

## “THE GEN”

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#### Introduction

“The Gen” was published by the Electrical Engineering Branch of the Department of Civil Aviation, with the purpose of informing Airways Engineering staff, Australia-wide, of:

- a) new equipment types and installations, and
- b) sharing maintenance ‘tips’ and suggestions

It appeared in 32 parts between July 1958 and August 1967.

There were two editors: Bruce Fraser until September 1963, and then Stuart Williamson for the remainder of the life of the publication.

Each issue started with a philosophical article, ‘Editorially Speaking’.

NO.	DATE	TITLE OF ARTICLE	DESCRIPTION
1	July 1958	<i>New Approach Lights</i>	BBT approach lighting equipment at Adelaide, Brisbane, Darwin, Hobart, Perth and Sydney
		<i>It's a fact!</i>	Use of DCA obstruction light unit for signalling at Victorian Trotting Control Board tracks
		<i>Presentation to trainees</i>	Vic/Tas Technicians-in-Training awards
		<i>New high-intensity runway lights</i>	ELFAKA high intensity “ball beam” runway lights to be purchased
2	October 1958	<i>Checked your feeders lately?</i>	Check for deteriorated VAR coaxial cable
		<i>Reliability of radio equipment</i>	Reliable electron tubes
		<i>Those bleeding resistors</i>	DME H.T. resistors
		<i>VHF link systems</i>	SY - Kings Tableland – St Mary’s – Penrith
		<i>Heavy Duty Fire Tenders</i>	Thornycroft Nubian type TFA
		<i>Training School display</i>	Vic/Tas technical training school display

<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
<b>3</b>	April 1959	<i>Flush lights</i> <i>Left at the barrier</i> <i>Personnel &amp; personal</i> <i>75 mc/s marker beacons</i> <i>The Spectrograph</i> <i>Filling forms</i> <i>Antenna impedance measuring units</i>	ELFAKA high intensity flush runway lights Getting DME beacons to start on a cold morning Archibald, Hansen, Shelton, Forty, King, Hewitt, Mace, Milner, Wilson (Bruce) Change modulation on marker beacons from 35% to 95% Diesel lubricating oil Fault reports NDB antennas
<b>4</b>	August 1959	<i>Exit Radio Maintenance Bods</i> <i>VAR motor alternators</i> <i>Did you know?</i> <i>NSW models new workshops layout</i> <i>Silicones</i> <i>VHF radiators</i> <i>Com. Console – Mark?</i> <i>Sydney Training School prize-giving night</i>	Improving reliability of electrical power supply to electronic equipment Change in design of gears in VAR 90/150 Hz frequency converters DME buildings Model of Marrackville (NSW) workshops Properties and applications Transceivers in airport vehicles and SAR. SCR-522 replacement Design of new console strip modules White /Doubleday present awards to radio trainees.
<b>5</b>	November 1959	<i>SSB for DCA networks</i> <i>The Zodiac dinghy</i> <i>CAT 2- 0800</i> <i>This push-button age</i> <i>Personnel &amp; personal</i>	Introduction of Single Sideband for HF point-to-point network SAR Zodiac dinghy Power failure at Mt Barrow (Tasmania) Introducing "Widmaier" console switches and Krone terminating blocks. Greenham, Staton, Hatcher, Millward, Davidson, O'Keefe, FU staff, Zeising, Pascoe, Krygger, Bennett (Doug), Andrew.

<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
6	February, 1960	<i>Molybdenum Disulphide</i> <i>Coarse detectors</i> <i>New modulation meter</i> <i>Launching 40 ton barge</i> <i>Wot? – No Mess</i> <i>Wanted – on any terms</i> <i>ICAO Technical Mission</i> <i>Thermistors</i> <i>Transistorised NDBs</i> <i>Vacuum runway sweeper</i> <i>Teletype troubles</i> <i>Lubrication of motor bearings</i> <i>Moresby night operations</i> <i>Annual Exhibition, Western Region</i> <i>Guest Editorial G. Brown</i> <i>Navaid's-Overseas</i> <i>Master Clocks &amp; Date Stamps</i> <i>Mountain Tops Again!</i> <i>Light Aircraft Communications</i>	Applications and care in its use Forthcoming VAR / ILS monitor Course width modulation meter for VAR and ILS Built at Devonport, Tas for use at Cocos Island. Launched by Mrs Anderson (wife of D-G) New type of dust filter for radio equipment Joke, word-play on electrical expressions and terms Technical Assistance programme Uses Introducing transistorised NDBs – their benefits Being used at Sydney for sweeping runways and taxiways for jet aircraft Problems with propagation paths How to properly pack with grease. New airport lighting tested by VH-CAR Regional Training School exhibition COM Plan; Interim Nav Aids Plan. Tacan, Tacan and DME, Decca, Doppler Devonport VAR Light aircraft now fitting HF communications on 3023.5 Kc
7	April, 1960		
8	June, 1960		

NO.	DATE	TITLE OF ARTICLE	DESCRIPTION
9	August 1960	<i>Promotion</i>	
		<i>The Wind Doth Blow</i>	Dines Anemometer and Synchrotac indicator panel
		<i>Zener Diode Operation</i>	Silicon junction (zener) diodes as voltage regulators
		<i>Transistorised "Buzzer" for Control Towers</i>	OC72 blocking oscillator
		<i>New HF Receiver</i>	CR-6
10	October 1960	<i>Editorial</i>	New heading on Gen designed by Chas. Holroyd.
		<i>Airways Engineering Works Coordination Committee (AEWCC)</i>	Meets three times each year
		<i>Senior Tech Exam</i>	Report on how candidates handled questions
		<i>More Hot Air</i>	Cooling DME beacons
		<i>Meekatharra Lighting</i>	
11	February 1961	<i>Drawing Electrical Circuits</i>	Single line, schematic and main wiring diagrams
		<i>Airways Engineering in Europe and the USA</i>	Radar developments, navigation aids, installation & maintenance practices
		<i>Grain oriented Cold-Rolled Steel</i>	Weight and size of transformers.
		<i>The Iodine Cycle Lamp</i>	Experimental stage; possible use for runway lights
		<i>Luminescent Lamps</i>	
		<i>Personal Relationships</i>	"Journal of the I.E.E."
		<i>Silicone Treatment for Insulators</i>	Moisture protection
		<i>Fibre Glass</i>	Manufacture, moulding, application

<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
12	June, 1961	<i>Fair Competition</i> <i>Sydney's International Transmitting Station</i> <i>Operation "Moonshine"</i> <i>The Faults of Forms</i> <i>Success</i> <i>Selective Calling for Communication Circuits</i> <i>The Back Room Exposed</i> <i>Reflective Fluorescent Lamp</i> <i>Trumpet Obligato</i> <i>What Next?</i> <i>Training</i> <i>New Metric Units</i> <i>Technique of Passing Examinations</i> <i>No-Break Generator</i> <i>Skyline Survey</i> <i>Sydney Training School Display &amp; Prize Giving</i> <i>Test Equipment Development</i> <i>Electrical Maintenance for Reliable Operation of Equip.</i> <i>Refrigerators for Eskimos</i>	Cutting project costs Llandilo, opened in 1959 Mildura Airport Lighting 'on the cheap' Mis-printed CA170 fault reporting forms "Journal of the I.E.E." Selcal on Comm. RTF Network The 'Rialto' Laboratory Selection procedure & evaluation of new equipment Darwin airport lighting cable faults Field staff assisting technicians-in-training Senior Technician's Exam King's Tableland and Mt Canobolas Dederang site Taut metal suspension in portable indicating meters
13	August, 1961		
14	October 1961		

<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
<b>15</b>	January 1962	<i>Perfectionism</i>	Using USA space programme as model for engineering perfection
		<i>Things to Come</i>	Transistors, miniaturisation, micromodules
		<i>"It's Your Motor Car, Sir!"</i>	Running costs, depreciation, etc
		<i>Papua-New Guinea Apprentice of the Year</i>	Pokang Kising wins trip to Australia
		<i>I.L.S. – V.A.R. Test Beacons</i>	
		<i>The Second Think</i>	Decision making
		<i>Correspondence</i>	Fibreglass manufacture, moulding, curing, physical properties
<b>16</b>	March 1962	<i>Artful Circuits</i>	Making engineering drawings easier to understand
		<i>Personal and Personnel</i>	Includes Dawson, de la Lande, Greenham, Kongi, Scrine, White, Mulholland, Upham
		<i>File the Information – not the Contacts</i>	Maintenance of electrical relay contacts
		<i>Runway Visual Range (RVR)</i>	Measuring light transmission
		<i>Faulty Reports</i>	Fault Reporting Handbook
		<i>S.A.R. Gets Longer and Faster</i>	SAR 76 foot craft for Cocos Islands
		<i>Automation- Friend of Foe?</i>	
<b>17</b>	July 1962	<i>Space Age Skills</i>	
		<i>Growth by Division</i>	David Medley, George Brown, Harold White
		<i>On the Move</i>	Stern, McRae, Archibald, Parsons, Pascoe, Ellis, Reiper, Chegwiddden, Tilleard.
		<i>Straightening the Course</i>	Stan 7
		<i>Climbing the Tree</i>	Technical promotions
		<i>Air Conditioning Training</i>	Moorabbin equipment to Grattan Street
		<i>DCA Lighting Display</i>	At Melbourne Town Hall

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<b>18</b>	October 1962	<i>Model Behaviour</i> <i>Vic/Tas School Exhibition</i> <i>V.H.F. Omni Range Program</i> <i>English as she should be writ</i>	Aerial test centre at Moorabbin Radio, electrical, ATC and Com. Sites for VORs, expected in August 1963 Towards better writing
<b>19</b>	December 1962	<i>Perth Airport</i> <i>Line Voltage Regulators</i> <i>On Dropping a Clanger</i> <i>Australia-designed Lighting</i> <i>Exams</i> <i>Cordless Power Tools</i> <i>Automation in A. T. C.</i> <i>More Illuminating Information</i> <i>New Generating Sets</i> <i>Teaching Teachers</i> <i>On the Move</i>	New terminal and operations building Stabilac N.E.S.A. lights Report on Senior Technician (Radio) Examination No. 5001 May be useful Automatic transfer of data Flourescent starters Dormans Instructional methods course at Head Office L. Leslie, Abrams, Haack, G. Brown, Reiper, R. Andrew
<b>20</b>	April 1963	<i>New SAR Launch for Cocos Islands</i> <i>Churned-up Air</i>	Viscount Inquiry at Botany Bay
<b>21</b>	June 1963	<i>In the Groove</i> <i>A "First" to Vic/Tas Region</i> <i>Instruments Without Pivots</i> <i>Shedding the Light</i> <i>Protection from Precipitation Static</i>	Achievement through non-conformity Patent for recording anemometer (also mention of DME) More accurate meter movement Tungsten filament lamps – reasons for burn-out Antenna fibreglass covers in snow

<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
<b>22</b>	September 1963	<i>"Of Good Reports"</i>	Report writing
		<i>Another Clanger</i>	More on florescent starters
		<i>Terminal Control Radars</i>	Two CSF radars for Sydney and Adelaide
		<i>The Engineer and His Report</i>	Report writing
		<i>Moresby Com Centre</i>	Major installation project announced
		<i>Hotter Fittings</i>	Insulating materials at high temperature
		<i>Are You Ready?</i>	New era of engineering projects
		<i>A Useful H.F. Aerial</i>	3023.5 Kcs antenna
		<i>"The Bluebird" – Lake Eyre</i>	DCA involvement
		<i>Interesting Cross-Country Vehicle</i>	Hafflinger at Hobart, for mountain access in winter
<b>24</b>	December 1964	<i>Personal</i>	White, Slingo, Richards, Upham, de la Lande
		<i>Beware of Plastics</i>	Corrosion problems associated with plastic
		<i>Good Show!</i>	DME at Wittenoom Gorge
		<i>A Helping Hand</i>	Radio maintenance at Nadi
		<i>New H.F. Comms Equipment</i>	R25, R22, T22, Teleradio 60A
		<i>VOR Programme, part 2</i>	Wittenoom Gorge DME power line
		<i>It's Moving!</i>	Tullamarine
		<i>The Tullamarine Project</i>	AACC
		<i>Unusual Counterpoise for Cowes V.A.R.</i>	
		<i>Rigid P.V.C. Conduits</i>	Grades on ducting
<b>25</b>	December 1964	<i>Carbon Tet.</i>	Use with care



<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
<b>26</b>	March 1965	<i>A Refreshing Idea</i>	Air-conditioning
		<i>Tullamarine Airport Lighting</i>	Precision Approach Runway, Cat. 1 & 2 ; Runways
		<i>Projection Desk</i>	Overhead projector for training
		<i>A Word from our former Editor</i>	Bruce Fraser departs
		<i>Personal Cooling Machine</i>	Portable air conditioner
		<i>Tends in Electrical Equipment</i>	
<b>27</b>	June 1965	<i>Team Work</i>	
		<i>Tullamarine A.A.C.C.</i>	
		<i>The I.T.U. Aeronautical Conference, 1964-1966</i>	
		<i>Clear Finishes? Short Outdoor Life</i>	Varnishes in hot climates
<b>28</b>	December 1965	<i>This is Progress</i>	ILS developments
		<i>Category II ILS for Sydney and Melbourne</i>	STAN 37 and 38
		<i>A Boquet for Coffs Harbour</i>	Power at Point Lookout
		<i>Ten Commandments of Electrical Safety</i>	
		<i>Air Conditioning Tullamarine Operations Centre</i>	

<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
29	April 1966	<i>Installing the New Console in Sydney Tower</i>	"Proc. IEEE, April 1964."
		<i>The Next Twenty-Five Years</i>	Technical Training Year
		<i>Where are our Trainee Engineers</i>	Advantages of Single Sideband
		<i>DCA and TTY 1966 in W.A.</i>	
		<i>S.S.B. Versus D.S.B. A.M.</i>	
30	August 1966	<i>Tullamarine Progress</i>	
		<i>The Jumbo Jet</i>	
		<i>Personal</i>	Feige, O'Keefe, Willoughby, Leevers
		<i>Choosing 10KW HF Transmitter</i>	Cocos Islands
		<i>A Gong for W.A. Regional Workshops</i>	Safety awareness
		<i>Automatic Airport Information</i>	AAI on VOR and NDB
		<i>Landline Selcal</i>	
		<i>Beware!</i>	Rubber not always an insulator
31	December 1966	<i>An Auspicious Event</i>	P.S.B. decision of radio and electrical technicians equality
		<i>Farewell George Walen</i>	Mechanic on Cocos Islands
		<i>W.A. on the Move</i>	Airports to meet needs of mineral discoveries
		<i>Homing on D.M.E.</i>	
		<i>D.M.E. MK.VI Beacons</i>	DME equipment, airborne equipment, transistorised NDBs
		<i>Personal</i>	Stern King, Upham, Levick, Tobin

<b>NO.</b>	<b>DATE</b>	<b>TITLE OF ARTICLE</b>	<b>DESCRIPTION</b>
32	August 1967	<i>The Globetrotters</i>	O'Keefe, Kozar, Knox, S. Wilson, Symes, Harris, Court, Boyd
		<i>A New Power Source</i>	Thermo-electrical generation
		<i>ICAO Com/Ops Meeting</i>	
		<i>Installation of Three 10 K.W. Multi-Channel Transmitters at Cocos Islande</i>	
		<i>Tullamarine Progress</i>	
		<i>B.H. Williams Retirement</i>	Mechanic at Carnarvon
		<i>Death by Misadventure</i>	Klaus Hillman at Port Moresby.

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