



[01213.html](#)

There's no doubt that the Internet has changed peoples' perception of traditional shortwave listening. Twenty years ago, I could impress people just by saying that I'd been listening to Radio Australia. These days, with more and more people having access to Webcasts, the reaction is more likely to be on the lines of "so what?".

Those people for whom shortwave was always primarily a way of accessing overseas programming have adapted to the new order. Nowadays their listening is likely to use a mixture of different technologies. But there is still a substantial group of shortwave listeners who are primarily DXers, that's to say they concentrate their energies on the technical challenges of shortwave.

**Subgroups**

Within this group, there are various subgroups who focus on particular aspects of DXing: for example receiving stations on the Tropical Bands, or from certain regions of the world such as Latin America or Asia. But some specialised categories of DXing are based on technical characteristics - among them being harmonic DXing.

So what's a harmonic? Quite simply, it's a transmission on an exact multiple of the 'real' frequency. Well-designed transmitters suppress harmonics before they reach the antenna, so there is little or no radiation of these multiple frequencies. If there was, the spectrum would be in chaos. But in practice, with the high power used by many transmitters, some radiation (often just a few milliwatts or less) can take place. A fault in the transmitter tuning circuit can also cause more harmonic energy than normal to be radiated. Radio amateurs know that it's possible to transmit a readable signal around the world using very low power, and the same happens with broadcast transmitters.

**Advanced Skill**

A sensitive receiver and good antenna are a big help in the quest to find these signals, but it's not as simple as that. Receivers can be overloaded by strong signals, and these can sometimes appear at the exact spot on the dial where you would expect to find a harmonic - but in this case, the signal is actually being generated inside the receiver! No wonder, then, that harmonic DXing is considered an advanced skill, unsuitable for beginners.

But the rewards for concentrating on this special area can be great. In the past, I've heard the second harmonics (twice the 'real' frequency) of African stations operating on the 6 and 7 MHz band in local daylight. The actual frequencies - called the fundamental - were inaudible, as they were too low to propagate. But the harmonics above 12 and 14 MHz propagated differently. On occasions, logging a rare station on a harmonic frequency may be the only way you're ever going to hear it at your location.

Useful Knowledge I used this knowledge in the mid 1970's when I worked at BBC Monitoring, as occasionally we could get a readable signal from a harmonic when reception of the fundamental frequency was poor or nonexistent. One example I remember well was feeding a signal from Algiers to an Arabic monitor using 19020 kHz (2 x 9510 kHz, which was unreadable at the time).

Harmonics don't stop at twice the fundamental frequency. In theory, much higher multiples can exist, and indeed they can sometimes be heard. Mediumwave stations are occasionally received on 7 or 8 times the fundamental, or even higher. Some years ago, when BBC Radio One used 1215 kHz, one of the transmitters in the synchronised network was putting out a harmonic on 7290kHz for a number of successive days. This was especially interesting as it fell inside the 7 MHz broadcasting band. For obvious reasons, the majority of harmonics that are actually heard are well outside the broadcast bands, where they are less likely to be blocked by other signals.

**Lonely Pursuit...**

DXing harmonics was, until recently, a lonely pursuit. The harmonic frequencies are not listed anywhere, and many radio engineers are loath to admit to their existence even when presented with evidence. There are international regulations specifying the maximum permitted levels of harmonic radiation, and professional pride dictates that they will not easily admit that they may have exceeded them! There's also an ethical question for the listener about reporting harmonics to the station concerned. Although an engineer may not openly admit to the harmonic, he's likely to follow up a report and fix what is, at the end of the day, a fault. The harmonic is thereby canceled, and is unavailable for fellow enthusiasts to catch. How selfish do you want to be?

**...But Not Any More**

But with the aid of the Internet, it's now possible to spread the news of interesting harmonics much faster than in the days when you had to wait for a monthly printed bulletin. There's now a mailing list for harmonic enthusiasts. You can join the list, and see the latest catches in frequency order, via a special page on this Web site run by Mark Hattam in the UK. Or send an E-mail to

[harmonics-subscribe@egroups.com](mailto:harmonics-subscribe@egroups.com)

You will also pick up many valuable tips from experts. If you're looking for a new shortwave challenge, this could be it.

**NY / NJ / CT SHOPPING MALLS LISTENING GUIDE (Update)**

Since the last issue I have been spending considerable time at the malls in Northern NJ. I recently purchased the NASCAR type stubby antenna for my Opto Scout and I can see a definite improvement in finding VHF and UHF frequencies. The Miracle Baby antenna does a great job for sniffing out cellular frequencies, but that's not what I'm interested in at this time.

For the benefit of those who just signed up, here's an updated list which was originally published last month.

If you venture into a mall not listed and discover some new frequencies, please make sure to send us the changes. E mail us at [nydxa@hotmail.com](mailto:nydxa@hotmail.com) Here's a few tips when looking for frequencies. Most mall activity falls in the 462.000 - 465.000 Search this region in 12.5 khz steps. Also, I have seen mall operations being conducted on the FRS channels. While not intended for this purpose, the price and availability of these radios makes them very popular. While in the malls, monitor the FRS channels and you will heard dozens of shoppers talking amongst themselves! Happy Scanning!

**Edison**

Menlo Park Mall 464.4375, 464.5375

**Hackensack, NJ****Riverside Square Mall**

463.925 Security  
464.825 Mall Operations

**Paramus, NJ****Bergen Mall**

463.4375 Mall Operations

**Garden State Plaza**

463.5625	WPLF270	Mall Operations
464.850	WPLF270	Mall Operations
464.875	WPGS631	Mall Operations
154.625	KNAV412	Macy's
462.850	WNKE551	Macy's
464.100		Macy's
464.275	WNGS836	Macy's
463.4375	WNSF435	Nordstrom
463.5625	WNSF435	Nordstrom
463.8375	WNSF435	Nordstrom
464.0875	WNSF435	Nordstrom
464.2625	WNSF435	Nordstrom
464.6125	WNSF435	Nordstrom

**Paramus Park Mall**

463.865		Mall Operations
464.850		Mall Operations
464.475	WNLY652	Mall Operations
151.655	KWM314	Mall Operations (Suspected Old Freq - Very little activity)
462.650		Macy's
464.100		Macy's
464.500		Macy's
465.000		Macy's Voice Paging
464.6125		Sears
464.6375		Sears

**Fortunoff Rt. 17**

464.775	WNLG840	
465.000	WNLG840	
929.0875	WNLG840	(I suspect this is some sort of data channel)

**Mall at 4, Paramus**

464.5625

**LIVINGSTON MALL**

464.975 Livingston Mall

**Lodi, NJ Home Depot**

464.500

**Toys R Us - Paramus**

467.8125

**Home Depot - National Use**

461.2125, 463.2875, 464.6375

**Rockaway, NJ****Rockaway Town Square Mall**

464.975	(PL 97.4)	
465.000	Macy's	

**Short Hills**

Mall @ Short Hills 464.8250

**Wayne, NJ****Willowbrook Mall**

154.515 Mall Operations  
 463.5625 Mall Operations  
 464.6875 Mall Operations  
 464.775 Fortunoff  
 33.16 Macy's Licensed, but no  
 activity ever heard

151.745 Macy's  
 151.865 Macy's  
 151.895 Macy's  
 464.100 Macy's (Most Active of the above)  
 464.6125 Sears  
 464.6375 Sears (Not much activity - suspect  
 other freq's in use)

**Wayne Towne Center**

464.925 Wayne Towne Center

**Woodbridge Center Mall**

464.525 Woodbridge Center Mall

**New Jersey Malls Misc.**

Bloomingdale's 461.675  
 Bradlees 464.7125  
 Bridgewater Commons 464.425  
 Burlington Center Mall 464.925  
 Cumberland Mall 463.625  
 Daffy's Inc 464.550  
 East Brunswick Mall 467.750  
 Englishtown Flea Market 152.870, 153.035  
 Fashion Plaza Mall 464.475  
 Ferren Mall - N Brunswick 464.775  
 Forrestal Village-W Windsor 464.3750  
 Hackettstown Mall 463.625  
 Hamilton Mall, Mays Landing 464.575  
 Home Depot-Lodi 464.500  
 Jersey Gardens - Elizabeth 464.2375, 464.7125  
 K-Mart 457.5375, 457.5875,  
 467.850  
 Mall@Short Hill 464.825  
 Market Fair-Princeton 464.7750  
 Monmouth County Mall 151.805 (PL 151.4)  
 Ocean Mall-Atlantic City 461.900  
 Ocean County Mall 464.9125  
 Quackerbridge Mall 464.425, 464.525 (PL  
 192.8)  
 Sears Security 464.525, 464.550  
 Seaview Square-Ocean Twp 154.515, 464.925  
 Service Merchandise 461.3875, 462.6625

(Nationally Licensed)

Shore Mall 467.850  
 Us 1 Flea Market 464.3750  
 (New Brunswick)

**Palisades Center Mall**

Security 452.450, 452.500,  
 452.950, 469.575  
 (possibly 452.100 also)  
 Maintenance 467.850, 468.7625  
 Target Stores 151.625, 151.955  
 Old Navy 151.955  
 JC Penny 463.400, 464.550,  
 466.2625, 466.9625,  
 467.925,  
 Rain Forest Café 463.400, 464.975,  
 466.1375  
 Sports Authority 151.715, 154.57,  
 156.600  
 Clarkstown PD 156.195 (Services Mall)

**TARGET - Fairfield, NJ**

461.0375  
 461.045  
 466.285  
 467.765

**New York Malls Misc.**

BJ's Wholesale Club (E Farmingdale) 461.8875  
 BJ's Wholesale Club (East Farmingdale) 462.0375  
 Broadway Mall (Hicksville) 464.975  
 Busy Bee Mall - Massapequa, NY 461.3625  
 Centre Lock Shop Inc. (Rockville Centre) 43.00  
 Consumers Kitchen & Bath  
 (trunked system) 935.1875, 936.650, 937.200,  
 937.2125, 937.225, 937.6375,  
 937.650  
 937.6625, 937.675, 938.7375  
 Cadillac Fairview Galleria, White Plains 464.875,  
 464.925  
 Commack Arena Market 151.655  
 Cross Country Center - My Vernon 154.600,  
 154.570  
 Gateway Plaza 464.8250  
 Genovese Drug Stores Inc. 461.8875  
 Genovese Drug Stores Inc. 462.1375  
 Great Neck Party Inc 463.225  
 Green Acres Mall (Valley Stream) 463.625  
 J.C. Penney Company Inc. 461.2125  
 461.6125  
 461.6625  
 461.9375  
 466.2625

466.8125, 466.9625, 464.375, 464.925 K-Mart Corporation	457.5375 457.5875
Long Is Mdse Mall - Sayville Macy's Northeast Inc.	467.850 154.600 464.100 464.150 464.175 464.275 464.625
Manhattan Mall, NYC Marders Landscape Store(Bridgehampton) Nanuet Mall Newburgh Mall North Shore Atrium Pathmark Supermarkets	469.100 464.775 464.925 154.57 154.570 154.570 MHz. Blue dot 154.600
MHz. (Green dot) QP's Market - Long Is City Queens Center Mall - Elmhurst Roosevelt Field Mall	154.600 464.525 462.725 464.375 464.925
Sears, Roebuck & Company Smithaven Mall (Lake Grove)	463.7625 151.600 154.745
South Hills Mall -Poughkeepsie South Shore Mall - Bay Shore South Street Seaport - Security Sterns Sunrise Mall (Massapequa)	464.525 151.925 461.7125 154.570 151.865 151.925 461.475 464.465 464.800
Swezey's Department Store (Patchogue) Toys 'R' Us	151.685 457.5375 457.5875 468.7625 469.6625

### **TRACKING THE SPACE STATION**

Here's an interesting page the BBC set up. You can track the Space Station in real time, and I suspect it will also tell you when it will be visible to the naked eye.

[http://news.bbc.co.uk/hi/english/static/in\\_depth/sci\\_tech/2000/space\\_station/default.stm](http://news.bbc.co.uk/hi/english/static/in_depth/sci_tech/2000/space_station/default.stm)

### **MONITOR DELAWARE STATE POLICE ON LINE**

The Delaware State Police are now online with their

dispatch channels online at:

<http://www.state.de.us/emergenc.htm>

Delaware has a statewide digital trunked system, which has absolutely frustrated my public safety listening on my trips to the NASCAR Race at Dover Downs.

Ed Muro - K2EPM

### **PAGING SOFTWARE**

Those of you who are "curious" about some of the digital data we run across may like to check out this link. Various programs that will decode the digital data may be downloaded. Please be aware that the use of this software may be in violation of state and federal laws. We trust that proper discretion will be used.

<http://www.pcapaging.ic24.net/>

### **SOUND BLASTER DECODING SOFTWARE**

OK, so while we are on the issue of decoding, check out this site.

<http://www.muenster.de/~welp/sb.htm#rtty>

This is probably one of the best collections of software written for decoding various modes using your sound card.

### **AM DX TEST**

1/ 7/01 Sun - 0200-0300 - KNUS - 710 - Denver CO (PG)

1/ 7/01 Sun - 0200-0300 - KRKS - 990 - Denver CO (PG)

1/ 7/01 Sun - 0200-0300 - KBJD - 1650 - Denver CO (PG)

**KNUS-710/KRKS-990/KBJD-1650**, Denver, CO will conduct a DX test from 2:00-3:00 am EST on Sunday, January 7, 2001. Programming will include Morse code, unusual music, and other readily identifiable programming. The programming will be simulcast on all 3 stations. The stations will probably run day power / non-DA the first half hour and standard night power / patterns the second half hour. The stations would also like live feedback from listeners by telephone during this event. The telephone numbers will be 303-631-2328 and 303-696-1971.

Reception reports may be sent to:

ATTN: Gregg Cassidy.

KNUS-AM/KRKS-AM/KBJD-AM DX test  
3131 S. Vaughn Way, Suite 601

Aurora, CO 80014-3510

E-mail: DJ@1650thebeat.com  
(Arranged by Patrick Griffith.)

**WILM-1450**, Wilmington, DE will conduct a DX test from 12:00-2:00 am EDT on Sunday, February 4, 2001. WILM will play "unusual programming", sirens, and Morse code IDs. Allan Loudell, Program Manager of WILM, is preparing a special 25th anniversary yellow QSL card. Calls to the station may be placed at (302) 656-9800 - **NO COLLECT CALLS, PLEASE!!!**

Reception reports may be sent to:  
Allan Loudell - Program Director  
WILM News Radio  
1215 French St.  
Wilmington, DE 19801  
(Arranged by Blaine Thompson for the NRC CPC)

### **NEW STATION ON 740KHZ**

Several issues in the past I reported that CBL on 740 was moving to FM, following the trend of many Canadian broadcasters. Recently I heard the new Canadian station on 740 testing from about 8:50 PM to present time, 9:20 p.m. eastern. They are playing Christmas music, nostalgia music and oldies with a several second pause between songs. Shortly after 9:00 there was a voice announcement about a test transmission, and something like Prime Time AM 740.

### **SNOW PLOW FREQUENCIES**

159.1800 and 851.3375 are used by the Garden State Parkway and NJTPK respectively. The NJDOT uses 47.1400 and 47.3600 to cover Rt's 3,4,17 and 80.

Justin

### **HOW TO OCCUPY YOUR TIME WHILE SHOPPING WITH THE WIFE!**

Here's 18 things you can do in the Walmart or K Mart while your wife is shopping...

1. Get boxes of condoms and randomly put them in people's carts when they're not looking.
2. Set all the alarm clocks to go off at 10 minute intervals.
3. Make a trail of orange juice on the floor to the rest rooms.
4. Walk up to an employee and tell him/her in an official tone, "I think we have a Code 3 in

housewares," and see what happens.

5. Turn all the radios to a polka station, then turn them all off and turn the volumes to 10.
6. Challenge other customers to duel with tubes of gift wrap.
7. Put a package of M & M's on layaway.
8. Set up a tent in the camping department; tell others you'll only invite them if they bring pillows from the bedding department.
9. When someone asks if they can help you, begin to cry and ask, "Why won't you people leave me alone?"
10. Look right into the security camera and use it as a mirror while you pick your nose.
11. Take up an entire aisle in toys by setting up a full-scale battlefield with G.I. Joes and X-Men.
12. While handling guns in the hunting department ask the clerk if he knows where the anti-depressants are.
13. Dart around suspiciously while humming the theme from "Mission Impossible."
14. Set up a "Valet Parking" sign out front.
15. In the auto department practice your Madonna look using different sized funnels.
16. Hide in the clothing rack and when people browse through say "Pick me! Pick me!!!!"
17. When an announcement comes over the loud speaker, assume the fetal position and scream, "NO! NO! It's those voices again!"
18. Go into the fitting room and yell real loud . . . . . "Hey, we're out of toilet paper in here!"

### **UNIDEN BC780**

If you are a serious scanner listener than the BC-780 is probably on your holiday list. Though several predictions claimed that Santa might have some in time for Christmas, it now appears that the first units will arrive in dealers hands between Christmas and New Years. The initial feedback from those who have seen and / or used the new 780 suggest it will be worth the wait. I was lucky enough to have one reserved for me (with a small deposit) at Advanced Specialities in Lodi. John has become one of the few dealers in the NJ - NY metro area where you'll always find the latest and greatest toys.. and usually at an attractive price. There are also rumors that Costco will carry the 780 under the Kirkland name as the "Slueth 2001". They already have a 245 clone called the pocket slueth. Can anyone confirm this?

I've weeded through the dozens of web pages that have sprung up and listed a few of those worth checking out below.

Hopefully, by the next issue, I'll have some first hand feedback to share with all of you!

Greg Knox's Photos of the BC780  
<http://albums.photopoint.com/j/AlbumIndex?u=1350644&a=10058441>

Strong Signals BC-780XLT Info Page  
<http://strongsignals.net/bc780xlt/>

E-Groups BC780 Page  
<http://www.egroups.com/group/UnidenBC780XLT>

Official BC-780XLT Page  
<http://www.bc780xlt.com/>

Advanced Traveler Information System  
<http://nyc.gov/html/dot/html/travroad/atis.html>



Image from 8<sup>th</sup> Ave & 42<sup>nd</sup> St

DOT's Vehicular Traffic Control System (VTCS), located in Long Island City, Queens, contains closed circuit television cameras trained on major arteries, which allow operations staff to track traffic conditions at key locations in the city.

### REGIONAL RADIO JARGON

Saw this posted on one of the E mail lists. Just one of those issues I never stopped to think about!

This has bugged the heck out of me for some time, and all the radio traffic today due to the weather finally moved me write about it.

Maybe it's a regional thing, I dunno. Why do so many dispatchers refer to an event as "the" MVA, "the" structure fire etc.? They do this even on the initial dispatch, before anyone has heard of A fire

yet, they call it THE fire.

*"Firecenter 400 on the air to the Pochuck fire dept., respond to 107 East Shore Drive for 'the' structure fire."*

*Not "A structure fire". Seems to be SOP on Sussex firecomm, but I hear it often elsewhere too.*

*I suppose afterward, during the incident, it is more natural to talk about "the" fire.*

*OK, am I just anal, or perhaps don't have enough to worry about? Thoughts?*

*Rob Lang  
KC2EMO*

<Responses>

*In my 25+ years of dispatching 3 fire departments I've never used such terminology. I don't recall hearing it on the channels used by Morris and Passaic county towns either. However, we have two part time telecommunicators from Sussex who work for us at Butler and now that it is mentioned they do use that type of phrase. One is also a p/t dispatcher with one township plus a first aider; the other is a past fire chief. I will ask them about it.*

*All it takes is one person to start using a particular phrase in a radio system before it's copied by others. For example, 20 years ago we began receiving Westport CT on the Morris County fire radio, 46.42. It seems that Westport FD's career staff responds on automotive lockouts instead of the Westport PD. They used the simple one word term "lockout" followed by the location. Prior to this time all 8 PD's then on North Jersey Police Radio (37.30) would send their units with a format such as "assist a motorist locked out of their car." Butler PD HQ was the only PD of the 8 on our police network to hear Westport so we began saying only "lockout." Before long it was a standard radio shortcut. - Rich Dean*

*another..*

*Having lived in both South and North Jersey, I can say its a regional thing and it really bugs me too.*

*CENCOM doesn't all the time, Medic 57 in Parsippany, 1230 Route 46 for "The Unconscious".*

South Jersey dispatchers would dispatch that same call another way, Medic 7..Egg Harbor City... 1230 Route 30..."An Unconconscious Person" - John Burricelli

*"How about the police dispatchers who refer to suspects as subjects. Don't they know that we no longer owe allegiance to the throne?"*

*As someone with several years of dispatching & EMS service in Sussex County, I think that many of the "THE" usages discussed in previous e-mails are just something that was passed on from "one generation to the next." When you start out, you have a trainer until you are deemed as competent. You learn from the trainer appropriate terminology for that dispatch center. "THE" seems to be one of them that happens in select dispatch centers, especially when coached by certain operators. Rich is right; its use gets copied over time. It is no different than saying "A." But, I also felt it sounded funny, and personally avoided its use. However, I never allowed it to bug the heck out of me.*

*With respect to use of the word "Bus" instead of ambulance, I don't have a problem with that either. In my experiences, "Taxi" would really be more appropriate.*

*Barn is another story. I was told that old firehouses may have historically been inside of barns. I think that today's fire and EMS stations deserve a little more respect than being called "barns," despite their alleged historic roots. Knowing the cost of these facilities is reason enough to believe."*  
Rich Dean

### **LONG ISLAND UPDATES**

It appears that SP Islip Terrace maybe scheduled to close, as it appears that the property is being advertized for lease.

It also appears that SUNY Farmingdale has joined SUNY Stony Brook on the Suffolk County 800 MHz system using the Uniden code of 592 SUNY Maritime in the Bronx appears to be using a hybrid system, like state park police, where channel one is a low power repeater on 866.9375 with a erp of 7.5 watts, channel three appears to be talkgroup Uniden code 07-157.

WARREN, N2RAH

### **AFRTS STILL ON SHORTWAVE**

We mentioned this in an earlier issue, but with the

recent mentions in the radio media it appears that AFRTS is serious on continuing SW broadcasts. Transmitter locations and frequencies are as follows... all transmissions are in USB and frequencies are in Mhz.:

	<u>Day</u>	<u>Night</u>
Key West, FL	12.689	12.689
RR, Puerto Rico	6.458	6.458
Sigonella, Sicily	4.993	10.940
Barrigida, Guam	13.362	5.765
Diego Garcia	12.579	4.319
Keflevik, Iceland	10.320	6.350
Pearl Harbor, HI	6.350	10.320

### **UNIVERSITY HOSPITAL LIVE DISPATCH**

<http://www.uh-ems.org/remcs/remcs.htm>

155.295 and 154.400 are usually very active. These two frequencies handle most of the dispatch for Northstar. Based out of University Hospital in Newark, you can listen in by clicking on the link above. You may also like to check out the other services handled from this location by looking at <http://www.uh-ems.org/emsvdivisions.htm>



**REMCS Dispatch**

If you have any interest in monitoring medical traffic I highly recommend you check this site out. Many links and lots of very detailed info on their radio system!

<http://www.uh-ems.org/remcs/remcsradio.htm>

### **LED's and the VX5**

Carlos, KB2FUM sent me an interesting page about Yaesu's latest handy talkies that many of us use as scanners. The site is located at

<http://www.icongrp.com/~sllewd/>

describes many of the anticipated out of band modifications these wide coverage radios are associated with. The site also describes the procedure for changing the color of the LED's used in the keypad and LCD back light display. The author

references a very interesting site that features the latest in LED technology and sources where these devices can be purchased. Among these new goodies are blue, purple, and white LED's. The Virtual LED Museum is located at <http://ledmuseum.home.att.net/ledleft.htm>

**STOP THE PRESS - LAST MINUTE BC-780 UPDATES**

<http://www.grove-ent.com/radiorumors.html>

12/19/00 BC780XLT:

In spite of the mythical claims by some dealers for early shipments of the long-awaited Uniden BC780XLT scanner, the fact is that Uniden expects to ship to all their distributors on December 21. Given shipment delays for the Christmas crunch, customers --Grove's and other dealers'--should be seeing deliveries about a week later. Since this first shipment is on an allocation basis, dealers will need to wait until a follow-on shipment on or about January 8 to fill remaining back orders of those customers who ordered early.

**SEASONS GREETINGS!**

I would like to take this opportunity to wish all of you best of this holiday season, and a very healthy and happy new year 2001! Charlie and I appreciate your support and contributions to this newsletter over the past year. With your assistance and participation we hope it will continue to grow and serve the New York and NJ Scanner community.

Bob, WA2SQQ

***The Urban DX'er would like to thank all those who contributed to this months issue!***

Charlie - N2NOV, "R", Ed Muro, Rod - N2RVM,  
Warren, N2RAH

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