

MELLISH REEF The VKgJW operation on Mellish Reef secured some time last Thursday after running up a large total of QSOs. With reports indicating contacts on 10 mtrs to 40 mtrs, the VKgJW logs had over 9000 contacts listed when they loaded the gear on the boat and left the rock to the crabs. John had hoped for over 10000 QSOs but was happy to make the $9 \mathrm{~K}^{+}$totals.
QSLs go to John Martin, VK3JW, P.O. Box 239, Bairnsdale 3875, Victoria, fustralia. This will be the only route for QSLs. It may be repetitious but this was an expensive trip and it is hoped that some evidence of support will be shown.
On the previous effort aimed at Mellish last year, John was a member of the crew which got as far as Willis Island for the operation there but then ran into some difficulties. The story is that there had been indication from the ARRL that this Mellish Reef would be accepted for a new country and there appears to be solid confidence in the operation plánning that it would be.

AVES From Puerto Rico comes information that the Caribbean swing by K5AAD, Don Busick, WASZNY, David Busick, will be joined by Herb Schoenbohm, KV4FZ, for an AVES-YV\& to start August 3 rd.
The call to be signed will be YVøCCA and the operation is planned for at least a week, possibly even longer.
K5Aid and WA5ZNY operated from the British Virgin Islands a week ago, signing. VP2VAU. From that operation they were planning to head for FMTMartinique if all went well and other planning included St. Martin, Anguilla, St. Kitts: with Grenada and PJ6-Saba as possibie alternates. The ives planning may change these, howeyer.? The frequencies and times for their operations in the Caribbean for the rematnder of the efforts will be:

| C.W. | Transmit | Listen | Time |
| :---: | :---: | :---: | :---: |
|  | 1827 kc | 1805-10 | 0400z |
|  | 3530 |  | 03002 |
|  | 7030 |  | 0200Z |
|  | 14030 | From | 22007 |
|  | 21030 |  | $2100 \%$ |
|  | 28030 |  | 2000\% |


| Transmit | Listen | Time |
| :---: | :---: | :---: |
| 3830 kc |  | 0330 Z |
| 7255 |  | 0230 Z |
| 14280 | From | 12002 |
| 21355 |  | $1730 Z$ |
| 28550 |  | $2030 Z$ |

It might be useful to monitor these frequencie's to pick up late information on their plans and the developing AVES operation.
K5AAD is repating a previous trip to the Caribbean when he made a swing through the islands six years ago in July 1966. David, WA5ZNY, is his younger brother, just barely into high school and licensed about two years back. KV4F'Z has shown up on the lower frequencies from a good many of the Caribbean spots over the years.
NIUE ZK2DX enjoyed the good life on Niue so well that he extended his vacation there for another week and was planning to return to Western Samoa and 5 W 1 AL this Monday, July 24 th. This is another student on vacation, Jim attending coilege in New Mexico. The Minerva Reef matter, and especially that of DXCC status, is still somewhat cloudy. It does appear that the $f_{4} R R L$ is looking for information and should Tonga be able to nail down a claim, it may not count for a country. However, it also may take just a bit more than sinking a flag pole into the coral as there would appear to be some problems involved which may affect the final word and this may not be imediately forthooming. You might check the WCDXB of 8 Feb 72 for additional details on the reefs.


## QSL INFORMATION

XU1AA can be QSLed via SMizIr，John Van Lear，Bx 262，Johore Bahru，Malaysia．John is gathering all the log information for the XU1A operations． 3 IRCs along with s．a．e．requested．
AP2KS／YI，ZD7AV and ZA1KAA．．．all who said to QSI to DLFFT are none other than Slim on Cray Islond．Frank Turek，DL7FT，says he knows nothing about any of these．

| A 35 GC to | ZL2BGU | KB6CU to | K3RLY | VQ9JR to | K5HLT | 9L1JT to | to WA $4 Z Y \mathrm{Y}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A35EX | ZLICAFZ | KS4BII | K3RIY | VS9MB | G3KDB | 905 RN | WA6CEES |
| 135 IT | VK6WT | MP4TDM | K1DRN | VU2HLU | WめPMH | 9K2Cモ | WAztive |
| A35］ 5 | WB5B2IN | IPP4BIN | WB2FVO | WJ4ULY | W8TO | 9051 n | WABHNT |
| CR8AK | CITCY | OY7Jd | W3 HNK | XW8EV | K3NAS | 9F3USA | W4NJF |
| CT2BG | Wh2BCK | On5at | K5MZJ | XV5ic | Wh YRC | $9 \times 5 \mathrm{VA}$ ， | V2PPG |
| C31FK | G3Z0Q | PJ8iui | W2LGU | XU1退 | 9 M 2 IR | 9M8WUN | JAZKIT |
| CR3RY | CITRY | ，．．．－ |  | Yitos | SM5BGK | gJ2PM | War Icic |
| CN8CG | CBit | SP3D0I | W， 50 HR | YJ8DS | ZILINTI | 9G7WW | W5IGN |
| CR7CH | W7VRO | SU1A．S | SU－Bur | Yb9AAT | W4YUU |  |  |
| DU1GJM | K8GJM | TU2DD | K2QHT | ZK2DK | WB5BEN |  |  |
| Eat？${ }^{\text {a }}$ | K1 WPS | EU2DB | WA2RZB | ZS6AUS／3D6 | DK2SI |  |  |
| En6Biy | CBA | TU2DO | Whadit | 2D8CS | K1BTD |  |  |
| EL2DI | Wa1 LUH | TN8BK | JG4BEY | ZS2MI | ZSSPG |  |  |
| FODCS | K6CWM | Vi．6NC | VE6NC | ZESJJ | W6R／F |  | 96 |
| FKKBQ | I1P9 | Vi．8Ri | VESRA | ZS3KC | Whtive | ＋37 |  |
| HH8ZZ | F8US | VP2VAU | WASZNY | 3D6AX | WA5IEV | 8 72 | f |
| FYTAE | Wi4VTG | VP2VV／FS7 | F6AEV | 3 L ¢GC． | Fgow | \％ $1 \times \cdots$ |  |
| FMV 7 A | Wi8TDY | VP2IT | WB2HWH | 3D2FM | W2FFA |  |  |
| F08iU | WhøLKI | VP2DAI | KP4DBU | 4X4BL | Wfizedv |  |  |
| FPDAM | WAOKX | vP2CJ | VE3ACD | 5H1LW． | K3RLY |  |  |
| GD3RFK | K4TSJ | VK9JW | VKうJ．W | 5 W 1 AL | WB5BHN |  |  |
| HD8IG | U3／BC | VK9FH | WØKHI | 5 K 3 IR | HK3LR |  |  |
| IIC2YL | HC－Bureau | VK9MM | K4MQG | 5 VZYH | VE3GHL |  |  |
| IIZ4BZQ | WiSUER | VP8IR | WB4FIN | 5U＇7is | WABUHI |  |  |
| HSTAFP | WB2RLK | VR1AA | K3RLI： | 7X74 | IゆI年 |  |  |
| JTめ汪 | OK7egw | VR4BS | ZILINH | 723 AB | W5NOP |  |  |

$\frac{\text { ADDRESSES }}{\mathrm{HZ1SH} \mathrm{Bx}} 2018$ ，Jeddah，Saudi Arabia
C32PHDIDLJ．Bx 211，D－4132 Kanip Linfort，West Germany
$7 \times 7 \mathrm{G}$ \＆ $7 \times \varnothing \mathrm{GM}$ 7X申－Bureau
$\frac{A F R I C A . . .6 . W . ~}{\text { CRLAGG }} \quad 21044 / 2020 / \mathrm{JuI} 17 \mathrm{~W}$ CR5AJ 21040/1840/Jul 15 e FRTAI/T 14025/1300/Jul 17m EL2DO 14010/1830/Jul 18w ZS2MI 14044/1115/JuI 12e 3D6AX 14025/1400/Jul 15w 5T5CJ 21025/2125/Jul 16w
EUROPE...C.W.

CTISX 21047/2320/Jul 17w DA1AE 14048/0600/Jul 20w DM3OML 14018/2205/Jul 15m FC9VN 14010/1830/JuI 18w GD3HQR 14050/0430/JuI 19w GM3HXF 14021/0200/Jul 14w HA 5DR 14025/0335/Jul 13m JW1D 14020/1905/Jul 18w OH5YJ 14009/0440/Ju1 18w

FLSEWHERES.....C.W.
A35FX $1403670530 / \mathrm{Jul} 20 \mathrm{w}$ CX1NE 21014/1900/Jul 15w FM7AD 14028/0430/Jul 20w FYYAI 14042/0050/Jul 14 e HD8IG 21040/0100/Jul 13e HITOMR 14019/0400/Jul 16w HK2DP 14003/0140/Jul 17w HR1AT 14024/0635/Jul 15m KX6IS $14050 / 0445 / \mathrm{JuI} 13 \mathrm{~m}$ KV4GK 14045/0200/JuI 18W OX3HV 14001/0510/Jul 20w OX3WQ 14005/0240/Jul 18W

ASIA...C.W. BV2A $14022 / 1345 / \mathrm{Jul} 14 \mathrm{w}$ JT1AA 14015:1520/Jul 14w JTLAM 1404C/1400/JuI 14W OD5LX 14027/0300/JuI 19w UL7TA 14028/1720/Jul 17w XW8EV 14036/1635/Jul 17w

OK3ZAA 14025/2205/Jul 15 m ON6DX 21035/2130/Jul 17w OZLHW 14054/0340/JuI 13m SL5WS 14056/2225/Jul 11e SVøWTT 14049/0445/JuI 12m LX1JT 14019/0130/Jul 19w UC2OAF 14049/1710/Jul 17w UC2LB 14005/0330/Jul 13m UC2IB 21040/2110/JuI 15m

0X5BS 14053/0200/Jul 14W PJ2MR 21002/2205/Jul 16w PJ2NE 14024/0030/Jul 17w PJTVL 14011/0200/Jul 19w PT2EYO 14027/0400/Jul 18W TG4SR 21028/2035/Jul 18w TI2WX , 14027/1400/JuI 15 w VESRA 14016/0645/Jul 12w VK9.WW 14006/0530/Jul 14w VP2VAU 14030/2210/JuI 15 e VP7CQ 14005/0245/Jul 13w VP9BY 14037/0825/Jul 15w

UF6FAL UN1BL U05PK UP2BAW UQ2DZ UR2IO UT5RW UT5YP

14020/1550/Jul 18 w 14038/2330/Jul 9kv 14015/2020/Jul 18W 14018/1755/JuI 17W 14009/1810/Jul 18W 14037/1710/Jul 18w 14009/0330/JuI 13m 14005/0325/Jul 13w

VP9AF 14029/0300/JuI 19w W3/HC1 14015/0320/Jul 17w YNICW 14005/0240/Jul 18w YJ8DS $14039 / 0600 / \mathrm{JuI} 14 \mathrm{~W}$ ZP5AA 21049/1830/Jul 15 e 6Y5AR 14022/1635/Jul 16w 8P6BU 21037.2915/Jul 14W 8R1J 8 R1J 14023/0415/Jul 29w 21037/2150/Jul 15 e

AFRICA...SSB
CRTIK $14213 / 1335 / J u l ~ 16 e$ CRTIJ 21293/0455/JuI 15w\#
CR7AC 14232/0430/JuI 18W
CR7CJ 14183/1550/Jul 15w
CTBAY 21336/0200/Jul 15m
ELLC 21308/1930/Jul 14W
ET3ZU 14204/0340/Jul 15e
ET3JH 14350/0455/Jul 18w
FBEZZ 14225/1120/Jul 16e
TUZDO 21327/2035/Jul 18W
VQ9R 21353/1730/Jul 16w
ZD7SD 14268/0930/JuI 16w
EUROPE...SSB
C31FH $\frac{14203 / 0045 / J u l ~ 18 e ~}{\text { Cul }}$ CT2BH 21350/2245/Jul 14W
EA3GE 14203/0130/Jul 15m
GB2IS 21320/1945/Jul $14 e$
GC2TR 14216/0325/Jul 17e
HA2RB 14205/0440/Jul 14W
HA5KDQ 14216/0355/Jul 16w
HA 7KIC 21307/1900/Jul 15w
FBdAOX 14210/0430/JuI 21 m

ZDESS
ZE1C ZS2MI 14206/1405/JuI 18w ZS6/3D6 14212/1235/Jul 18m 3BECI $14214 / 1655 / \mathrm{JuI} 15 \mathrm{e}$ 3B8AW 14178/1200/JuI 13e 3D6AQ $14222 / 1350 / \mathrm{Jul} 14 \mathrm{~m}$ 3D6AX 14272/1145/JuI 16e 3VEAD 14205/1335/Jul.10w $\begin{array}{ll}\text { 3HBAD } & 14205 / 043 / \mathrm{Jul} \text { 10w } \\ \text { 5H3L } & 14206 \text { w }\end{array}$ 5R8CS 14221/1140/Jul 17e 5VZYH 14192/0020/Jul 17e

HB $\varnothing$ रIG $14212 / 2225 / \mathrm{Jul} 18 \mathrm{~m}$ LX1BJ 14261/0600/Jul 19w IT9SCM 14225/0440/JuI 14w ОН2BH 14217/0510/JuI 13W SP2BBD 14203/1600/Juil 18m SV中和 21365/1815/Jul 19w SVDWZ 21301/22145/Ju1 14W W1/TF $\quad 14226 / 1345 / \mathrm{JuI} 15 \mathrm{~W}$ UF6CR 14202/0320/JuI 13m

212: 0/2020/Jul 17w 142~6/1320/Jul 18 m

5Z4UW 21286/2245/JuI 15m 5Z4GK 14275/1950/Jul 17m 5H3GL 21300/1720/Jul 18 m TPSAC 14221/1145/Jul 17e $7 \times 7 \mathrm{G} \quad 21290 / 1940 / \mathrm{Mul} 14 \mathrm{~W}$ 7XXGM 21290/1940/Jul 14W TXTY 14201/0400/Jul 21w 9G1wW 21360/1640/Jul 15e 9J2PS 14287/1405/Jul 15 9Q5RN 21252/2030/Jul 15w

UK5MAF 14191/0415/Jul 19w YO2BM 14226/0350/Jul 13m Y06EX 14220/2205/Jul 13 m YU1ODO 14206/0630/JuI 19w LU1ITU 14217/2300/Jul 17e 9H1DL 14206/0430/Jul 20w 9H1ITF 21300/2045/Jul 14e 9H1M 14205/0240/Jul19w 9H1BX $14206 / 0250 / \mathrm{Jul} 13 \mathrm{~m}$

KND MORE RED EYED STUFF

ASIA.... SSB
HS1AFI 14194/1255/JuI 19 w ITS4iGY 14253/1320/Jul 18m HS5afJ 21295/i705/Jul.15e
JTめAE 14202/0930/Jul 11ka
MP4BBW 14206/0245/Jul 15e MP4TDM 14228/0300/Jul 18 m UL7FiM 14208/1510/Jul 18m VS6BS 14206/1330/Jul 19w VS6EG $14198 / 1430 / J u l 18 w$ VS6AX 14210/1405/Jul 18m
BLSEWHERES...SSB
A.35FX $14264 / 0415 / \mathrm{Jul} 17 \mathrm{e}$

A35IT 14201/0455/Jul 14w
C21TL 14198/0500/Sundays
Cx5BC
CX7AAX 21333/0035/Jul 12 m
DUIGJII 14183/1545/Jul 15w
DU2EL 21285/1540/Jul 15e
TK8BQ . 14230/0300/Jul 16e
FGPML $\quad 21344 / 1710 / J u l 18 \mathrm{~m}$
FODCS $14216 / 0455 / J u l$ 17w
FO8DF 28581/0010/Jul 17w
IID8IG 14220/0400/Jul $14 e$
HIKøEKX 21355/1905/Jul 13e
HC8PS 21270/1805/Jul 17w
MX6BU 21338/0055/Jul 12m
KB6CU 14288/0545/Jul 17e
KC6RS 21400/0005/Jul 16 m
KG6JBO 14210/1745/Jul 14 e
IKJ6CW 14287/1405/Jul 15w

VS9MB vu2kV XW8EV XV5AC YA1GNT 457 AB $4 \times 4 \mathrm{BL}$ 4Z4GG 9 K 2 CA 9K2BQ

21279/1720/Jul 14w 14208/1550/JuI 18w 21278/1750/Jul 14 e $14203 / 1330 / J u l ~ 19 \mathrm{w}$ 14210/0330/Jul 17e 14232/1405/Jul 18 m 14238/0345/Jul 13m 14220/2200/Jul 18m 14221/0250/Jul 13m 14212/0325/Jul 18m

9K2AR 9M2DW 9M2GV 9Mi2DA த92Cw 9M2ON 9N1MM 9V1RE 9V1QQ

14225/0140/Jul 15e 21281/1700/Jul 15e 14253/1320/Jul 18m 21346/0040/Jul 12m 21296/1645/JuI 15e 14224/1410/Jul 15w 14212/1450/Jul 18ra $14202 / 1510 / J$ ul 15 m $14228 / 1510 / J u l 16 \mathrm{~m}$

KJ 6BZ IM 6 DX KS4BH KS6DY KS6DY KV4f. KX6DR KX6BU 0X5 1 T PJ9CB PJ9BB PZ1CU VK6MK VK9XX VK9XI VKgGe
VK9Ke
VK9FH
VIK9JK

21400/0010/Jul 16 m 14281/0600/Jul 20w 14215/1830/Jul 14e 21400/0000/Jul 16m 14250/0406/0ften 21323/1325/Jul 16m 21285/2350/Jul 16m 28575/0005/Jul 17m 14206/0330/Jul 21w 21250/1810/Jul 18w 21340/1745/Jul 17e 21400/2145/JuI 18w 14212/1420/JuI 16w 14248/1400/Jul 20w 14229/1425/Jul 19m 14246/0730/Jul 15w 14194/0710/JuI 15w 14255/1125/JuI 16e 14211/1105/JuI 140

VK9ZB
VKgBN
Vo2AF
XP1AiA
YB3AMY
$\Psi B \varnothing A B$
YJ8ID
VP2KF
VP2ME
VR1AA
ZK2DX
ZF1 WE
ZP5DI
5 K 3 LR
5W1ic
5W1 AS
8P6DV
$14235 / 1320 / \mathrm{Jul} 18 \mathrm{~m}$ 14229/1125/Jul 16e 14226/0415/Jul 19w 14277/0340/Jul 19m 14206/1355/JuI 18m 14203/1440/Jul 17w 94193/0645/Jul 14w 14203/1140/JuI 14 m 14227/0230/Jul 14e 21291/0300/Jul 15w 14204/1300/JuI 19w 21382/2250/Jul 16w 21381/0045/Jul 12m 14206/2130/Jul 16m 14267/0430/Jul 17e 14197/0430/Jul 17n 21360/2015/Jul 15w
$\begin{array}{lll}\text { SVøWOO } & 7008 / 0240 / \mathrm{Jul} 14 \mathrm{e} \\ \text { WG9MP } & 7090 / 0555 / \mathrm{Jul} 16 \mathrm{w} \\ \text { PY7DFR } & 7011 / 0145 / \mathrm{Jul} 11 \mathrm{~m} \\ \text { VK2Sf. } & 7012 / 1220 / \mathrm{JuI} 12 e \\ \text { VK3MR } & 7002 / 0625 / \mathrm{Jul} 18 \mathrm{w} \\ \text { VK9JW } & 7013 / 0700 / \mathrm{Jul} 18 \mathrm{w} \\ \text { VP2NAA } & 7006 / 0550 / \mathrm{Jul} 16 \mathrm{w} \\ \text { VR1AA } & 7092 / 0640 / \mathrm{Jul} 18 \mathrm{w} \\ \text { VS6DO } & 7005 / 1435 / \mathrm{Jul} 17 \mathrm{w}\end{array}$
EÂ8GK 3804/0315/Jul 12 e . KARDX
KS6DH JuI 14w 3802/0950/JuI 14w LU8AJG 3803/0145/Jul 8e ON4UN 3798/0020/JuI 130

YJ8BI 7086/0740/Jul 18w YJ8GH . 7090/0740/Jul 15w 2K2DK 7090/0720/JuI 17w ZM1AIZ 7006/0555/Jul 18w ZM1AYG 7002/0539/Jul 12w 9L1GC 7007/0520/JUL 16w

VPAEZ 3802/0340/JUI 14e VK6CT 3662/1320/JuI 18w VS6DO 3803/1230/JuI 17w YJ8GH 3802/0945/Jul 14w ZK2DX 3804/1035/Jul 14w

GP1JV 7011/0330/Jul 10e CX8BBII 7008/0705/Jul 16w FO8BW 7223/0610/Jul 18w FQ8 NU $7223 / 0615 / \mathrm{Jul} 18 \mathrm{w}$ Hi7SO 7006/0150/Jul 11m LU3WBB 7008/C630/Jul 18w LU1Zaf 7021/0500/Jul 15w KS6DI 7031/0530/Jul 18w IKX6JS $7015 / 0625 / \mathrm{Jul} 18 \mathrm{w}$

CR1DH $3802 / 1005 / J u l ~ 14 w$ CP1EV 3805/0040/Jul 10e CEBiM $3805 / 1020 / J u l ~ 14 w$ CX1BBR 3805/1035/Jul 15w DU1LS $3804 / 1315 /$ JuI 16w DU6BG 3806/1315/Jul 17w
( $e=$ eastern states $m=$ middle states $w=$ western reaches $k a=$ japan $k v=$ virgin is) (\#F = longpath all times in grat ??? = son of a gun, it's slim on cray island again!!)
SUNSPOT LOUIE On vacation.....bands have been good though. Some have reported 15 mtrs open ta the Indian Occan area....VU2s and VS9s....in mid-day last week. Check the bands...ecven 10 metors has surprising openings.
W8ZOK will be back with the sunspots in a week or so.

ALBANIAN ECHOES A year aftar the last ZA-effort, there are $6 i l l$ a number of stations which were entered in the station $\log$ of ZARRPS and have not applied for a QSI. Some of these may have been masked in the QRM but a note from DLFFT says that the following have never QSLed. Shound you know any of these, you might jiggle their elbow. QSL direct to DLTFPI with s.a.s.e or s.a.e and IRCs.
$\frac{\text { C. Wo }}{\text { WI B }}$ WAI CLX AOW DRC IRQ JTM IVIG KYUDD CPF
W2 AIW AKR AZX BKI BO CP DOD FXQG EPA FD FR FXA GBY GR GWE GGE JWX KBM MEL NEG NZ OKM. PN POB QM QQ RDD YB ZY
WAZ EBW IOG IZS URS TWH
WB2 PGIV TRB YQH
K2 AGZ BTQ, DDK ECL EIN LGJ MUB
Wु AFL AEM ATH AES BVZ CAA CGS CXX FLZ GHK GRS GHD IQP KF KT KV IMA LMO MWC NIG NOH NU NX QT RNQ VKD VN WW WUD YCI YIK
WA3 CEG GHZ IJT KFD KND KSQ 谓X
K3 ACB JCT JUG JLI HNW SGE UZY YXP
W' AO CKB EDA FEZ JXAY LRN OYF GSM QCW REZ RJL UHC UU'F WDX WH YUU
WI4 FDR FKJ FiJR PFE PXP UXU
WB4 BIMV BVI FIN IBK KVN LEF KMH OGW
K4 ADA ADU CER CEE CIC CL CFB CIU FNA FU GLA IEX IA IX IWM KQ KZZ LRL LRX MOJ MPE SAB SHB MJI VQT
W5: 40 ADZ DDZ EJJ EQT GTW JAW GH IJT LU NOP PSB PAQ QK RA RBO TEP MWU
Wh5 JSI KYY UCT VDH VSI
K5 GCD IIV OIT PFL QF RIW REU UBL WIE
H? RQB EXM IRF IJ MB MVC PHO PJ SFA SGN
W8 DCH DLL DU EUT FKJ FXP HN IML JFJ KI? LBM LE LY MGI NBK KIC SGT UNR ZCK ZCT WH8 CIA CUV DYZ INYB VBY VRB WAA WB8 EUN
K8 IFF IDE IKB NYG ZPB
W9 LGG AHI AH AKD BG BGK BPW BZW CWY DE DWQ EB GIF GDV GIL HB JQD INM LVI OHH QLK RER RKP TEE TKG WJB WBR WUS YYG
WA9 BYA HPJ IVL JDT LBA VOL
WBG BKY BYA FJX
K9. AAL AZG BCM CAN FRE TTE QHX WBR WEH WTS
W\% AR DU ELA GAA IDW IR TUGG QG QGI SAP
WA IDJ RDJ RKJ
K $\varnothing$ HUD KKU
$\frac{\text { SSB }}{W 9}$ CIXX FIX JWX QUS SIIN WQC
WAM GJR FFN KY CSJ HRV JMR QMV
WC BHY BXA DOD DD DXX GKY HTI JSX NUT QK WM RBC YD
WAZ DWE EFN GCX ILIK ENIIIQ. WBZ AYP EPG VAE WOU
W $h \mathrm{C}$ BWZ CRA EK DRD DJZ GITT GEN KT LMO MFW MWC NKM OOE RNQ
WA3 KNO KZQ LRJ OPV K3 AVI CTS JKU OKW TUP UZY
W A AA CPZ DFK EO FDA GO GSM HDK. IF JXIN MQ OM SKO SPX QAW TUC
WA4 FHJ MUB SGF ZYQ WB4 EYK FIN NND QZT
W5 ATY DRW RDA SZ TIZ WASEFL
W6 TEX WAEZZK KS EV EVU IOMI OZI
Whs (None)
W8 CLR CUO DFQ FYR EUO JFJ MB MPW NZ QMI UTIR ZCE ZOK
WA8 HITN MCR USP WB8 DAR. HAT K8 EHT IKB YPU

ZARRPS QSLS...cont Id.
W9 BGM BG DWQ GDV KQF JQD JYJ LNM NZM ETD WYB
WA9 HPJNHQ TOR VOL
WB9 BWV
K9 VLE WTS
Wめ CJZ EEEL LU
K $\varnothing$ UUI
These calls were supplied by Frank Turek, DL7FT, after he had mentioned in a QSO that there were still a number who had not QSIed for ZA2RPS. This was the operation that went from June 5th through June 13 th in 1971. Frank has the logs and this may be the last effort to clean up anything outstanding before he puts them in storage. If you have any questions write DI7FI direct.

MORE NOTES: WØJRN still looking for crystals to augment those on hand for VK5XX who recently operated on Norfolk with QRP power. Needed are FT243 type in the 7002ke to 7050 kc segment and 3502 kc to 3525 kc . Jim would appreciate anyone digging through their surplus ones and sending them to him. K6IOM may try 3 V8 next month...he was in JY-land in June...that plus others. The late Joe Hiller, W4OPM, led the CQ WPX Honor Roll in three of the four categories since it was first started. JM10Cf may be showing up from $r: 23$ or $\mathbb{E P}$ about this time....business type trip there. Numa was in the middle of a vexing situation during the recent KC4DX operation. Arrangements were made for the KC4DX to call JAs at a certain period. JA1OCA and others could hear the W4 list manager.....the KC4DX could hear the W4...but the JAs and the KC4 could not hear each other.... KC4DX was on the wrong side of the island and Navassa remains a tough one for the JAs. Garth, 5H3IV, return from his recent operation on Zanzibar as 5H1LV took just 45 minutes. He flew his own plane home....that may indicate just how close it is. Un申NT, Ju, in Vladivostok needs Delaware, Maine, New Hampshire, North and South Dakota, Louisiana and Mississippi to complete his Was. iie is on most days at 12002 until 1400 Z in the $14215-14225 \mathrm{kc}$ spot looking for them. UADDG often in there looking for some states needed for WhS. FC1FG and W9UM started keeping a schedule in 1227 and managed some 4500 * QSOs....the longest being a QSO lasting 18 hours their longest rag-chev. Original equipment at W9UM had UV-210s in the final.
ER7AI/T was supposed to go QRT last week. The station was sought by many $W / K s$ but while it was reported by many DX stations, few $W / K$ s heard him. YK1 $A$ is on most Fridays at $14280 \mathrm{kc} / 0300 Z . .$. QSL to K3RLY. C21TL has been showing regularly in the last month on Sundays around 0500 Z just below the 14200 kc marker looking for initial contacts with those needing Nauru. ZSZMI will be trying c.w. on Tre sdays and SSB the rest of the week. There are two operators there, Sakki and Leo. Often ZS5PG is in there taking a list. Should ZSEMI go split=frequency, ZSSPG finds it hard to continue the arrangement. If you need ZSZMI, look around the 14225 kc ....or possibly lower...from 1200Z. Kx6IO keeps we akly schedule with W4YNK....14225ke/1230Z...will accept polite breakers when they have run through their schedule. Indicators are that there is scant expectation of any 601-Somalia action in the near future. QSL info needed for Li $\phi$ - D....especially for who may have the 1971 ARRI DX Test logss. That ?I8BK reported a few weeks back may possibly by 7X $\overline{\mathrm{BK}}$ with an unusual prefix of 7 Y 8 BK . Not Slim this time. Incidently for those who may be puzzled by Slim, this is the worthy showing up about every six months to sign 8X8A from Cray lisland, 50 miles south of Nova Scotia or somewhere in the vicinity. Been armand the track a couple of times. Probably will show again one of these days. VU2IRA, Ginny, who was rumored on the way to 1,03 last month will be home in California on a visit before long. K60E, her father there in Carmel Valley, also needs 103 and he says that she will not $g \circ$ without letting him know and he knows nothing about any plans to go. If you are looking for a vacation in the Northwest, don't overlook the annual Northwest DX Convention in Seattle August 8 th and 9 th. W7YTN will supply the big details. Just ask.

CALENDAR
AVES
CORSTCA
KV4FR/K5AAD/WA5ZNY may show up from YV $\varnothing$-RVES August 3rd if things jell.
ANDORRA FDAFV \& CO. should be there right now....

DARC-EUROPE Several 631s until the end of the month....more in August.

NORTHGEST DX CONVENTION。 August 5-6th in Seattle....Double Tree In 205 StranderBlvd

HOPEFULS......
MARCUS Possible October activity...
TRINIDADE Rumored for the first part of hugust....
KAMARAN EISZU looking for Septomber
SPRATLY
September......remember!
CLTPPERTTON
Noveaber plans by VEs ctc washed out. Landing Permission problem..
BURMA Pray harder!! SM2IR may hear you....
SOUTII SANDWICH/GUINEA/FORMOSA ..... Something may develop if rumors jell...
30 Mtr DX KP4AN passes along the information that HHODL has been showing up around 02002 at 3805 kc . Fitz says that he starts hearing W6s from 0130z in Puerto Rico and this time may be good for the suffering Sixes. Father Cav, KCGJC, in the Eastern Carolines had been appearing on the 3805 kc spot around 1000 Z when his duties allow. A check of the 75 mtr frequency mround 0230 Z these times might be a surprise at times as European stations often can copy when frequencies are clear.... Also, Red Eyed Louie suffers at times for $40 / 80$ reports. Suffer not to fail to pass on the info to the $40 / 80$ desk....

SUN AND SUNSFOTS Earl French, W8ZOK, is on vacation this week so we did not have a sunspot report. However, he did send some information on the sun to overwhelm you with while trying to figure out what the pile-up on 14202ke might be about.
The sun is 864,000 miles in diameter...usually referred to as a million miles. It takes 24.7 days to rotate and the sunspots disappearing over the upper left, portion may show up again after a week or so coming around again on the lower right-hand side. That 24.7 days is the rotation at the equator, at $45^{\circ}$ latitude it is 28.2 days. and 30.9 days at $60^{\circ}$.
The sun is not solid, actually it is a sphere of gases, thus it is possible to have different rotational speeds at different latitudes. The sunspots originate deep in the sun where the temperatures are very migh, rising to the surface in large vortices. The temperature drops as the pressures are reduced due to the vortice rising to the surfaco and the brilliance also drops. This makes them darker when compared to the surrounding surface of the sun and also accounts for the fact that there can be rapid changes in their appearances and constitution.
Many surface features can be observed in observatories where they have means for viewing the sun under different conditions, mostly by the use of filtering elements. Solar prominences are visibilc at the time of eclipse or in large observatories they. can be viewed by artifical eclipses. Wat ever the story, those sunspots affect you
frequencies....be kind to the spots.



MIIDIVES VS9MB with Colin. doing the operating, says that he will be on reguiarly on Tuesdays and Fridays about 1700 around 21280 kc 。Colin will be there in the Maldives until the end of the year. QSL for VS9MG to G3KDB. Somo reports have been that the east coast has been súccessful in working into the Indian Ocean at this time.

TNX to WA2BCK, WA2DHS, W2FXA, WB2YQH, K2LGJ, W4BA, W4EH, W4HU, W4KA, WB4KZG, WB4PUD, W4NJF, W4TUC, W4JF, W5ALA, WB5BFZ, W5CNU, K6EC, W50SJ, W5PAQ, WA5LES, W5UBW, W6APW, K6AOV, WGEJ, WAGJVD, WGKYA, W6LQC, W6OKK, W6OL, K6SSJ, W6TSQ, W6TTS, UB6UDC, K6UWTM WB6UJO, WB6UOM, WB6WHM, K6WR, W6YO, W6YUS, W7FSE, W7YMN, W7PFZ, W80A, K8RWL, W9DJL, WめJRN, WØYDB, KAZAI, KP4AN, KV4AR9, ACE.

WEST COAST DX BULIETIN Published every week by the Marin County DX Group. One of the local Qrpers came by last week, very much conerned: "Say", he said, "I went by Farry's to see if he'd returned from vacation. He had butt when I looked in the win. dow Iarry. was on the floor, drumming his heels, banging his' head and yelling: 'I missed it. I missed it' What do you think the trouble might be?\%. Son of a Gun, what could we say! Harry is on the Honor Roll and left town when he heard that the Mellish operation had been scrubbed. He came home after two weeks away to find he had missed everything....did not even have a friend to work it for him. Opportunity knocks seldom for those on the Fonor Roll...and the suffering is a physical burden when they miss a new one. "Harry will recover", we told the QRPer, "but you will hear thie groans for months". \$9.00 for a full year of DX diagnosis.... \$10.50 brings the DK-medicare bulletin by airmail. Learn to suffer like they do on the Honor. Roll.


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