POTOMAC VALLEY RADIO CLUB

President - Fred Laun K3ZO

Vice President - John Pescatore WB2EKK Secretary - Roger Kaul K3TM Vice President - Don Daso WA8MAZ Treasurer - Carl Andersen W3XE

The Potomac Valley Radio Club meets the second Monday of each month, from September through May. All radio amateurs interested in contesting and HF operating are invited to attend and apply for membership. Meetings alternate between Colesville MD and Temple Hills MD. Anyone on the 147.00 repeater can provide directions.

PVRC members have established a packet radio based DX spotting system on 145.59. Try the system out and contact N2FB to support the system

BULLETIN EDITOR

John Pescatore WB2EKK (W) 301-294-8486 (H) 301-622-0219 Packet - @N4QQ

Send me your comments, artcles, opinions, etc. Deadline: 20th each month.

OCTOBER BULLETIN

DIRECTIONS TO THE OCTOBER PVRC MEETING

Monday 9 October 7:30 PM

University of Maryland, College Park, Tawes Building, Room 2154

Take the Washington Beltway 495 to the Route 1 South, College Park exit. Go south for about two miles and exit Route 1 to the right onto Route 193 University Boulevard West. Go west until the second traffic light and turn left onto Stadium Drive. At the first stop sign, turn right. You are now traveling through a parking lot. At the next stop sign, to your left you will see a building with big white pillars and a sign for parking Lot 1.Park in lot 1, as close to the building to the right of the one with the big white pillars.

The building to the right of the one with the big white pillars is the Tawes building, where the meeting will be held. To the left of that building you will see a door (you will have to walk across a small service road). Go in that door and go up two flights of stairs. Look for room 2154.

If you can't find it, call Don Daso WA8MAZ at 0600Z, its all his fault. 147.00 will be the talk-in frequency.

FROM THE PRESIDENT'S SHACK

Here it is October already and that means CQ WW time. With the sunspots at their current level, 10 meters is likely to be a big factor in this year's scores. Its a big band and there appears to be room for everybody. Those of you who read K3LR's article in the latest NCJ, analyzing his performance as compared with the performance of KC1F, will note that the winner, KC1F, had a 221 hour on 28600 at the beginning of the 10 meter European opening and then moved to 28800 plus where he proceeded to average well over 100 for the following four hours. So much for the theory that the best rates are obtained while fighting for 28401.5 or whatever. I have found in the past few years that somewhere between 14250 and 14290 was my most successful run frequency for Europe. Lots of the 10 watters with indoor dipoles across the pond fear to tread in the DX alley further down the band.

At the last meeting Frank W3LPL pointed out that if a station had worked everything put out on packet during last year's CQ WW, and worked nothing else, that station's score would have been 800K points, a fine contribution to the Club effort. So those of you who have packet and don't like to run stations, but would rather move around and call, might consider the category, Single Operator Unlimited. You might work a few new ones for the awards you are

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chasing and help the Club in the process.

I'd like to add that the tribute to Len W3GRF in the October QST DX column, as well as in John Dorr's contest column in \bigcirc , is certainly well deserved. Len, incidentally, is doing just fine. The arm is already out of the sling and looking pretty normal to me. It looks like it could handle a bug in the contest a couple months from now.

The October is the election meeting, so come, make additional nominations, and vote.

73 and GL, Fred K3ZO

THEY'RE BACK!

Yes, its contest season again. The SSB Worldwide is the last weekend in October. Don't forget that there is a new category this year: Single Op, Unlimited. You can now use packet or other spotting help, and not have to compete with W3LPL or N5AU. This will be a big boon to club scores for those clubs with active packet systems. Of course, all the big clubs have comparable systems... Conditions may be the best ever for the coming contest season, don't miss out. W3LPL, W3GG, and N2FB are all looking for operators if you don't have a station. W3GG is available for any serious single op in the CQ WW SSB. PVRC really increased our total score and our average score per entry in 1988. We should be able to top that in 1989. We had a lot of winners and top tenners in 1989: W3LPL, K4FJ/8P9, N3JT/PZ, K3RV, K3ZO, etc. But it was all the part time and 1M point efforts that helped us increase our score so dramatically.

How did we do at the top of the last sunspot cycle? Well, in the 1978 contest we came in third, behind FRC and YCCC, the same as in 1989. Our total score was 81 million, compared to 90M in 1988. This was during the K1AR reign of terror (he won CW). Len W3GRF came in 6th. On SSB GRF came in 9th. N2AA won both multimulti contests, with a relative newcomer to the unlimited class, W3LPL, taking 9th on CW and 7th on SSB. Frank WB3AVN, disdaining anything above 4 Mhz as being suitable only for moonbounce, won 80M CW single band. If you read K1AR's contest column in the October CQ Magazine, you saw that the the top winners of

CQ WW Single Op are current or former PVRCers: W4KFC, W3GRF, K1AR, and W3LPL between them have won over 30 percent of all CQ WW contests! PVRC has won almost half of the club competitions. If FRC and YCCC split future WWs, we can live on our past club laurels until the year 2005!

Sweepstakes is also just around the corner. Note that the ARRL will now accept logs on disk for the SS. There is also a new section: WWA Western Washington.

SEPTEMBER MEETING

The nominating committee presented its recommendation for officers for 1990. N3RR was nominated as treasurer to replace the retiring W3XE. The committee recommended that all other officers remain the same: K3ZO President, WA8MAZ Vice President, WB2EKK Vice President, and K3TM Secretary. Additional nominations will be accepted at the October election meeting. Thanks to W3XE for many years of exemplary service at the often thankless job of Treasurer.

Fred discussed his attendance at the IARU Region 2 conference, including preparations for the next WARC conference. There may be a recommendation for an expanded 40 meter phone segment, with a band plan for the digital modes currently dominating the 7050 - 7100 segment. Fred will be editing the IARU Region 2 newsletter and will also be part of the CQ WW contest committee, translating rules and announcements into Spanish.

The primary topic at the September meeting was expansion of the Packetcluster system. While the packet system was started by PVRCers, it is now heavily used and funded by DXers. Frank W3LPL and Wayne N2FB have solicited user's opinions on how the system should be enhanced and expanded. There is general agreement on maintaining the system's reliability and stability but there seems to be a significant division between contesters and DXers on whether to try and connect to the FRC cluster.

Since it is mainly PVRCers that are interested (mainly because we know a lot of the Frankforders), Frank has suggested that PVRC provide a one time donation to the Packet system to fund the hardware necessary to connect to FRC. There is some opposition to this, since

many of the people paying PVRC dues will never use the packet system and would potentially be helping to fund it against their wishes. The PVRC two meter repeater controversy of a few years back was used as an example of the divisive effects of such an approach. PVRC's financial commitments to CQ WW and ARRL DX contest plaques also limit the amount of money the club can provide and still put out a bulletin, have a Christmas party, etc.

What do you think? If you are for or against it, let K3ZO, WB2EKK, WA8MAZ, or W3LPL know. We will vote on this at an upcoming meeting. Packet has probably been the biggest factor in the increase in the club's recent DX contest scores (solar flux levels haven't

hurt, either!) and has attracted a number of new members. Let us know how you feel or, even better, come to the next meeting!

Jim Talens N3JT talked loquaciously about The DXpedition Foundation, which has been formed as a legal tax exempt entity for the purpose

of fostering DXpeditions and radio education. The DXpedition Foundation was formed by N3JT, K3ZO, and W0YVA to provide grants of equipment and funds to DXpeditions. The DXpedition Foundation will raise money for grants by accepting tax deductible donations of equipment or cash. Equipment will be sold by auction if it is not usable for a DXpedition. Jim

has asked if auctions could be held periodically at PVRC meetings. This will also be voted upon at an upcoming PVRC meeting. Any feelings out there in radio land? Let Jim or Fred or me know how you feel.

The meeting was attended by K3ZO, WB2EKK, WA8MAZ, WB3JRU, W3LPL, N3RR, N3JT, W3GN, W6AXX, W3XE, K1ZZI, and a bunch of other guys, plus NV3V, KO7V, and K6TMB attended as guests.

CALLSIGN TRIVIA - K3ZO

As I've said in comments elsewhere, it helps me immensely in DX contests to know which callsign combinations are likely to be correct and which are not. Of course, at the rapid pace amateur radio is growing in some areas, those rules of thumb change constantly, and it helps to be active on the bands to become aware of changes. Here by first letter, are rules of thumb that I use when operating contests. I don't have a little sheet with these rules on it, they are just files "upstairs" for future reference. If I omit a first letter in my review, its because the rules of thumb have occasion to be too seldom used (because of lack of activity in the affected areas) to be worth keeping in mind as

an operating aid. Here, then, are these rules of thumb. They apply to HF operations only, since we are not taking up VHF operations in this review. Some countries use special callsigns for their VHF li-

censees.

CALLS BEGINNING WITH "B":

Only BT, BV, BY, and BZ prefixes are possible. CALLS BEGINNING WITH "D": DA, DF, DJ, and DK will almost always have two letter suffixes. The main exceptions are DJO and DKO, which frequently have three letter suffixes. The exception that proves the rule is DF1IAF. Don't ask me how he got his call! DH calls will be

founds only on 28 Mhz and 3.5 Mhz CW.

CALLS BEGINNING WITH "F": Stations operating in France (F, FB, FD, FE, and FF) do not use the numbers 4 or 7 in their calls. Such stations with a 1 or a 6 in their calls will always have three letter suffixes. Such stations with a 2, 3, 5, 8, or 9 in their calls will almost always have two letter suffixes.

CALLS BEGINNING WITH "G": The numbers 1, 7, and 9 are not used on HF in prefixes beginning with G, G, GD, GI, GJ, GM, GU, and GW stations with a 0 in their calls will always have three letter suffixes, while those with a 5, 6, or 8 in their calls will almost always have two letter suffixes. Don't forget that in the CQ WW contests, GM-Shetlands counts as an additional multiplier.

CONTEST

CALENDAR

Oct 7-8

Oct 7-8

Oct 7-8

Nov 5-6

Oct 8

Radio Sport HF

VK/ZL SSB

Oct 14-15 Penn QSO Party

Oct 28-29 CQ WW SSB

Calif QSO Party

RSGB 21/28 MHz

CW Sweepstakes

CALLS BEGINNING WITH "H": The HJ (Colombia) prefix will be found only on CW and on 3.5 and 7 Mhz SSB. Except on 28 Mhz, almost all stations using the HG (Hungary) prefix will have a single letter suffix.

CALLS BEGINNING WITH "I": Almost all Italian stations are limited to the I, IK, or IO prefixes. The biggest are IN3 and IV3 prefixes, and of course we all know about IT9 and ISO, but the latter doesn't count for Italy anyway in the contests (IT9 counts as a separate multiplier in the CQ WW). Stations with the IK prefix have three letter suffixes only.

CALLS BEGINNING WITH "J": The prefixes JB and JC are not used. The Japanese began with the JA prefix, then jumped to JH, and then to JR, before coming back to JE and starting up the line alphabetically from there. Thus, in the less populated call areas, you will not find prefixes near the end of the Japanese allocation block (JA through JS) except for JR. JS6 is the exception, designating newer stations on Okinawa. At this time, I am not aware of any assignments of the following prefixes: JN-JS2, JQ3, JS3, JJ-JQ4, JF5, JG5, JI-JQ5, JS5, JK-JQ6, JJ-JQ7, JS7, JI-JQ8, JS8, JE-JI9, JJ-JQ9, JS9, JF0, JI-JQ0, and JS0. Incidentally, if you ever have a JA pile-up that is so bad that you just can't pull anybody through, the best thing is to say "The JA5, go ahead" or "The JA9, go ahead". These are the two least populated JA call areas, so chances are, given the JAs' noted discipline, you will get only one or two callers if you do that.

CALLS BEGINNING WITH "L": All LA three letter suffixes end with A. Only LX1 and LX2 prefixes exist except for occasionally special stations., and LX1 and LX2 stations all have two letter suffixes. The same thing exactly can be said for LZ stations, except that suffixes beginning with K almost always have three letters. In LZ, the standards exceptions to the 1 or 2 in the prefix are LZ5 a, LZ7A, and LZ9A. Other special event stations my exist from time to time.

CALLS BEGINNING WITH "O": All OH stations with three letter suffixes have suffixes beginning with M or N, except in OH2 where most of the three letter suffixes begin with B. OF is often used by the OHs in contests. Czech prefixes are normally limited to OK1, OK2, and OK3, with a few OK5 club stations, and special stations OK6DX, OK7AA, and OK7MM being the exceptions. The OL prefix will be found only on 1.8 Mhz generally, but every now and then. the OKs use OL in a contest, generally with a single letter suffix. In Belgium, there are no

assignments of ON1, ON2, ON3, or ON0 prefixes. All ON5, ON6, ON7, and ON8 calls have two letter suffixes, while only ON4 suffixes beginning with A or K have three letters. The only ON9 call is ON9CDX.

CALLS BEGINNING WITH "P": Only PA2, PA3, and PA) are assigned. All PA2, and PA3 calls have three letter suffixes. PB prefixes (PB0 only) will be found on 28 Mhz only.

CALLS BEGINNING WITH "Q": Definitely a busted call.

CALLS BEGINNING WITH "R": The rules of thumb are rapidly disappearing here as the Soviets seem to be imitating us in trying to use all possible prefixes, but you still will not find an RA5 or an RA7 on the air. The RE, RK, RN, RS, and RX prefixes are not normally used. Beyond that, anything beginning with R seems possible these days.

CALLS BEGINNING WITH "S": There are no SM8 or SM9 calls. The Swedes do not assign the same suffix to two different hams even if they are in two different call areas. Thus far, they have reached the letter S in their three letter suffix assignments, so you will not find the three letter suffixes beginning with T or above at this time. Exactly the same can be said about the SPs. except that SP8s and SP9s exist, but SP0s are rare. It is an interesting coincidence that the Swedes and the Poles are just about at the same place in assigning three letter suffixes.

CALLS BEGINNING WITH "U": Same editorial comments as in "R". No UA5s or UA&s are known to exist, and UE, US, and UX prefixes are not normally used (USOSU and US4P being the rare exceptions). Remember UA9S and UA9W are in CQ Zone 16.

CALLS BEGINNING WITH "X": There are only XE1, XE2, and XE3 prefixes in the XE block. CALLS BEGINNING WITH "Y": Only Indonesian first class hams are allowed twenty meters. They are assigned the YB prefix, with YE as the overflow prefix. Thus, won't find any YCs or YDs on 14 Mhz. The YOO prefix is not normally assigned, nor are the YU9 or YU0 prefixes. [Remember, East Germans don't seem to use anything above the letter O for the last letter of their suffixes. - EKK]

There are many more rules than these, but these should cover 99% of the cases found in contests.

How I Set The Record Art Boyars K3KU

Its official. According to the September/October 1988 issue of the National Contest Journal, I hold a real contest record. In the Sweepstakes CW - my favorite contest - I hold the record for multi-op in the MDC section, set in 1979. Now, that may not be much, but there is a story that goes with it, and I believe the story teaches some lessons. So, dusting off my memory and my old logs, here goes.

First, a little background because nobody has heard me in a contest for several years. I was never a star, just a good second rank CW contester. I wasn't going to beat K3EST or W3LPL, but I was good enough to be a regular at the DX multi-ops and to get invited to a pretty good station for SS CW. Which is how I wound up operating the station of the late Dick Price K3RS in November 1979. I used Dick's amplifier and antennas, beams and slopers on a not outlandishly tall tower. I elected to use my old Drake pair instead of Dick's ICOM because I hardly knew how to use a transceiver on CW, and I was comfortable with the Drakes. My T-4X is set up for footswitch spotting which makes it easy to zero beat (What's that, Grandpa?). Besides, I'm the kind of old time CW op who has to hear what he is sending, instead of just a side tone.

Dick got me set up in the shack. He showed me a portable transistorized shortwave radio which had a BFO and could get some of the ham bands. Did I want any help spotting? No, thank you; I'm going to try single op.

I started off pretty good, which means I was making QSOs and I hadn't broken the rotator or fried the amplifier (my big phobia as a guest op). Afternoon rolled on into evening and into night. Dick may have stuck his head in a few times, but eventually he was asleep and I was on my own. Which meant: if you fry the amp now, maybe you can bail out and head for Brazil before the smoke wakes him up. Sometime in the wee hours of the morning, the T-4X began to show signs of its one fatal weakness: the T-R relay began hanging up in transmit. This usually meant that the relay driver tube was going bad, something that always seemed to happen suddenly.

You sure do lose a lot of QSOs when you can't listen to the other guy send. At first, I could get mitter, but after a while the only way was to switch the power off, wait a moment for the relay to drop out, and switch the power back on. What to do, what to do?

Using the ICOM was out, because I had no idea how to hook it up and I wouldn't wake Dick. Aha! Home OTH neighbor Ken Wagner K3IU (remember the biggest multi-multi in Olney, MD with its maximum points per linear foot of tower?) was sort of operating in the contest, too and he had a spare T-4XB. If I could only hold out until a reasonable hour of the morning, I could telephone Ken and borrow his spare. Well, the log shows that I stopped operating at 0215 local time. I don't remember if I caught Ken on the air (unlikely) or called him at 4 AM (not quite unbelievable), but I drove 20 or 30 minutes to his house, grabbed the spare transmitter, drove back to Dick's, and got going again about 0500, hoping that I could somehow squeeze enough QSOs out of Sunday to keep my score respectable.

I was plugging along Sunday afternoon with about 800 QSOs and 73 sections (there were only 74, then). At 2215Z Dick's vice boomed out of the house intercom box behind me: "VE6ASI on twenty one zero ..." Man, oh man, did I want that VE6. I had never made a clean sweep, except the year I copied the KL7's call wrong and had it deleted. But I was a single op. What to do, what to do?

I could zip up to 15 meters and work him, maybe make one or two other QSOs first so it would look like a natural band change. Or I could try not to be influenced, and just hope I found a VE6 later on by myself. But, I wasn't going only for my own glory. I was also participating for PVRC. It took just a few seconds to make the first decision. Up to 15 meters, work the VE6. But the moral dilemma remained. What to do, what to do?

Children, there was no moral dilemma. Unlike a lot of real life, the contest rules are clear, and you are a voluntary participant. I continued to work as hard as I could so the Club's score would be maximized. I finished up with 906 QSOs and a sweep for 134,088 points, not even my personal best. I filled out the summary sheet as "Multioperator Station: K3KU plus spotter", knowing that the intercom is the same as an extra op sitting next to me is the same as an extra op on the other end of my two the relay to drop out by whacking the trans- | meter box. When the rules are clear there is no

point in trying to stretch them. That's my first | PVRC DUES lesson.

My second lesson is that contesting is fun. You can enjoy it even if you don't have the "I wouldn't enter if I didn't think I could win" personality. Each of us has to understand what it is we want out of the things we do. That's the only way we can maintain some balance in our lives. Remember, this is a hobby. Contesting has less and less to do with real life as station hardware and contest expeditions escalate.

My kids are now six years old. My only progress toward QRV has been getting a messenger line over the tree in the small back yard. By next year I may have an antenna up, and we'll see how much the old Drake pair smokes when they get turned on for the first time in seven years. I'm gonna get on in some contests. I'll play by the rules. I'm not gonna beat anybody who tries halfway hard, but I'm gonna have fun.

73 ES CU IN TEST - ART

If your mailing label has "1988" highlighted on it, you are currently behind in your dues. N3RR will be by shortly to repossess your memory keyer. PVRC dues are \$5.00 for members out of the PVRC local area, and \$10.00 for local members. The dues go towards producing the bulletin, sponsoring CQ WW and ARRL DX plaques, the Christmas party, and PVRC plaques. Send your dues to N3RR.

Year		
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World Wide DX Contest Last Full Weekend of October (Phone) & November (CW)



	Call Sign				Cou	untry
Mode	e:					
Phone	Single	Op., All Band	□ Multi-O	p. Single Trans	mitter 🗆 G	RPp [5W or Less]
□cw	□Single	OpMHz	□ Multi-O	p. Multi-Transr	mitter S	Single Op, Unlimi
	QSO's s duplicates)	QSO Points	Zone Multiplier	Country Multiplier	Score	
1.8 MHz	-	×	+	=		1.8 MHz
3.5 MHz	-	X	+	=		3.5 MHz
7.0 MHz	-	X	+			7.0 MHz
14 MHz	-	X	+	=		14 MHz
21 MHz	-	X	+	=		21 MHz
28 MHz	-	X	+	=		28 MHz
All Bands	-	X	+	=		All Bands
ntenna(s)						
emarks (Biggest	thrill in Contes	t, funniest story, co	mments, etc.) _			
lub Competition	/ Minimum 3	logs Potomac	Valley Rad:	io Club		
his is to certify t	hat in this conte	est I have operated m se and have observed	ny transmitter			
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Logs must be postmarked no later than December 1st for PHONE and January 15th for CW. Indicate PHONE or CW on envelope.

Mail all logs to the appropriate addresses indicated in the current contest rules. Do not mail logs to CQ Headquarters.

A2 38 af 183	FR 39 af 080	K++. 03-05 na	S2 22 as 013	V2 08 na 145	Y2 14 eu 045	5A 34 af 064
A3 32 oc 256	FR/6 39 af 877	all around	57 39 af 064	V3 07 na 208	YA 21 as 028	5B 20 as 051
A4 21 as 042	FR/J 39 af 685	KC4. Antarctica	69 36 af 094	V4 88 na 147	YB 28 oc 354	5H 37 af 079
				V8 28 oc 343	YI 21 as 846	5N 35 af 091
A5 22 as 014	FR/T 39 af 876	KC6. E Caroline	SM 14 eu 036			
A6 21 as 045	FS 08 na 147	27 oc 385	SP 15 eu 042	VE## 01-05 na	YJ 32 oc 271	5R 39 af 084
A7 21 as 846	FW 32 oc 265	KC6. W Caroline	ST 34 af 066	302-055	YK 20 as 050	5T 35 af 094
A9 21 as 846	FY 09 sa 141	27 oc 321	ST0. 34 af 874	VK 30 oc 261	YN 07 na 200	5U 35 af 086
AP 21 as 832		K64. 88 na 176	SU 34 af 856	6,8 29 oc 301	YO 20 eu 047	5V 35 af 093
	6 14 eu 858	KH1. 31 oc 276	SV 20 eu 054	VK9. Lord Howe	YS 07 na 207	5H 32 oc 262
BV 24 as 342	6D. 14 eu 047	KH2. 27 oc 315	SV5. 20 eu 053	30 oc 262	YU 15 eu 049	5x 37 af 077
		KH3. 31 oc 285	SV9. 20 eu 055		YV 09 sa 160	5Z 37 af 076
BY 24 as 350	61 14 eu 647			VK9M Mellish		J2 3/ 4/ 0/0
23 as 007	GJ 14 eu 853	KH4. 31 oc 298	SV/A Mt Athos	30 oc 280	YV0. 88 na 150	511 DE 5 000
	6M 14 eu 845	KH5. 31 oc 272	20 eu 852	VK9N 32 oc 260		6W 35 af 098
C2 31 oc 285	644+ Shetlands	KH5K 31 oc 273		VK9X 30 oc 356	Z2 38 af 093	6Y 08 na 180
C3 14 eu 859	14 eu 039	KH6. 31 oc 282	T2 31 oc 272	VK9Y 29 oc 014	ZA 15 eu 053	
C5 35 af 898	8U 14 eu 053	KH7. 31 oc 380	T38. 31 oc 284	VK9Z 30 oc 286	ZB 14 eu 069	70 21 as 059
C6 88 na 183	SH 14 eu 050	KH8. 32 oc 261	T31. 31 oc 269	VKO. Antarctica	ZD7. 36 af 114	7P 38 af 106
C9 37 af 180	On 11 Eu OU	KH9. 31 oc 302	T32. 31 oc 266	VK0. Heard Isl	ZD8. 36 af 114	7Q 37 af 088
Œ. 12 sa 175	H4.: 28 oc 285	KH0. 27 oc 315	T5 37 af 967	39 af 136	ZD9. 38 af 134	7X 33 af 065
						7A. 33 81 003
CESAS AM Antarc	HA 15 eu 848	KL7. 01 na 322	T7 15 eu 054	VKO. Macquarie	ZF 68 na 193	07 30 0 1
CESAN AZ Soshet	HB 14 eu 052	KP1. 08 na 176	TA 28 eu 849	38 oc 226	ZK1. No Cook	BJ 39 Antarc
CE0A 12 sa 210	HB0. 14 eu 051	KP2. 08 na 150	(TA2=asia)	VP2E 08 na 147	32 oc 258	8P 08 na 145
CERX 12 sa 183	HC 10 sa 183	KP4. 08 na 154	TF 40 eu 033	VP2M 08 na 146	ZK1. So Cook	80 22 as 039
CE07 12 sa 183	HC8. 10 sa 201	KP5. 08 na 156	TG 07 na 210	VP2V 68 na 156	32 oc 249	BR 09 sa 148
ON 33 af 872	HH 88 na 168	KX6. 31 oc 293	TI 07 na 195	VP5. 88 na 164	ZK2. 32 oc 257	
CO 68 na 199	HI 88 na 162		TI9. 07 na 198	VP8. Antarctica	ZK3. 31 oc 266	96 35 af 894
CP 10 sa 170	HK 09 sa 175	10 14 00 027	TJ 36 af 888		ZL 32 oc 243	9H. 15 eu 060
		LA. 14 eu 037		VP8. Falklands		
CT 14 eu 868	HK0. 07 na 191	LU 13 sa 165	TK 15 eu 057	13 sa 168	ZL5. 30 Antarc	9J 36 af 093
CT2. 14 eu 875	HK0. Malpelo	LU#ZA So Orkney	TL 36 af 083	VP8. So Georgia	ZL7. 32 oc 237	9K 21 as 846
CT3. 33 af 078	09 sa 188	LU#ZC 13 Antarc	TN 36 af 092	13 sa 158	ZL8. 32 oc 252	9L 35 af 100
CX 13 sa 163	HL 25 as 341	LU#ZS So Shet	TR 36 af 092	VP8. So Orkney	ZL9. 32 oc 230	9M2. 28 as 003
CY9. 85 na 863	HP 07 na 186	LUNIZY So Sand	TT 36 af 079	VP8. So Sand	ZP 11 sa 161	946, 948
CY8. 85 na 851	HR 87 na 203	LX 14 eu 050	TU 35 af 097	VP8. So Shet	ZS 38 af 115	28 oc 346
	HS 25 as 903	LZ 20 eu 050	TY.: 35 af 092	VP9. 85 na 121	ZSIA 38 Antarc	9N 22 as 017
D2. 36 af 997						
D2 36 af 097	HV 15 eu 056		TZ 35 af 093	VQ9. 39 af 050	ZS2MI39 af 122	9Q 36 af 092
D4 35 af 101		OA 10 sa 180	TZ 35 af 093	V09. 39 af 050 VR6. 32 oc 227		90 36 af 092 90 36 af 082
D4 35 af 101 D6 39 af 080	HV 15 eu 056 HZ 21 as 050	OA 10 sa 180 OD 20 as 051	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349	ZS2MI39 af 122 ZS3. 38 af 106	90 36 af 092 90 36 af 082 9V 28 as 359
D4 35 af 101 D6 39 af 080 DL 14 eu 048	HV 15 eu 056 HZ 21 as 050 I 15 eu 056	OA 10 sa 180 OD 20 as 051 OE 15 eu 048	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU 22 as 024	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056	90 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081
D4 35 af 101 D6 39 af 080	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH)	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans	ZS2MI39 af 122 ZS3. 38 af 106	90 36 af 092 90 36 af 082 9V 28 as 359
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU 22 as 024	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH)	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056	90 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU 22 as 024 VU7. Andamans 26 as 013	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OH0. 15 eu 035 OJ0. 15 eu 035 OK 15 eu 047	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 090	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339 EA 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI 14 eu 049 EL 35 af 101	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 037	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 090 3C0. 36 af 096	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339 EA 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI 14 eu 049 EL 35 af 101	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357	7S2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 001	7S2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339 EA 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI 14 eu 049 EL 35 af 101 EP 21 as 040 ET 37 af 066 F 14 eu 052	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 349	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339 EA 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI 14 eu 049 EL 35 af 101 EP 21 as 040 ET 37 af 066 F 14 eu 052 FB8W 39 af 118	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 001	7S2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339 EA 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI 14 eu 049 EL 35 af 101 EP 21 as 040 ET 37 af 066 F 14 eu 052	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 349	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141	90 36 af 092 90 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339 EA 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI 14 eu 049 EL 35 af 101 EP 21 as 040 ET 37 af 066 F 14 eu 052 FB8W 39 af 118	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor 27 oc 314	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 040	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 349 XZ. 24 as 349 XZ. 26 as 008	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100	90 36 af 092 90 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F. 14 eu 052 FB8H 39 af 118 FB8X 39 af 125	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor 27 oc 314 JD Ogasawara 27 as 324	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 041 UH 17 as 035	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 349	752MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141 3Y Antarctica	90 36 af 092 90 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F. 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 146 J8 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 U6 21 as 041 UH 17 as 035 UI 17 as 025	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 349 XZ. 24 as 349 XZ. 26 as 008 ua8 zone 18	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141 3Y Antarctica	90 36 af 092 90 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F. 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 F6. 08 na 146	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OH0. 15 eu 035 OJ0. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147 PY 11 sa 147	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 041 UH 17 as 035 UI 17 as 025 UJ 17 as 026	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 349 XZ. 24 as 349 XZ. 26 as 008 ua8 zone 18 ua9a-g, j-n, q, r, x	752MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141 3Y Antarctica 4K1. Antarctica 4K1. So Shet	90 36 af 092 90 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170
D4 35 af 101 D6 39 af 080 DL 14 eu 048 DU 27 oc 339 EA 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI 14 eu 049 EL 35 af 101 EP 21 as 040 ET 37 af 066 F 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 F6 08 na 146 FW 39 af 080	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 146 J8 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015 JW** Bear Is1.	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 88 na 147 PYO. Fernando	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 041 UH 17 as 035 UI 17 as 025 UJ 17 as 026 UL 17 as 019	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 349 XZ. 24 as 349 XZ. 26 as 008 ua8 zone 18	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141 3Y Antarctica 4K1. Antarctica 4K1. So Shet 4S 22 as 031	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F. 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 FG. 08 na 146 FH. 39 af 080 FK. 32 oc 268	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 146 J8 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015 JW** Bear Is1. 40 eu 019	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OH0. 15 eu 035 OJ0. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147 PY 11 sa 147 PY0. Fernando 11 sa 126	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 041 UH 17 as 025 UJ 17 as 025 UJ 17 as 026 UL 17 as 019 UM 17 as 021	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE 06 na 231 XF4. 06 na 247 XT 35 af 090 XU 26 as 358 XV 26 as 357 XW 26 as 357 XW 26 as 369 XX 24 as 349 XZ 25 as 008 ua8 zone 18 ua9a-g, j-n, q, r, x zone 17	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 090 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141 3Y Antarctica 4K1. Antarctica 4K1. So Shet 4S 22 as 031 4U#ITU ITU Geneva	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F. 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 FG. 08 na 146 FH. 39 af 080 FK. 32 oc 268 FM. 08 na 146	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 I6, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015 JW** Bear Is1. 40 eu 019 JX 40 eu 025	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OH0. 15 eu 035 OJ0. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147 PY0. 11 sa 147 PY0. Fernando 11 sa 126 PY0. St Paul	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 041 UH 17 as 025 UJ 17 as 029	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 369 XX. 24 as 349 XZ. 26 as 008 ua8 zone 18 ua9a-g, j-n, q, r, x zone 17	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y Antarctica 4K1. Antarctica 4K1. Antarctica 4K1. So Shet 4S 22 as 031 4U#ITU ITU Geneva 14 eu 054	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12, 13, 29 30, 32, 38, 39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170 ***********************************
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 FG. 08 na 146 FH. 39 af 080 FK. 32 oc 268 FM. 08 na 146 FD. 32 oc 246	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 IG, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 146 J8 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015 JW** Bear Is1. 40 eu 019	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 047 OZ 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147 PYO. Fernando 11 sa 126 PYO. St Paul 11 sa 119	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 041 UH 17 as 025 UJ 17 as 029 UM 17 as 029 UM 17 as 029 UM 16 eu 044	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 369 XX. 24 as 349 XZ. 26 as 008 ua8 zone 18 ua9a-g, j-n, q, r, x zone 17 ua9h, o, p, u, v, y, z, ua0a, b, o, p, s-w	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y Antarctica 4K1. Antarctica 4K1. Antarctica 4K1. So Shet 4S 22 as 031 4U#ITU ITU Geneva 14 eu 054 4U#UN New York	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170 ******************* * POTOMAC * * VALLEY * * RADIO * * CLUB *
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F. 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 FG. 08 na 146 FH. 39 af 080 FK. 32 oc 268 FM. 08 na 146 FO. 32 oc 246 FO. Clipperton	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 I6, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015 JW** Bear Is1. 40 eu 019 JX 40 eu 025	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OH0. 15 eu 035 OJ0. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147 PY0. 11 sa 147 PY0. Fernando 11 sa 126 PY0. St Paul	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 040 UC 16 eu 040 UC 21 as 040 UG 21 as 040 UG 21 as 041 UH 17 as 025 UJ 17 as 029 UM 17 as 029 UM 15 eu 039	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 369 XX. 24 as 349 XZ. 26 as 008 ua8 zone 18 ua9a-g, j-n, q, r, x zone 17	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141 3Y Antarctica 4K1. Antarctica 4K1. Antarctica 4K1. So Shet 4S 22 as 031 4U#ITU ITU Geneva 14 eu 054 4U#UN New York 05 na 049	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12, 13, 29 30, 32, 38, 39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170 ***********************************
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F 14 eu 052 FB8H 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 F6. 08 na 146 FH. 39 af 080 FK. 32 oc 268 FM. 08 na 146 FO. 32 oc 246 FO. Clipperton 07 na 234	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 I6, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015 JW** Bear Is1. 40 eu 019 JX 40 eu 025 JY 20 as 052	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OHO. 15 eu 035 OJO. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 047 OZ 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147 PYO. Fernando 11 sa 126 PYO. St Paul 11 sa 119	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 038 UD 21 as 038 UF 21 as 040 UG 21 as 041 UH 17 as 025 UJ 17 as 029 UM 17 as 029 UM 17 as 029 UM 16 eu 044	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE. 06 na 231 XF4. 06 na 247 XT. 35 af 090 XU. 26 as 358 XV. 26 as 357 XW. 26 as 357 XW. 26 as 369 XX. 24 as 349 XZ. 26 as 008 ua8 zone 18 ua9a-g, j-n, q, r, x zone 17 ua9h, o, p, u, v, y, z, ua0a, b, o, p, s-w	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y Antarctica 4K1. Antarctica 4K1. Antarctica 4K1. So Shet 4S 22 as 031 4U#ITU ITU Geneva 14 eu 054 4U#UN New York	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12,13,29 30,32,38,39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170 ******************* * POTOMAC * * VALLEY * * RADIO * * CLUB *
D4. 35 af 101 D6. 39 af 080 DL. 14 eu 048 DU. 27 oc 339 EA. 14 eu 064 EA6. 14 eu 062 EA8. 33 af 083 EA9. 33 af 069 EI. 14 eu 049 EL. 35 af 101 EP. 21 as 040 ET. 37 af 066 F. 14 eu 052 FB8W 39 af 118 FB8X 39 af 125 FB8Y 30 Antarc FB8Z 39 af 095 F6. 08 na 146 FH. 39 af 080 FK. 32 oc 268 FM. 08 na 146 FO. 32 oc 246 FO. Clipperton	HV 15 eu 056 HZ 21 as 050 I 15 eu 056 (33 I6, IH) IM, IS15 eu 059 IT** 15 eu 059 J2 37 af 062 J3 08 na 150 J5 35 af 099 J6 08 na 145 J7 08 na 146 J8 08 na 148 JA 25 as 331 JD Minami Tor 27 oc 314 JD 0gasawara 27 as 324 JT 23 as 358 JW 40 eu 015 JW** Bear Is1. 40 eu 019 JX 40 eu 025 JY 20 as 052	OA 10 sa 180 OD 20 as 051 OE 15 eu 048 OH 15 eu 033 OH0. 15 eu 035 OJ0. 15 eu 035 OK 15 eu 047 ON 14 eu 049 OR Antarctica OX 40 na 030 OY 14 eu 047 DZ 14 eu 042 P2 28 oc 295 PA 14 eu 047 PJ1-4, 9 09 sa 164 PJ5-8 08 na 147 PY 11 sa 147 PY0. Fernando 11 sa 126 PY0. St Paul 11 sa 119 PY0. Trindade	TZ 35 af 093 UA1, 3, 4, 6, 9S, 9W 16 eu 033 UA10 Franz Josf 40 eu 009 UA2. 15 eu 040 UA8, 9, 0 except 9S, 9W 17 as 021 18 as 008 19 as 340 23 as 005 UB 16 eu 040 UC 16 eu 040 UC 16 eu 040 UC 21 as 040 UG 21 as 040 UG 21 as 041 UH 17 as 025 UJ 17 as 029 UM 17 as 029 UM 15 eu 039	VQ9. 39 af 050 VR6. 32 oc 227 VS6. 24 as 349 VU. 22 as 024 VU7. Andamans 26 as 013 VU7. Laccadives 22 as 036 XE 06 na 231 XF4. 06 na 247 XT 35 af 090 XU 26 as 358 XV 26 as 357 XW 26 as 357 XW 26 as 360 XZ 24 as 349 XZ 26 as 001 XX 24 as 349 XZ 26 as 008 ua8 zone 18 ua9a-g, j-n, q, r, x zone 17 ua9h, o, p, u, v, y, z, ua0a, b, o, p, s-w zone 18	ZS2MI39 af 122 ZS3. 38 af 106 1A 15 eu 056 1S 26 oc 349 3A 14 eu 056 3B6. 39 af 069 3B8. 39 af 078 3B9. 39 af 072 3C0. 36 af 096 3D2. 32 oc 265 3D6. 38 af 102 3V 33 af 061 3X 35 af 100 3Y 38 af 141 3Y Antarctica 4K1. Antarctica 4K1. Antarctica 4K1. So Shet 4S 22 as 031 4U#ITU ITU Geneva 14 eu 054 4U#UN New York 05 na 049	9Q 36 af 092 9U 36 af 082 9V 28 as 359 9X 36 af 081 9Y 09 sa 150 /A Abu Ail 21 as 060 Antarctica 180 zones 12, 13, 29 30, 32, 38, 39 So Orkney 13 sa 165 So Sand 13 sa 155 So Shet 13 sa 170 ******************** * POTOMAC * * VALLEY * * RADIO * * CLUB * ***********************************
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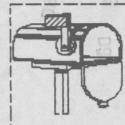
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Maryland Radio Center Newsletter - 8576 Laureldale Drive - Laurel, Md. 20707'



Newsletter - October, 1989

MRC TO HOST MINI-FEST

On Sunday, October 8th, we will host a mini-fest on the parking lot in the rear of our store. There will be lots of tailgating space available, and the store will be open from 9 AM to 4 PM for your convienence. We will provide the parking lot, you bring whatever else you need to show your treasures. There is no charge for tailgating and no charge to attend. Come one, come all. If the results of this mini-fest dictate, we may make it a monthly affair. Please help keep the area neat, pick up your trash...

Callsigns issued as of Sep 1st.

Extra - AB4QF - NW3C Advanced - KM4XI - KD30S Tech/Gen - N4WTV - N3HLK Novice - KC4MFK - KA3VCY

HELP WANTED

MRC has both full and part time positions available in sales and service. See Jerry for more details.

QSLing: METHODS, MYTHS, ECONOMICS AND EXPERIENCES By Chris Smith NR30

I "read the mail" and the ham rags about QSLing all the time-- "Use greenstamps... Go through the bureau.. Send an SASE..." But, which methods are most effective? What receipt rate can you really expect? How much does it really cost to get that award? There are many opinions, suggestions, and ideas around, but little "hard" data. I recently hit 1000 cards sent since I began tracking such things with my homebrew database programs, I began wondering if any conclusions could be drawn from this sample. After some simple math, I found the analysis interesting and worth sharing.

But before my moot conclusions, a few words on how I QSL. I hunt states, counties, countries, continents, oblasts, prefixes, and X-10 numbers. For me, getting a card is all important. My database programs allow me to sort my log and dump standings for each award. Basically, when I work one I need the print-outs show it, and I send a card. The methods I have used, and kept records on, include: the [ARRL outgoing QSL] bureau, "greenstamps", IRC's, direct mail, and SASE's. I need and recommend all the good advice around on QSLing. Among which is:

- 1. Try to use a card design that:
- is distinctive, yet not confusing or insulting (to foreigners)
- has all data on one side (cheaper to print and preferred by managers)
- is lightweight but meets postal standards.
- is standard size (some foreign PO's trash the non-standard ones)
- 2. Fill the card out neatly and do not mark-over errors (use a new card)
- 3. Use UTC time and date with Roman numeral for the month (ever try to read a month in Russian?).
- 4. Ask for, then record, and use the method/route your contact tells you (QSL info is also available in the ham rags, newsletters, and on nets).
- 5. Record all incoming and outgoing cards to avoid future mix-ups.
- 6. Send the card as soon as possible after the contact.
- 7. Be patient.

Number 4 is, by far, the toughest. Ever try to get QSL info from a contester or a 40 WPM CW station in a pile-up? (I've found tape recording works well in the latter case.) Luckily, really rare ones advertise QSL info both on- and off-the-air. But most of my contacts are not rare, and I'm often either too excited, lazy, tired, or QRM'd to ask for the info during the contact. If you don't have the info,knowing the likely success rates of various methods should help you decide how to go. My numbers are interesting, though their interpretation may be somewhat subjective.