

MB
Martin-Baker

escape

THE NEWSLETTER FROM MARTIN-BAKER AIRCRAFT ❄️ ❄️

DECEMBER 2011

EDITION 28

LIVES SAVED TO DATE	7373
LIVES SAVED IN 2011	34

FOCUS ON PEOPLE
A CHAT WITH ROBIN MITCHELL

TEAM SPOTLIGHT
PACKING DEPARTMENT



Welcome to the 28th Edition of Escape

The Martin-Baker Group of Companies is on target to deliver a total of 671 seats during 2011 in support of 14 different aircraft types for onward delivery into 17 different countries. It should be highlighted that out of that 671 total only 24 Mk.10 seats were delivered with a further 82 NACES seats delivered for the Boeing F-18E/F/G Super Hornets. The Directors decision to invest in the development of the MK.16 family of seats seems to have been correct with it now becoming the seat of choice in all new western aircraft programmes.

This editions centre page article was provided by Michael Traynor and covers a very unusual event in Irish Air Force history. As to the rest of Escape please enjoy the usual mix of features on company news, team spotlights and further company improvements.

We wish you all a Merry Christmas and a Happy New Year.



Cover Story

The US16E Seat is completing qualification testing of its pyrotechnic devices; this has led to some design changes which in turn have incurred delay to the commercial shipping documentation for these hazardous materials.

The JSF programme had an urgent need for both replacement time change items and additional pyrotechnics for new production seats to be delivered both to the air bases and into the F-35 production line. In order to avoid this delay, the US Navy organised a C-130 aircraft to land at Chalgrove Airfield to collect all this newly manufactured pyrotechnic hardware. On Sunday 20th November, this aircraft landed on MB's recently resurfaced runway and was on the ground for barely 2 hours while the Chalgrove team loaded the aircraft with the pyrotechnics. The aircraft then departed for the U.S in order to deliver this cargo to NAS Patuxent River, Eglin AFB & JRB Fort Worth.



Martin-Baker wins 11th Queen's Award

On 15th September 2011, Martin-Baker was presented with our 11th Queen's Award for Enterprise – International Trade.

The image above shows Jim and John Martin with Sir Henry Aubrey-Fletcher, Lord Lieutenant of Buckinghamshire.

Awards won to date:

- 1 Queen's Award 1966 -Export Trade & Technological Innovation
- 2 Queen's Award 1967 -Export Trade & Technological Innovation
- 3 Queen's Award 1968 -Export Trade & Technological Innovation
- 4 Queen's Award 1969 -Export Trade & Technological Innovation
- 5 Queen's Award 1982 -Export Achievement
- 6 Queen's Award 1986 -Export Achievement
- 7 Queen's Award 1993 -Technology
- 8 Queen's Award 1997 -Export Achievement
- 9 Queen's Award 2001 -Enterprise - International Trade
- 10 Queen's Award 2004 -Enterprise - Sustainable Development
- 11 Queen's Awards 2011 -Enterprise - International Trade Award



Martin-Baker welcomes two Spanish Ejectees to the Tie Club

On Monday 20th June, two Spanish Air Force pilots from a Casa 101 aircraft successfully ejected. It was a zero altitude ejection – a tyre exploded when the Casa 101 was coming in to land. The two ejectees were Comandante Gonzalo Tortosa and Alférez Alumno Mario Peña. Both pilots were presented with their Ejection ties by Luis Dominquez and the Colonel Chief of the Air General Academy at San Javier.

The Casa 101 was first introduced in 1980 and is fitted with Martin-Baker E10CA ejection seats, which has saved 18 lives to date. There are a total of 70 aircraft still in service with the Spanish Air Force.

COMPETITION

The Business Development Department is currently reviewing our range of promotional merchandise and we require your help. We want your ideas to help us come up with a new piece of merchandise.

Each employee that submits an idea will receive a Martin-Baker lanyard as a thank you for your participation. You are able to submit as many ideas as you like but only one lanyard per person.

The winner will be selected by Friday 27th January 2012 and will receive the new merchandise item and a copy of the Sir James Martin biography, signed by the Directors.

Please submit your suggestions to Sarah Jeffery on sjeffery@martin-baker.co.uk, call #658 or pop into the Business Development Department and fill out a form.

The competition is only open to current Martin-Baker employees.



Upon request of the French MoD, SEMMB has proposed to obtain FRA 21 and FRA 145 Airworthiness Agreements. In advance to European Regulations for the Airworthiness Maintenance of governmental aircrafts (including military), the FRA Regulations are French equivalents of the EASA (Europe) and FAR (US) Parts, which apply to the civil aviation.

FRA 21 Regulation relates to the design, design of modifications, design of repairs, as well as the production of aeronautical material. The Official Authority for this Regulation belongs to the French MoD.

FRA 145 Regulation relates to the maintenance of the aircrafts and their equipment. The Official Authority for this Regulation belongs to the French Air Force.

The applications for agreements, as well as the upgrading of SEMMB Quality System, were carried out with the help of Air France Consulting, taking into account their experience of civil and also military Airworthiness Maintenance.

SEMMB expects to obtain FRA 21 and 145 agreements in mid 2012.

JSF programme – seat deliveries

On Friday 25th November, the first seat from LRIP 4 (seat serial number 54) was delivered to Lockheed Martin.

TEAM SPOTLIGHT.....Packing Department

The Packing Department at Denham is responsible for packing all types of Martin-Baker products and protecting them for delivery and storage all over the world. Martin-Baker has seen the Order Book increasing year on year and our customer base widening, so we have had to adapt to the unique customer requirements and product types.

One important and necessary improvement of the department, which was introduced December last year, was the laying of a new floor to the majority of building 10. This was quite an upheaval for all the staff and a tentative time for keeping the work flowing but it all went as planned. With the new floor in place we have been able to set out the work stations and segregate work and materials in a more appropriate and organised way.

The department has been involved in Continuous Improvement this year, starting with the 5S teams and this has been a real success in this area. The known issues mainly concerned are the high volume of products and the organisation of its priority. Along the way we have learned some good lessons that other departments will benefit from. Everyone involved in the process has been invaluable. Everyone has taken a keen interest in understanding 5S and is now continuing to demonstrate improvements in the area.

As new products appear, it is always a challenge to understand how these are addressed from a packing and protecting perspective. The packing methods need continuous review to set a packing standard and this will be focused on in the coming year.



From L to R Les Goodchild, David Quirk, Philip Allibon, Dave Calam, Celia Thompson, John Skeens, Malcolm Morgan, Linda Hoare, Eileen Unit, Alan Clark, Darryl Moreira, David Urungu, Mark Francis, David Hardwick

The packing department's objectives are to continue to strive for 'On Time Delivery' for all our customers, to adopt the best practices and to add value through our processes to provide the best service we can.

EVENTS AND EXHIBITIONS



Society of Experimental Test Pilots (SETP) 2011



Dubai Airshow 2011

FUTURE EVENTS:

AETC Symposium
12-13 January 2012
Texas, US

FIDAE
27-31 March 2012
Santiago, Chile

A CHAT WITH.....ROBIN MITCHELL, MACHINE SHOP

1. Do you remember the date you started at Martin-Baker?

I started in May 1985.

2. What were you paid for your first salary?

I can't remember

1. What is your greatest achievement at Martin-Baker?

I was given the chance to do NVQ 3 in Engineering and to be part of a team, that maintains Martin-Baker's complex high speed Lathes and Mills and various Machine Tool Machines.

2. What do you like best at Martin-Baker?

One of two things - being involved in one of the world's greatest inventions in life saving and over the years to see Martin-Baker stepping up to the plate to be the best.

3. Are you Married/ Children?

Yes, the best thing that ever happened to me was meeting my wife, Dawn, who also works at

Martin-Baker in Purchasing. I have a son Paul who is married with children.

4. What is your all time favourite movie?

I like a bit of action like the Matrix, but also a good family film like the Quiet Man.

5. Do you have any Particular Hobbies?

I enjoy Game shooting and the pleasure of cooking what I have harvested, as well as creating birds, animals and most other things out of scrap metal or wood.

6. What do you think are the challenges ahead for Martin-Baker?

Although UAVs are considered the future for the Military Aviation, I believe there will always be a place for a manned aircraft as nothing can replace human response or reasoning in a split second decision or situations. So

I think as aircraft get faster and more complex so will Martin-Baker.

We need to invest in more apprenticeships for Mechanical & Electrical Machine Tool Engineers because we need to keep our technical and competitive edge over our competitors.



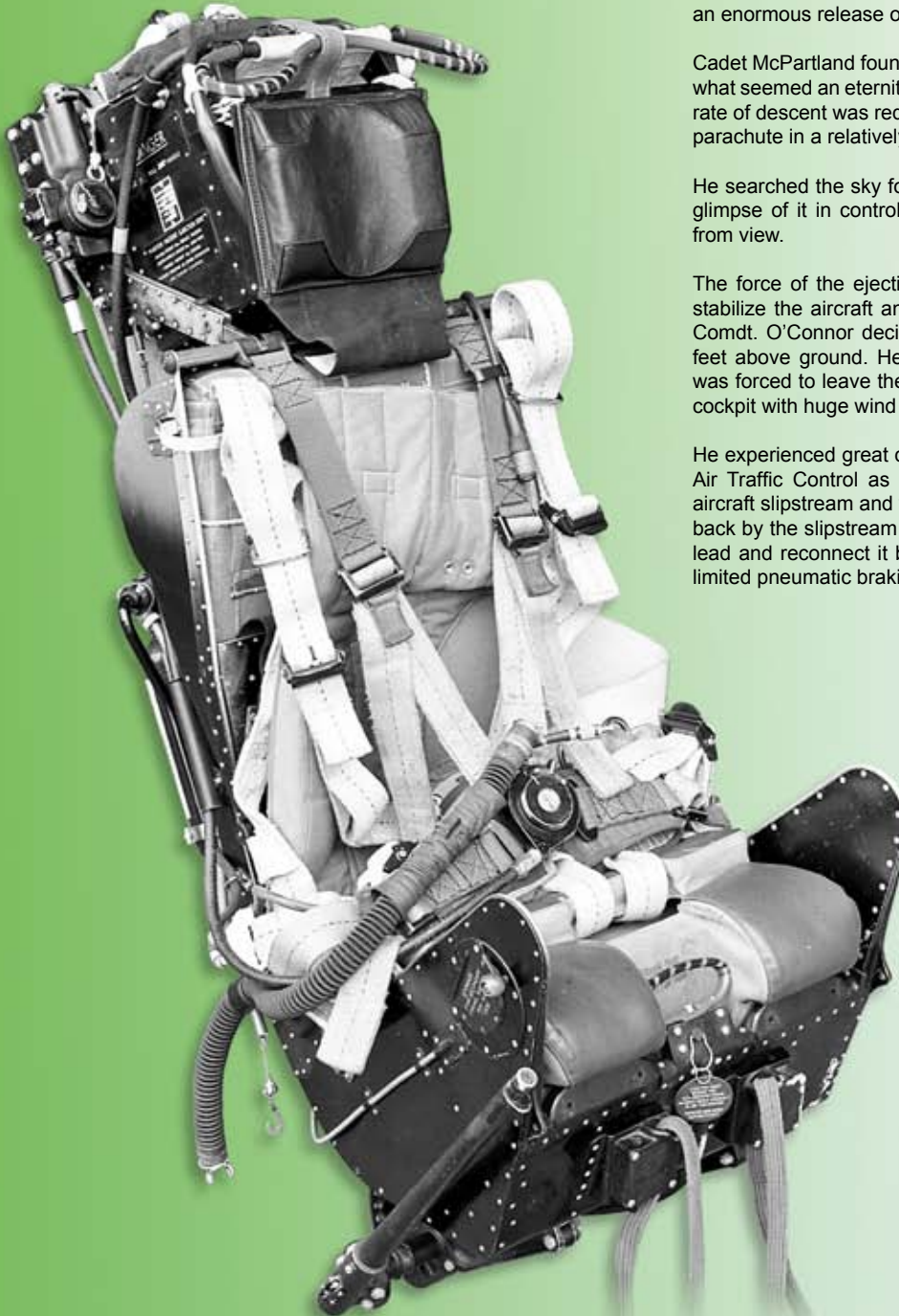


IRISH AIR CORPS REMEMBERS ITS FIRST SUCCESSFUL EJECTION

By Michael Traynor

May 2011 marked the 50th anniversary of the first ejection from a military aircraft in Ireland. Cadet Ronald McPartland, a native of Drumshanbo, Co. Leitrim, was ordered to eject after a training flight went wrong on 5 May 1961.

The Irish Air Corps introduced jet aircraft to their fleet when the first three Vampire jets, (serials 185, 186 and 187), were delivered on the 21 July 1956. These were also the first aircraft in the Irish Air Corps to be equipped with Martin-Baker ejection seats, a safety mechanism created by Co. Down man, Sir James Martin.



At 10.45 on Friday, 5 May 1961, an Irish Air Corps Vampire jet took off from Baldonnel Aerodrome, to carry out introductory pilot training on spins and spin recovery in the Mullagh - Kingscourt area of Co. Cavan. In command of Vampire Number 186 was Comdt. Jeremiah B. O'Connor, Officer Commanding Fighter Squadron and a native of Sneem, Co Kerry. His student pilot was 20 year old Cadet Ronald McPartland, who had 15 months service with the Irish Air Corps.

The Vampire climbed to 30,000 feet and Comdt. O'Connor prepared the aircraft for the spinning exercise. He reduced the speed to the point of stall and applied harsh right rudder to force the aircraft into a series of slow horizontal gyrations before the nose of the aircraft dropped below the horizon and the aircraft locked into a steep descending spiral with huge centrifugal forces. After counting a number of spins or revolutions about the axis of the aircraft, Comdt. O'Connor initiated standard recovery action of applying opposite rudder to stop the near-vertical spinning but the aircraft failed to respond and continued in a steep vortex towards the ground. Recognising that the standard recovery action was not having any effect Comdt. O'Connor reversed the procedure and applied opposite rudder which again had no effect on the spinning aircraft.

The descent was so rapid that the 3-pointer altimeter was unreadable and at approximately 20,000 feet Comdt. O'Connor reached forward to the centre of the instrument panel and pulled the Canopy Release Handle to unlock the canopy which was jettisoned with a deafening roar as the full blast of the air was felt by both pilots. Without hesitation the Cadet pulled his facemask down to fire the Ejection Seat Mechanism and the Martin-Baker Mark 3B Seat complete with Cadet departed the stricken aircraft with an enormous release of power.

Cadet McPartland found himself spinning and descending like a dervish for what seemed an eternity until his parachute opened and he realized that his rate of descent was reducing and he was suspended beneath the billowing parachute in a relatively controlled fashion.

He searched the sky for signs of the Vampire and was sure he got a brief glimpse of it in controlled flight in the far distance before it disappeared from view.

The force of the ejection and the loss of the aircraft canopy seemed to stabilize the aircraft and it began to respond to the pilot's control inputs. Comdt. O'Connor decided not to eject and regained control about 5,000 feet above ground. He failed to see the Cadet's parachute descent and was forced to leave the area and turn towards Baldonnel in the now-open cockpit with huge wind noise and turbulence.

He experienced great difficulty in maintaining radio contact with Baldonnel Air Traffic Control as his radio lead disconnected with the force of the aircraft slipstream and when he reached to reconnect it his arm was swept back by the slipstream and he had to use all of his strength to retrieve the lead and reconnect it before landing safely and stopping the aircraft with limited pneumatic braking.

In the meantime, the Cadet was descending rapidly towards the Cavan countryside without ever having been trained in the use of a parachute or how to land while attached to one. As he had no means of directing the parachute or of influencing the rate of its descent he focused his efforts on avoiding a nearby lake. His attempts to control the descent caused the parachute to oscillate wildly and he opted instead to focus on his eventual landing area.

He saw a man on a donkey and cart in a bog nearby but when he tried to attract the man's attention the man looked up and immediately drove his cart away without looking back. The Cadet touched down, rolled over a few times and sat up uninjured in a heap of parachute silk on the wet ground. He had a brief glimpse of the man and his cart leaving the area in considerable haste.

Having gathered the billowing parachute and placed it in a bundle the Cadet made his way across the fields towards a farmhouse with smoke coming from its chimney.

Describing the scene following his descent, Cadet McPartland said: -
"I knocked on the half-open door through which

I could see two elderly men drinking tea. They looked at me in disbelief (I was still wearing my helmet) and one of them half rose and blessed himself. The other asked me if I was a spaceman.

I replied I was merely a member of the Irish Air Corps who had to leave my aeroplane in a hurry. They initially declined to drive me to the nearest Garda station and indicated the direction of the town of Mullagh "over the hill." After I had travelled a few hundred yards across the field I was called back and asked if payment would be made for the journey to Mullagh and after my assurance that it would, the householder, Mr. Muldoon drove me to the local Garda Station."

On the way to Mullagh, however, they met a local man and his wife in their car and they informed Ronald that the aeroplane had crashed some distance away and he feared the worst for Comdt. O'Connor. He was shocked at this as he believed he had seen the aircraft in controlled flight during his parachute descent.

After a very welcome cup of tea from the Sergeant's wife a phone call from Mullagh Garda Station to Baldonnell confirmed that the aircraft had returned to base and landed safely. An Irish Air Corps car was sent to Mullagh and brought Cadet McPartland to Gormanston Aerodrome where he was later flown by Chipmunk to Baldonnell. The ejection seat and canopy were recovered about 3 miles from where Cadet McPartland had landed.

Eight months later, on 26 January 1962, James Martin, aged 69 years, hosted a dinner at the Dorchester Hotel, London to celebrate the saving of 500 lives with his ejection seat. This was the culmination of 17 years of development work. The newly-Commissioned Officer, Lieutenant Ronald McPartland attended and was singled out for special attention by James Martin who expressed his delight that:

"The Ejection Seat designed by a man from the 'Wee North' had saved the life of a fellow-Irishman from the Irish Free-State."

To date Ronald McPartland is the only pilot to eject from an Irish Air Corps aircraft.

To mark this historic occasion, presentations were made at Casement Aerodrome, Baldonnell, Dublin on 1 September 2011 on behalf of the Irish Air Corps and Martin-Baker to Ronald. The attendees included Major General Ralph James, Deputy Chief of Staff; Brigadier General Paul Fry, OC, Irish Air Corps; Brigadier General Jerry O'Connor (retd) along with fellow retired officers and colleagues of Lieutenant Ronald McPartland (retd).



Cadet, later Lieutenant, Ron McPartland in the Officers Mess, Baldonnell. On Ron's right is Comdt Jeremiah O'Connor instructor on 186



Ronald McPartland receiving his Martin-Baker commemorative presentation and tie at Baldonnell. L/R: Michael Traynor, Major General Ralph James (DCOS OPS), Ronald McPartland and Brig Gen Paul Fry

Vampire 186 from which Cadet Ron McPartland ejected on 5 May 1961



COMPANY IMPROVEMENTS PROJECT

Ongoing training in Business Improvement techniques has resulted in many successful team-based projects. Examples are from the latest level 2 training group at Denham, who completed their course in November 2011.

Example 1 took place in the Finishing section with the team consisting of Carole Thompson, Kasia Sypniewska, Karl King and Robert Morrissa. The problem was excessive time taken in masking components prior to spraying. They used brainstorming, cause and effect diagrams, 5 whys, check lists, histograms and Pareto analysis to reduce the masking time on the Handle Safe Arm, Part no. MBEU 188913, by 95%. The current method was to individually mask the parts. A prototype jig was made to accommodate 12 Handle Safe Arms and only expose the designated faces for masking. This proved the 95% time saving, which would equate to approximately £5000 per annum on projected orders. A permanent jig is being made and this method will be extended to other components of a similar type.

Example 2 also took place in the Finishing section with the team consisting of Carole Thompson, Kasia Sypniewska, Karl King and Robert Morrissa. The problem was lack of storage space in the Masking area leading to excessive time being taken to locate and sort work. Racking and a bench were removed and replaced by 2 cages with a system put in place to allocate work in date order. Time to organize and allocate work has been reduced from 2 hours per day to less than 5 minutes, thus improving productivity.

Example 3 took place in the Experimental Shop with the team consisting of Sean Moloney and Douglas Walshe. The problem was lack of organisation and time wasted in project enquiries to the wrong Experimental Fitter. The appropriate Business Improvement Techniques were used, resulting in the erection of a large magnetic display board at the entrance of the shop detailing all projects being worked, their status, and the location and storage of stock. Time savings are 1 hour per day, per fitter, thus improving productivity.



Business Improvement Techniques, Level 2 training group – Denham



Business Improvement Techniques, Level 2.5 training group – Chalgrove

ENVIRONMENTAL.....Energy Initiatives

Lighting Changes

New LED car park lighting has been installed and replacement external LED lighting is also being introduced around the site. LED lights rarely fail so fewer replacement bulbs are required, saving materials (and the job of replacing bulbs high up on car park posts) and energy as LED lights consume far less energy overall.

The Main factory lights (some 800 off) are also being replaced after many years service, using a system that was successfully installed in the Chalgrove warehouse. The existing system is controlled by sensors that operate 40 lights at once. The new system has a sensor on each light, so only lights that are needed will operate, saving electricity, and at the same time a new self-testing, high-intensity, fire emergency light system is being installed.

NEW STARTERS



Alkin Izzet
Purchasing



Andrew Wilkin
Pyro, Chalgrove



Ben Brier
Pyro, Chalgrove



Dalton Hopkins
Purchasing



David Watts
Inspection



Hachemi Matoussi
Fitting Shop



Jon Davies
Explosives, Chalgrove



Jordan Robinson
Fitting Shop



Josh Payne
Fitting Shop



Karl King
Finishing



Leslie Roger
Inspection



Matthew Coe
Logistics



Matthew Preedy
Sheet Metal



Michael Cooper
Sheet Metal



Michael Sharman
Sewing Room



Terence Ratcliffe
Pyro, Chalgrove



Toby Fitzgerald
Sheet Metal

FOCUS ON PEOPLE



John Puccio began working at Martin-Baker in September 1969 and retired on 26th August 2011, 42 years later. John worked as a Fitter in the Final Assembly Department. Over the years, John has maintained his enthusiasm for his job and is well known for his love of the Company. So much so, Martin-Baker was pleased to welcome John back in early October after a short break in Sicily!



Heiko Eckert visited Martin-Baker Denham on 31st October. Heiko ejected on 23rd March 2009 from a Tornado, operated by the German Air Force.



In August, the Martin-Baker Sports and Social Club held the Retirees Annual Dinner for former employees of Martin-Baker. The event was very well received by all so many thanks to all those involved in making it a success.



Salvatore Salamone (Fitting Shop) joined the Company on 10th April 1978, 33 years ago. Salvatore is due to retire on 22nd December and plans to spend his time looking after his garden, playing bowls and going to Sutera for a few months of the year.



Mary Harrington retired on 2nd September 2011 after joining the company on 24th September 1984, 27 years ago. Mary worked on many projects throughout her time with Martin-Baker, including T-38 and the F-5 ejection seat upgrade programme.



Colin Bates celebrated his 65th birthday on 17th November 2011. Colin began working at Martin-Baker on 2nd October 1989, 22 years ago.



In early September, Martin-Baker welcomed ejectee John Kershaw to our offices in Denham. He was given a short tour of the Machine Shop, Final Assembly and the museum. John ejected from a Buccaneer on 13th February 1969 while on 736 Sqn at RNAS Lossiemouth.



Martin-Baker at the Aerospace Technology Exhibition

Martin-Baker exhibited one of our Mk16 US16LA ejection seats at the Aerospace Technology Exhibition at the Department for Business Innovation and Skills, London. The event was branded 'Aerospace is Great Britain' and was set up to coincide with the 'Great Britain' campaign for the UK Government, launched by David Cameron.

The event was open to members of the public from 10-28 October and Mark Prisk MP, Minister of State for Business and Enterprise, visited the event and met with John Buckler, Head of Commercial Operations.



JSF Seat at the DSEi exhibition

Martin-Baker lent one of our JSF mock up ejection seats to W.L Gore to exhibit it at their stand at DSEi exhibition.



Cassie's Super Cycle

From September 10th-19th, Cassie Sutton cycled 946 miles from Lands End to John O'Groats as a personal challenge and a fund raising mission.

Cassie has, so far, raised over £1500 for the Alzheimer's Society and for a local charity and residential home, Meadowcroft in Thame, which is part of The Orders of St John Care Trust. This home has been purposely built with its own Dementia unit to provide care for Alzheimers/Dementia sufferers.

Cassie would like to thank everyone for all their kind donations and support.

To make a donation, please visit:

www.justgiving.com/Cassies-Super-Cycle



The Ecuadorian Air Force (Spanish: Fuerza Aérea Ecuatoriana, FAE) was officially created on October 27, 1920. However, as in many other countries, military flying activity started before the formal date of birth of the Air Force.

The history of Ecuador is marked by many skirmishes with its neighbour, Peru. As a direct result of the 1910 Ecuador-Peru crisis the members of Club de Tiro Guayaquil decided to expand their sporting activities into aviation as well. Renamed Club de Tiro y Aviación, they started an aviation school.

Aviation did not start in earnest until the early forties when an Ecuadorian mission to the United States resulted in the delivery of an assortment of aircraft for the Aviation school at Salinas. Three Ryan PT-22 Recruits, six Curtiss-Wright CW-22 Falcons, six Fairchild PT-19A Cornells and three North American AT-6A Harvards arrived in March 1942, considerably boosting the capacity of the Escuela de Aviación at Salinas.

The fifties and sixties saw a further necessary build up of the air force, gaining more units and aircraft. Meanwhile efforts were made in enhancing the facilities at various airbases. In May 1961 the "First Air Zone" with its subordinate unit Ala de Transportes No.11 was founded.

The FAE fighter force relies on a mixed fleet of Kfir and Mirage F1s both based at Taura AB and expected to serve until 2015 and 2012 respectively. Most FAE fighters have been upgraded within the last decade, including seven single-seat Kfirs which were modernised to Kfir CE standard, during 2000 - 2005. No further Kfir CE conversions are currently planned for the remaining four Kfir C2/TC2s. Both the Mirage and Kfir contain Mk10 ejection seats.

Frontline combat units are supported by two squadrons, equipped with A-37B/OA-37B Dragonfly and Strikemaster Mk 89/90 aircraft tasked with Close Air Support (CAS), Counter Insurgency and Lead-In Fighter Training (LIFT) roles. Ecuador is the last military operator of the Strikemaster, while the aging A-37B fleet mostly comprises former US Air Force aircraft. More recently, 24 Embraer Super Tucanos have joined their LIFT fleet.

Current inventory:

A/C Designation	A/C Qty	Seat Qty	Ejection Seat
CHEETAH C/D	9	15	ZM6 / B10L
SUPER TUCANO (ALX)	24	48	BR10LCX
KFIR	11	11	IL10P / JM6
MIRAGE	13	13	RM4



Sir James Martin is pictured being presented with Martin-Baker's Queen's Award for Export Trade & Technological Innovation in 1966 and 1967. These were the first two Queen's Awards that Martin-Baker received.

EJECTION REPORTS

Date: 10th October 2011
 Operator: Bangladesh Air Force
 Aircraft type: Nanchang A5
 Seat type: BD10LV
 Where: Zahur
 The pilot ejected successfully

Date: 18th November 2011
 Operator: Alenia Aermacchi
 Aircraft type: M-346 Prototype
 Seat type: IT16D
 Where: Dubai, UAE
 Both crew ejected successfully

Date: 2nd November 2011
 Operator: USN
 Aircraft type: T-45 Goshawk
 Seat type: NACES
 Where: NAS Kingsville
 Both crew ejected successfully

