

New Zealand Amateur Radio Milestones

This is an index of achievements, events and happenings along the journey of Amateur Radio in New Zealand. As a list of significant "firsts" and of regulatory changes, it is not claimed to be perfect. It is not intended to record the winners of annual contests and awards but it may show when such events were first introduced and list any highlights. You are welcome to suggest items for listing. The support of many people who have provided information over the years is acknowledged. Please notify any errors found and send any ideas and suggestions to: zl2amj@nzart.org.nz Thank you!

Ham Shacks, Brass Pounders & Ragchewers, A History of Amateur Radio in New Zealand, by Ian Dougherty, 1997, is available from NZART Headquarters: nzart@nzart.org.nz

1888

George Kemp attempts wireless experiments in Gisborne.

1899

John Cooper demonstrates wireless telegraphy at Canterbury University.

1902

James Logan sends Morse code messages across Wellington Harbour.

W. P. Huggins in Timaru and Joe Passmore in Dunedin also send messages short distances.

1903

Establishing amateur stations without permission is outlawed.

1908

Amateur stations in Dunedin send first official wireless message between land-based stations.

1909

Amateurs operating illegally interfere with naval communications.

1911

Outside aerials banned.

1912

First reported use of amateur radio in an emergency when a ship is rescued at the entrance to Wellington Harbour after amateurs operating illegally pick up a distress call.

1914

All amateur activity banned.

Amateurs continue to operate illegally.

1921

Provisional permits issued for amateur stations.

1922

November 5, Ralph Slade first NZ amateur to receive US amateurs.

Wireless telephony used for first time.

1923

Regulations for Amateur, Experimental and Broadcasting Stations gazetted on January 18.
 Annual license fee for grade one operators two pounds £2; grade two operators one pound £1.
 Examination fee for operator's certificates 5 shillings.
 Morse tests 10 and 8 wpm.
 Minimum age 14.
 Wavelengths 140-180m.
 Maximum power 50W.
 First amateur radio contact with Australia on April 26, between Frank Bell at Shag Valley in Otago (using callsign BELL) and Charlie Maclurcan 2CM in Sydney, on 160 m.
 June 8, Dan Wilkinson 2AB, in Motueka, first licensed amateur.
 Forty licences issued by end of the year.

1924

NZ allocated call sign prefix Z.
 May 22, Ivan O'Meara Z2AC in Gisborne and Carlos Braggio RCB8 in Buenos Aires make first NZ-South America contact and set world distance record for two-way radio communication.
 Further world records set by Ivan O'Meara Z2AC in Gisborne and Jack Orbell Z3AA on ship off South American east coast.
 September 21, Frank Bell Z4AA at Shag Valley and Wallace Magner 6BCP in San Pedro make first NZ-North America contact and set new world record.
 Oct 18, first round-the-world two way radio contact between Frank Bell Z4AA at Shag Valley and Cecil Goyder G2SZ in London on 92m.

1925

Single license replaces previous two grades.
 Standard Morse test 10 wpm.
 Wavelengths 120-160m.
 Maximum power 100W.
 Representatives from twenty-three countries meet in Paris on April 18 and form the International Amateur Radio Union. Frank Bell Z4AA elected member of Executive Committee.
 Number of licences reached 100.

1926

The New Zealand Association of Radio Transmitters formed, in Auckland, on August 16.
 Annual subscription five shillings.
 Brenda Bell first YL operator.
 Joe Johnson Z2GA first portable transmitter/receiver licence.
 Gordon Smithson Z1AF makes first NZART Official Broadcast.

1927

International Telecommunication Union Conference in Washington established internationally-agreed frequency bands.
 NZ allocated prefix OZ.
 Sangster Shield contest starts.

1928

January, first issue of *'Break-In'* published and provided free to NZART members.
 First crystal-controlled transmitter in New Zealand built and operated by Gordon Brown OZ4AE and Arnold Grubb OZ4AL.
 On September 23, first overseas 10 metre contact between Hilton Arthur OZ1AN and OA3CP in Melbourne.

1929

NZART admitted to IARU.
 Harmonically-related bands came into use.
 NZ allocated prefixes ZK-ZM. Opts for ZL for mainland stations.
 QSL Bureau established, handled 390 inward cards at a cost of 13/8d.
 NZART negotiated a reduction in licence fee from £2/2/- to £1/10/-.

1930

World record 10m contact between Norm Edwards ZL1AA and F8AW in France.
 Myrt Earland ZL3AG first licensed YL operator.

1931

February 3, Hawke's Bay Earthquake, the genesis of AREC. Amateurs provide vital communications.

1932

Radio Regulations gazetted.
 Morse test increased to 12 wpm.
 All amateurs allowed to use 160m and 80m.
 Higher frequency bands opened up to those with higher degree of skill.
 March 6, Radio Emergency Corps formed.
 First national REC field-day held.

1933

NZART log book available at 1/6d.
 Official broadcasts resumed at 15 wpm.

1934

First contact between aircraft and ground station, established by Casey Harris ZL4CA and Ray McConnell ZL4BV in Otago, on 5m (60 MHz).
 NZART becomes an Incorporated Society.

1935

First NZART Call Book published.
 TV experiments authorized on the 5m band and on wavelengths below 1m.
 Canterbury amateurs attempt first E-M-E on 5m using ICW.
 ZL2RC and ZL2OG communicated over 8.5 mile path on 5m.
 Norm Laugesen first NZART Honorary Life Member.
 VK/ZL/OC contest started.

1936

Number of amateurs reaches 1000.

- 1938
 Dave Brown ZL1HY first ZL awarded DXCC.
 First TV article published in *Break-In*.
- 1939
 Amateur radio banned for the duration of World War II.
 Amateurs serve as wartime radio operators.
 Amateur gear used in war effort.
Break-In published in cyclostyled form throughout.
- 1945
 December 8, 7.30 p.m. "H-Night", wartime ban on amateur radio lifted.
 Operation resumed on 3.5 to 3.96 MHz and 58.5 to 60 MHz only.
 Morse test increased to 15 wpm for HF permit holders.
- 1946
 Further pre-war bands released and overseas contacts resume.
 50 to 54 MHz made available.
 NZART Call Book included in subscription as service to members.
 Memorial Contest starts.
 ZC1 army surplus transmitters sold for 20 pounds £20.
 NZART Official Broadcasts recommenced, by ZL2IY.
- 1947
 First two-way contact across Cook Strait on 50 MHz.
 50 MHz record by ZL1HY and ZL4BK at 635 miles.
- 1948
 First article on SSSC (SSB) in *Break-In*.
 First contacts on 2400 MHz, by Bill Collett ZL4BP and Jeff Walker ZL4DH.
 First two-way trans-Tasman contacts on 50 MHz.
 Worked All Pacific and Worked All Branches awards introduced.
- 1949
 The Maori language allowed on air as plain language in addition to English.
 REC re-named Amateur Radio Emergency Corps, AREC.
 144 to 148 MHz made available.
 144 MHz record contact by ZL3AQ and ZL3JX at 54 miles.
 World record 50 MHz contact between Maurice Wills ZL4GY and K6BF.
- 1951
 World record 144 MHz contact 1340 miles between Dave Buchanan ZL3AR and VK2AH.
- 1952
 National Field day and Frequency Measuring Contests start.
 First SSB contacts, between Jack Mason ZL1QS and Maurie Walker ZL1AU, using home-built equipment.
 21 to 21.45 MHz available.
 Examination became 50 multi-choice questions.

1953

420 MHz record contact of 50 miles between ZL3AR and ZL3AQ.
 May 31, Old Timers' Club (ZL) formed in Palmerston North.
 Minimum age increased to 16.
 New Zealand has more amateurs per capita than any other country.
 From 1 September the 80m band 3.5 to 3.96 MHz was reduced to 3.5 to 3.90 MHz.

1954

First two-way contact on 10 GHz, between Jack King ZL2AKP and Ron Morgan ZL2GQ.
 First transistor articles in *Break-In*.
 French, Italian, Spanish and Dutch languages permitted as plain language for amateur radio.
 Roy Pottinger ZL4GP makes first transistor transmitter contact with fellow Dunedin amateur, then world distance record transistor contact with a Christchurch amateur.

1956

First two-way RTTY contact between NZ and USA, ZL1WB and WØBP.

1958

On-air demonstration of 405-line TV on 420 MHz by ZL2APC.
 First Boy Scout JOTA.

1959

Midnight January 31, 50 to 51 MHz withdrawn for use by commercial Channel 1 TV.
 First NZ-Britain RTTY contact between Alec Hyndman ZL3HJ and G3CQE.

1960

Jock White ZL2GX achieves world's first DXCC 300.

1961

OSCAR-1 launched December 14. Trevor Kendrick ZL2HP first NZ amateur to hear it, on December 17.

1962

March 10, Women Amateur Radio Operators' Club formed at Rotorua.
 Maximum power limit raised from 100W to 150W final anode input power.
 Minimum age returned to 14.
 Matamata amateurs establish first contact between a glider and a ground station.

1963

Doug Gorman ZL2IY awarded MBE in Birthday Honours for services to Amateur Radio and to Search And Rescue.
 Non-Morse technician licence grade introduced for operation above 144 MHz.

1964

First hand-held 2m solid-state transceiver demonstrated, by Harry Burton ZL2APC.

1965

First all-electronic scanning receiver demonstrated, by Harry Burton ZL2APC.

- 1966
Integrated circuits first mentioned in *Break-In*.
- 1967
First mention of FETs in *Break-In*.
Establishment of beacons on 144, 432 and 1215 MHz approved.
Slowscan TV on HF bands approved.
Reciprocal licensing starts.
Roy Needham ZL1KG sets top world score in YL ISSB contest.
- 1968
NZART team attends foundation meeting of IARU Region 3 Association, Sydney.
- 1969
ZM prefix permitted for first time as alternative to ZL, to celebrate Cook Bi-centenary.
Post Office adopts use of Hertz.
World record 144 MHz E-M-E contact between John Morgan ZL1AZR and Kjell Rasmusson SM7BAE.
Bruce Rowlings ZL1WB appointed command station for OSCAR 5, later also for OSCARs 6 and 7.
- 1970
New Radio Regulations introduced, Grades I, II and III replacing the former two grades and the HF permit system.
'Bandplan Committee' formed for two-metre repeater coordination.
Christchurch amateurs commission first amateur beacon and first repeater.
- 1971
Roy Needham ZL1KG first amateur outside USA to receive US Counties Award.
Two-metre FM repeaters established at Whangarei and Waikato.
ITU Space Conference in Geneva, the birth of the Amateur Satellite Service.
NZART team attends Second IARU Region III Conference, Tokyo.
- 1972
All grades of operators allowed to work through OSCAR-6 and subsequent satellites.
- 1973
Morse speed reduced to 12 wpm for Grade One operator's certificate.
- 1974
ZM prefix permitted for Commonwealth Games.
First full-colour ATV test-pattern transmitted, by Doug Ingham ZL2TAR.
- 1975
Wellington VHF Group 3300 MHz world record contact between Mt Murchison and Mt Ruapehu.
NZART team attends Third IARU Region III Conference, Hong Kong.
- 1976
Golden Jubilee of NZART celebrated, Sir William Pickering guest speaker at conference.

Use of 1803 to 1813 kHz authorized.
 Licence fee raised to \$6.00.
 First full-colour cover for *Break-In*.

1977

Novice grade licence introduced.

1978

Forty-metre band extended to 7.3 MHz on a non-interference basis.
 NZART team attends Fourth IARU Region III Conference, Bangkok.
 First ATV repeater operational, at Wellington.
 First two-way contact on 24 GHz, by Peter Williams ZL2ARW and John Yaldwyn ZL2TRV.

1979

Licence fee raised to \$10.00.
 Hart Postlethwaite WB6CQW guest speaker at Conference, Upper Hutt.
 WARC in Geneva, NZART paid for an Amateur Service representative (Fred Johnson ZL2AMJ) to attend as a member of the New Zealand delegation.
 Term of office for NZART President and Council extended to 2 years.
 50 to 50.15 MHz sharing arrangement introduced.
 First Cook Strait crossing by two-way ATV, by ZL2TWM and ZL2ASF.
 First 432 MHz E-M-E contact with USA by ZL2BCG and K5JL.
 Jim Jackson ZL2BCG then Graham Alderson ZL3AAD set 432 MHz E-M-E world record when contacting I5MSH.
 Tasman Sea crossed on 432 MHz, by ZL1TAB and VK2BQJ.
 Chuck Rademacher ZL1ADI wins IARU Radiosport Championship and sets world record, repeating both feats the following year.

1980

World record E-M-E contact between ZL3AAD and DL9KR on 432 MHz.
 QSL Bureau handled 247,000 cards at a cost of \$1,300.
 Frequency Management Working Group established.
 Call signs retained when amateurs move between radio districts.

1981

First European 50 MHz contact and new world record: ZL1MQ and ZB0T, SSB, 18,250 km, 17 April.
 Conference opened by His Excellency the Governor General, Sir David Beattie.
 "Milestones" appears in the NZART Annual Callbook for the first time.
 ZLØ prefix introduced for visitors to New Zealand.
 Random 5-letter groups approved for Morse broadcasts from approved stations.
 144 MHz bandplan changes to 600 kHz offset for FM repeaters.
 First 2m linear repeater, Dunedin, by ZL1BTB and ZL4DO.

1982

NZART membership peaks at 4397.
 NZART Headquarters opens in Upper Hutt.
 ATV record, 70cm: ZL2TWS Mt Ruapehu to ZL2ASF Mt Murchison, 373 km, 31 January.
 Licence fee raised to \$13.
 10.1 MHz band made available.

Non-Morse operators permitted on 51 to 53 MHz band.
 NZART team attends Fifth IARU Region III Association Conference, Manila.
 AREC 50th Anniversary celebrations.
 Tasman Sea crossed on 1296 MHz by ZL1AVZ and VK2BDN.

1983

World Communications Year, ZM prefix used.
 Tom Clarkson ZL2AZ received MBE in Birthday Honours List for services to Amateur Radio.
 New Frequency Allocation List gives extended band at 1.8 MHz, new bands above 47 GHz, Grade II and Novice CW or Phone Bands at 28 MHz.
 CW identification by RTTY operators no longer a regulatory requirement.
 Band-plans and emissions now for the Amateur Service to regulate.
 Packet radio used in New Zealand by ZL1AOX, ZL1WN and ZL1UFK.
 World record 28 MHz packet radio contact between Ian Ashley ZL1AOX and Tom Clark W3IWI.
 First New Zealand to Chatham Islands contacts on 144 MHz band by ZL4OY/C and ZL3AR.
 First ZL-ZL E-M-E contacts between Graham Alderson ZL3AAD and John Shorland ZL2AQE, on the 432 MHz and 1296 MHz bands.
 World record 1296 MHz E-M-E contact between Graham Alderson ZL3AAD and Jan Ottens PAØSSB.
 First 610 MHz contact by ZL2AQF and ZL2ARW on December 3, between Mt. Kaukau and Kakanui.

1984

Review of Amateur Service by NZ Post Office.
 Morse transmission authorized for Grade III operators.
 QSL Bureau now a free service to NZART members, non-members continue to pay 10 cents a card.
 Chatham, Kermadec, and Auckland/Campbell Islands became ZL7, ZL8, and ZL9 respectively.
 First operation from the top of Mt. Cook, by Robin McNeil ZL3TIG using two-metre hand-held.

1985

18.068 MHz band made available.
 Karl Meinzer DJ4ZC guest speaker at Conference in Christchurch.
 Sixth IARU Region III Association Conference, at Auckland, with visits by IARU President and ITU General-Secretary.
 IARU Administrative Council meets in Auckland.
 Bob Knowles ZL1BAD appointed IARU International Intruder Watch Coordinator.
 First ZL and New Caledonia contact on 144 MHz, by ZL2TPY and FK8EM.
 Ian Ashley ZL1AOX command station for OSCAR 10 and later OSCAR 13.

1986

NZART Diamond Jubilee, 60th year.
 Annual Conference at New Plymouth opened by Governor-General Sir Paul Reeves.

NZART Official Broadcast simulcasted by ZL2BHF on 3900 kHz and on Amateur TV for the first time.

Amendment to Radio Regulations established General, Limited, and Novice Licence grades.

Power measurement changed to mean/PEP output power rating.

Logbook not now obligatory but recommended.

Licence fee increased to \$25.00 plus GST.

First six-metre packet radio contact with VK, by ZL2BKC and VK2YME.

1987

Amateurs allowed to choose any vacant callsign.

Examination became all multi-choice questions.

New Zealand Post Office replaced by the New Zealand Radio Frequency Service as New Zealand Administration.

Licence Fee made \$35 plus GST.

24.89 to 24.99 MHz band available.

610-620 MHz band extended to 622 MHz.

National repeater system Wellington-Auckland opened, later extended to Christchurch.

Official broadcast networked on 3900 kHz and VHF repeaters.

JOTA provisions for Scout and Guide Camp stations during World Jamboree.

Three-person Tribunal appointed to investigate the size of NZART Council, ZL2SJ as Convenor.

World record 2304 MHz E-M-E contact between John Shorland ZL2AQE and Tom Clark W3IWI.

Guy Kendall ZL2BIV first amateur to communicate from hang-glider.

A ZL amateur attends IARU Administrative Council meeting for first time (Netherlands, Fred Johnson ZL2AMJ).

Tom Clarkson ZL2AZ receives Roy Stevens Memorial Trophy.

1988

New Radio Regulations.

14-year age limit for Amateur Licence abolished.

Amateurs allowed to handle third-party messages within New Zealand.

Non-amateurs allowed to speak on air.

W6SAI guest speaker at conference.

80m Novice band extended to 3.625 MHz.

NZART team attends Seventh IARU Region III Association Conference, Seoul.

World record 50 MHz E-M-E contact between Graham Jonas ZL2BGJ and Ray Rector WA4NJP.

1989

ZM prefix permitted for XIV Commonwealth Games and for New Zealand's 150th Year Celebrations, the Sesqui-Centennial Year, 1990.

Dan Wilkinson ZL2AB received QSM in Birthday Honours List for services to Amateur Radio.

NZART makes written and verbal submissions to a Parliamentary Select Committee for the first time (Radiocommunications Bill).

1990

NZART Examination Division established and runs amateur radio written examinations for first time.

New arrangements and special conditions announced for access to the bands 50-51 MHz and 53-54 MHz.

Novice Grade operators granted access to the 144-148 MHz band.

The band 610-622 MHz realigned to 614-622 MHz.

Access by New Zealand radio amateurs to the band at 2.3 GHz restricted to 2.396 to 2.45 GHz.

Access to all HF bands made immediate on gaining a General Grade licence.

Access permitted to the 165-190 kHz and 922-927 MHz bands by New Zealand radio amateurs subject to special conditions.

1991

NZART team attends Eighth IARU Region III Conference, Bandung.

Provisions introduced for visiting operators from countries having no formal reciprocal agreement with New Zealand to operate here.

Call-signs issued to visitors to New Zealand to now be "(home call)/ZL".

1992

Ron Kingston ZL4MK awarded QSM for services to Search And Rescue and to Civil Defence.

WARC in Torremolinos, Spain, NZART paid for an Amateur Service representative (Fred Johnson ZL2AMJ) to attend as a member of the New Zealand delegation.

Dave Brown ZL1HY hands in call sign after becoming world's top DXer, having contacted all 323 countries on current DXCC list and 375 out of 377 on the all-time list.

1993

NZART runs Morse testing for the amateur radio qualification for the first time, at Conference at Pukekohe.

New Zealand General and Limited licences recognized by CEPT (European Conference of Postal and Telecommunications Administrations), first non-CEPT country so recognised.

1994

Number of amateur radio licences peaks at 6613.

Society For The Preservation Of Amplitude Modulation (NZ) first annual general meeting held in New Plymouth.

New Zealand amateurs compete at ARDF World Championships in Sweden.

NZART team attends Ninth IARU Region 3 Conference, Singapore.

Fred Johnson ZL2AMJ appointed Chairman of Directors, IARU Region 3.

1996

Raoul Island Dxpediton, ZL8RI, organised from New Zealand.

NZART web page established, by Jamie Pye ZL2NN and Steve Davis ZL2UCX.

1997

AREC re-named Amateur Radio Emergency Communications.

Rebecca Butcher ZL3URB youngest-ever licensed amateur, aged 8.

World record 10 GHz E-M-E contact between Greg Storz ZL1GSG and Joe Fehrenbach DJ7FG.

NZART team attends Tenth IARU Region 3 Conference, Beijing.

NZART publishes NZ amateur radio history: *Ham Shacks, Brass Pounders & Rag Chewers*.

1998

NZART Radioscience Education Trust established.
 Young Amateurs of New Zealand formed.
 NZART again makes written and verbal submissions to a Parliamentary Select Committee (Radiocommunications Amendment Bill).

1999

The size of NZART Council reduced from President with 17 Councillors to President with 9 Councillors.
 NZART Business Management Committee established.
Break-In publication changed from eleven issues per year to six per year.
 Campbell Island Dxpedition, ZL9CI, organised from New Zealand, makes world record 96,004 contacts.

2000

Amateur Radio examinations 'by-appointment' commence using computer-selected public-domain questions, developed by ZL1AN.
 Study Guide for examination preparation available, developed by ZL2AMJ.
 NZART team attends Eleventh IARU Region 3 Conference, Darwin.
 ZM prefix permitted for Millennium celebrations.
 First 6m PSK31 trans-Tasman contact: 19 November, ZL3JT and VKEDB, 50.10 MHz.
 First 6m PSK31 Western Pacific contact: 24 December, ZL3JT and JR9DGU, 50.09 MHz.

2001

NZART 75th Anniversary Year.
 Headquarters Info-Line commences, Editor ZL2BHF.
 First 6m PSK31 trans-Pacific contact: 4 March, ZL3JT and N6XQ, 50.29 MHz.
 New 50 MHz world record contact: ZL3VTV/1 and EH7KW, 19,921 km, SSB, 3 April.
 The letter "Q" sent from ZL6QH on 184.4 kHz by ZL2BBJ and ZL2CA in very-slow-speed Morse (dual-frequency keying: 1 Hz shift, 120 seconds per element) received by VE7SL, 11,709 km path, 30 June.
 NZART 75th Anniversary Conference at Auckland, Lester Earnshaw (ex-ZL1AAX) guest speaker.
 New Radiocommunications Regulations. 12 October, Novice grade removed, 5 words-per-minute Morse speed for General grade licence.
 Amateur Frequency Allocation Chart reviewed. 165 kHz band now entered on the chart, spectrum limit now extended from 400 GHz to 1000GHz.

2002

1 February: AREC receives the inaugural National Search and Rescue Award, "*The Award is presented to Amateur Radio Emergency Communications in recognition of their outstanding performance and contribution to Search and Rescue in the New Zealand Region particularly the skilled communications personnel and technical capabilities that have established them as the preferred provider of emergency communications in support of Search and Rescue in New Zealand*".
 First trans-Tasman 2-metre band contact by random meteor scatter propagation, by Bob McQuarrie ZL3TY Greymouth, and Rex Moncur VK7MO Hobart, on Saturday 13 April, 1950 km.
 Fred Johnson ZL2AMJ awarded MNZM in the Birthday and Jubilee Honours List for services to Amateur Radio.

First 122.25 GHz contact, between Ralph Sanson ZL1TBG and Stephen Hayman ZL1TPH, 25 August 2002.

2003

Amateur radio licence fee changed to \$70 initial fee and then \$35 annual fee thereafter. WRC-2003 in Geneva, NZART paid for an Amateur Service representative (Fred Johnson ZL2AMJ) to attend as a member of the New Zealand delegation.

The MED Radio Spectrum Management group introduces direct on-line access to its licensing database with a licence search facility, a downloadable electronic callbook spreadsheet and a spreadsheet with beacon and repeater licence details.

2004

A two-way QSO on 137.70 kHz on 20 March set world LF distance record: ZM2E Quartz Hill (operators ZL2CA and ZL2BBJ) with UA0LE, 10 311 km.

Amendments to the New Zealand Radio Regulations arising from the WRC-2003 bring extensive changes from 17 June.

Now only one grade of licence: Limited Licensees become General Licensees.

Showing competency in Morse code is no longer mandatory for any New Zealand licence.

Third party traffic with any country is now permitted.

Visitors to New Zealand with current amateur licence in home country may now operate under a "General User Radio Licence".

LF band extended to 130 to 190 kHz.

Maximum power output now set at 500w PEP and independent of mode.

Preparing for and meeting the communications needs of disaster relief is now documented.

Encoding of control signals by licensees of remotely-operated stations approved.

Newly licensed amateurs to spend a three-month period on bands below 5 MHz and on bands above 25 MHz and log 50 contacts before gaining access to all bands.

[This "Milestones" document last reviewed: July 2004]