationship with Rolls-Royce.
In 1976, he moved to Rolls-Royce America to become Executive Vice-President,
Business Development. For eight years he was instrumental in bringing people
and ideas together, ensuring US and UK co-operation in the further development
of the Hawker Siddeley Harrier V/STOL ‘Jump’ jet aircraft by McDonnell Douglas.
The Harrier is powered by a Rolls-Royce Bristol Pegasus engine.

Mr. Newbold retired in 1984. However, his influence on the world of V/STOL
aviation was so great, that the prestigious American Institute of Aeronautics and
Astronautics honoured him with their V/STOL achievement award. It has since
been known as the F. E. (Gene) Newbold award.
William (Bill) LEWIS
ROLLS-ROYCE BRISTOL, UK

Years ago Bill worked with a man who’s slogan was: “Conflict breeds creativity”. That slogan has stayed with him.

“The best engineers, for all their logic and mathematical ability, are creative, and this creativity may arise through conflict. You argue about the best way to do something challenging preconceptions and tradition and come up with an innovative solution.”

It’s therefore significant that the F.E. Newbold award is presented for “outstanding creative contributions to powered V/STOL flight” and that it is presented to Bill Lewis.

While Bill is a reluctant interviewee, he is keen to emphasise how many other people helped him get to the point where he was so honoured. It’s easy to underestimate the Harrier ‘Jump Jet’ V/STOL achievement and disregard the many engineers who contributed to it. The Harrier is one of the few aircraft which is capable of vertical take-off and landing.

As a child, Bill had had teachers that encouraged him in science, math, and made things interesting. After failing to get into Cambridge University, Bill entered Bristol University and was on the doorstep of the Bristol Aeroplane Company (BAC). In 1956, with a university degree in hand, Bill interviewed and was hired by the power plant aerodynamics department of BAC engine division. His first job was on the Olympus engine, one of the early jet engines in the British Avro Vulcan bomber and later developed to power the Concorde supersonic transport.

Under managers such as Freddy Pitts and Ralph Denning, Bill had Fergus Henderson and Derek Freestone acting as mentors. Bill emphasised how fortunate he was to work for these men and the amount of free rein he was given. “Ralph Denning took me to almost every aircraft manufacturer in the UK”. On a Ralph Denning tour of the English Electric Aircraft, a rather pretentious seeming young Bill stated (based on flight test data), “you’ve got back end of the aeroplane all wrong”. Being blunt and not afraid to say what he thought has been one of Bill’s characteristics – perhaps a reason he got on well with the similarly outspoken Gene Newbold, whom he met in the early 1970s.

The Harrier’s four post lift system uses two aft nozzles discharging hot exhaust gas and two forward fan flow discharge nozzles. To minimize the impact on the engine, Bill modified the Harrier intake and exhaust nozzles. For this he was granted a patent.

Since Bill has retired, it has meant a rest from the almost continual jet lag engendered from travelling to and from the United States frequently. Initially Bill wondered whether he might do some consultancy work, but the temptation to get on with his gardening, model railway, and various local interests was stronger than continuing to work. However, since retiring he has had plenty of opportunity to talk about his career, including being interviewed for a book on the development of the Pegasus – Pegasus: the heart of the Harrier - by George Dow. While Bill may think that others are more deserving of the Gene Newbold award, he was obviously heavily involved and influential in the development of Harrier V/STOL capability -- not only in challenging ideas but also in helping generate creative solutions.

Edited from October 2013 material provided by Sarah J L Briggs, Bill Lewis’s oldest daughter -- a life long champion of her father’s aviation career. At age 6 when the Concorde prototype first flew, she proudly announced to her school class that her Dad had helped design the Concorde’s engines.