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ZS6BAQ ZS6KR en wie nog?

WATTS

10 - 2003

Year 69

Monthly newsletter of the Pretoria Amateur Radio Club
Maandelikse nuusbrieff van die Pretoria Amateur Radio Klub.



PARC, PO Box 73696 Lynnwood Ridge 0040, RSA



<http://www.qsl.net/zs6pta> (courtesy ZS6DX)

Bulletins : 145,725MHz 08:45 Sundays / Sondae
Relays : 1840, 3700, 7066, 10135, 14,200 MHz
depending on season

Swapshop: After bulletin 2m and 40m (also on-line)

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Next meeting

Date: 09-10-2003
Time: 19:30 for 20:00
PARC Clubhouse,
South Campus,
University of Pretoria.
SE cnr University and
Lynnwood roads.

Editorial

The PARC is in its 69th year and where are we going? Look at the history that Mike ZS6FG gleaned from old ZS's. Thank you Mike, firstly for the effort in compiling this and for thinking of the poor Editor who has to find publishable material. (this is a hint; especially for contributions in Afrikaans)

I think our history tells us that there was more Club loyalty than today – regrettably our lives have become too complicated and leisure time so limited that even socializing once a month at Club meetings seems to be a problem. Or is it that the hobby has become boring? I think that is untrue as the field is very wide. Are ARC's an exception wrt other clubs where members sharpen their skills and participate in a common goal? If that goal is challenging or competitive, all the better, as it nourishes solidarity and an urge to participate in formulating strategies to either better yourself and/or Club status. I appeal to you to ponder these issues and become pro-active so that all the effort is not left to a willing few. Competitions, rallies, field days, foxhunting, projects, fleamarkets and public service are ideal methods to improve your hobby and build your Club.

Redaksioneel

Die PARK is nou in sy 69^e jaar en waar gaan ons heen? Kyk na ons geskiedenis wat Mike ZS6AFG vir ons uit ou ZS'e gehaal het. Dankie Mike, vir die moeite om dit saam te stel en dat jy aan die arme redakteur gedink het wat publiseerbare materiaal moet soek. (Dis 'n skimp; veral vir bydraes in Afrikaans)

Ek dink ons geskiedenis dui aan dat Klubverband hegter was – ongelukkig het ons lewens so ingewikkeld geraak dat selfs maandelikse byeenkomste by Klubvergaderings 'n probleem blyk te wees. Of is dit dat die stokperdjie vervelig geraak het? Ek dink dit is onwaar want die veld is baie wyd. Is RAK's 'n uitsondering mbt ander klubs waar lede hulle vaardighede slyp en deelneem aan 'n gemene doel? As daardie doel 'n uitdaging of wedywering is, soveel beter, want dit kweek samehorigheid en 'n aansporing om deel te neem aan strategie-formulering wat jouself beter bekwaam, en/of die Klub-status hoog hou. Ek doen 'n beroep op almal om daaroor te dink om pro-aktief te word sodat al die werk nie op 'n paar gewilliges berus nie. Kompetisies, tydrenne, velddae, jakkalsjag, projekte, vlooiemarkte en gemeenskapsdiens is ideale maniere om aan jou stokperdjie en aan jou Klub te bou.

Asof dit telepatie was, het die volgende skrywe in my besit beland wat bostaande sentimente tot in diepte uitmuntend beskryf. Dit was geplaas in 'n hengelytdskrif en is slegs woorde soos "hengelaars" is vervang met "lede" en hengelsport" is vervang met "stokperdjie". Kom lees hulle siening van hoe 'n klub moet inmekaar steek en suksesvol wees. Hoe sien ons onself in hierdie verband?

'n Goeie Klub

Opgeneem uit *Stywe Lyne* – September 2003 – (met permissie) Skrywer: Danie Engelbrecht

Aan watter vereistes moet 'n klub voldoen om as 'n goeie klub uitgeken te word? In die artikel gaan ek 'n paar riglyne neerlê, sodat bestaande en nuwe klubs hulle kan meet aan dit wat gesê word.

Bestuur Die bestuur moet die steun hê van al die lede. Daar moenie dwarstrekkerie onder bestuurslede wees nie. Hulle moet op en wakker wees en die belange van die klub op die hart dra. Lede wat nie hulle taak uitvoer nie, moenie op die bestuur gekies word nie. Oppas vir grootpratere. Hulle praat baie en doen min. Moenie sulke mense op 'n bestuur verkies nie. Die bestuur se taak is om die klub lewendig te hou en uit te bou. Moet dus nie altyd volhard met ou lede nie. Nuwe lede is soms baie geesdriftig en beteken baie vir 'n klub. Moenie onwillige lede verkies nie. Hulle gaan net 'n negatiewe beeld uitdra. Dit is nie 'n ereposisie om op die bestuur te dien nie. Dit verg tyd en geld om 'n bestuurspos te beklee. Onthou net: lede wat op 'n bestuur verkies word, word nie vergoed nie.

Voorsitter Ek noem die voorsitter apart omdat die hele bestaan en wese van die klub deur die voorsitter bepaal word. Gelukkig is die klub wat 'n nugter voorsitter het. Hy moet iemand wees wat leiding kan gee en beslissings maak. Enige lid kan nie as voorsitter verkies word nie. Die voorsitter moet 'n natuurlike leier wees wat voorloop en klublede saam met hom neem. Hy moet vergaderings kan lei en sorg dat die lede binne die klub se grondwet en huishoudelike reëls optree.

Sekretaris Die sekretaris van 'n klub het 'n besondere belangrike taak. Vroue maak 'n beter sekretaris uit as hulle manlike eweknieë! Die hele klub se administrasie word deur die sekretaris hanteer. Die mens sorg dat deeglike notules van vergaderings gehou word en is verantwoordelik vir alle korrespondensie. 'n Klub sonder 'n goeie sekretaris kan nie voortbestaan nie.

Tesourier Die mens werk met die klub se finansies. Hy moet dus 'n betroubare en eerlike mens wees. Hy moet sorg dat geen ongemagtigde uitgawes plaasvind nie en dat daar 'n kwitansie vir elke inbetaling en bewysstukke vir elke uitgawe bestaan. Sonder 'n goeie tesourier kan 'n klub nie bestaan nie.

Beplanning 'n Klub moet sy jaarprogram deeglik beplan. Elke lid moet oor die beplanning beskik. In die beplanning moet datums van kompetisies, jaarvergaderings en sosiale aangeleenthede uitgestippel word, sodat die individuele lede hulle eie beplanning kan doen. 'n Klub wat lukraak kompetisies doen, is gedoem en sal gou lede verloor.

Grondwet en huishoudelike reëls Daar moenie jaarliks aan die wet en reëls getorring word nie. Dit bring net onsekerheid en ongemak. Die klub se bestuur en lede is gebonde aan die wet en reëls. Alle besluite moet daarbinne geskied. Daar sal altyd iemand wees wat probeer om daarbuite op te tree. Dit is die plig van die bestuur om so iemand aan te spreek. Deur streng by die wet en reëls te hou, word daar nie uitsonderings gemaak nie en kan die bestuur nie van voortrekkerie beskuldig word nie. Lede moet vooraf kennis kry van vergaderings. 'n Sakelys moet saam met die kennisgewing gestuur word. Enige saak wat bespreek moet word, moet

minstens twee weke voor 'n beoogde vergadering aan die sekretaris gegee word, sodat dit as 'n agendapunt kan verskyn. Die punt *algemeen* moenie op enige sakelys voorkom nie. Die lede moet weet wat bespreek gaan word, sodat hulle hulleself kan voorberei. 'n Vergadering moet kort en saaklik wees. Dit moenie lede se tyd mors nie. Die voorsitter moet streng by die sakelys hou en enige bontpratory stopsit. Die vergaderings moet openhartig wees. Lede moet die gevoel kry dat hulle deel van besluite is, dan sal hulle besluite aanvaar en uitvoer.

Klubfooie moet redelik wees sodat self minder gegoede lede nie as gevolg van te hoë fooie verplig word om te bedank nie. Klubfooie word net aangewend om die klub se funksionering te finansier en om vir pryse gebruik te word. Vermoed onnodige uitgawes. Werk streng volgens 'n begroting.

Kompetisies 'n Goeie klub reël minstens 10 kompetisies per jaar. Lede moet weet wat elke kompetisie behels en moet ook weet wat die pryse sal wees. Dis 'n goeie beleid om pryse oor te hou tot met die jaarvergadering. Dit het die gevolg dat lede erkenning kry vir hulle prestasies en dit sorg ook dat meer lede die jaarvergadering bywoon. Almal wat bywoon, word geprikkel om ook in die toekoms aan kompetisies deel te neem.

Klinieke Baie lede is nie volledig bedrewe in die stokperdjie nie. Dit is die plig van die bestuur om gereëld lede op te lei, veral die beginners en kinders. Leer die lede alles t.o.v. die stokperdjie, sodat hulle 'n aanwinst vir die klub word. Veral moet daar aandag aan nuwe lede gegee word. Hulle moet as 'n eenheid funksioneer. Lede moenie afgeskeep voel nie. Samehorigheid versterk 'n klub.

Moeilikheidmakers Oppas vir mense wat van een klub na 'n ander beweeg. Vind eers by die vorige klub uit hoekom die mens daar weg is. Mense wat van een klub na 'n ander rondspring is gewoonlik moeilikheidmakers en enige klub, wat homself as 'n goeie klub wil beskou, sal nie plek he vir sulke mense nie. Die naam van die klub is belangrik. Elke lid moet trots op sy klub wees. Moeilikheidmakers breek hierdie harmonie af.

Jaarfunksie Die jaarfunksie moet ook die afsluitingsfunksie wees. Dit moet goed georganiseer wees en is 'n uitstalvenster vir die klub. Jaarverslae word voorgelê en 'n nuwe bestuur word verkies. 'n Geslaagde jaarfunksie bou die beeld van die klub.

Klere Dis altyd mooi om 'n klomp lede te sien wat hulle klub se klere met trots dra. Die klubklere moet sindelik en nie te duur wees nie. Moenie aan die klubklere verander nie tensy dit nie anders kan nie. 'n Klub sonder sy eie besondere kleredrag is nie 'n klub in die ware sin van die woord nie.

Geesdrif Klubs moet oppas dat hulle nie stagneer nie. Besture moenie net jaarliks oor en weer verkies word nie. Kry nuwe bloed en mense wat nog lus het om nuwe dinge aan te pak. Streef daarna om die klub uit te bou. Probeer voorsiening maak vir die behoeftes van al die lede. ('n Mens kan droom nê – Red)



Hierdie 7-man klub uit die jaar 1940 voldoen seker nie heeltemal aan al die vereistes nie maar dit lyk asof die meeste van hulle vol geesdrif is daar op die 'slopes' !

Daar is sekerlik heelwat RF in die kattebakke...

Nee, die voorsitter hou nie 'n lollipop vas nie – dis sy mikrofoon.

Klubklere is definitief uit en 'n hoed is 'n moet...

Het hulle ook 'n moeilikheidmaker? Is dit dalk die man in die middel agter wat nie aandag gee nie?

Nostalgia: Our (rich) history.

by ZS6AFG

The following snippets have been gleaned from past editions of Radio ZS, and are interesting to publish again.

Firstly, to indicate my interest in the Club, I must go back many years to when I was introduced, by the late Fred Anderson ZS6PW, ZS1LA ex ZS6KV to the then Pretoria Branch at room 66 Pretoria Technical College. I joined as a ZSL listener member around 1947, while still completing my schooling at Pretoria Boys High. Denis Brown ZS1R ex ZS6EK was my mentor in me taking out an amateur license. The CW test (1952) was held at the Vadersbond GPO building opposite the Moedersbond maternity home. In 2001, the wheel had done a full turn and I rejoined PTA, after leaving in 1964, to join the East Rand branch of the SARL.

1948 Aug ZS6JW still on 10m, does try 40 m sometimes, has a penchant for the yl's .
ZS6KO heard working the VK's. 10m merchants were heard relaying Lourenco Marques broadcast station as musical frequencies. Warned: DO NOT DO IT OM's
Visit to Waterkloof Air Station, ZS6BS, where the monthly meeting was held.

1948 Oct Branch provided stations for a 50 mile cycle race.
ZS6JW had two operations and is in the white house.

1948 Nov Committee elected to control all rallies. ZS6JW is out of hospital & ticking over on all cylinders.

1948 Dec Pretoria Wheelers had a fb race.

1949 Jul Members have arranged shack crawls to increase the interest of ZSL's, and encourage them to take the CW test. Two lectures have been delivered on learning code and building crystal oscillators.

1949 Jan Dave ZS6JW sold his Collins to buy an engagement ring? Is this the reason for the silence.

1949 Feb ZS6KO on 10m, comments on Bill's modulation.

1949 Apr Johannesburg members paid a visit to ZS6PTA.

1949 Jun Mike Smuts trophy" given to the Branch.

1949 Sep Invitation to non members to come to branch meeting at room 66 Technical College at 7.45pm.
Another cycle race held on the Delmas road. New idea when working mobile, was to add a length of wire to the top of the whip and attach a small windsock at the wire's end to keep it level (ZS6EK) when mobile.
Pretoria Branch first to be issued with a permanent 3-letter call sign.
Branch bulletins to follow HQ bulletin on 7185 kHz.
6m activity is increasing with 7 members, including ZS6JW.

1949 Nov Field day held at Hartebeespoort dam, where some members operated 6m maritime mobile.

1950 Aug An article was published under a series of articles about the League history and Pretoria Branch and it's place in the South African Radio League by Leon Verheijen ZS6GF. Leon was the P.M.G. liaison officer to the SARL. In 1934, the General Purpose Committee recommended to Council that Pretoria Section of Div 6 & PMB section of division 5, provided each respective membership does not fall below 7 members, be deemed to be Divisions and they shall accordingly have all the rights and be subjected to all the obligations of a Division of the League in terms of the Constitution. And so another milestone in the history of the League had been reached. After WW2, there was a concerted effort to form the Section. In the absence of any sign of revival on the part of the League, it was decided to form the Pretoria Radio Club. This Club was launched on 8 December 1944 with a membership of 8 pre-war licensed amateurs and 4 prospective amateurs. Meetings were held at the QTH of members, but soon membership grew, and were then held at the Pretoria Technical College. Early in 1945, with the revival of the League on 1 July 1945, the members of the Pretoria Radio Club became members of the League. As far as it is known, radio minded citizens of Pretoria started experimental transmissions around 1924. Piet Hoogenhout passed his CW test with the callsign ZS6P. Relay committee preparing for model aeroplane rally being held during Easter. 2 metre gang operating on 144.200 MHz from 20h00

1951 Mar OM Luther Uys ex ZS4E now ZS6E welcomed to the branch.

1951 May Branch visits the receiving station of the GPO at Derdepoort.

1951 Jul Editorial comment "What is the League doing for the Hams", unity is strength.

1951 Aug ZS6JW moved to div 5 as ZS5P.

1952 Jun Pretoria Branch to have a stall at the Industrial Show, complete with shack.

1952 Aug There will be a glass blowing demonstration at the next meeting.
Annual picnic to be held at Jacksfontein.
Experiments in the erection and removal of aerials single handed.
Motor cycle races at West Park. Discarded toys required by the Committee for charity.

1953 Mar Branch membership stands at 118 paid up members.

1953 Apr Branch dinner on June 11 at the Hellenic.
ZS6AFG busy building his car and hopes to have it ready for road test (Austin 7 1937 Nippy Sports).

1953 Nov Gys de Vries ex PA0IK-ZSL6PMI-ZS6AKO published an article in ZS "RF measuring bridge for VHF".
Pretoria Light Aircraft Club held an air rally at Wonderboom Air Field, using various ham stations.
OM F W P Ingleson ZS6KO has joined the branch.

1954 Nov New call sign ZS6ANU Bernie, 15 Reed Avenue Pretoria.

1955 Aug League Insurance Policy, applies to your normal place of residence. Sum limited to 5000.Pounds.

1957 Aug PTA total membership voting 104.

1958 Mar Luther Uys ZS6E, received Jack Twine merit award.

1958 Jun PTA membership 93.

1959 Mar ZS6AFG committee member.

1959 Oct ZS6KO 3rd in SARL CW contest.

1972 Dec Project Netset by PTA Branch = 22 SSB transceivers built for use in motor rallies, covering 160/80/40 metres (Chris de Souza ZS6AVC silent key).

1973 May Subs 1974/75 R10.00 per annum.
Pensioners> 65 yrs. and 15 yrs. membership R2.50 per annum.

1974 Jun Pretoria voting strength 89.

1974 Jul A.G.M held in Pretoria.

1975 Mar Lightning flash counter type RSA 10 CSIR, published in Radio ZS

1975 May ZS6A Wlly Browning (silent key) served as chairman of first "Branch" at Pretoria 1925 - 1935.
Vice Chairman Bill Ingleson ZS6KO.

1975 Jun Subs R12.00 per annum.

1975 Jul ZS6ET Richards (SK) Life Membership, OM Colin Duff ex ZS6AAO now ZS1CA Willie Wilson Gold Badge award.

1977 Jun Pretoria TESSA group Fred Anderson ZS6PW (silent key) / Dave Larsen ZS6DN / Costas Funerelis SV1DH in Athens working on 144.130 MHz, over a distance of 7100km.

1979 Feb A brief history of the Pretoria Branch by Don Stewart ZS6IA (silent key).

1979 Apr Fox Hunts - Radio direction finding by Bill ZS6KO

1980 Mar

1980 Apr

HOME BREW: The ZS2LR air-cored balun

(Radio ZS March 1988, Radcom August 1988, based on QST October 1980; condensed from: *G4LQI HF Antenna Collection*)

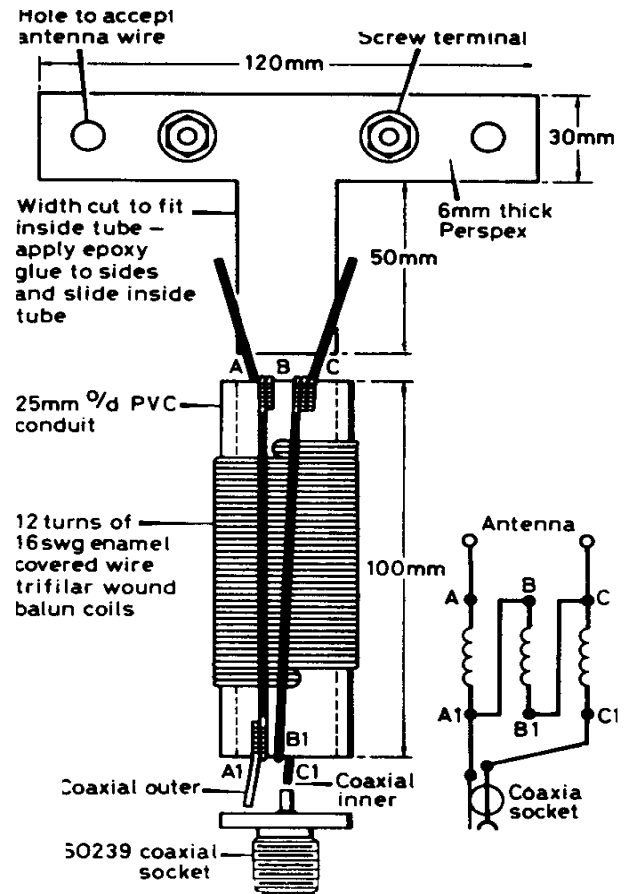
This effective home-brew 1:1 balun is based on a commercially made balun, rated at 4kW peak with less than 0,5dB loss. This 3-30MHz unit comprises 12 turns, 1,6mm wire, trifilar wound on a 25mm phenolic former. For 1,8-30MHz, use 13 turns on a 50mm former.

Ferrite-cored baluns do a fine job, but if overloaded or subjected to high SWR's, can generate harmonics and intermodulation. The air-cored balun cannot saturate, ring or generate harmonics. It is also much lighter.

The T insulator is Perspex, with the vertical part a tight fit into the coil former which can be a piece of 25mm white electrical conduit. In the drawing the interconnections of the coils are shown outside the coil for reasons of clarity, but in practice routed inside the coil.

An SO239 coaxial socket is connected at the bottom of the former, pushed up against the former and secured.

The balun can be wrapped with cotton gauze to cover the windings and filling all gaps that might allow the ingress of water as well as securing the connector to the former. The cotton can be impregnated with epoxy glue and allowed to cure. When installed, the terminals can be sprayed with Tectyl to prevent corrosion.



POWER, dBm and RMS VOLTAGE conversion chart

50Ω terminated systems

P(50Ω)	x	1	1,26	1,59	1,99	2,51	3,16	3,98	5,01	6,31	7,94
1000W	+60	223,6	250,9	281,5	315,9	354,4	397,6	446,2	500,6	561,7	630,2
100W	+50	70,71	79,34	89,02	99,88	112,1	125,7	141,1	158,3	177,6	199,3
10W	+40	22,36	25,09	28,15	31,59	35,44	39,76	44,62	50,06	56,17	63,02
1W	+30	7,071	7,934	8,902	9,988	11,21	12,57	14,11	15,83	17,76	19,93
100mW	+20	2,236	2,509	2,815	3,159	3,544	3,976	4,462	5,006	5,617	6,302
10mW	+10	0,707	0,793	0,890	0,999	1,121	1,257	1,411	1,583	1,776	1,993
1mW	0	0,224	0,251	0,282	0,316	0,354	0,398	0,446	0,501	0,562	0,630
		Volts									
	dBm	0	1	2	3	4	5	6	7	8	9
		mV(μV)									
1mW(nW)	0 (-60)	223,6	199,3	177,6	158,3	141,1	125,7	112,1	99,88	89,02	79,34
100μW(pW)	-10 (-70)	70,71	63,03	56,17	50,06	44,62	39,76	35,44	31,59	28,15	25,09
10μW(pW)	-20 (-80)	22,36	19,93	17,76	15,83	14,11	12,57	11,21	9,988	8,902	7,934
1μW(pW)	-30 (-90)	7,071	6,302	5,617	5,006	4,462	3,976	3,544	3,159	2,815	2,509
100nW(fW)	-40(-100)	2,236	1,993	1,776	1,583	1,411	1,257	1,121	0,998	0,890	0,793
10nW(fW)	-50(-110)	0,707	0,630	0,562	0,501	0,446	0,398	0,354	0,316	0,282	0,251
1(fW)	(-120)	0,224	0,199	0,178	0,158	0,141	0,126	0,112	0,099	0,089	0,079
P(50Ω)	x	1	0,794	0,631	0,501	0,398	0,316	0,251	0,199	0,159	0,126

Examples: 46dBm = 44,6 V = 40 W -12dBm = 56,7mV = 63μW 1 μV = -107dBm
(Contrived by ZS6KR)

TRAP TRAUMA

Measurements by Hans ZS6KR
Who is fooling who?

Trap measurements by different methods as shown gave a surprising result for which theoretical verification or clear-headed reasoning is needed as to which method measures what.

The MFJ set-up uses a loop wound over a plastic irrigation adapter (orange) that has the right inner diameter to accommodate insertion of the trap (white). A 51 ohm resistor is in series with the loop.

Without the trap inserted the impedance reading is 51 ohm plus a very small reactance.

With the trap inserted two sharply tuned resonance points with near zero reactance exist:



Fig1. Trap tuned to low resonance point

High resistance and almost zero reactance. MFJ loop current at a minimum caused by a reflected current in opposite phase?



Fig2. Trap tuned to high resonance point

The trap does not exist to the MFJ. Is this parallel resonance at 7,17MHz?



Fig3. GDO dip at 6.97MHz (50kHz/div)

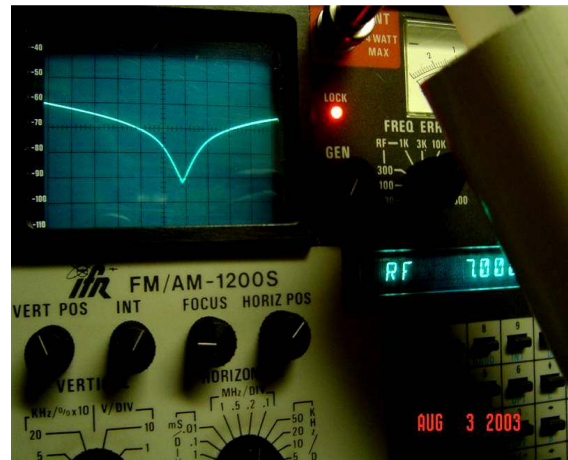


Fig4. Swept trap showing parallel resonance at 7,17MHz (200kHz/div)

Furthermore a GDO measurement with frequency verification was done on the same open-ended trap (Fig3.) and also a swept transfer characteristic as shown in Fig4. (centre line = 7,0000 MHz)

Facts from measurements:

1. Fig1 and Fig3 are in agreement but also Fig2 and Fig4.
2. Fig1 and Fig2 and Fig3 are open-ended trap measurements.
3. Fig4 is a 50ohm sourced and 50ohm terminated measurement.

A commercial trap gave similar results between exactly 7,00 and 7,20MHz so the above result is definitely not a quirk.

Is there a shortcut explanation? To my mind the Fig2-Fig4 method is more true to reality but is the aged "dip" method wrong? Does it all really matter? I would appreciate to have your thoughts on this.

HOT or COLD?

The following is an actual question given on a University of Washington chemistry mid-term. The answer by one student was so "profound" that the professor shared it with colleagues, via the Internet, which is, of course, why we now have the pleasure of enjoying it as well.

Bonus Question: Is Hell exothermic (gives off heat) or endothermic (absorbs heat)?

Most of the students wrote proofs of their beliefs using Boyle's Law (gas cool when it expands and heats when it is compressed) or some variant. One student, however, wrote the following:

"First, we need to know how the mass of Hell is changing in time. So we need to know the rate at which souls are moving into Hell and the rate at which they are leaving. I think that we can safely assume that once a soul gets to Hell, it will not leave. Therefore, no souls are leaving.

As for how many souls are entering Hell, let's look at the different religions that exist in the world today.

Most of these religions state that if you are not a member of their religion, you will go to Hell.

Since there is more than one of these religions and since people do not belong to more than one religion, we can project that all souls go to Hell.

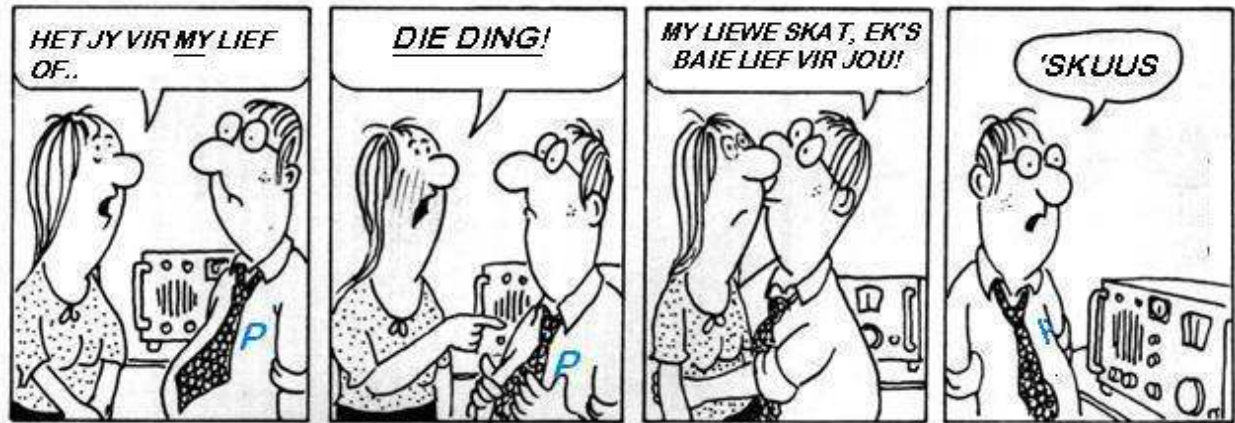
With birth and death rates as they are, we can expect the number of souls in Hell to increase exponentially. Now, we look at the rate of change of the volume in Hell because Boyle's Law states that in order for the temperature and pressure in Hell to stay the same, the volume of Hell has to expand proportionately as souls are added.

This gives two possibilities:

- 1) If Hell is expanding at a slower rate than the rate at which souls enter Hell, then the temperature and pressure in Hell will increase until all Hell breaks loose.
- 2) If Hell is expanding at a rate faster than the increase of souls in Hell, then the temperature and pressure will drop until Hell freezes over.

So which is it? If we accept the postulate given to me by Teresa during my Freshman year that, "...it will be a cold day in Hell before I sleep with you," and take into account the fact that I still have not succeeded in having an affair with her, then #2 above cannot be true, and thus I am sure that Hell is exothermic and will not freeze over."

THIS STUDENT RECEIVED THE ONLY "A".



LOST ANY PRISONERS LATELY?

(from a 1940 radio publication)

The FCC receives some odd communications, one of which was from a warden of a state prison who wanted to know if he could use local broadcasting stations to transmit emergency information regarding escaping prisoners. The FCC informed him that while the law prevents the use of standard broadcasting stations for routine police work, there was nothing to prevent him from sending news flashes containing information of interest to the public and relative to the escape. There is no law without a loophole is there?

Try to look unimportant – the bad guys may be low on ammo!
