

M Hamilton

RAAF. 1966 to 1972

Avionics Technical

481 Squadron.

2nd line 3rd service and technical support operation for three active/operational Mirage fighter squadrons.

Squadron was responsible for maintenance of all avionics covering in-flight radar and communications systems for the mirage including all lab based testing and verification environments. Equipment covered (Doppler navigational, weapons guidance, Radar altimeters, IFF, and radio communications and flight computers.) It had further responsibility for maintenance and support of the Mirage Simulator.

Entered the RAAF in 1966 attended Radio college at Laverton graduating in 1968.

Posted to Williamtown NSW Fighter Aircraft Base where I was assigned role in Com Nav Section. Worked in problem rectification on a significant range of avionics equipment and also analysis of recurrent issues with regard to validation and preparation of design modification recommendations for such problems.

1971 received a posting to Point Cook 1FTU Flight Training Squadron. Where as an NCO held the responsibility of managing the servicing and repair of all squadron Nav and Radio equipment.

Whilst at Point Cook furthered my education by studying and receiving a Diploma in Higher Industrial Electronics.

Control Data Australia. Joined 1972 as CE Computer Engineer.

Pre-eminent Super Computer Company in the world during 1970's and 1980's

Trained and Worked in Technical Support on the following systems and locations

3300, 1700, Cyber 7100, cyber 7200, cyber 7300, cyber 173, cyber 7600,

Vic Tab Carbine and Rim-fire systems, Melbourne Uni Computer centre, RMIT, CSIRO Canberra

Central computer system, Aus Bureau of Stats Canberra, Australian Tax Office Canberra Central Computer System,

I had two roles one as Engineer in Charge of ATO Operation (Canberra) and Regional Technical Support Engineer for all systems within the Pacific Rim.

Had involvement in the design and development of on-line diagnostic software systems pertaining to large scale peripheral equipment utilised on Cyber Computers and as such worked with a select group of engineers based globally and the USA. As a result had involvement in specific problem issues at NASA Langley in the period of Shuttle development, Boeing Seattle, Eastern Cluster Centre Washington DC.

Because of specific expertise in Complex Tape subsystems was involved in the development of Online diagnostic systems in Minneapolis followed by lecturing on same to KIST in South Korea.

Worked in Minneapolis with small select group (3) in the development of a specification for 6400 BPI tape storage data recording and retrieval as a base for CDC future Tape system.

1977

Engaged by the Royal Hong Kong Jockey Club in an Executive position as Computer manager for the ShaTin Racecourse development, holding responsibility for Overall Computer systems development for what was to be at the time the worlds fastest Betting transaction processing system. Established both Hardware engineering and Software engineering support groups and the requisite facilities.

The system was effectively developed and implemented and remained in service in excess of 20 years before technology had advanced sufficiently to be able to replace it.

1980

Established Computer Power Engineering Services a JV with Computer Power
Independent Support and services provision to Owner operators of critical computer systems.
Clients which were as diverse as:

Metrol Train Control operations (Melbourne Metropolitan Rail Operations)

Liquid Air

BHP seismic satellite Ops.

GAF (Government Aircraft Factory)

CSIRO Electron Microscopy group.

ARL Aeronautical Research Labs.

Developed enterprise into a \$10 mil pa operation which included a founding design group.

Sold interest to take over the design operation along with TND

1986

Established Computer Plus design

Special Purpose design Group providing services by way of bespoke developments .

Clients:

CSA

specific computer designs for

Orien Submarines.

Sigorsky Helicopter Simulator

ABC Earth Station Satellite Feed Switching.

Metrol Melbourne

Train Control System Failure Fallback Switching Control System.

Dialog Corporation.

Designed a peripheral boot system board that would enable the booting of all and any boot device
that could attach to any DEC computer system.

Designed on our own cognizance and sold the manufacturing rights to Dialog for \$AUD 500,000
plus royalties for 5 years.

Ericsons

Integrated train control console for Tangara Train System NSW.

Alcoa

Telemetry Isolation system to enable increases in efficiency of more accurate power tracking
across the complete Pot Line at Point Henry aluminium smelter.

Development of improved roller tracking for greater precision in the Point Henry Rolling Mill.

1990

Eagle Systems 1990 to 1992

Designed a range of PC compliant Graphic cards Ethernet cards and compatible X86 system mother
boards. Boards were taken through to mass production.

Ran an in house PCB assembly operation that produced upwards of 5000 units per month with

major clients being the local PC compatible assemblers and supply base.
Eagle developed a reputation for leading edge products at cost effective pricing into the market that had high level of reliability
Eagle was subsumed into Lemarne Corp.

Nomadic Communications/Clyrcom

Founder

1992 to 2000

Established a special purpose design and development operation with the specific purpose of early entry development of Radio based packet data systems.

Chose to work and develop wireless modems that would utilise the evolving Mobitex networks developed by Ericsons and utilised by Bell South around the Globe.

Worked closely with Bell South as they were the certifying body and had the pleasure of being the only organisation around the world who gained a complete level of conformity to the Mobitex standard.

Other entrants to this market were Motorola, Maxon, Rim, Ericsons.

We clean room developed the modem against the standard including developing a base station simulator and complete network simulator against which we internally carried out our own audit testing. Worked with and inside Zilog corporation in the development of a new microprocessor architecturally targeted at the requirements of embedded wireless devices. (Z183) Developed the internal structure of the ic to have internal hard stored boot image services. The Z183 went into production and was designed into Nomadics modem offerings.

Modems were produced and tested in-house and supplied to the following customers.

A good deal of these modems are still in service

Clients were:

Verifone USA

Bell South

Mars Corporation.

Tyco Fire systems Monitoring.

Had negotiated an agreement with Erricsons in Sweden to handle all on going development of modem technology in the Mobitex space when as founders we were leveraged out of Clyrcom by hostile pursuit by Good Technologies USA.

2000 to present

Clyrus/Ayrenet.

Diversified engineering design group.

Developments carried out to date are:

GPM 2001

Engine Monitoring systems for 1.2Mw reciprocating engine gensets. Landfill power generation. Installed multiple systems in Illinois USA for Run Energy at power stations in Libertyville and Morris.

Worked with EDL at landfill operations here in AUS at Clayton landfill and others.

Shadow Caddy 2002

Developed for Shadow Caddy Pty. Ltd. A self powered fully autonomous golf caddy that faithfully followed a walking golfer wherever he or she went. (Literally.)

A complex development that included wireless constant motion direction finding both azimuth and range, a collision avoidance system, an adaptive motion drive system and tank steering system.

The systems were developed through to production when they were then handed to Shadow Caddy. They subsequently produced and delivered some 1000 units into the market around the world.

Stadia Media 2004

Developed a Scrolling sign system for advertising at the MCG ground internal perimeter.

Development covered each unit discrete controller, a 171 node RS485 dual link communications network, An overall control system for event movement for signage both manual and sequenced automatic. Developed also a diagnostic suite that could run both off-line and on line (whilst event in progress). Supplied technical maintenance services to Stadia media for same for some 5 years following successful production and commissioning.

Vibration Technology Pty Ltd. 2008

A subsonic vibration system for fluid movement assist for the exit of grain and other particulate matter. System developed and patented and is currently at the full product development stage awaiting capital.

Displaynet 2010- 2011

Designed and developed a tri-vision blade that comprised two passive faces and one face with 16mm pitch full colour daylight viewable video matrix tile set.

Blades were purpose designed to be able to operate under intense radiant heat conditions along with relevant internal power supplies and control logic and interconnections.

The complete systems were fabricated in Display net's facility and tested. 12 complete 44 blade systems were delivered to Stadia Media)(Aegis) for utilisation as sight screens for the International cricket events held annually within Australia.

Railnet safety systems.

Staffed and led the development group for the development of a completely new approach to 2012-2015 Railway level crossing systems.

Specified, architected, developed and audit tested a multiple sign system and independent train detection system with all telemetry control and status including sensors handled wirelessly.

Signs have a unique powerless fail to safe mechanism that exceeds currently in use RX5 systems. Further the complete system runs from solar power and batteries and is not influenced by grid failure or grid connection.

System is installed at two locations in QLD and has run live from 2013. Both systems are still in operation and daily use.

2015

The founders of Railnet Safety systems were leveraged out of ownership of their interest in the company by others and Ayrenet chose to not continue its services to the new entity.

Ayrenet is currently working on the evolution of a wireless based telemetry system for remote rail networks under its own cognisance. And as such will be part of the founder group of the intended SPV

Michael Hamilton

Age 68

Education

Born UK 1948

Primary School Clopton Northamptonshire.

Secondary School Laxton Grammer (Day House of Oundle Public School) 1959 to 1966

Qualifications GCE (Cambridge/Oxford) O/A level English Maths pure and applied, physics, Art.

Moved to Australia March 1966

Joined the Royal Australian Airforce June 1966

Radio College RAAF Radio Technical Certificate September 1966 to February 1968

RAAF NCO exams for Technical Command and Management for the following ranks

Corporal,

Sergeant,

Flight Sergeant.

Collingwood Technical College Higher Industrial Electronics Diploma. 1970 1972 Night Time

Control Data Institute 1972 through 1975

3300 Systems hardware design and architecture including Software Operating System.

Cyber 7300 Systems hardware design and architecture including Software Operating System.

Cyber 173 Systems hardware design and architecture and advanced trouble shooting

Cyber 7000 series Buffer Control Systems for large scale mass storage.

All education past this point has been self study and includes the constant and relentless maintaining of technical discipline whilst enhancing skill levels of project development and

management, Product development processes, Economics, and to maintain my sanity Philosophy.