

FFS Book #5

Mead 2003-2004

+MISC COMPOSITION

24192 (pg. 11)

BALAZS

FRENCH FRIGATE SHIPALS

BOOK#5

100 sheets • 200 pages  
9 3/4 x 7 1/2 in / 24.7 x 19.0 cm  
wide ruled • 09910

24192 SATTAG  
1999 TRACKING

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# G.H. BALAZS

1923	9.6 Acres
1968	11.3 Acres
2004	6.3 Acres
2007:	7.8 Acres
2008:	7.2 Acres

From  
ANTONELIS

24192 Date : 30.04.99 00:42:01 LC : B IQ : 00  
Lat1 : 20.889N Lon1 : 156.486W Lat2 : 25.465N Lon2 : 135.777W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649973.8 Hz Altitude : 0 m  
157 812 159 126  
00 00

24192 Date : 30.04.99 18:33:00 LC : A IQ : 08  
Lat1 : 20.906N Lon1 : 156.456W Lat2 : 23.022N Lon2 : 166.316W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 089s NOPC : 2  
Calcul freq : 401 649964.2 Hz Altitude : 0 m  
156 425 133 151  
00 00

24192 Date : 30.04.99 03:19:44 LC : A IQ : 08  
Lat1 : 20.905N Lon1 : 156.462W Lat2 : 24.610N Lon2 : 140.346W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 603s NOPC : 3  
Calcul freq : 401 649976.7 Hz Altitude : 0 m  
158 264 159 126  
00 00

24192 Date : 01.05.99 02:15:20 LC : B IQ : 00  
Lat1 : 20.929N Lon1 : 156.403W Lat2 : 15.833N Lon2 : 178.813W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 056s NOPC : 2  
Calcul freq : 401 649964.7 Hz Altitude : 0 m  
161 67 106 191  
00 00

24192 Date : 30.04.99 04:24:02 LC : O IQ : 58  
Lat1 : 20.917N Lon1 : 156.460W Lat2 : 29.048N Lon2 : 118.090W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 321s NOPC : 4  
Calcul freq : 401 649971.9 Hz Altitude : 0 m  
158 67 157 126  
00 00

24192 Date : 01.05.99 02:58:47 LC : B IQ : 00  
Lat1 : 20.957N Lon1 : 156.483W Lat2 : 26.615N Lon2 : 129.402W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 240s NOPC : 2  
Calcul freq : 401 649964.7 Hz Altitude : 0 m  
162 99 106 191  
00 00

24192 Date : 30.04.99 05:00:12 LC : A IQ : 07  
Lat1 : 20.897N Lon1 : 156.450W Lat2 : 13.841N Lon2 : 171.757E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : 528s NOPC : 3  
Calcul freq : 401 649981.0 Hz Altitude : 0 m  
159 203 159 126  
00 00

24192 Date : 01.05.99 04:34:51 LC : B IQ : 00  
Lat1 : 20.790N Lon1 : 156.686W Lat2 : 16.387N Lon2 : 177.183W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 138s NOPC : 2  
Calcul freq : 401 649964.7 Hz Altitude : 0 m  
162 199 106 191  
00 00

24192 Date : 30.04.99 06:06:35 LC : B IQ : 00  
Lat1 : 20.902N Lon1 : 156.409W Lat2 : 18.705N Lon2 : 166.263W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649971.9 Hz Altitude : 0 m  
159 226 159 126  
00 00

24192 Date : 01.05.99 05:43:08 LC : A IQ : 00  
Lat1 : 20.887N Lon1 : 156.536W Lat2 : 21.087N Lon2 : 155.554W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 476s NOPC : 2  
Calcul freq : 401 649996.3 Hz Altitude : 0 m  
162 26 106 191  
00 00

24192 Date : 30.04.99 06:06:58 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 226 159 126  
00 00

24192 Date : 01.05.99 07:37:45 LC : 1 IQ : 50  
Lat1 : 20.901N Lon1 : 156.440W Lat2 : 19.138N Lon2 : 164.081W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 470s NOPC : 3  
Calcul freq : 401 649995.2 Hz Altitude : 0 m  
162 45 106 191  
00 00

24192 Date : 30.04.99 07:50:04 LC : A IQ : 08  
Lat1 : 20.885N Lon1 : 156.449W Lat2 : 17.834N Lon2 : 170.148W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 358s NOPC : 2  
Calcul freq : 401 649986.2 Hz Altitude : 0 m  
159 05 159 126  
00 01

24192 Date : 01.05.99 07:37:45 LC : 1 IQ : 50  
Lat1 : 20.901N Lon1 : 156.440W Lat2 : 19.138N Lon2 : 164.081W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 470s NOPC : 3  
Calcul freq : 401 649995.2 Hz Altitude : 0 m  
162 45 106 191  
00 00

24192 Date : 30.04.99 13:19:57 LC : A IQ : 08  
Lat1 : 20.901N Lon1 : 156.458W Lat2 : 16.771N Lon2 : 138.091W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 169s NOPC : 2  
Calcul freq : 401 649976.4 Hz Altitude : 0 m  
159 38 133 151  
00 01

24192 Date : 01.05.99 13:04:55 LC : 1 IQ : 58  
Lat1 : 20.897N Lon1 : 156.451W Lat2 : 15.400N Lon2 : 132.657W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 332s NOPC : 4  
Calcul freq : 401 649993.4 Hz Altitude : 0 m  
161 38 94 220  
00 00

24192 Date : 30.04.99 15:00:40 LC : A IQ : 08  
Lat1 : 20.895N Lon1 : 156.431W Lat2 : 27.464N Lon2 : 173.613E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 223s NOPC : 2  
Calcul freq : 401 649964.9 Hz Altitude : 0 m  
157 23 244 464  
03 62

24192 Date : 01.05.99 14:48:03 LC : A IQ : 08  
Lat1 : 20.892N Lon1 : 156.447W Lat2 : 26.258N Lon2 : 179.160E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 427s NOPC : 2  
Calcul freq : 401 649981.8 Hz Altitude : 0 m  
159 128 94 220  
00 00

24192 Date : 30.04.99 15:47:07 LC : 3 IQ : 68  
Lat1 : 20.914N Lon1 : 156.424W Lat2 : 17.407N Lon2 : 140.367W  
Nb mes : 006 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 477s NOPC : 4  
Calcul freq : 401 649964.7 Hz Altitude : 0 m  
157 47 133 151  
00 00

24192 Date : 01.05.99 15:25:07 LC : A IQ : 08  
Lat1 : 20.900N Lon1 : 156.448W Lat2 : 15.006N Lon2 : 129.685W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 371s NOPC : 3  
Calcul freq : 401 649982.0 Hz Altitude : 0 m  
159 85 94 220  
00 00

24192 Date : 30.04.99 16:52:08 LC : A IQ : 08  
Lat1 : 20.922N Lon1 : 156.439W Lat2 : 12.429N Lon2 : 118.161W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 285s NOPC : 3  
Calcul freq : 401 649966.9 Hz Altitude : 0 m  
156 58 133 151  
00 00

24192 Date : 01.05.99 15:25:07 LC : A IQ : 08  
Lat1 : 20.900N Lon1 : 156.448W Lat2 : 15.006N Lon2 : 129.685W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 371s NOPC : 3  
Calcul freq : 401 649982.0 Hz Altitude : 0 m  
159 85 94 220  
00 00

24192 Date : 30.04.99 17:30:25 LC : B IQ : 00  
Lat1 : 20.907N Lon1 : 156.428W Lat2 : 27.605N Lon2 : 171.472E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 138s NOPC : 2  
Calcul freq : 401 649964.7 Hz Altitude : 0 m  
157 86 133 151  
00 00

24192 Date : 01.05.99 15:25:07 LC : A IQ : 08  
Lat1 : 20.900N Lon1 : 156.448W Lat2 : 15.006N Lon2 : 129.685W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 371s NOPC : 3  
Calcul freq : 401 649982.0 Hz Altitude : 0 m  
159 85 94 220  
00 00

24192 Date : 06.05.99 06:37:12 LC : A IQ : 00  
Lat1 : 20.898N Lon1 : 156.458W Lat2 : 26.109N Lon2 : 133.542W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 323s NOPC : 3  
Calcul freq : 401 650004.8 Hz Altitude : 0 m  
163 10 166 123  
00 01

24192 Date : 06.05.99 07:13:53 LC : A IQ : 08  
Lat1 : 20.903N Lon1 : 156.464W Lat2 : 11.464N Lon2 : 161.562E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : 193s NOPC : 3  
Calcul freq : 401 649998.3 Hz Altitude : 0 m  
163 39 166 123  
00 00

24192 Date : 06.05.99 12:09:32 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
161 25 118 172  
00 00

24192 Date : 06.05.99 15:14:32 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 235 118 172  
00 00

24192 Date : 06.05.99 16:54:36 LC : 1 IQ : 56  
Lat1 : 20.903N Lon1 : 156.459W Lat2 : 24.376N Lon2 : 172.452W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 778s NOPC : 3  
Calcul freq : 401 649982.0 Hz Altitude : 0 m  
159 48 118 172  
00 00

24192 Date : 06.05.99 17:59:47 LC : A IQ : 08  
Lat1 : 20.907N Lon1 : 156.456W Lat2 : 19.653N Lon2 : 150.434W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 563s NOPC : 3  
Calcul freq : 401 649983.4 Hz Altitude : 0 m  
159 87 118 172  
00 00

24192 Date : 06.05.99 19:03:24 LC : 0 IQ : 58  
Lat1 : 20.919N Lon1 : 156.488W Lat2 : 16.163N Lon2 : 135.745W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 649981.0 Hz Altitude : 0 m  
158 637 118 172  
00 00

24192 Date : 06.05.99 19:35:42 LC : 0 IQ : 68  
Lat1 : 20.898N Lon1 : 156.319W Lat2 : 30.315N Lon2 : 160.962E  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 650005.5 Hz Altitude : 0 m  
158 857 118 172  
00 00

24192 Date : 07.05.99 01:08:09 LC : B IQ : 00  
Lat1 : 20.932N Lon1 : 156.393W Lat2 : 23.266N Lon2 : 146.190W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -122 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649982.3 Hz Altitude : 0 m  
158 1071 138 147  
00 00

24192 Date : 07.05.99 02:26:32 LC : 1 IQ : 68  
Lat1 : 20.882N Lon1 : 156.434W Lat2 : 30.003N Lon2 : 113.664W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 225s NOPC : 4  
Calcul freq : 401 649984.8 Hz Altitude : 0 m  
157 34319 154 147  
00 00

24192 Date : 07.05.99 04:08:04 LC : B IQ : 00  
Lat1 : 20.893N Lon1 : 156.515W Lat2 : 19.609N Lon2 : 161.974W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : 146s NOPC : 2  
Calcul freq : 401 649984.8 Hz Altitude : 0 m  
159 63 138 147  
00 00

24192 Date : 07.05.99 05:07:37 LC : B IQ : 00  
Lat1 : 20.894N Lon1 : 156.452W Lat2 : 24.422N Lon2 : 139.854W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 049s NOPC : 2  
Calcul freq : 401 649984.8 Hz Altitude : 0 m  
160 343 138 147  
00 00

24192 Date : 07.05.99 06:46:28 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
160 186 138 147  
00 00

24192 Date : 07.05.99 06:46:28 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
160 186 138 147  
00 00

24192 Date : 06.05.99 12:09:32 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
161 25 118 172  
00 00

24192 Date : 06.05.99 15:14:32 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 235 118 172  
00 00

24192 Date : 06.05.99 16:54:36 LC : 1 IQ : 56  
Lat1 : 20.903N Lon1 : 156.459W Lat2 : 24.376N Lon2 : 172.452W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 778s NOPC : 3  
Calcul freq : 401 649982.0 Hz Altitude : 0 m  
159 48 118 172  
00 00

24192 Date : 06.05.99 17:59:47 LC : 1 IQ : 08  
Lat1 : 20.907N Lon1 : 156.456W Lat2 : 19.653N Lon2 : 150.434W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 563s NOPC : 3  
Calcul freq : 401 649983.4 Hz Altitude : 0 m  
159 87 118 172  
00 00

24192 Date : 06.05.99 19:03:24 LC : 0 IQ : 58  
Lat1 : 20.919N Lon1 : 156.488W Lat2 : 16.163N Lon2 : 135.745W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 649981.0 Hz Altitude : 0 m  
158 637 118 172  
00 00

24192 Date : 06.05.99 19:35:42 LC : 0 IQ : 68  
Lat1 : 20.898N Lon1 : 156.319W Lat2 : 30.315N Lon2 : 160.962E  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 650005.5 Hz Altitude : 0 m  
158 857 118 172  
00 00

24192 Date : 07.05.99 01:08:09 LC : 0 IQ : 00  
Lat1 : 20.932N Lon1 : 156.393W Lat2 : 23.266N Lon2 : 146.190W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -122 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649982.3 Hz Altitude : 0 m  
158 1071 138 147  
00 00

24192 Date : 07.05.99 02:26:32 LC : 0 IQ : 68  
Lat1 : 20.882N Lon1 : 156.434W Lat2 : 30.003N Lon2 : 113.664W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 225s NOPC : 4  
Calcul freq : 401 649984.8 Hz Altitude : 0 m  
157 34319 154 147  
00 00

24192 Date : 07.05.99 04:08:04 LC : 0 IQ : 00  
Lat1 : 20.893N Lon1 : 156.515W Lat2 : 19.609N Lon2 : 161.974W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : 146s NOPC : 2  
Calcul freq : 401 649984.8 Hz Altitude : 0 m  
159 63 138 147  
00 00

24192 Date : 07.05.99 05:07:37 LC : 0 IQ : 00  
Lat1 : 20.894N Lon1 : 156.452W Lat2 : 24.422N Lon2 : 139.854W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 049s NOPC : 2  
Calcul freq : 401 649984.8 Hz Altitude : 0 m  
160 343 138 147  
00 00

24192 Date : 07.05.99 06:46:28 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
160 186 138 147  
00 00

24192 Date :  
Lat1 : 20.9  
Nb mes : 00  
Pass duratio  
Calcul freq  
158 164 167  
00 00

24192 Date :  
Lat1 : ????  
Nb mes : 00  
Pass duratio  
Calcul freq  
158 159 160  
00 04

24192 Date :  
Lat1 : 20.8  
Nb mes : 00  
Pass duratio  
Calcul freq  
157 24 160  
00 00

24192 Date :  
Lat1 : 20.9  
Nb mes : 00  
Pass duratio  
Calcul freq  
157 108 160  
00 00

24192 Date :  
Lat1 : 20.8  
Nb mes : 00  
Pass duratio  
Calcul freq  
158 786 160  
00 00

24192 Date :  
Lat1 : 20.9  
Nb mes : 00  
Pass duratio  
Calcul freq  
157 1033 15  
00 00

24192 Date :  
Lat1 : 20.93  
Nb mes : 002  
Pass duratio  
Calcul freq  
157 898 158  
00 00

24192 Date :  
Lat1 : 20.89  
Nb mes : 004  
Pass duratio  
Calcul freq  
158 36 158 1  
00 00

24192 Date :  
Lat1 : ?????  
Nb mes : 001  
Pass duratio  
Calcul freq  
159 74 5289  
01 10

24192 Date :  
Lat1 : ?????  
Nb mes : 001  
Pass duratio  
Calcul freq  
159 72 158 1  
00 00

24192 Date :  
Lat1 : 20.93  
Nb mes : 002  
Pass duratio  
Calcul freq  
159 64 158 1  
00 00

24192 Date :  
Lat1 : ?????  
Nb mes : 001  
Pass duratio  
Calcul freq  
159 195 158  
00 01

24192 Date : 07.05.99 13:39:13 LC : IQ : 68  
Lat1 : 20.900N Lon1 : 156.448W Lat2 : 19.036N Lon2 : 148.047W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 613s NOPC : 4  
Calcul freq : 401 649975.4 Hz Altitude : 0 m  
158 164 167 2098  
00 00

24192 Date : 08.05.99 13:26:34 LC : IQ : 58  
Lat1 : 20.901N Lon1 : 156.448W Lat2 : 17.754N Lon2 : 142.720W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 606s NOPC : 4  
Calcul freq : 401 649967.3 Hz Altitude : 0 m  
157 86 154 133  
00 00

24192 Date : 07.05.99 15:17:03 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
158 159 160 1150  
00 04

24192 Date : 08.05.99 15:08:18 LC : IQ : 00  
Lat1 : 20.920N Lon1 : 156.445W Lat2 : 28.332N Lon2 : 169.138E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 418s NOPC : 2  
Calcul freq : 401 649967.3 Hz Altitude : 0 m  
156 99 154 133  
00 00

24192 Date : 07.05.99 16:32:38 LC : IQ : 08  
Lat1 : 20.899N Lon1 : 156.453W Lat2 : 22.100N Lon2 : 161.884W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 514s NOPC : 3  
Calcul freq : 401 649971.8 Hz Altitude : 0 m  
157 24 160 126  
00 00

24192 Date : 08.05.99 16:11:23 LC : IQ : 00  
Lat1 : 20.904N Lon1 : 156.435W Lat2 : 19.833N Lon2 : 151.441W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : 122s NOPC : 2  
Calcul freq : 401 649967.7 Hz Altitude : 0 m  
156 32 154 133  
00 00

24192 Date : 07.05.99 17:37:42 LC : IQ : 08  
Lat1 : 20.904N Lon1 : 156.460W Lat2 : 17.246N Lon2 : 139.884W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 491s NOPC : 3  
Calcul freq : 401 649970.7 Hz Altitude : 0 m  
157 108 160 126  
00 00

24192 Date : 08.05.99 17:16:41 LC : IQ : 08  
Lat1 : 20.905N Lon1 : 156.455W Lat2 : 15.000N Lon2 : 129.371W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 273s NOPC : 3  
Calcul freq : 401 649967.7 Hz Altitude : 0 m  
157 65 154 133  
00 00

24192 Date : 07.05.99 19:13:12 LC : IQ : 58  
Lat1 : 20.863N Lon1 : 156.352W Lat2 : 27.938N Lon2 : 171.512E  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 180s NOPC : 2  
Calcul freq : 401 649988.9 Hz Altitude : 0 m  
158 786 160 126  
00 00

24192 Date : 08.05.99 18:53:29 LC : IQ : 58  
Lat1 : 20.913N Lon1 : 156.453W Lat2 : 25.541N Lon2 : 177.515W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 134s NOPC : 2  
Calcul freq : 401 649971.4 Hz Altitude : 0 m  
157 658 154 133  
00 00

24192 Date : 09.05.99 02:18:32 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -135 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
157 1084 140 145  
00 00

24192 Date : 08.05.99 02:31:36 LC : IQ : 00  
Lat1 : 20.931N Lon1 : 156.439W Lat2 : 13.634N Lon2 : 171.422E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649968.5 Hz Altitude : 0 m  
157 898 158 127  
00 00

24192 Date : 09.05.99 05:03:31 LC : IQ : 00  
Lat1 : 20.902N Lon1 : 156.445W Lat2 : 13.808N Lon2 : 170.988E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 198s NOPC : 2  
Calcul freq : 401 649967.7 Hz Altitude : 0 m  
158 172 140 145  
00 00

24192 Date : 08.05.99 03:41:19 LC : IQ : 58  
Lat1 : 20.897N Lon1 : 156.472W Lat2 : 22.062N Lon2 : 150.978W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 298s NOPC : 2  
Calcul freq : 401 649975.4 Hz Altitude : 0 m  
158 36 158 127  
00 00

24192 Date : 09.05.99 05:53:36 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 130 140 145  
00 00

24192 Date : 08.05.99 04:45:27 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 74 5289 21157  
01 10

24192 Date : 09.05.99 06:09:10 LC : IQ : 00  
Lat1 : 20.892N Lon1 : 156.337W Lat2 : 18.291N Lon2 : 167.275W  
Nb mes : 002 Nb mes>-120dB : 001 Best level : -120 dB  
Pass duration : 245s NOPC : 2  
Calcul freq : 401 649967.7 Hz Altitude : 0 m  
159 267 140 145  
00 00

24192 Date : 08.05.99 05:23:58 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 72 158 127  
00 00

24192 Date : 09.05.99 07:36:59 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
158 37 136 8853  
00 45

24192 Date : 08.05.99 06:27:40 LC : IQ : 00  
Lat1 : 20.933N Lon1 : 156.472W Lat2 : 16.554N Lon2 : 177.421W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 507s NOPC : 2  
Calcul freq : 401 649975.4 Hz Altitude : 0 m  
159 64 158 127  
00 00

24192 Date : 09.05.99 13:17:50 LC : IQ : 00  
Lat1 : 20.901N Lon1 : 156.447W Lat2 : 16.613N Lon2 : 137.333W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 301s NOPC : 2  
Calcul freq : 401 649967.7 Hz Altitude : 0 m  
157 155 173 116  
00 00

24192 Date : 08.05.99 07:48:28 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 195 158 127  
00 01

24192 Date : 09.05.99 14:54:41 LC : IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
155 132 173 116  
00 00

24192 Date : 09.05.99 15:49:55 LC : A IQ : 00  
Lat1 : 20.900N Lon1 : 156.451W Lat2 : 17.534N Lon2 : 140.751W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 355s NOPC : 2  
Calcul freq : 401 649954.4 Hz Altitude : 0 m  
155 56 173 116  
00 00

24192 Date : 10.05.99 17:07:32 LC : A IQ : 08  
Lat1 : 20.903N Lon1 : 156.455W Lat2 : 25.474N Lon2 : 178.229W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 308s NOPC : 3  
Calcul freq : 401 649952.8 Hz Altitude : 0 m  
155 81 110 178  
00 01

24192 Date : 12.05.99  
Lat1 : 20.903N  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 355s NOPC : 2  
Calcul freq : 401 649954.4 Hz Altitude : 0 m  
155 56 173 116  
00 00

24192 Date : 09.05.99 16:51:40 LC : A IQ : 08  
Lat1 : 20.905N Lon1 : 156.453W Lat2 : 12.381N Lon2 : 118.788W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 416s NOPC : 3  
Calcul freq : 401 649955.8 Hz Altitude : 0 m  
155 95 173 116  
00 00

24192 Date : 10.05.99 18:04:33 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : 044s NOPC : 0  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 752 110 178  
00 00

24192 Date : 12.05.99  
Lat1 : 20.892N  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : 044s NOPC : 0  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 752 110 178  
00 00

24192 Date : 09.05.99 17:26:47 LC : Z IQ : 68  
Lat1 : 20.907N Lon1 : 156.461W Lat2 : 27.944N Lon2 : 171.283E  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 470s NOPC : 4  
Calcul freq : 401 649956.8 Hz Altitude : 0 m  
155 127 173 116  
00 00

24192 Date : 10.05.99 19:46:35 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 797 110 178  
00 00

24192 Date : 12.05.99  
Lat1 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 797 110 178  
00 00

24192 Date : 09.05.99 18:25:27 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
157 784 173 116  
00 00

24192 Date : 11.05.99 02:03:07 LC : 1 IQ : 68  
Lat1 : 20.908N Lon1 : 156.462W Lat2 : 17.253N Lon2 : 172.363W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 179s NOPC : 4  
Calcul freq : 401 649966.6 Hz Altitude : 0 m  
157 835 130 151  
00 00

24192 Date : 12.05.99  
Lat1 : 20.896N  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 179s NOPC : 4  
Calcul freq : 401 649966.6 Hz Altitude : 0 m  
157 835 130 151  
00 00

24192 Date : 10.05.99 00:34:47 LC : A IQ : 08  
Lat1 : 20.912N Lon1 : 156.308W Lat2 : 26.980N Lon2 : 129.667W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 090s NOPC : 2  
Calcul freq : 401 650011.0 Hz Altitude : 0 m  
157 949 172 115  
00 00

24192 Date : 11.05.99 02:34:11 LC : 0 IQ : 67  
Lat1 : 20.930N Lon1 : 156.468W Lat2 : 28.706N Lon2 : 119.040W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 135s NOPC : 2  
Calcul freq : 401 649956.1 Hz Altitude : 0 m  
158 797 130 151  
00 00

24192 Date : 12.05.99  
Lat1 : 20.902N  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 135s NOPC : 2  
Calcul freq : 401 649956.1 Hz Altitude : 0 m  
158 797 130 151  
00 00

24192 Date : 10.05.99 02:06:50 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
157 607 172 115  
00 00

24192 Date : 11.05.99 04:10:34 LC : B IQ : 00  
Lat1 : 20.965N Lon1 : 156.437W Lat2 : 18.556N Lon2 : 167.163W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649966.6 Hz Altitude : 0 m  
157 856 130 151  
00 00

24192 Date : 12.05.99  
Lat1 : 20.902N  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649966.6 Hz Altitude : 0 m  
157 856 130 151  
00 00

24192 Date : 10.05.99 02:58:44 LC : A IQ : 58  
Lat1 : 20.912N Lon1 : 156.468W Lat2 : 26.576N Lon2 : 129.750W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -122 dB  
Pass duration : 179s NOPC : 4  
Calcul freq : 401 649960.0 Hz Altitude : 0 m  
157 673 172 115  
00 00

24192 Date : 11.05.99 05:18:50 LC : A IQ : 08  
Lat1 : 20.921N Lon1 : 156.397W Lat2 : 23.264N Lon2 : 145.484W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -121 dB  
Pass duration : 303s NOPC : 2  
Calcul freq : 401 649958.7 Hz Altitude : 0 m  
156 108 130 151  
00 00

24192 Date : 12.05.99  
Lat1 : 20.909N  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -121 dB  
Pass duration : 303s NOPC : 2  
Calcul freq : 401 649958.7 Hz Altitude : 0 m  
156 108 130 151  
00 00

24192 Date : 10.05.99 04:38:27 LC : A IQ : 08  
Lat1 : 20.901N Lon1 : 156.463W Lat2 : 16.284N Lon2 : 177.830W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -121 dB  
Pass duration : 090s NOPC : 3  
Calcul freq : 401 649962.9 Hz Altitude : 0 m  
156 398 172 115  
00 00

24192 Date : 11.05.99 06:57:42 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 938 130 151  
00 00

24192 Date : 12.05.99  
Lat1 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 938 130 151  
00 00

24192 Date : 10.05.99 13:05:01 LC : 3 IQ : 68  
Lat1 : 20.897N Lon1 : 156.446W Lat2 : 15.239N Lon2 : 131.853W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 470s NOPC : 4  
Calcul freq : 401 649958.1 Hz Altitude : 0 m  
155 107 110 178  
00 00

24192 Date : 11.05.99 16:46:21 LC : U IQ : 60  
Lat1 : 20.905N Lon1 : 156.464W Lat2 : 23.259N Lon2 : 167.597W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 649962.5 Hz Altitude : 0 m  
156 985 831 24  
00 00

24192 Date : 12.05.99  
Lat1 : 20.915N  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 649962.5 Hz Altitude : 0 m  
156 985 831 24  
00 00

24192 Date : 10.05.99 14:47:05 LC : A IQ : 08  
Lat1 : 20.895N Lon1 : 156.449W Lat2 : 26.083N Lon2 : 179.914E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 416s NOPC : 3  
Calcul freq : 401 649955.1 Hz Altitude : 0 m  
155 174 110 178  
00 00

24192 Date : 11.05.99 17:48:24 LC : U IQ : 56  
Lat1 : 20.910N Lon1 : 156.462W Lat2 : 18.520N Lon2 : 145.622W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 179s NOPC : 3  
Calcul freq : 401 649964.9 Hz Altitude : 0 m  
157 1006 831 24  
00 00

24192 Date : 12.05.99  
Lat1 : 20.918N  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 179s NOPC : 3  
Calcul freq : 401 649964.9 Hz Altitude : 0 m  
157 1006 831 24  
00 00

24192 Date : 10.05.99 15:28:04 LC : A IQ : 08  
Lat1 : 20.894N Lon1 : 156.452W Lat2 : 15.214N Lon2 : 130.075W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 425s NOPC : 3  
Calcul freq : 401 649952.0 Hz Altitude : 0 m  
155 103 110 178  
00 00

24192 Date : 11.05.99 19:42:32 LC : U IQ : 58  
Lat1 : 20.913N Lon1 : 156.501W Lat2 : 20.172N Lon2 : 153.247W  
Nb mes : 006 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 224s NOPC : 2  
Calcul freq : 401 649965.6 Hz Altitude : 0 m  
157 1027 831 24  
00 00

24192 Date : 12.05.99  
Lat1 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 224s NOPC : 2  
Calcul freq : 401 649965.6 Hz Altitude : 0 m  
157 1027 831 24  
00 00

24192 Date : 10.05.99 16:32:11 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -140 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
154 58 110 178  
00 00

24192 Date : 12.05.99 00:09:55 LC : U IQ : 00  
Lat1 : 20.958N Lon1 : 156.456W Lat2 : 29.143N Lon2 : 118.773W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : 235s NOPC : 2  
Calcul freq : 401 649964.9 Hz Altitude : 0 m  
161 198 489 41  
00 00

24192 Date : 13.05.99  
Lat1 : 20.972N  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : 235s NOPC : 2  
Calcul freq : 401 649964.9 Hz Altitude : 0 m  
161 198 489 41  
00 00

*revoxed 5/11/99*

24192 Date : 12.05.99 01:50:15 LC : ③ IQ : 68  
 Lat1 : 20.903N Lon1 : 156.446W Lat2 : 18.510N Lon2 : 167.058W  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -122 dB  
 Pass duration : 613s NOPC : 3  
 Calcul freq : 401 649991.5 Hz Altitude : 0 m  
 161 77 489 41  
 00 00

24192 Date : 13.05.99 04:36:07 LC : ④ IQ : 00  
 Lat1 : 20.880N Lon1 : 156.449W Lat2 : 27.724N Lon2 : 124.185W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : 353s NOPC : 2  
 Calcul freq : 401 650000.3 Hz Altitude : 0 m  
 161 112 105 195  
 00 32

24192 Date : 12.05.99 02:15:39 LC : ⑤ IQ : 00  
 Lat1 : 20.892N Lon1 : 156.448W Lat2 : 30.712N Lon2 : 108.596W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -133 dB  
 Pass duration : 121s NOPC : 1  
 Calcul freq : 401 649991.5 Hz Altitude : 0 m  
 161 84 296 13037  
 01 21

24192 Date : 13.05.99 06:15:42 LC : ⑥ IQ : 00  
 Lat1 : 20.891N Lon1 : 156.451W Lat2 : 17.472N Lon2 : 172.203W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 145s NOPC : 2  
 Calcul freq : 401 650000.3 Hz Altitude : 0 m  
 163 109 105 195  
 00 01

24192 Date : 12.05.99 04:58:32 LC : ⑦ IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -124 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 157 142 489 41  
 00 00

24192 Date : 13.05.99 06:49:44 LC : ⑧ IQ : 08  
 Lat1 : 20.896N Lon1 : 156.451W Lat2 : 24.931N Lon2 : 138.899W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 352s NOPC : 3  
 Calcul freq : 401 649999.6 Hz Altitude : 0 m  
 163 137 105 195  
 00 00

24192 Date : 12.05.99 06:40:38 LC : ⑨ IQ : 68  
 Lat1 : 20.896N Lon1 : 156.478W Lat2 : 14.962N Lon2 : 177.127E  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 506s NOPC : 4  
 Calcul freq : 401 649975.4 Hz Altitude : 0 m  
 158 39 489 41  
 00 00

24192 Date : 13.05.99 12:27:43 LC : ⑩ IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 162 8208 113 182  
 00 01

24192 Date : 12.05.99 06:59:25 LC : ⑪ IQ : 56  
 Lat1 : 20.902N Lon1 : 156.490W Lat2 : 23.419N Lon2 : 145.168W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 393s NOPC : 3  
 Calcul freq : 401 649972.3 Hz Altitude : 0 m  
 158 18 489 41  
 00 01

24192 Date : 12.05.99 12:44:19 LC : ⑫ IQ : 58  
 Lat1 : 20.902N Lon1 : 156.483W Lat2 : 12.816N Lon2 : 120.930W  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -129 dB  
 Pass duration : 341s NOPC : 4  
 Calcul freq : 401 649969.3 Hz Altitude : 0 m  
 158 23 79 258  
 00 00

24192 Date : 13.05.99 14:12:03 LC : ⑬ IQ : 08  
 Lat1 : 20.899N Lon1 : 156.452W Lat2 : 22.643N Lon2 : 163.697W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -129 dB  
 Pass duration : 454s NOPC : 3  
 Calcul freq : 401 649998.5 Hz Altitude : 0 m  
 162 14 113 182  
 00 00

24192 Date : 12.05.99 14:23:45 LC : ⑭ IQ : 58  
 Lat1 : 20.909N Lon1 : 156.484W Lat2 : 23.767N Lon2 : 169.113W  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -124 dB  
 Pass duration : 517s NOPC : 4  
 Calcul freq : 401 649968.2 Hz Altitude : 0 m  
 157 79 79 258  
 00 00

24192 Date : 13.05.99 15:57:19 LC : ⑮ IQ : 08  
 Lat1 : 20.900N Lon1 : 156.448W Lat2 : 18.671N Lon2 : 146.339W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 341s NOPC : 3  
 Calcul freq : 401 649986.3 Hz Altitude : 0 m  
 160 83 113 182  
 00 01

24192 Date : 12.05.99 14:42:32 LC : ⑯ IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 157 124 79 258  
 00 00

24192 Date : 13.05.99 17:04:37 LC : ⑰ IQ : 68  
 Lat1 : 20.908N Lon1 : 156.455W Lat2 : 13.761N Lon2 : 124.258W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -129 dB  
 Pass duration : 491s NOPC : 4  
 Calcul freq : 401 649982.9 Hz Altitude : 0 m  
 159 95 113 182  
 00 00

24192 Date : 12.05.99 16:22:18 LC : ⑱ IQ : 10  
 Lat1 : 20.915N Lon1 : 156.528W Lat2 : 20.933N Lon2 : 156.610W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : 706s NOPC : 0  
 Calcul freq : 401 649965.6 Hz Altitude : 0 m  
 157 78 79 258  
 00 00

24192 Date : 13.05.99 17:38:23 LC : ⑲ IQ : 68  
 Lat1 : 20.898N Lon1 : 156.460W Lat2 : 29.011N Lon2 : 165.814E  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 470s NOPC : 4  
 Calcul freq : 401 649981.6 Hz Altitude : 0 m  
 160 111 113 182  
 00 00

24192 Date : 12.05.99 17:27:46 LC : ⑳ IQ : 08  
 Lat1 : 20.918N Lon1 : 156.459W Lat2 : 16.244N Lon2 : 134.865W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 472s NOPC : 3  
 Calcul freq : 401 649972.1 Hz Altitude : 0 m  
 158 201 79 258  
 00 00

24192 Date : 13.05.99 18:38:02 LC : ㉑ IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 150 662 113 182  
 00 00

24192 Date : 12.05.99 19:25:04 LC : ㉒ IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 157 868 79 258  
 00 00

24192 Date : 13.05.99 23:45:22 LC : ㉓ IQ : 08  
 Lat1 : 20.844N Lon1 : 156.507W Lat2 : 31.422N Lon2 : 107.722W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -132 dB  
 Pass duration : 135s NOPC : 2  
 Calcul freq : 401 649992.6 Hz Altitude : 0 m  
 158 971 121 167  
 00 00

24192 Date : 13.05.99 01:36:11 LC : ㉔ IQ : 58  
 Lat1 : 20.972N Lon1 : 156.288W Lat2 : 19.761N Lon2 : 161.734W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -124 dB  
 Pass duration : 134s NOPC : 2  
 Calcul freq : 401 649979.7 Hz Altitude : 0 m  
 157 883 105 195  
 00 00

24192 Date : 14.05.99 03:12:08 LC : ㉕ IQ : 00  
 Lat1 : 20.891N Lon1 : 156.448W Lat2 : 24.984N Lon2 : 135.822W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 489s NOPC : 2  
 Calcul freq : 401 649982.9 Hz Altitude : 0 m  
 159 286 121 167  
 00 00

224192 Date : 14.05.99 04:49:41 LC : (B) IQ : 00  
Lat1 : 20.918N Lon1 : 156.454W Lat2 : 15.182N Lon2 : 176.572E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 285s NOPC : 2  
Calcul freq : 401 649982.9 Hz Altitude : 0 m  
161 153 121 167  
00 00

224192 Date : 14.05.99 06:00:07 LC : (C) IQ : 10  
Lat1 : 18.830N Lon1 : 162.681W Lat2 : 20.888N Lon2 : 156.335W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 199s NOPC : 0  
Calcul freq : 401 649982.9 Hz Altitude : 0 m  
162 21 121 167  
00 00

224192 Date : 14.05.99 12:18:00 LC : (C) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -135 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
161 34 165 124  
00 00

224192 Date : 14.05.99 14:01:00 LC : (C) IQ : 60  
Lat1 : 20.902N Lon1 : 156.463W Lat2 : 21.306N Lon2 : 158.275W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -122 dB  
Pass duration : 624s NOPC : 2  
Calcul freq : 401 649991.8 Hz Altitude : 0 m  
161 139 165 124  
00 00

224192 Date : 14.05.99 15:41:16 LC : (C) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
161 430 165 124  
00 00

224192 Date : 14.05.99 15:41:16 LC : (C) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
161 430 165 124  
00 00

224192 Date : 14.05.99 16:41:25 LC : (A) IQ : 08  
Lat1 : 20.915N Lon1 : 156.457W Lat2 : 11.253N Lon2 : 113.741W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : 374s NOPC : 3  
Calcul freq : 401 649991.8 Hz Altitude : 0 m  
160 72 165 124  
00 00

224192 Date : 14.05.99 17:17:12 LC : (A) IQ : 00  
Lat1 : 20.899N Lon1 : 156.456W Lat2 : 26.665N Lon2 : 176.318E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 184s NOPC : 3  
Calcul freq : 401 649989.4 Hz Altitude : 0 m  
161 44 165 124  
00 00

224192 Date : 14.05.99 18:16:20 LC : (B) IQ : 00  
Lat1 : 20.858N Lon1 : 156.356W Lat2 : 22.479N Lon2 : 160.647W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649989.4 Hz Altitude : 0 m  
160 158 165 124  
00 00

224192 Date : 14.05.99 19:12:56 LC : (C) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
158 786 165 124  
00 00

224192 Date : 14.05.99 23:37:08 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -135 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
158 981 122 166  
00 00

224192 Date : 15.05.99 02:52:56 LC : (B) IQ : 00  
Lat1 : 20.968N Lon1 : 156.379W Lat2 : 28.277N Lon2 : 126.156W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649989.4 Hz Altitude : 0 m  
158 324 122 166  
00 00

24192 Date : 15.05.99 03:53:34 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
162 32906 122 166  
00 00

24192 Date : 15.05.99 04:27:04 LC : (C) IQ : 58  
Lat1 : 20.895N Lon1 : 156.453W Lat2 : 17.365N Lon2 : 172.732W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 435s NOPC : 4  
Calcul freq : 401 650001.6 Hz Altitude : 0 m  
162 116 122 166  
00 00

24192 Date : 15.05.99 05:29:46 LC : (C) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
163 99 122 166  
00 00

24192 Date : 15.05.99 06:19:57 LC : (B) IQ : 00  
Lat1 : 20.895N Lon1 : 156.481W Lat2 : 27.402N Lon2 : 126.782W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 119s NOPC : 2  
Calcul freq : 401 650001.6 Hz Altitude : 0 m  
163 126 122 166  
00 00

24192 Date : 15.05.99 07:15:04 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
163 145 122 166  
00 00

24194 Date : 15.05.99 04:29:51 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
163 228 172 116  
00 00

24192 Date : 15.05.99 13:51:14 LC : 2 IQ : 68  
Lat1 : 20.894N Lon1 : 156.449W Lat2 : 20.066N Lon2 : 152.818W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 555s NOPC : 3  
Calcul freq : 401 650005.4 Hz Altitude : 0 m  
163 55 3163 32950  
01 09

24192 Date : 15.05.99 15:15:17 LC : A IQ : 08  
Lat1 : 20.898N Lon1 : 156.448W Lat2 : 13.984N Lon2 : 124.844W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 465s NOPC : 3  
Calcul freq : 401 649999.8 Hz Altitude : 0 m  
162 99 123 166  
00 00

24192 Date : 15.05.99 15:29:52 LC : B IQ : 00  
Lat1 : 20.918N Lon1 : 156.439W Lat2 : 30.561N Lon2 : 158.905E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : 111s NOPC : 2  
Calcul freq : 401 650005.4 Hz Altitude : 0 m  
162 87 123 166  
00 01

24192 Date : 15.05.99 16:19:47 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
161 63 123 166  
00 00

24192 Date : 15.05.99 16:53:33 LC : 3 IQ : 68  
Lat1 : 20.901N Lon1 : 156.455W Lat2 : 24.491N Lon2 : 172.944W  
Nb mes : 006 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 587s NOPC : 4  
Calcul freq : 401 649989.8 Hz Altitude : 0 m  
160 78 123 166  
00 00

24192 Date : 15  
Lat1 : 20.907N  
Nb mes : 003 N  
Pass duration  
Calcul freq :  
160 197 123 16  
00 00

24192 Date : 15  
Lat1 : 20.915N  
Nb mes : 004 N  
Pass duration  
Calcul freq :  
159 653 123 16  
00 00

24192 Date : 16  
Lat1 : 20.937N  
Nb mes : 002 N  
Pass duration  
Calcul freq :  
162 170 115 17  
00 00

24192 Date : 16  
Lat1 : 20.897N  
Nb mes : 005 N  
Pass duration  
Calcul freq :  
163 68 110 184  
00 00

24192 Date : 16  
Lat1 : ???????  
Nb mes : 001 N  
Pass duration  
Calcul freq :  
162 238 115 173  
00 00

24192 Date : 16  
Lat1 : 20.920N  
Nb mes : 002 N  
Pass duration  
Calcul freq :  
162 225 115 17  
00 00

24192 Date : 16  
Lat1 : 20.902N  
Nb mes : 005 N  
Pass duration  
Calcul freq :  
163 32 119 329  
00 00

24192 Date : 16  
Lat1 : 20.904N  
Nb mes : 004 N  
Pass duration  
Calcul freq :  
164 23 115 173  
00 00

24192 Date : 16  
Lat1 : 20.896N  
Nb mes : 003 N  
Pass duration  
Calcul freq :  
165 97 115 173  
00 00

24192 Date : 16  
Lat1 : 20.878N  
Nb mes : 002 N  
Pass duration  
Calcul freq :  
165 149 115 83  
00 32

24192 Date : 16  
Lat1 : 20.917N  
Nb mes : 003 N  
Pass duration  
Calcul freq :  
163 44 110 696  
00 00

24192 Date : 16  
Lat1 : 20.903N  
Nb mes : 002 N  
Pass duration  
Calcul freq :  
163 107 110 18  
00 00



24192 Date : 15.05.99 17:59:02 LC : A IQ : 08  
 Lat1 : 20.907N Lon1 : 156.451W Lat2 : 19.767N Lon2 : 151.275W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 089s NOPC : 2  
 Calcul freq : 401 649986.1 Hz Altitude : 0 m  
 160 197 123 166  
 00 00

24192 Date : 15.05.99 18:50:27 LC : 0 IQ : 67  
 Lat1 : 20.915N Lon1 : 156.762W Lat2 : 14.452N Lon2 : 128.847W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 135s NOPC : 2  
 Calcul freq : 401 650031.7 Hz Altitude : 0 m  
 159 653 123 166  
 00 00

24192 Date : 16.05.99 02:24:47 LC : B IQ : 00  
 Lat1 : 20.937N Lon1 : 156.453W Lat2 : 29.677N Lon2 : 113.909W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -129 dB  
 Pass duration : 272s NOPC : 2  
 Calcul freq : 401 649989.8 Hz Altitude : 0 m  
 162 170 115 173  
 00 00

24192 Date : 16.05.99 13:39:08 LC : 0 IQ : 68  
 Lat1 : 20.897N Lon1 : 156.444W Lat2 : 18.904N Lon2 : 147.218W  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 779s NOPC : 3  
 Calcul freq : 401 650007.7 Hz Altitude : 0 m  
 163 68 110 184  
 00 00

24192 Date : 16.05.99 02:49:30 LC : Z IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 162 238 115 173  
 00 00

24192 Date : 16.05.99 04:09:11 LC : B IQ : 00  
 Lat1 : 20.920N Lon1 : 156.380W Lat2 : 19.239N Lon2 : 162.639W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 044s NOPC : 2  
 Calcul freq : 401 649989.8 Hz Altitude : 0 m  
 162 225 115 173  
 00 00

24192 Date : 16.05.99 05:11:41 LC : 2 IQ : 58  
 Lat1 : 20.902N Lon1 : 156.460W Lat2 : 24.403N Lon2 : 140.443W  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -124 dB  
 Pass duration : 474s NOPC : 4  
 Calcul freq : 401 650001.1 Hz Altitude : 0 m  
 163 32 119 32941  
 00 00

24192 Date : 16.05.99 06:08:02 LC : 1 IQ : 68  
 Lat1 : 20.904N Lon1 : 156.451W Lat2 : 28.719N Lon2 : 120.779W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 362s NOPC : 4  
 Calcul freq : 401 650008.2 Hz Altitude : 0 m  
 164 23 115 173  
 00 00

24192 Date : 16.05.99 06:52:55 LC : A IQ : 08  
 Lat1 : 20.896N Lon1 : 156.450W Lat2 : 13.707N Lon2 : 171.679E  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : 314s NOPC : 3  
 Calcul freq : 401 650014.4 Hz Altitude : 0 m  
 165 97 115 173  
 00 00

24192 Date : 16.05.99 07:47:02 LC : B IQ : 00  
 Lat1 : 20.878N Lon1 : 156.516W Lat2 : 18.111N Lon2 : 168.898W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 171s NOPC : 2  
 Calcul freq : 401 650001.0 Hz Altitude : 0 m  
 165 149 115 8365  
 00 32

24192 Date : 16.05.99 14:51:52 LC : 0 IQ : 08  
 Lat1 : 20.917N Lon1 : 156.446W Lat2 : 11.547N Lon2 : 114.283W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -134 dB  
 Pass duration : 309s NOPC : 3  
 Calcul freq : 401 650011.6 Hz Altitude : 0 m  
 163 44 110 696  
 00 00

24192 Date : 16.05.99 15:17:18 LC : 0 IQ : 00  
 Lat1 : 20.903N Lon1 : 156.433W Lat2 : 29.383N Lon2 : 164.674E  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 268s NOPC : 2  
 Calcul freq : 401 650007.7 Hz Altitude : 0 m  
 163 107 110 184  
 00 00

24192 Date : 16.05.99 16:33:24 LC : 0 IQ : 68  
 Lat1 : 20.899N Lon1 : 156.455W Lat2 : 22.181N Lon2 : 162.373W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -124 dB  
 Pass duration : 539s NOPC : 3  
 Calcul freq : 401 650002.3 Hz Altitude : 0 m  
 163 81 110 184  
 00 00

24192 Date : 16.05.99 17:38:02 LC : 0 IQ : 58  
 Lat1 : 20.904N Lon1 : 156.455W Lat2 : 17.385N Lon2 : 140.524W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 438s NOPC : 4  
 Calcul freq : 401 650002.1 Hz Altitude : 0 m  
 163 44 110 184  
 00 00

24192 Date : 16.05.99 18:37:18 LC : 0 IQ : 00  
 Lat1 : 20.915N Lon1 : 156.570W Lat2 : 12.532N Lon2 : 121.716W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 044s NOPC : 2  
 Calcul freq : 401 650002.3 Hz Altitude : 0 m  
 159 640 110 184  
 00 00

24192 Date : 16.05.99 19:17:07 LC : 0 IQ : 68  
 Lat1 : 20.914N Lon1 : 156.468W Lat2 : 27.919N Lon2 : 171.418E  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -126 dB  
 Pass duration : 134s NOPC : 2  
 Calcul freq : 401 649984.6 Hz Altitude : 0 m  
 159 515 110 184  
 00 00

24192 Date : 17.05.99 02:31:10 LC : 0 IQ : 68  
 Lat1 : 20.885N Lon1 : 156.449W Lat2 : 13.705N Lon2 : 171.891E  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 134s NOPC : 2  
 Calcul freq : 401 649991.3 Hz Altitude : 0 m  
 159 833 101 198  
 00 00

24192 Date : 17.05.99 04:50:23 LC : 0 IQ : 00  
 Lat1 : 20.902N Lon1 : 156.466W Lat2 : 26.793N Lon2 : 129.949W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB  
 Pass duration : 553s NOPC : 3  
 Calcul freq : 401 649997.8 Hz Altitude : 0 m  
 162 69 101 198  
 00 00

24192 Date : 17.05.99 05:23:50 LC : 0 IQ : 08  
 Lat1 : 20.901N Lon1 : 156.458W Lat2 : 11.342N Lon2 : 160.477E  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -133 dB  
 Pass duration : 298s NOPC : 3  
 Calcul freq : 401 650001.5 Hz Altitude : 0 m  
 163 51 101 198  
 00 00

24192 Date : 17.05.99 06:30:37 LC : 0 IQ : 08  
 Lat1 : 20.897N Lon1 : 156.445W Lat2 : 16.140N Lon2 : 177.720W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 278s NOPC : 3  
 Calcul freq : 401 650003.7 Hz Altitude : 0 m  
 163 71 101 198  
 00 00

24192 Date : 17.05.99 07:37:05 LC : 0 IQ : 00  
 Lat1 : 20.904N Lon1 : 156.442W Lat2 : 19.476N Lon2 : 162.889W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 311s NOPC : 2  
 Calcul freq : 401 649997.8 Hz Altitude : 0 m  
 163 22 101 198  
 00 01

24192 Date : 17.05.99 13:26:47 LC : 2 IQ : 58  
 Lat1 : 20.899N Lon1 : 156.451W Lat2 : 17.575N Lon2 : 141.980W  
 Nb mes : 006 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 505s NOPC : 4  
 Calcul freq : 401 650004.2 Hz Altitude : 0 m  
 163 12 133 152  
 00 01

24192 Date : 17.05.99 15:07:37 LC : 1 IQ : 58  
 Lat1 : 20.899N Lon1 : 156.448W Lat2 : 28.458N Lon2 : 169.932E  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : 563s NOPC : 4  
 Calcul freq : 401 649997.7 Hz Altitude : 0 m  
 162 4178 133 4248  
 02 16

24192 Date : 17.05.99 16:10:24 LC : 1 IQ : 68  
Lat1 : 20.903N Lon1 : 156.457W Lat2 : 19.880N Lon2 : 151.622W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 788s NOPC : 4  
Calcul freq : 401 649995.8 Hz Altitude : 0 m  
161 27 133 152  
00 00

24192 Date : 17.05.99 17:14:23 LC : B IQ : 00  
Lat1 : 20.930N Lon1 : 156.483W Lat2 : 15.071N Lon2 : 129.467W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 304s NOPC : 2  
Calcul freq : 401 650004.2 Hz Altitude : 0 m  
162 110 133 152  
00 00

24192 Date : 17.05.99 18:24:10 LC : B IQ : 00  
Lat1 : 20.957N Lon1 : 156.496W Lat2 : 11.074N Lon2 : 115.425W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 650004.2 Hz Altitude : 0 m  
160 544 133 152  
00 00

24192 Date : 18.05.99 02:20:59 LC : 0 IQ : 60  
Lat1 : 20.898N Lon1 : 156.425W Lat2 : 14.991N Lon2 : 177.412E  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 135s NOPC : 2  
Calcul freq : 401 649999.2 Hz Altitude : 0 m  
160 720 116 172  
00 00

24192 Date : 18.05.99 03:22:08 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
160 152 116 172  
00 00

24192 Date : 18.05.99 04:26:49 LC : B IQ : 00  
Lat1 : 20.889N Lon1 : 156.456W Lat2 : 28.713N Lon2 : 119.095W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 229s NOPC : 2  
Calcul freq : 401 650004.2 Hz Altitude : 0 m  
162 94 116 172  
00 00

24192 Date : 18.05.99 05:01:15 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
163 86 116 172  
00 00

24192 Date : 18.05.99 06:09:20 LC : A IQ : 00  
Lat1 : 20.898N Lon1 : 156.452W Lat2 : 18.518N Lon2 : 167.227W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 474s NOPC : 3  
Calcul freq : 401 650000.1 Hz Altitude : 0 m  
163 31 116 172  
00 00

24192 Date : 18.05.99 07:28:03 LC : B IQ : 00  
Lat1 : 20.996N Lon1 : 155.889W Lat2 : 20.474N Lon2 : 157.838W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 146s NOPC : 2  
Calcul freq : 401 649990.9 Hz Altitude : 0 m  
162 94 116 172  
00 00

24192 Date : 18.05.99 13:16:15 LC : 2 IQ : 58  
Lat1 : 20.895N Lon1 : 156.448W Lat2 : 16.382N Lon2 : 136.429W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 516s NOPC : 4  
Calcul freq : 401 649990.9 Hz Altitude : 0 m  
161 35 125 160  
00 00

24192 Date : 18.05.99 14:56:34 LC : A IQ : 08  
Lat1 : 20.900N Lon1 : 156.454W Lat2 : 27.208N Lon2 : 175.290E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 333s NOPC : 3  
Calcul freq : 401 649985.2 Hz Altitude : 0 m  
160 90 125 160  
00 01

24192 Date : 18.05.99 15:48:33 LC : 2 IQ : 58  
Lat1 : 20.902N Lon1 : 156.447W Lat2 : 17.500N Lon2 : 141.046W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 757s NOPC : 4  
Calcul freq : 401 649980.8 Hz Altitude : 0 m  
159 126 125 160  
00 00

24192 Date : 18.05.99 16:52:26 LC : B IQ : 00  
Lat1 : 20.925N Lon1 : 156.471W Lat2 : 12.826N Lon2 : 118.742W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -136 dB  
Pass duration : 357s NOPC : 2  
Calcul freq : 401 649990.9 Hz Altitude : 0 m  
160 16474 125 176  
00 00

24192 Date : 18.05.99 17:28:41 LC : A IQ : 08  
Lat1 : 20.906N Lon1 : 156.456W Lat2 : 27.824N Lon2 : 170.942E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 414s NOPC : 3  
Calcul freq : 401 649989.3 Hz Altitude : 0 m  
161 77 125 160  
00 00

24192 Date : 18.05.99 18:29:58 LC : B IQ : 00  
Lat1 : 20.863N Lon1 : 156.386W Lat2 : 23.674N Lon2 : 166.478W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 045s NOPC : 2  
Calcul freq : 401 649989.3 Hz Altitude : 0 m  
160 602 125 160  
00 00

24192 Date : 19.05.99 02:15:05 LC : 0 IQ : 58  
Lat1 : 20.918N Lon1 : 156.431W Lat2 : 16.166N Lon2 : 176.971W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 134s NOPC : 2  
Calcul freq : 401 649977.4 Hz Altitude : 0 m  
160 823 127 155  
00 00

24192 Date : 19.05.99 04:39:29 LC : B IQ : 00  
Lat1 : 20.894N Lon1 : 156.456W Lat2 : 16.276N Lon2 : 178.351W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 337s NOPC : 2  
Calcul freq : 401 649989.3 Hz Altitude : 0 m  
160 279 127 155  
00 00

24192 Date : 19.05.99 05:43:53 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -122 dB  
Pass duration : 419s NOPC : 0  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
162 89 127 155  
00 00

24192 Date : 19.05.99 07:12:12 LC : 1 IQ : 56  
Lat1 : 20.898N Lon1 : 156.452W Lat2 : 22.205N Lon2 : 150.658W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 535s NOPC : 3  
Calcul freq : 401 649994.2 Hz Altitude : 0 m  
161 76 127 155  
00 00

24192 Date : 19.05.99 13:08:42 LC : 0 IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 171 142 140  
00 00

24192 Date : 19.05.99 14:39:31 LC : 0 IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
158 109 142 140  
00 00

24192 Date : 19.05.99 15:29:13 LC : 0 IQ : 00  
Lat1 : 20.867N Lon1 : 156.302W Lat2 : 15.354N Lon2 : 130.644W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 053s NOPC : 2  
Calcul freq : 401 649994.2 Hz Altitude : 0 m  
158 42 142 140  
00 00

24192 Date : 19.05.99 16:32:53 LC : 0 IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
157 104 142 644  
03 00

24192 Date : 19  
Lat1 : 20.871N  
Nb mes : 003 N  
Pass duration  
Calcul freq :  
158 196 142 14  
00 00

24192 Date : 20  
Lat1 : 20.900N  
Nb mes : 003 N  
Pass duration  
Calcul freq :  
159 60 179 105  
00 00

24192 Date : 20  
Lat1 : 20.899N  
Nb mes : 002 N  
Pass duration  
Calcul freq :  
161 156 179 1  
00 00

24192 Date : 20  
Lat1 : ??????  
Nb mes : 001  
Pass duration  
Calcul freq :  
160 264 179 1  
00 00

24192 Date : 20  
Lat1 : 20.911N  
Nb mes : 002  
Pass duration  
Calcul freq :  
159 137 155 1  
00 00

24192 Date : 20  
Lat1 : 20.915N  
Nb mes : 002  
Pass duration  
Calcul freq :  
158 172 27 17  
00 16

24192 Date :  
Lat1 : ?????  
Nb mes : 001  
Pass duratio  
Calcul freq :  
158 165 155  
00 01

24192 Date :  
Lat1 : 20.95  
Nb mes : 002  
Pass duratio  
Calcul freq :  
156 67 155 1  
00 00

24192 Date :  
Lat1 : 20.90  
Nb mes : 006  
Pass duratio  
Calcul freq :  
158 606 155  
00 00

24192 Date :  
Lat1 : ?????  
Nb mes : 00  
Pass duratio  
Calcul freq :  
159 518 155  
00 00

24192 Date :  
Lat1 : ?????  
Nb mes : 00  
Pass duratio  
Calcul freq :  
159 518 155  
00 00

24192 Date :  
Lat1 : 20.8  
Nb mes : 00  
Pass duratio  
Calcul freq :  
160 233 175  
00 00

24192 Date : 19.05.99 17:07:38 LC : (A) IQ : 08  
 Lat1 : 20.871N Lon1 : 156.442W Lat2 : 25.519N Lon2 : 178.531W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 459s NOPC : 2  
 Calcul freq : 401 649960.5 Hz Altitude : 0 m  
 158 196 142 140  
 00 00

24192 Date : 21.05.99 03:54:38 LC : (O) IQ : 60  
 Lat1 : 20.875N Lon1 : 156.615W Lat2 : 20.786N Lon2 : 156.977W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -126 dB  
 Pass duration : 706s NOPC : 2  
 Calcul freq : 401 649980.2 Hz Altitude : 0 m  
 160 44 175 111  
 00 00

24192 Date : 20.05.99 04:14:10 LC : (A) IQ : 08  
 Lat1 : 20.900N Lon1 : 156.453W Lat2 : 18.525N Lon2 : 167.525W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 373s NOPC : 2  
 Calcul freq : 401 649979.1 Hz Altitude : 0 m  
 159 60 179 109  
 00 00

24192 Date : 21.05.99 05:02:03 LC : (A) IQ : 00  
 Lat1 : 20.897N Lon1 : 156.450W Lat2 : 25.517N Lon2 : 135.295W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -129 dB  
 Pass duration : 204s NOPC : 3  
 Calcul freq : 401 649982.7 Hz Altitude : 0 m  
 160 26 175 111  
 00 00

24192 Date : 20.05.99 05:24:09 LC : (E) IQ : 00  
 Lat1 : 20.899N Lon1 : 156.481W Lat2 : 23.057N Lon2 : 146.084W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 340s NOPC : 2  
 Calcul freq : 401 649979.1 Hz Altitude : 0 m  
 161 156 179 109  
 00 00

24192 Date : 21.05.99 06:40:55 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 160 174 175 511  
 00 00

24192 Date : 20.05.99 06:55:21 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -124 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 160 264 179 109  
 00 00

24192 Date : 21.05.99 12:42:23 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 160 259 116 175  
 00 00

24192 Date : 20.05.99 12:52:14 LC : (B) IQ : 00  
 Lat1 : 20.911N Lon1 : 156.458W Lat2 : 13.935N Lon2 : 125.384W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 236s NOPC : 2  
 Calcul freq : 401 649979.1 Hz Altitude : 0 m  
 159 137 155 127  
 00 00

24192 Date : 21.05.99 14:21:07 LC : (B) IQ : 00  
 Lat1 : 20.895N Lon1 : 156.441W Lat2 : 23.612N Lon2 : 168.263W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 074s NOPC : 2  
 Calcul freq : 401 649982.7 Hz Altitude : 0 m  
 160 233 116 175  
 00 00

24192 Date : 20.05.99 14:33:59 LC : (B) IQ : 00  
 Lat1 : 20.919N Lon1 : 156.433W Lat2 : 24.761N Lon2 : 173.872W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : 265s NOPC : 2  
 Calcul freq : 401 649979.1 Hz Altitude : 0 m  
 158 172 27 127  
 00 16

24192 Date : 21.05.99 16:22:29 LC : (A) IQ : 08  
 Lat1 : 20.896N Lon1 : 156.429W Lat2 : 21.078N Lon2 : 157.285W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 269s NOPC : 2  
 Calcul freq : 401 649977.1 Hz Altitude : 0 m  
 159 65 116 175  
 00 00

24192 Date : 20.05.99 15:04:57 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 158 165 155 127  
 00 01

24192 Date : 21.05.99 17:28:28 LC : (I) IQ : 50  
 Lat1 : 20.903N Lon1 : 156.448W Lat2 : 16.247N Lon2 : 135.288W  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 749s NOPC : 3  
 Calcul freq : 401 649973.2 Hz Altitude : 0 m  
 158 162 116 175  
 00 00

24192 Date : 20.05.99 16:44:14 LC : (B) IQ : 00  
 Lat1 : 20.956N Lon1 : 156.463W Lat2 : 23.368N Lon2 : 167.856W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -126 dB  
 Pass duration : 276s NOPC : 2  
 Calcul freq : 401 649979.1 Hz Altitude : 0 m  
 156 67 155 127  
 00 00

24192 Date : 21.05.99 18:01:13 LC : (B) IQ : 00  
 Lat1 : 20.933N Lon1 : 156.453W Lat2 : 30.936N Lon2 : 154.673E  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 044s NOPC : 2  
 Calcul freq : 401 649982.7 Hz Altitude : 0 m  
 158 157 116 175  
 00 00

24192 Date : 20.05.99 17:46:30 LC : (I) IQ : 60  
 Lat1 : 20.904N Lon1 : 156.511W Lat2 : 18.668N Lon2 : 146.287W  
 Nb mes : 006 Nb mes>-120dB : 000 Best level : -123 dB  
 Pass duration : 225s NOPC : 2  
 Calcul freq : 401 649970.7 Hz Altitude : 0 m  
 158 606 155 127  
 00 00

24192 Date : 21.05.99 19:12:07 LC : (A) IQ : 07  
 Lat1 : 20.920N Lon1 : 156.747W Lat2 : 26.515N Lon2 : 176.807E  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : 089s NOPC : 2  
 Calcul freq : 401 650012.3 Hz Altitude : 0 m  
 159 625 116 175  
 00 00

24192 Date : 20.05.99 19:25:21 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 159 518 155 127  
 00 00

24192 Date : 21.05.99 19:14:22 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 159 625 116 175  
 00 00

24192 Date : 20.05.99 19:25:21 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 159 518 155 127  
 00 00

24192 Date : 22.05.99 01:38:55 LC : (A) IQ : 08  
 Lat1 : 20.877N Lon1 : 156.459W Lat2 : 19.921N Lon2 : 160.910W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 485s NOPC : 2  
 Calcul freq : 401 650003.2 Hz Altitude : 0 m  
 163 10 131 151  
 00 00

24192 Date : 21.05.99 01:54:58 LC : (B) IQ : 00  
 Lat1 : 20.898N Lon1 : 156.433W Lat2 : 17.745N Lon2 : 167.051W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 200s NOPC : 2  
 Calcul freq : 401 649979.1 Hz Altitude : 0 m  
 160 233 175 111  
 00 00

24192 Date : 22.05.99 03:32:09 LC : 3 IQ : 68  
Lat1 : 20.903N Lon1 : 156.454W Lat2 : 23.071N Lon2 : 146.264W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 369s NOPC : 3  
Calcul freq : 401 649993.0 Hz Altitude : 0 m  
162 81 131 151  
00 00

24192 Date : 23.05.99 03:07:00 LC : 2 IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
160 627 120 167  
00 00

4192 Date : 24.0  
Lat1 : 20.915N L  
Nb mes : 002 Nb  
Pass duration :  
Calcul freq : 40  
161 821 102 196  
00 00

24192 Date : 22.05.99 04:39:56 LC : B IQ : 00  
Lat1 : 20.902N Lon1 : 156.449W Lat2 : 27.619N Lon2 : 124.803W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 047s NOPC : 2  
Calcul freq : 401 649993.0 Hz Altitude : 0 m  
162 120 131 151  
00 01

24192 Date : 23.05.99 04:16:53 LC : B IQ : 00  
Lat1 : 20.893N Lon1 : 156.484W Lat2 : 29.757N Lon2 : 114.024W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649981.2 Hz Altitude : 0 m  
160 273 120 167  
00 00

24192 Date : 24.0  
Lat1 : 20.904N L  
Nb mes : 004 Nb  
Pass duration :  
Calcul freq : 40  
160 823 102 196  
00 00

24192 Date : 22.05.99 05:10:09 LC : B IQ : 00  
Lat1 : 20.901N Lon1 : 156.470W Lat2 : 12.844N Lon2 : 165.747E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : 116s NOPC : 2  
Calcul freq : 401 649993.0 Hz Altitude : 0 m  
178 32852 18627 18517  
02 14

24192 Date : 23.05.99 04:51:41 LC : B IQ : 00  
Lat1 : 20.919N Lon1 : 156.445W Lat2 : 14.977N Lon2 : 176.089E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649981.2 Hz Altitude : 0 m  
162 219 120 418  
00 03

24192 Date : 24.0  
Lat1 : 20.904N L  
Nb mes : 003 Nb  
Pass duration :  
Calcul freq : 40  
161 94 102 196  
00 00

24192 Date : 22.05.99 06:20:01 LC : 3 IQ : 68  
Lat1 : 20.898N Lon1 : 156.450W Lat2 : 17.281N Lon2 : 172.733W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 460s NOPC : 4  
Calcul freq : 401 649999.7 Hz Altitude : 0 m  
163 45 131 151  
00 00

24192 Date : 23.05.99 05:56:37 LC : 1 IQ : 50  
Lat1 : 20.896N Lon1 : 156.448W Lat2 : 19.651N Lon2 : 162.121W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -121 dB  
Pass duration : 497s NOPC : 3  
Calcul freq : 401 650004.9 Hz Altitude : 0 m  
164 84 120 167  
00 01

24192 Date : 24.0  
Lat1 : 20.897N L  
Nb mes : 004 Nb  
Pass duration :  
Calcul freq : 40  
162 54 102 196  
00 00

24192 Date : 22.05.99 06:33:54 LC : B IQ : 00  
Lat1 : 20.888N Lon1 : 156.452W Lat2 : 26.170N Lon2 : 132.356W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 285s NOPC : 1  
Calcul freq : 401 649999.7 Hz Altitude : 0 m  
163 88 131 151  
00 01

24192 Date : 23.05.99 06:21:22 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
244 9648 21584 11053  
00 49

24192 Date : 24.0  
Lat1 : 20.900N L  
Nb mes : 003 Nb  
Pass duration :  
Calcul freq : 40  
162 92 102 196  
00 00

24192 Date : 22.05.99 12:27:55 LC : B IQ : 00  
Lat1 : 20.903N Lon1 : 156.432W Lat2 : 11.143N Lon2 : 114.058W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : 059s NOPC : 2  
Calcul freq : 401 649987.2 Hz Altitude : 0 m  
161 27 94 220  
00 01

24192 Date : 23.05.99 14:00:37 LC : B IQ : 00  
Lat1 : 20.929N Lon1 : 156.377W Lat2 : 21.184N Lon2 : 157.555W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 387s NOPC : 2  
Calcul freq : 401 650004.9 Hz Altitude : 0 m  
162 130 118 171  
00 01

24192 Date : 24.0  
Lat1 : 21.005N L  
Nb mes : 002 Nb  
Pass duration :  
Calcul freq : 40  
160 63 102 2628  
01 14

24192 Date : 22.05.99 14:12:32 LC : A IQ : 08  
Lat1 : 20.902N Lon1 : 156.452W Lat2 : 22.426N Lon2 : 162.834W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 503s NOPC : 2  
Calcul freq : 401 649987.2 Hz Altitude : 0 m  
161 26 94 220  
00 01

24192 Date : 23.05.99 15:41:39 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
162 72 118 171  
00 00

24192 Date : 24.0  
Lat1 : 20.907N L  
Nb mes : 004 Nb  
Pass duration :  
Calcul freq : 40  
158 185 127 156  
00 00

24192 Date : 22.05.99 16:01:03 LC : B IQ : 00  
Lat1 : 20.905N Lon1 : 156.450W Lat2 : 18.794N Lon2 : 146.604W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 124s NOPC : 2  
Calcul freq : 401 649981.2 Hz Altitude : 0 m  
160 45 94 220  
00 00

24192 Date : 23.05.99 17:17:32 LC : 1 IQ : 58  
Lat1 : 20.897N Lon1 : 156.446W Lat2 : 16.481N Lon2 : 135.810W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 560s NOPC : 4  
Calcul freq : 401 649992.8 Hz Altitude : 0 m  
162 72 118 171  
00 00

24192 Date : 24.0  
Lat1 : 20.901N L  
Nb mes : 003 Nb  
Pass duration :  
Calcul freq : 40  
157 59 127 156  
00 00

24192 Date : 22.05.99 17:07:13 LC : A IQ : 08  
Lat1 : 20.906N Lon1 : 156.459W Lat2 : 13.868N Lon2 : 124.774W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : 471s NOPC : 3  
Calcul freq : 401 649981.2 Hz Altitude : 0 m  
160 24 94 220  
00 00

24192 Date : 23.05.99 18:21:10 LC : 0 IQ : 58  
Lat1 : 20.912N Lon1 : 156.461W Lat2 : 22.205N Lon2 : 162.042W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 134s NOPC : 2  
Calcul freq : 401 649985.7 Hz Altitude : 0 m  
160 544 118 171  
00 00

24192 Date : 24.0  
Lat1 : 20.902N L  
Nb mes : 005 Nb  
Pass duration :  
Calcul freq : 40  
158 170 38229  
01 21

24192 Date : 22.05.99 17:38:15 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
160 361 94 614  
01 04

24192 Date : 23.05.99 18:21:10 LC : 0 IQ : 58  
Lat1 : 20.912N Lon1 : 156.461W Lat2 : 22.205N Lon2 : 162.042W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 134s NOPC : 2  
Calcul freq : 401 649985.7 Hz Altitude : 0 m  
160 544 118 171  
00 00

24192 Date : 24.0  
Lat1 : 20.902N L  
Nb mes : 003 Nb  
Pass duration :  
Calcul freq : 40  
159 332 127 151  
00 00

24192 Date : 22.05.99 18:44:03 LC : 1 IQ : 68  
Lat1 : 20.909N Lon1 : 156.464W Lat2 : 24.545N Lon2 : 173.011W  
Nb mes : 004 Nb mes>-120dB : 001 Best level : -120 dB  
Pass duration : 134s NOPC : 2  
Calcul freq : 401 649979.9 Hz Altitude : 0 m  
160 566 94 220  
00 00

24192 Date : 23.05.99 03:07:00 LC : A IQ : 08  
Lat1 : 20.877N Lon1 : 156.507W Lat2 : 25.289N Lon2 : 135.478W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 089s NOPC : 2  
Calcul freq : 401 649998.4 Hz Altitude : 0 m  
160 627 56 167  
00 00

24192 Date : 24.0  
Lat1 : 20.911N L  
Nb mes : 003 Nb  
Pass duration :  
Calcul freq : 40  
160 544 127 151  
00 00

24192 Date : 23.05.99 03:07:00 LC : A IQ : 08  
Lat1 : 20.877N Lon1 : 156.507W Lat2 : 25.289N Lon2 : 135.478W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 089s NOPC : 2  
Calcul freq : 401 649998.4 Hz Altitude : 0 m  
160 627 56 167  
00 00

24192 Date : 23.05.99 18:21:10 LC : 0 IQ : 58  
Lat1 : 20.912N Lon1 : 156.461W Lat2 : 22.205N Lon2 : 162.042W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 134s NOPC : 2  
Calcul freq : 401 649985.7 Hz Altitude : 0 m  
160 544 118 171  
00 00

24192 Date : 24.0  
Lat1 : 20.886N L  
Nb mes : 002 Nb  
Pass duration :  
Calcul freq : 40  
160 544 127 151  
00 00

24192 Date : 24.05.99 01:17:57 LC : B IQ : 00  
 Lat1 : 20.915N Lon1 : 156.385W Lat2 : 22.331N Lon2 : 150.088W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -129 dB  
 Pass duration : 180s NOPC : 2  
 Calcul freq : 401 649992.8 Hz Altitude : 0 m  
 161 821 102 196  
 00 00

24192 Date : 25.05.99 01:10:09 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 160 669 145 134  
 00 00

24192 Date : 24.05.99 02:45:20 LC : 0 IQ : 68  
 Lat1 : 20.904N Lon1 : 156.467W Lat2 : 27.497N Lon2 : 124.850W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -124 dB  
 Pass duration : 179s NOPC : 2  
 Calcul freq : 401 649985.0 Hz Altitude : 0 m  
 160 823 102 196  
 00 00

24192 Date : 25.05.99 02:46:49 LC : (O) IQ : 68  
 Lat1 : 20.915N Lon1 : 156.455W Lat2 : 12.540N Lon2 : 167.336E  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 179s NOPC : 4  
 Calcul freq : 401 649975.4 Hz Altitude : 0 m  
 160 972 145 134  
 00 00

24192 Date : 24.05.99 04:29:37 LC : A IQ : 00  
 Lat1 : 20.904N Lon1 : 156.451W Lat2 : 17.226N Lon2 : 172.990W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 425s NOPC : 3  
 Calcul freq : 401 649989.8 Hz Altitude : 0 m  
 161 94 102 196  
 00 00

24192 Date : 25.05.99 04:05:25 LC : (B) IQ : 00  
 Lat1 : 20.918N Lon1 : 156.443W Lat2 : 19.655N Lon2 : 162.401W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 283s NOPC : 2  
 Calcul freq : 401 649975.4 Hz Altitude : 0 m  
 160 128 657 134  
 00 01

24192 Date : 24.05.99 05:36:56 LC : 2 IQ : 68  
 Lat1 : 20.897N Lon1 : 156.459W Lat2 : 22.031N Lon2 : 151.432W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -121 dB  
 Pass duration : 489s NOPC : 3  
 Calcul freq : 401 649991.6 Hz Altitude : 0 m  
 162 54 102 196  
 00 00

24192 Date : 25.05.99 05:13:13 LC : (I) IQ : 58  
 Lat1 : 20.901N Lon1 : 156.462W Lat2 : 24.275N Lon2 : 140.936W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -123 dB  
 Pass duration : 470s NOPC : 4  
 Calcul freq : 401 649979.3 Hz Altitude : 0 m  
 160 45 145 134  
 00 00

24192 Date : 24.05.99 06:09:17 LC : A IQ : 08  
 Lat1 : 20.900N Lon1 : 156.464W Lat2 : 29.013N Lon2 : 120.337W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 486s NOPC : 3  
 Calcul freq : 401 649987.0 Hz Altitude : 0 m  
 162 92 102 196  
 00 00

24192 Date : 25.05.99 05:54:41 LC : (A) IQ : 07  
 Lat1 : 20.932N Lon1 : 156.440W Lat2 : 30.137N Lon2 : 114.005W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -131 dB  
 Pass duration : 153s NOPC : 2  
 Calcul freq : 401 649965.4 Hz Altitude : 0 m  
 160 33 145 134  
 00 00

24192 Date : 24.05.99 07:47:39 LC : B IQ : 00  
 Lat1 : 21.005N Lon1 : 156.579W Lat2 : 18.459N Lon2 : 168.316W  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -126 dB  
 Pass duration : 572s NOPC : 2  
 Calcul freq : 401 649973.0 Hz Altitude : 0 m  
 160 63 102 2628  
 01 14

24192 Date : 25.05.99 06:51:26 LC : (I) IQ : 58  
 Lat1 : 20.889N Lon1 : 156.448W Lat2 : 13.756N Lon2 : 170.988E  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -128 dB  
 Pass duration : 465s NOPC : 4  
 Calcul freq : 401 649984.1 Hz Altitude : 0 m  
 160 38 145 134  
 00 00

24192 Date : 24.05.99 13:49:08 LC : (I) IQ : 68  
 Lat1 : 20.907N Lon1 : 156.471W Lat2 : 19.911N Lon2 : 151.885W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 673s NOPC : 3  
 Calcul freq : 401 649973.0 Hz Altitude : 0 m  
 158 185 127 156  
 00 00

24192 Date : 25.05.99 07:33:44 LC : (Z) IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 160 83 145 134  
 00 00

24192 Date : 24.05.99 15:15:26 LC : (3) IQ : 68  
 Lat1 : 20.899N Lon1 : 156.449W Lat2 : 14.084N Lon2 : 125.206W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : 426s NOPC : 4  
 Calcul freq : 401 649966.4 Hz Altitude : 0 m  
 157 59 127 156  
 00 00

24192 Date : 25.05.99 13:37:11 LC : 2 IQ : 66  
 Lat1 : 20.897N Lon1 : 156.449W Lat2 : 18.575N Lon2 : 146.605W  
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
 Pass duration : 568s NOPC : 3  
 Calcul freq : 401 649969.6 Hz Altitude : 0 m  
 158 42 126 159  
 00 00

24192 Date : 24.05.99 15:29:12 LC : (A) IQ : 60  
 Lat1 : 20.901N Lon1 : 156.449W Lat2 : 30.373N Lon2 : 159.703E  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -132 dB  
 Pass duration : 204s NOPC : 2  
 Calcul freq : 401 649966.4 Hz Altitude : 0 m  
 157 8222 4223 156  
 01 00

24192 Date : 25.05.99 14:53:40 LC : Z IQ : 00  
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB  
 Pass duration : ? s NOPC : ?  
 Calcul freq : 401 650000.0 Hz Altitude : 0 m  
 157 75 126 159  
 00 00

24192 Date : 24.05.99 16:54:35 LC : (I) IQ : 58  
 Lat1 : 20.902N Lon1 : 156.458W Lat2 : 24.566N Lon2 : 173.230W  
 Nb mes : 005 Nb mes>-120dB : 000 Best level : -125 dB  
 Pass duration : 715s NOPC : 4  
 Calcul freq : 401 649967.2 Hz Altitude : 0 m  
 158 170 38229 21853  
 01 21

24192 Date : 25.05.99 15:17:12 LC : B IQ : 00  
 Lat1 : 20.905N Lon1 : 156.429W Lat2 : 29.278N Lon2 : 165.269E  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
 Pass duration : 122s NOPC : 2  
 Calcul freq : 401 649969.6 Hz Altitude : 0 m  
 157 58 126 159  
 00 01

24192 Date : 24.05.99 18:00:02 LC : (A) IQ : 08  
 Lat1 : 20.911N Lon1 : 156.481W Lat2 : 19.874N Lon2 : 151.770W  
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -122 dB  
 Pass duration : 090s NOPC : 2  
 Calcul freq : 401 649980.1 Hz Altitude : 0 m  
 159 332 127 156  
 00 00

24192 Date : 25.05.99 16:31:58 LC : 1 IQ : 58  
 Lat1 : 20.903N Lon1 : 156.454W Lat2 : 22.192N Lon2 : 162.569W  
 Nb mes : 007 Nb mes>-120dB : 000 Best level : -126 dB  
 Pass duration : 740s NOPC : 3  
 Calcul freq : 401 649962.0 Hz Altitude : 0 m  
 157 25 126 159  
 00 01

24192 Date : 24.05.99 19:41:40 LC : (B) IQ : 00  
 Lat1 : 20.886N Lon1 : 156.497W Lat2 : 29.910N Lon2 : 160.274E  
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
 Pass duration : 044s NOPC : 2  
 Calcul freq : 401 649966.4 Hz Altitude : 0 m  
 160 544 127 156  
 00 00

24192 Date : 25.05.99 17:38:12 LC : A IQ : 08  
Lat1 : 20.906N Lon1 : 156.470W Lat2 : 17.575N Lon2 : 140.721W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 606s NOPC : 3  
Calcul freq : 401 649969.6 Hz Altitude : 0 m  
159 246 126 159  
00 00

24192 Date : 26.05.99 18:54:13 LC : (1) IQ : 68  
Lat1 : 20.890N Lon1 : 156.408W Lat2 : 25.801N Lon2 : 178.751W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 649985.3 Hz Altitude : 0 m  
159 566 135 147  
00 00

24192 Date : 25.05.99 19:18:10 LC : 1 IQ : 68  
Lat1 : 20.921N Lon1 : 156.432W Lat2 : 28.048N Lon2 : 170.896E  
Nb mes : 006 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 224s NOPC : 4  
Calcul freq : 401 649988.6 Hz Altitude : 0 m  
160 851 126 159  
00 00

24192 Date : 27.05.99 04:27:43 LC : (B) IQ : 00  
Lat1 : 20.935N Lon1 : 156.463W Lat2 : 28.655N Lon2 : 119.613W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : 252s NOPC : 2  
Calcul freq : 401 649964.8 Hz Altitude : 0 m  
159 142 155 127  
00 00

24192 Date : 26.05.99 00:51:05 LC : 1 IQ : 68  
Lat1 : 20.895N Lon1 : 156.541W Lat2 : 24.803N Lon2 : 138.867W  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -124 dB  
Pass duration : 179s NOPC : 2  
Calcul freq : 401 649990.9 Hz Altitude : 0 m  
160 864 145 137  
00 00

24192 Date : 27.05.99 05:00:25 LC : (A) IQ : 00  
Lat1 : 20.899N Lon1 : 156.451W Lat2 : 13.822N Lon2 : 170.792E  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 232s NOPC : 3  
Calcul freq : 401 649979.7 Hz Altitude : 0 m  
160 36 155 127  
00 00

24192 Date : 26.05.99 02:35:13 LC : 0 IQ : 58  
Lat1 : 20.908N Lon1 : 156.468W Lat2 : 13.834N Lon2 : 172.788E  
Nb mes : 005 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 179s NOPC : 4  
Calcul freq : 401 649977.4 Hz Altitude : 0 m  
160 955 145 137  
00 00

24192 Date : 27.05.99 06:14:39 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 152 155 127  
00 00

24192 Date : 26.05.99 03:47:57 LC : Z IQ : 10  
Lat1 : 22.088N Lon1 : 152.661W Lat2 : 20.878N Lon2 : 156.531W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : 135s NOPC : 0  
Calcul freq : 401 649977.4 Hz Altitude : 0 m  
159 937 32913 137  
00 00

24192 Date : 27.05.99 07:13:50 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
159 89 155 127  
00 00

24192 Date : 26.05.99 04:47:26 LC : B IQ : 00  
Lat1 : 20.898N Lon1 : 156.465W Lat2 : 26.475N Lon2 : 130.220W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 256s NOPC : 2  
Calcul freq : 401 649977.4 Hz Altitude : 0 m  
159 202 145 137  
00 00

24192 Date : 27.05.99 13:15:35 LC : B IQ : 00  
Lat1 : 20.914N Lon1 : 156.447W Lat2 : 16.262N Lon2 : 135.789W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649979.7 Hz Altitude : 0 m  
157 352 8345 129  
00, 00

24192 Date : 26.05.99 06:30:19 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
167 237 145 137  
00 00

24192 Date : 27.05.99 14:54:46 LC : B IQ : 00  
Lat1 : 20.918N Lon1 : 156.409W Lat2 : 26.963N Lon2 : 176.151E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : 216s NOPC : 2  
Calcul freq : 401 649979.7 Hz Altitude : 0 m  
157 49 153 129  
00 01

24192 Date : 26.05.99 07:25:17 LC : B IQ : 00  
Lat1 : 20.778N Lon1 : 158.023W Lat2 : 21.468N Lon2 : 154.815W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB  
Pass duration : 325s NOPC : 2  
Calcul freq : 401 649964.8 Hz Altitude : 0 m  
168 06 145 137  
00 01

24192 Date : 27.05.99 15:46:49 LC : Z IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
157 499 153 129  
00 00

24192 Date : 26.05.99 13:25:59 LC : (A) IQ : 08  
Lat1 : 20.897N Lon1 : 156.449W Lat2 : 17.257N Lon2 : 141.274W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 471s NOPC : 3  
Calcul freq : 401 649964.8 Hz Altitude : 0 m  
157 165 135 147  
00 00

24192 Date : 27.05.99 16:56:21 LC : B IQ : 00  
Lat1 : 20.950N Lon1 : 156.437W Lat2 : 13.064N Lon2 : 119.795W  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB  
Pass duration : 237s NOPC : 2  
Calcul freq : 401 649979.7 Hz Altitude : 0 m  
156 90 153 129  
00 00

24192 Date : 26.05.99 15:02:53 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -135 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 26 135 147  
00 00

24192 Date : 27.05.99 17:28:12 LC : B IQ : 00  
Lat1 : 20.938N Lon1 : 156.476W Lat2 : 27.829N Lon2 : 170.509E  
Nb mes : 002 Nb mes>-120dB : 000 Best level : -126 dB  
Pass duration : 044s NOPC : 2  
Calcul freq : 401 649979.7 Hz Altitude : 0 m  
158 173 153 129  
00 00

24192 Date : 26.05.99 16:09:29 LC : (A) IQ : 08  
Lat1 : 20.902N Lon1 : 156.440W Lat2 : 19.910N Lon2 : 152.078W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -123 dB  
Pass duration : 457s NOPC : 3  
Calcul freq : 401 649959.9 Hz Altitude : 0 m  
156 78 135 147  
00 00

24192 Date : 27.05.99 19:42:27 LC : A IQ : 00  
Lat1 : 20.914N Lon1 : 156.473W Lat2 : 19.906N Lon2 : 152.040W  
Nb mes : 003 Nb mes>-120dB : 000 Best level : -131 dB  
Pass duration : 089s NOPC : 2  
Calcul freq : 401 649976.1 Hz Altitude : 0 m  
158 631 153 129  
00 00

24192 Date : 26.05.99 17:16:12 LC : (Z) IQ : 00  
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???  
Nb mes : 001 Nb mes>-120dB : 000 Best level : -129 dB  
Pass duration : ? s NOPC : ?  
Calcul freq : 401 650000.0 Hz Altitude : 0 m  
156 110 2181 10258  
00 36

24192 Date : 28.05.99 00:35:15 LC : 0 IQ : 50  
Lat1 : 20.886N Lon1 : 156.539W Lat2 : 27.448N Lon2 : 127.721W  
Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB  
Pass duration : 135s NOPC : 2  
Calcul freq : 401 649963.1 Hz Altitude : 0 m  
160 864 147 133  
00 00

1923	9.6 Acres
1968	11.3 Acres
2004	6.3 Acres
2007:	7.8 Acres
2008:	7.2 Acres

FROM  
ANTHONY

Date: Tue, 12 Aug 2003 13:45:40 -1000  
From: Shawn Murakawa <smurakaw@honlab.nmfs.hawaii.edu>  
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Cc: Cody Hooven <chooven@honlab.nmfs.hawaii.edu>  
Subject: East Island - FFS - 2003 - MT182 (previously tagged?)

The turtle was first tagged this past year on 6-13-03 on East Island. CCL=93.5cm and SCL=87.3cm. Tumors: 3#1 LFF, 1#3/1#1 betw LFF and head (not neck), and 1#1 RFL. Possibly 1#1 under right eye, full of irritants and hard to tell. Carapace thin. Tagged RHF 445422311E/RHF (6-13-03) 4333522B5F/LHF (6-14-03). Activities: 6-13-03 at 2139-0009 X, 6-14-03 at 2204-0047 P, 6-26-03 at 2115-2125 C, and 6-27-03 at 0008-0341 M.

\*\*\*\*\*

2003 ~~FFS~~ FFS Peders



Date: Sun, 15 Jun 2003 18:04:49 EDT  
From: Hinwr@aol.com  
To: gbalazz@honlab.nmfs.hawaii.edu  
Cc: Dominique\_Aycock@r1.fws.gov  
Subject: Re: For Erin and JOe.

Hey George and Domo,

First of all. Thanks for the great picks. They are sitting on my desk adding some flavor to my otherwise drab room. The red pen is also greatly appreciated.

Everything is going great here. I wanted to shoot you an email with the recent numbers and a few facts/questions.

6/11 28 total 2 new  
6/12 32 total 3 new  
6/13 26 total 2 new

As you can see the new turtles arriving have been few and far between. But that was expected coming in as you explained to us based on the type of year predicted.

Good news! I got a few shots of #159 "Akahale" nesting.

Erin just told me over the radio tonight she found an unusual tag. It was on turtle #185. She has an old metal tag of y-426 RFL. Her unusual tag is above L34 in the middle of her left front flipper. It is a baby blue punch tag and shaped like a tear drop. The number on it is BA4? (Erin thinks it is probably BA49, but may also be BA40 - she can't tell for sure). On the underside of the clip it says University of Miami). Hmmmm?

Erin also wanted to let you know that a couple pit tags did not read with the scanner after they were put in the turtle. One was checked immediately after the tagging. We decided to make sure none of the tags are duds by scanning each tag we put in the vest before we go out. Could just be a fluke - but better to be sure. We will let you know what we find.

Turtle 177 came up 3 nights on East and body pitted. Tonight she was up on Tern egg chambering. We will add this to the data sheets in the East book. Is there anything special we should do about turtles attempting to nest on both islands?

Suzanne gave me some pointers on the cameras and I will be watching the video later tonight. Hope everything on the main islands is going well.

Aloha,  
Joe (and Erin)

Y-426  
BA49(?)  
Blue

Date: Sun, 15 Jun 2003 15:56:59 -1000  
From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
To: Hinwr@aol.com  
Cc: Dominique Aycock@r1.fws.gov  
Subject: Re: For Joe and Erin

Joe and Erin,

\*\*\*\*Turtle arrivals at FFS/EAST are exactly as expected and in-tune with all other years, the way things happen at FFS. Most arrive early in season for mating then start nesting. So, if interesting interval is roughly 12-16 days, after you tag all turtles up for 16 days 90% of what you'll find after that is re-nesters, turtles nesting for their 2nd or 3rd etc time. The 10% new ones are ones missed earlier, or, more likely late arrivals. What you'll see from now one until the end (last day you monitor) is only 0-3 new or so each night. Hope that clarifies. Yes, a low season but not outrageously low. A moderate season for East I would say. Nothing to be worried about.

\*\*\*\*Switching East to Tern, Tern to East, for a few is not unusual.

GREAT about photos of Alahele! Mahalo.

\*\*\*\*Re Y-426 with Blue Miami tag plastic, I'll get back to you asap with original data. I put on some Miami blue rototags plastics along with Inconel (Y series) in main island forage pasture work. It could very well be one of the Special ones I talked about, a turtle tagged as juvenile that's now grown up. Double check please SCL, and be sure to do CCL. Mahalo to Erin, and Joe!

On Sun, 15 Jun 2003 Hinwr@aol.com wrote:

> 6/11 28 total 2 new

> 6/12 32 total 3 new

> 6/13 26 total 2 new

> As you can see the new turtles arriving have been few and far between. But  
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> probably BA49, but may also be BA40 - she can't tell for sure). On the  
underside

> of the clip it says University of Miami). Hmmmm?

\*\*\*\*\*If they didn't read, and truly went in, there only one plausible reason they didn't.

That is, they hit something too hard when the injection part took place and cracked the glass to make the tag unworkable. Hit something like bone. Recall care I instructed be taken with inserting/injecting. When coming up against something hard, back off and realign, they try injecting again. There are no duds from the factory. How can I say this? After putting in over 10,000 and never having one. But I've had a few crack on me from what I describe above. Been there done that. These they happen occasionally, just strive to minimize as best possible.

> Erin also wanted to let you know that a couple pit tags did not read with the  
> scanner after they were put in the turtle. One was checked immediately after  
> the tagging. We decided to make sure none of the tags are duds by scanning  
> each tag we put in the vest before we go out. Could just be a fluke - but  
> better to be sure. We will let you know what we find.  
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> Tern egg chambering. We will add this to the data sheets in the East book.  
Is  
> there anything special we should do about turtles attempting to nest on both  
> islands?  
\*\*\*\*\*Very excellent.  
> Suzanne gave me some pointers on the cameras and I will be watching the video  
> later tonight. Hope everything on the main islands is going well.  
>  
> Aloha,  
> Joe (and Erin)  
>

CAMERA #1

PHOTO LOG  
FFS 2003 TURTLE NESTING SEASONRETURN TO  
GEORGE BARAZZ

Photo #	Date	DESCRIPTION - TURTLE ID, ETC.
1	6/7/03	#139 at dawn
2	6/3/03	#134 Large barnacle on 4 <sup>th</sup> Central Scute from A. arm
3	6/2/03	#125 Crack on L. Carapace (3 <sup>rd</sup> & 4 <sup>th</sup> Lat Scutes)
4	6/2/03	#1 size tumor growth behind RFL
5	6/2/03	#1 size tumor growth behind LFL
6	?	
7	6/1/03	#106 "Zomi" Fat? near 2 H <sub>2</sub> O
8	6/1/03	#106 crawling "Zomi"
9	6/1/03	#111 PC by shell
10	6/1/03	#111 PC by tank
11	6/1/03	#106 "Zomi" 2 H <sub>2</sub> O
12	6/1/03	#105 barnacle on head
13		
14		
15	5/29/03	#79 tidbit 381364 in nest
16	5/29/03	the ground (Sorry!) (☺)
17	5/29/03	#76 took picture of injured LHF and nest visible through rear flipper
18	5/28/03	#64 Rear of carapace, <sup>as the 1<sup>st</sup> molt from - more likely coincidence - just coral</sup>
19	5/27/03	#44 taken w/ right side, full body
20	5/27/03	#44 from behind, down m. tool, crawling toward bottom
21	5/27/03	My Pocket (Sorry!) 1 <sup>st</sup> ever inside the nest picture
22	5/27/03	#48 Front growth under RFL Flipper Size 2
23	5/27/03	#44 122-C C to H <sub>2</sub> O (South of)
24	5/27/03	#44 122-C C to H <sub>2</sub> O (South of)
25	5/23/03	Joe in Tent
26	5/22/03	#14, Yellowish #4 size tumor (20-25 cm), just beneath R Front Flipper
27	5/22/03	#14, Yellowish #4 size tumor, just beneath R Front Flipper
28		
29		
30		

(Camera's picture #'s may be off)

ffs.photolog.xls

Please return to: Marine Turtle Research Program  
National Marine Fisheries Service  
Honolulu Laboratory  
2570 Dole Street  
Honolulu, Hawaii 96822-2396

**Subject:** [Fwd: First pup on Trig]  
**Date:** Thu, 29 Apr 2004 11:02:21 -1000  
**From:** "Jason Baker" <Jason.Baker@noaa.gov>  
**Organization:** NOAA  
**To:** George Balazs <gbalazs@mail.nmfs.hawaii.edu>

George, fyi, not sure if you have anyone doing turtle work at FFS now, but here's some intriguing info from Suzanne. Jason

**Subject:** First pup on Trig  
**Date:** Thu, 29 Apr 2004 10:27:55 -1000  
**From:** "French Frigate Shoals" <ffs2570@wccpl.com>  
**To:** "Jason Baker" <jason.baker@noaa.gov>, "Bud Antonelis" <bud.antonelis@noaa.gov>  
**CC:** "Thea Johanos-Kam" <thea.johanos-kam@noaa.gov>, "Brenda Becker" <brenda.becker@noaa.gov>, "Charles Littnan" <charles.littnan@noaa.gov>

*Reduce*

Hi all, just wanted to let you know that we documented our first pup on Trig yesterday. Good healthy looking pup, don't know the sex yet! Mom is YP19. Records indicate this is her first pup!

*FFS  
2004*

We were able to get out to the Gins, East, Round, and Trig yesterday. All seem well. While at Little Gin, spent an hour watching for shark activity while I waited for Aaron to do the seal survey there. All ok.

Seems like record high numbers of sea turtles this year. 60+ at Gin, Trig & Whaleskate, 30+ at Little Gin, and last week on East 160 baskers!

-suz

**Date:** Mon, 5 Apr 2004 12:36:30 EDT  
**From:** Hinwr@aol.com  
**To:** gbalazs@honlab.nmfs.hawaii.edu  
**Cc:** Dominique\_horvath@r1.fws.gov  
**Subject:** Tern turtle activity

*Reduce*

*FFS*

Hello George,

Just wanted to pass on a little turtle info to keep you updated. We've been seeing lots of mating activity on and near the beaches at Tern. We haven't been able to get out to the other islands since the last update. Many males have been seen basking on South, East and Crab beaches.

On 24 March, we found an exposed datalogger on South beach. The rope/leash was close to entangling a monk seal (the seals head was between the sand and the rope). We cut the rope and dug out the datalogger. Would you like this sent to you?

The turtle cam is still functioning as before. No new news there.

**Date:** Wed, 21 Apr 2004 15:05:46 EDT  
**From:** Hinwr@aol.com  
**To:** gbalazs@honlab.nmfs.hawaii.edu  
**Cc:** Dominique\_horvath@r1.fws.gov  
**Subject:** L4 TDR removed

Hi George,

We found L4 on Crab Beach on Monday, April 19th and removed the TDR. We did not even have to restrain the turtle. We simply crept up as she was basking and gently unscrewed the top, popped out the recorder and replaced the lid and screws. She barely opened her eyes.

No sign of the other two males yet. We did get to visit the Gins and East on April 18th (first time in a long time). SO many turtles, but no sign of those with recorders. Also, we had the first turtle pits found on April 17th here on Tern, then several were located while on Gins and East on the 18th - so nesting has begun!

I will send back the recorder and a CD of associated pictures of the removal on the April 22nd flight.

Jennifer

Date: Fri, 30 Apr 2004 09:01:06 -1000  
From: French Frigate Shoals <ffs2570@wcclp.com>  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: from aaron

[ The following text is in the "iso-8859-1" character set. ]  
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Hey George,

- Saw turtle L12 on Little Gin on the 28th. Got a couple digital pics.
- Found another tidbit datalogger, didn't get an answer from you about sending them back so I'll just give them to F&W to deal with.

Aaron

Date: Sun, 25 Apr 2004 22:44:29 -1000  
From: French Frigate Shoals <ffs2570@wcclp.com>  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: From Aaron-FFS

[ The following text is in the "iso-8859-1" character set. ]  
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Aloha George,

I just wanted to send you a quick note probably verifying what you probably already know. This year is going to be a huge year for the turtles. Maybe the largest yet. We did a survey of East Island a few days ago, and there were about 160 turtles basking on the beach. Many more in the water, too many to count accurately. Trig had about 60 on land and around another 30-40 in the water. Whaleskate is still up, but about the same dimentions as last year so probably wont be any successfull nests, but still plenty of baskers and lots more in the water.

If Joe doesn't get hired I would be happy to spend a night or two with the two new techs (if Bud doesn't mind, and I think he would understand given the situation) getting them up to speed.

I know F&W wrote to tell you about the TDR being recovered from L4, but not sure if they passed on that Suzanne spotted L7 in the water from the boat (no chance to grab him obviously) while I was surveying on land. We are hopeful that we will see him again at a more ideal time and get the TDR.

I found one of the East Island Tidbit dataloggers unburied and brought it back to Tern. Do you want for me to send it back right away, or give it to the turtle techs when they get here?

Well, hope you had a great trip in Japan. Much Aloha.  
Aaron

# Sea turtle mating, egg laying now captured by covert videocameras

*Camera installation at French Frigate Shoals designed to give scientists information on rare, endangered turtle species in one of their last refuges*

Recently, four Hawaii scientists travelled to the remote Northwestern Hawaiian Islands in the first step of a novel experiment to learn more about the life histories of rare and endangered sea turtle species.

The islands are a U.S. National Wildlife Refuge and home to several rare and endangered species of wildlife.

The green turtle, Hawaiian monk seal, many species of sea birds, and a few species of land birds call these remote atolls home during all or part of their life.

French Frigate Shoals is an 18-mile long semicircular atoll about 480 miles northwest of Honolulu and is composed of a dozen or so small sand islands with a total acreage of only 70 acres.

Tern Island is the site of the old Coast Guard station and is occupied today by U.S. Fish and Wildlife Service (FWS) personnel who manage the refuge. Staff members travel from islet to islet as time and weather allow studying and monitoring the wildlife, collecting and removing marine debris, and closely monitoring the critically endangered Hawaiian monk seal.

East Island, a 900-meter-

long sand island seven miles southeast of Tern Island, is the major nesting beach for the Hawaiian green turtle population. In fact, nearly 90 percent of all nests are laid on the islands of the atoll.

On May 23, George Balazs of the Pacific Islands Fisheries Science Center of the U.S. National Marine Fisheries Service (NMFS), Daniel Zatz and Konrad Schaade of SeaMore Wildlife Systems, Inc., and Marc Rice, director of the Sea Turtle Research Program at Hawaii Preparatory Academy, flew to Tern Island to install two remote video cameras on East Island in a first-of-its-kind effort to monitor the nesting and basking activity of green turtles on this important sand island.

The "SeaTurtle Cam" and control software was designed and built by SeaMore Wildlife Systems, which has deployed many similar systems to monitor wildlife in other parts of the world.

The East Island project was conceived and funded by the NMFS.

Over the course of one week, the team put two cameras on a 65-foot pole in the center of East Island. The pole is left over from the days when East Island was a Coast Guard LORAN station.

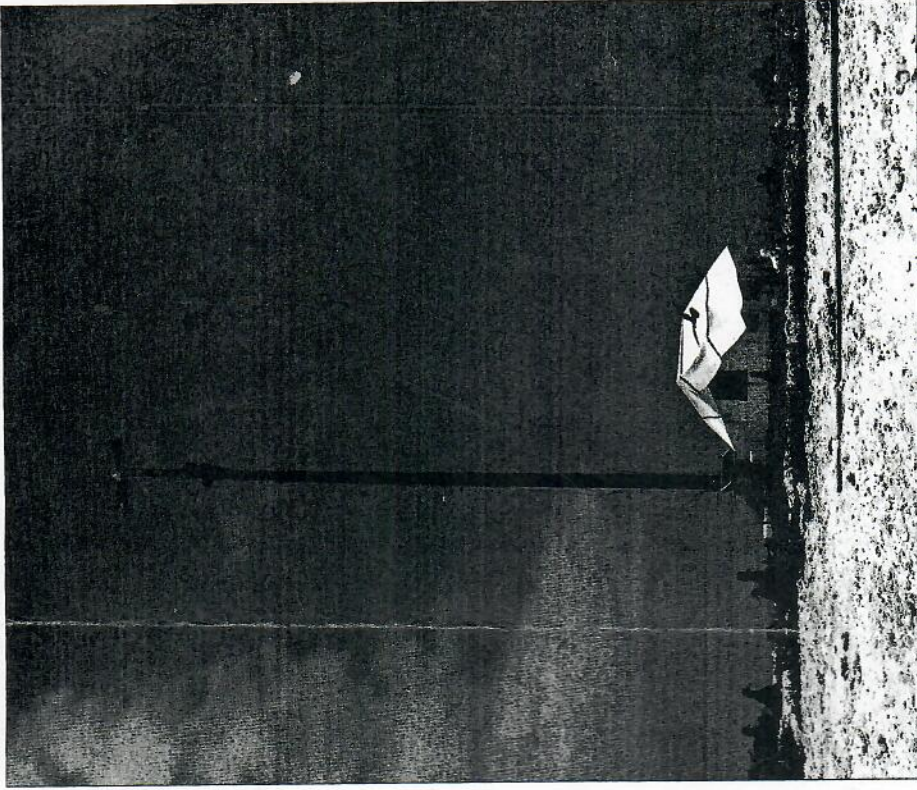
One pan-tilt and zoom (PTZ) camera is at the 65-foot level and one is at the 40-foot level on the pole; both cameras can be operated independently to cover the entire island.

The video signals are sent wirelessly seven miles to Tern Island where the resident researchers are able to send signals to the cameras to point and zoom as necessary.

**KOHALA  
BOOK SHOP**



# ECOLOGY



Installing video cameras on the uninhabited East Island required climbing an ancient telephone/powerline pole. PHOTO COURTESY NATIONAL MARINE FISHERIES SERVICE

Both cameras are assigned PTZ positions that are run every two hours. At each position, a still digital picture is taken and stored for later viewing. In this way, the entire island is monitored every two hours during the day, seven days a week. Using the cameras, researchers and wildlife managers hope to count the number of turtle nests that occur each night, count and locate the basking green turtles, study predation on hatchlings, study island erosion, monk seal evaluation, monk seal population, observe bird behavior, and check for marine debris that might endanger wildlife.

There are applications for this video surveillance being suggested daily and there will undoubtedly be more as time passes.

The next step is to have the video signals sent to the

-SEE TURTLES PAGE 9



● **Turtles lure scientists** CONTINUED FROM PAGE 8

main islands via satellite so that observations can be made by anyone with access to the Internet. The whole system then could be used not only for research and monitoring, but also for education and outreach. The team was extremely gratified and grateful for the enthusiasm and support of the FWS personnel at Fern Island. As the project progressed, the excitement grew. When we had 'first light' we were all transfixed by the wonderful images we had of East Island. The ideas flew around the room about how the technology could be used to support conservation efforts on the atoll and, eventually, on other islands throughout the archipelago. Scrambling down to the last minute to get everything done, the team boarded the plane on May 30 and

flew back to Honolulu. The images taken by the remote video cameras on East Island will be copied onto CDs and VHS tapes and sent back to George Balazs at NMFS for review and study until the satellite connection is made.

**What's Next**

The French Frigate Shoals project allows Hawaii Preparatory Academy (HPA) to continue monitoring capabilities for present and future research projects. For example, the school is continuing the remote video monitoring program at Kiholo Bay on the Big Island's west side. Students and teachers also are developing a proposed remote underwater video project to study behavior at cleaning stations

where turtles come to be 'groomed.'

Students will have access to the data gathered with the video cameras at French Frigate Shoals for the school's basking behavior research that is centered at Kiholo.

A school's ability to use this kind of technology is enhanced by its association with these professionals. Students gain understanding and hands-on experience working with remote wireless video projects — not only in sea turtle research but also in other content areas. HPA's participation in front-line use of technology for scientific research provides opportunities for the school and its students to join in field research normally reserved for university and graduate-level students.

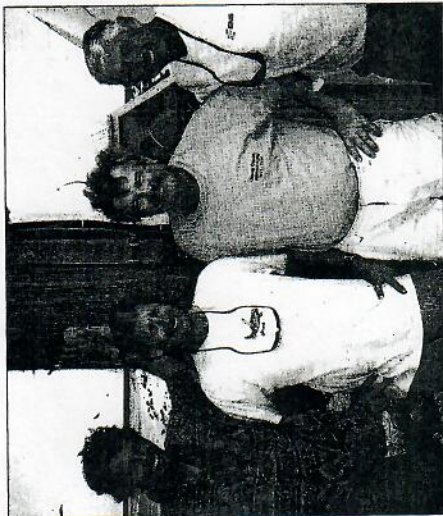


PHOTO COURTESY NATIONAL MARINE FISHERIES SERVICE  
Team members (l to r): Konrad Schaad, Daniel Zaitz, George Balazs, and Marc Rice in front of the East Island pole where the cameras are mounted.

**Today's Weekly Crossword**  
Answers

1	10	19	28	37	46	55	64	73	82	91
2	11	20	29	38	47	56	65	74	83	92
3	12	21	30	39	48	57	66	75	84	93
4	13	22	31	40	49	58	67	76	85	94
5	14	23	32	41	50	59	68	77	86	95
6	15	24	33	42	51	60	69	78	87	96
7	16	25	34	43	52	61	70	79	88	97
8	17	26	35	44	53	62	71	80	89	98
9	18	27	36	45	54	63	72	81	90	99
10	1	10	19	28	37	46	55	64	73	82
11	2	11	20	29	38	47	56	65	74	83
12	3	12	21	30	39	48	57	66	75	84
13	4	13	22	31	40	49	58	67	76	85
14	5	14	23	32	41	50	59	68	77	86
15	6	15	24	33	42	51	60	69	78	87
16	7	16	25	34	43	52	61	70	79	88
17	8	17	26	35	44	53	62	71	80	89
18	9	18	27	36	45	54	63	72	81	90
19	1	10	19	28	37	46	55	64	73	82
20	2	11	20	29	38	47	56	65	74	83
21	3	12	21	30	39	48	57	66	75	84
22	4	13	22	31	40	49	58	67	76	85
23	5	14	23	32	41	50	59	68	77	86
24	6	15	24	33	42	51	60	69	78	87
25	7	16	25	34	43	52	61	70	79	88
26	8	17	26	35	44	53	62	71	80	89
27	9	18	27	36	45	54	63	72	81	90

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**Tech Talk**  
with **Michael Mierzwa**  
President, Computernetworks

**S**ometimes it seems we spread them. Unfortunately it seems we spread them.

A few weeks ago Computernetworks made some changes. If you've been by our store recently you can tell at a glance.

We recognized that, due to competition with online stores and a variety of other factors, it is very hard to do as much as we used to. We would stop selling computers and peripherals, and focus exclusively on supporting and repairing Macintosh computers.

After some time went by we did some thinking, and listened to what our customers had to say. So we've made some adjustments. When you come into Computernetworks, you

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STREET NUMBER

ISSUE NUMBER 5

UNLIMITED SWANES COAST GUARD



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\*\*\* MARC ROGER RICE, \*\*\*

*having been duly examined and found competent by the undersigned is licensed to serve  
for the term of five years from the below issue date as:*

MASTER OF STEAM OR MOTOR VESSELS OF NOT MORE THAN 25 GROSS REGISTERED TONS  
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THE HOLDER OF THIS LICENSE MEETS THE STCW 1995 REGULATIONS WITHOUT FURTHER  
ENDORSEMENT.

*Given under my hand this 17TH day of November 2003*

ISSUE PORT: HONOLULU, HI  
EXPIRATION DATE: NOVEMBER 17, 2008

G. E. JOY, JR., ASIP, BY DIRECTION  
OFFICER IN CHARGE, MARINE INSPECTION

DAILY TOTALS (PM-AM) FOR ADULT FEMALE GREEN TURTLES NESTING AT EAST ISLAND FRENCH FRIGATE SHOALS  
 RETURN TO STORAGE  
 NMFS, HONOLULU LAB  
 Marine Turtle Research  
 2570 Dole Street  
 Honolulu, HI 96822-2396

IMPORTANT DATA

DATE	TOTAL NO. TURTLES UP	NO. OF NEW TURTLES IDed (MOTD TOOL)	NUMBER OF NESTS N/P/M	YOUR INITIALS	COMMENTS (Weather special observations)
5/22/03	14	14	N-11-② P-11-③ M-1-①	ef	Training night, Erin and Joe on island. Moon rose very late. Started walks at 9:30pm and completed them at 4:30am.
5/23/03	13	9	N-0-① P-1-① M-11-②	ef	Training night - Joe lead and did 1/2 night by himself.
5/24/03	13	9	N-1-① P-1-① M-1-①	ef	Partial night 4 walks ending at 5:00am
5/25/03	13	8	N-1-① P-1-① M-1111-④	ef	First Full Night! No additional turtles appeared after #40 sighted at 0121 #28 still OC after BF at 0701
5/26/03	14	11	N-111-③ P-1-① M- -①	ef	- 11 New Turtles! "Jiamat" (122c) came up - 2 feet crawling to water
5/27/03	22	12	N 11 ② P 11 ② M 11 ②	ef	Switchout of techs, Erin's 1st night on. No moon. Squalls almost solid from 4:30am → 8am - wet morning!
5/28/03	17	11	N 1 ① P 11 ③ M 1 ①	ef	Erin's 2nd night on. Weather was nice - only one squall around 1am. Still no moon.

DAILY TOTALS (PM-AM) FOR ADULT FEMALE GREEN TURTLES NESTING AT EAST ISLAND FRENCH FRIGATE SHOALS  
 RETURN TO GEORGE SAUNDERS  
 NMFS, HONOLULU LAB  
 Marine Turtle Research  
 2570 Dole Street  
 Honolulu, HI 96822-2396

DATE PM-AM	TOTAL NO. TURTLES UP	NO. OF NEW TURTLES IDed (MOTO TDDL)	NUMBER OF NESTS N/P/M	YOUR INITIALS	COMMENTS (weather, special observations)
5/29/03	17	10	N III (3) P I (1) M II (2)	egf	Another moonless night, but NO rain! I was actually wishing for some big about 5:30 - eating some serious dust (Thank you B3! She had great aim)
5/30/03	18	8	N I (1) P II (2) M IIIII (3)	egf	Dusty, Dusty, Dusty! Seals made it VERY difficult to get around. Called on Tam walk after sitting in the rain for 40 minutes → Super high! Harder to tell on spit - At MOST, over 2
5/31/03	14	10	N - I - (1) P - I - (1) M - III - (3)	JA	The Sooty Terns have taken over East
6/1/03	22	11	N - III - (3) P - III - (3) M - 0 - 0	JA	A Curlew Mornat sunrise. Jim with a Hoopoe when she gets back out of "Loni" #106 came up and nested
6/2/03	27	16	N - - 0 P - II - (2) M - IIII - (4)	JP	- Biggest night yet - Windy after a cool day - A fluffy sand nife might come in early June with a W swell
6/3/03	28	10	N - II - (3) P - II - (2) M - III - (3)	JP	- Dense Cloud Cover - Returnees From 5/22/03 (checked Pif Tags - Good!)
6/4/03	22	5	N (0) P (1) M - (5)	egf	Rough night - Only got in 5 walks, Not much activity, island really quiet. (except for the sooties, of course) - Missed ~2 turtles due to proximity to seals.

IMPORTANT DATA

DAILY TOTALS (PM-AM) FOR ADULT FEMALE GREEN TURTLES NESTING AT EAST ISLAND FRENCH FRIGATE SHOALS  
 NMR, HONOLULU LAB  
 Marine Turtle Research  
 2570 Dole Street  
 Honolulu, HI 96822-2396

RETURN TO GEORGE BAKER'S COMMENTS (weather & special observations)

DATE	TOTAL NO. TURTLES UP	NO. OF NEW TURTLES IDed (MOTO TOLL)	NUMBER OF NESTS N/P/M	YOUR INITIALS	COMMENTS
6/5/03	16	6	N III (4) P I (1) M III (4)	gfg	Another quiet night. Wondering what this will mean for season total?! Weather nice, breezy and no rain. Moon up 1st half of walk.
6/6/03	18	5	N II (2) P I (1) M II (2)	gfg	Slow night! Not many seals or turtles up really. Fast getting around. Started 1pm walk late - Turtle at fence, entrapped turtle. Whow! Not much wind, really hot. Nice moon, waves pushing been back North and South.
6/7/03	28	5	N II (2) P III (3) M IIII (5)	gfg	Squall came through and hung around before 1st walk got a late start, but HOORAY - Rain! 2 more squalls throughout the night, but welcome ones before that no wind and hot. Nice to see more than up 4 a change.
6/8/03	23	6	N I (1) P III (3) M IIII (6)	gfg	Fairly cool and windy - felt nice. 1/2 way through 2nd walk seals converged around the spit and could not get in there. Per remaining walks. Tired WTS by 2:30 (2nd) Morning squall - 4 am. High winds and COLD! Beautiful sunrise ☺
6/9/03	28	7	N - III (3) P - IIII (4) M - IIII (4)	gfg	Sunset Walk - 41 turtles basking @ SE Point; 250 basking on East → 123 XBP @ Sunset, unknown Green 2 H2O @ SW Point after most attempt → Much of SW point eroded → 2 short squalls / Cloudy after 3 → Very Windy after 5 (± Hove + held in 1)
6/10/03	20	3	N - III (3) P - (0) M - III (3)	gfg	→ Sunset Walk - 53 baskers @ SE Pt. 265 baskers on East - Very Windy → On 1:00 walk around 2:30 am from SW Point - Moooo! in East Chy → Brief Squalls - Winds 20-25 knots? → Seals - 120 at Prespit & S. Shore (159 in middle)
6/11/03	28	2	N - II (2) P - (0) M - III (4)	gfg	→ Sunset Walk - 55 Baskers SE Pt. 260 on East → Strong Winds > 20 knots → New turtles are down → Seals crowding Prespit & S Shore

IMPORTANT DATA

DAILY TOTALS (PM-AM) FOR ADULT FEMALE GREEN TURTLES NESTING AT EAST ISLAND FRENCH FRIGATE SHOALS

RETURN TO GEORGE BAUMS  
 NMFS, HONOLULU LAB  
 Marine Turtle Research  
 2570 Dole Street  
 Honolulu, HI 96822-2396

2003

DATE AM-PM	TOTAL NO. TURTLES UP	NO. OF NEW TURTLES IDed (MOTO TDDL)	NUMBER OF NESTS N/P/M	YOUR INITIALS	COMMENTS (Weather Observations)
6/12/03	32	3	N-11 - (2) P-III - (5) M-III - (4)	gf	Sunset Walk - 60 Baskets Pt. ≥ 65 Baskets on East → Strong Gusts (>20 knots) → Unable to get to one turtle on 3rd walk (between Adult & Juvs) → No Rain - Good 4/5 moon
6/13/03	26	2	N II (2) P III (3) M II (2)	gf	Relentless Wind!! All day all night and in to tide next day. Enough to knock you down! Turtles clustered in same spots rest of island empty. One new turtle beat me to water, missed head. <sup>What a moon!</sup> Wow
6/14/03	27	4	N I (1) P II (2) M III (5)	gf	Started 3rd walk late felt really sick. Squall came through while in tent - managed to catch up and still finish 6 walks. Winds still really high - calipers were
6/15/03	15	0	N (0) P (0) M III (4)	gf	Wow! Mother nature was flexing her muscles tonight! Tried 1st walk in crazy wind, but had to give up. Got in a 3am walk and 7am walk. Super high winds and cold rain - Thought the tent was going to fly off
6/16/03	29	3	N III (3) P (0) M III (3)	gf	Another nasty weather night. Got behind on walks due to squalls, but was able to catch up and complete 6. Motters on island. Still seeing attempts at copulation. Vegetation decreasing.
6/17/03	25	5	N-1 - (1) P-11 - (2) M-11 - (2)	gf	Sunset Walk - 20 Baskets @ SE Pt. ≥ 26 on East → Rain throughout 9 o'clock walk → Spoked to the bone - Rained throughout the night
6/18/03	23	2	N-1 - (1) P-1 - (0) M-III - (4)	gf	Sunset Walk - 11 Baskets SE Pt. ≥ 18 Baskets on East → Good breeze - No rain

IMPORTANT DATA

DAILY TOTALS (PM-AM) FOR ADULT FEMALE GREEN TURTLES NESTING AT EAST ISLAND FRENCH FRIGATE SHOALS

RETURN TO GEORGE BAKER'S  
 NMFS, HONOLULU LAB  
 Marine Turtle Research  
 2570 Dole Street  
 Honolulu, HI 96822-2396

2003

DATE AM-PM	TOTAL NO. TURTLES UP	NO. OF NEW TURTLES IDed (MOTO TOOL)	NUMBER OF NESTS N/P/M	YOUR INITIALS	COMMENTS (Weather Special Observations)
6/19/03	29	3	N-II - (2) P-I - (1) M-II - (2)	JA	→ Sunset Walk 24 Baskers SE Pt. → 33 Baskers on East → 8 seals on N. Shore between 1st Laniakea & Tent (Small T on flap) → Healthy Wound (15-20 knots) → 2 short 3 rainwater showers
6/20/03	39	1	N-III - (4) P-I = (1) M-III - (6)	JA	→ Sunset Walk → 13 Baskers M.E. Pt. → 28 Baskers SE Pt. ≥ 4h Baskers on East → Good Weather - drizzle during 3:00 walk → lots of old, 1 new
6/21/03	23	0	N II (2) P I (1) M III (3)	EG	Nasty Squall around 3, but other than that Great weather! Moon up very late now. Slow night. NO new turtles! (☹)
6/22/03	16	0	N II (2) P III (3) M III (4)	EG	Extremely difficult getting around 1st half of night. Got easier as night progressed Started re-spraying mototools for larger reach possibility. Nice weather
6/23/03	17	1	N I (1) P I (1) M III (3)	EG	Less baskers up the last couple of days. Much easier to get around tonight and FABULOUS weather. (Until Tan squall, that is!) We've had all the honu gone
6/24/03	19	0	N II (2) P-II - (2) M II (2)	JA	More baskers up tonight - expected it to be bigger. Was at SEP and during night there were always at least 3 Soz Gigs down. Just not their night, I guess. Great Weather again Aloha!
6/25/03	29	6	N-III - (3) P-II - (2) M-I - (1)	CP	→ Sunset Walk - 17 Baskers NE Pt, 29 Baskers SE Pt. ≥ 4h Baskers on East → Light Winds - Calm Weather Night → The Rookies are coming up

IMPORTANT DATA

DAILY TOTALS (PM-AM) FOR ADULT FEMALE GREEN TURTLES NESTING AT EAST ISLAND FRENCH FRIGATE SHOALS


RETURN TO GEORGE BAIRD  
 NMFS, HONOLULU LAB  
 Marine Turtle Research  
 2570 Dole Street  
 Honolulu, HI 96822-2396

IMPORTANT DATA

DATE	TOTAL NO. TURTLES UP	NO. OF NEW TURTLES IDed (MOTO TOOL)	NUMBER OF NESTS N/P/M	YOUR INITIALS	COMMENTS (Weather, Special Observations)
6/26/03	24	1	N-1-① P-III-③ M-III-⑤	J	Sunset Walk - NE Pt. 9 Baskers, SE Pt. 44 Baskers = 57 Baskers on East → Heat Weather
6/27	40	1	N-1-② P-III-③ M-III-⑤	J	→ Sunset Walk NE Pt. 15 Baskers, SE Pt. 42 Baskers = 60 Baskers on East → Heavy Wind, No Rain, Heat Weather; Justly thought so too! Record night for the year.
6/28	23	0	N-III-④ P-III-③ M-11-②	J	Sunset Walk - NE Pt. 12 Baskers, SE Pt. 38 Baskers, = 51 Baskers on East; Wind 25-30 knots
6/29	23	0	N-III-③ P-III-③ M-III-③	J	Sunset Walk - NE Pt. 5 Baskers, SE Pt. 41 Baskers, = 49 Baskers on East; Lots of Brief Drizzling; Last Data Logged in.
6/30	27	2	N-1-① P-11-② M-11-②	J	Sunset Walk - 49 Baskers, SE Pt. = 52 Baskers on East; Overcast 1st 3 Walks, Clear Last 3; Who needs a bath? Robust Winds > 2 knots blew stuff off me; Making Greens at dawn in pm
7/1/03	29	1	N-III-③ P-1-① M-III-⑦	J	Sunset Walk - 9 Baskers NE Pt., 50 Baskers SE Pt. = 60 Baskers on East; Heat night; strong winds, no rain; plenty of pictures tonight for George; #44 Timath; I'm not ready to leave!

# Roll #1

## Photo Record East Island FFS, 2003

Date	Location	Picture #	Description
6/8/03	East Island, FFS	1	 (Perspective of picture) Tent w/ full view of t. cam pole @ sunset
↓	↓	2	Tent at sunset w/ distance
↓	↓	3	Two different turtles basking at sunset. Used polarizer
↓	↓	4	not sure if they'll be too dark.
6/6/03	East Island, FFS	5	Frigates working their magic on cameras below!
6/6/03	East Island, FFS	6	Poopy Solar panel
5/30/03	East Island, FFS	7	Turtle #71 Nesting in front of telephone pole. <sup>Eggs</sup> Mototool#, HF's + Chamber.
↓	↓	8	<sup>(orthyasure)</sup> 1st egg in egg chamber, rear flippers in shot
↓	↓	9	wider angle with sea turtle cam loop and turtle in shot.
↓	↓	10	took a couple times to be sure they were in focus
5/29/03	East Island, FFS	11	Sorry! Wasn't using photo log. Took pictures of marine debris w/ ocean in background.
↓	↓		(~2) took 2-3 pics of turtles @ SEP,
↓	↓		took ~3 pics of MABOs along log,
↓	↓		took ~2 sunset pictures of LAA's,
↓	↓		took ~2 sunset pictures of turtles along spit, and another couple
↓	↓	24	marine debris pics - oh.. took at least 2 pics of location data loggers! (one by TB and me by TI)

Marine Turtle Research Program  
PIFSC Honolulu Laboratory  
National Marine Fisheries Service  
2570 Dole Street  
Honolulu, Hawaii 96822-2396

Erin Green's camera roll #1



Date: Wed, 18 Jun 2003 16:44:33 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Cc: dominique\_horvath@fws.gov  
Subject: From your favorite turtle duo!

Hey guys!  
George, thanks so much for sending that info I can't wait to tell Joe!  
Here's the scoop so far:

#119  
SCL: 93.2 CCL: 99 LHF: G-840  
LHF pit 500E11220B RHF pit 502F04143B (prior year)  
no other comments made.  
<< 9572 3/5/86 Tagged at Palaau, Molokai  
> SCL=69.0, CCL=74.0, TS=0  
> 9571 LFL, 9572 RFL

#185  
SCL: 91 CCL: 99 Y-426 RFL -heavily encrusted.  
Old tag scar LFL, LHF pit 500E4A771C RHF pit 413607221E (prior year)  
Possible tumor size #1 attached to body between RFF and carapace-same texture  
as skin just raised.  
Old injury to RFF, healed. Chunk out of right rear carapace, old.  
See picture 7, camera two for picture of blue LFF tag.

> Y426 7/5/89 Tagged at PalaauA, Molokai  
> SCL=69.3, CCL=76.0, TS=0  
> BBA408 L34, Y426 RFL, Y427 LFL  
> 1/11/91 Seen at East Shore, Turtle Haven, Lanai  
> Reported by Mark Johnson while SCUBA diving read tag  
> BBA408 >>

CCing Domo- She's back now. I printed copies of relevant emails when there were planes coming and going, but when they stopped I started including her electronically. Didn't CC her for stuff like your bag inventory on the plane...

Pit tags- we switched scanners to see if maybe it was a low battery or malfunctioning scanner. I can see the tags breaking on difficult sticks, but I remember 102 because it blew my mind! She was as calm as a Sea Life Park turtle and the stick and injection could NOT have been any easier or smoother. Maybe she just has a magnetic personality that is affecting the scanner! (sorry, bad joke) We'll just have to wait and see.

You mentioned Y series as being put in main island forage pastures...we've had a few do you want those now too? Any other interesting series of numbers? We're ahead of the game for data entry and proofing and can easily look it up.

Daily Totals Forms- When we do our nightly radio call we pass our numbers every night so that if we have any correspondence with you we can pass them at that time. Since all we really need are the numbers the lines are smaller and on East you want to hear about our night, so the lines are larger. That is the only reason for the different forms, it will be explained in the SOP so there will be no confusion. Speaking of numbers, my numbers for last night were 29 total 3 new.

Pictures of sharks- Tern guys were using the cameras to watch and photograph shark activity off of East Island.

2002 Datalogger info can definately wait! We won't be able to be digging around in the sand now anyway. I talked to Chris and he's willing to pull 2003 loggers and if we get him the 2002's before then he can pull any of those we missed! Also, do you have a date you prefer them to be pulled? Should we pull Tern loggers before we leave or should he do those as well?

Question- Aaron always stressed 6 walks no matter what and I have spent the last four days under a raincoat in HORRIBLE weather. Most nights I was able to "make-up" for lost time by using the minimum time between walks (one hour) and just going back to back. How does that sound to you?

How did the invoice look? All OK there?

Take Care,  
Erin (and Joe)

July 03

Hi George

Here's the latest video & CD of photos for you.

I burned all photos taken to date on the CD.

(At some point we'd like to get a copy of the video <sup>Need</sup> <sub>copy</sub> cause it has alot of cute monk seal pup footage.

~~inform/get~~ from Emilie

We did take photos occasionally, both this time and last time, not sure why you didn't find them. They would be included in the file folders w/ the preset photos - not sure what date, but they'd be on the top of the list w/out the words preset included. ~~OK~~ Check a few of the July folders - think we took pictures on July 5<sup>th</sup> maybe.

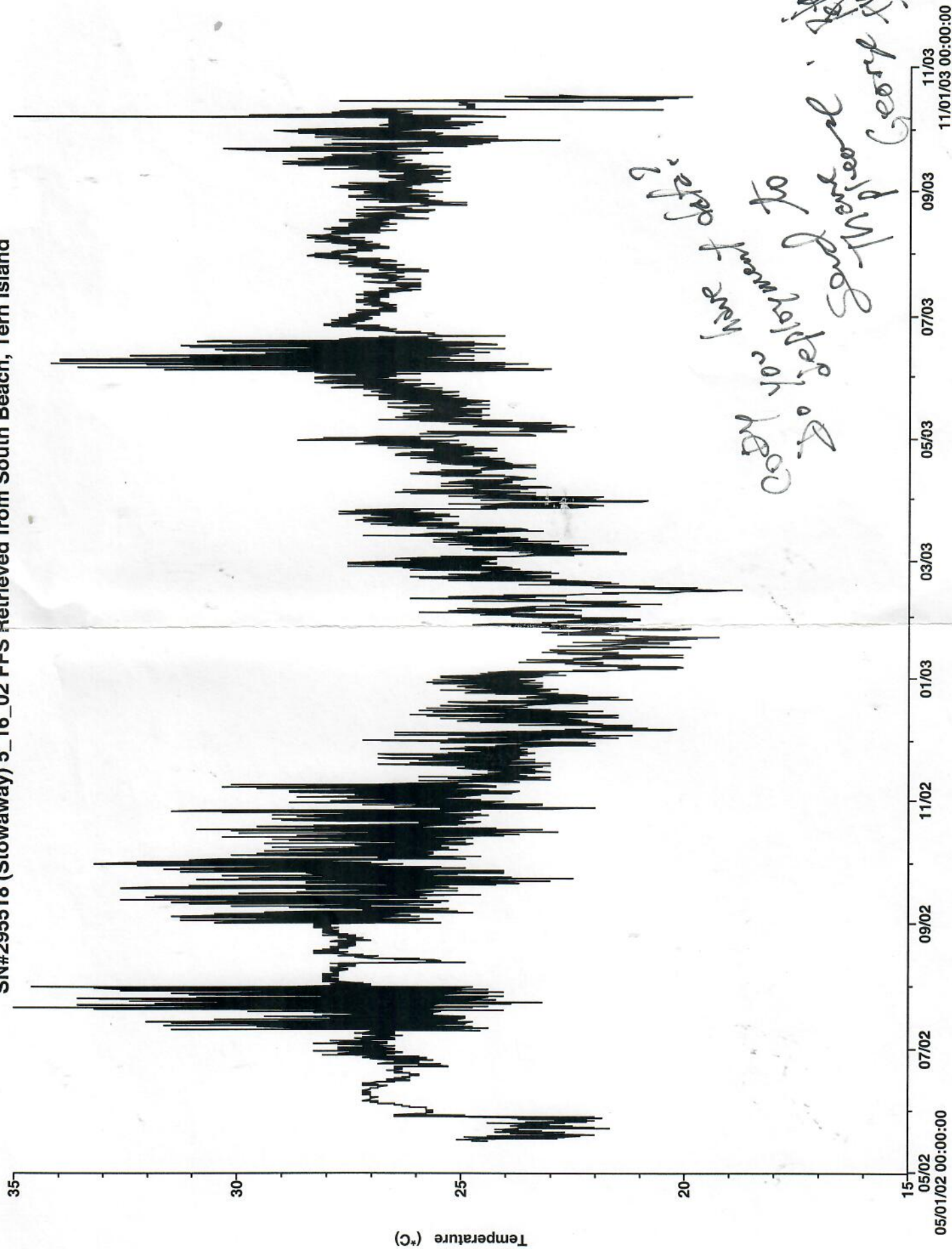
Talk to you later - Hope to see you in August!

- SJ

Suzanne Casja  
TERN FFSO

*Sand*

SN#295518 (Stowaway) 5\_16\_02 FFS Retrieved from South Beach, Tern Island



05/02 05/01/02 00:00:00 07/02 09/02 11/02 01/03 03/03 05/03 07/03 09/03 11/03 11/01/03 00:00:00

Date: Fri, 16 Jan 2004 14:36:24 -1000  
From: Shawn Murakawa <smurakaw@honlab.nmfs.hawaii.edu>  
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Message from George (fwd)

----- Forwarded message -----

Date: Fri, 16 Jan 2004 18:51:41 EST  
From: Hinwr@aol.com  
To: smurakaw@honlab.nmfs.hawaii.edu  
Subject: Re: Message from George (fwd)

*FFS  
need Historical*

Hi Shawn,

Here are the metal tag numbers:

Left Front Flipper = F-938

Right Front Flipper = F-910

Left Hind Flipper = F-911

No tag in right hind flipper, but there was a well healed tear. Possibly the tag has been torn out.

Thank you for the advice on the PIT tagging. We will continue the process.  
Jennifer

Date: Sun, 8 Jun 2003 17:52:25 EDT

From: Hinwr@aol.com

To: gbalazs@honlab.nmfs.hawaii.edu

Cc: dominique\_horvath@r1.fws.gov

Subject: Re: MESSAGE FOR ERIN AND JOE (cc DOMO AND ALEX) Re: Answers to Questions From...

Hey George and Domo,

I almost forgot the numbers for the last two nights:

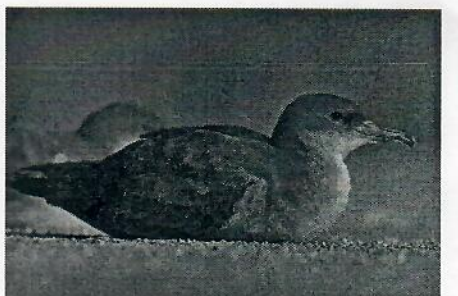
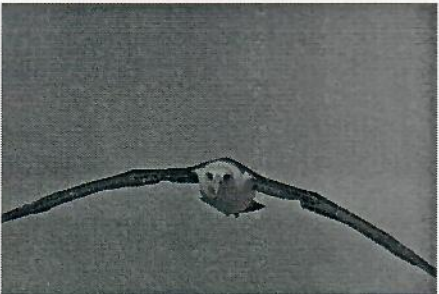
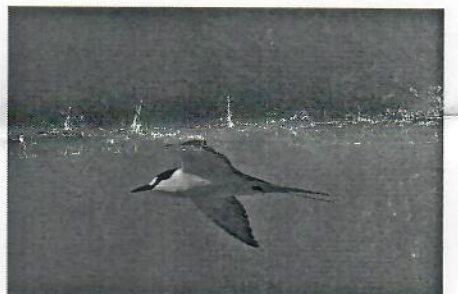
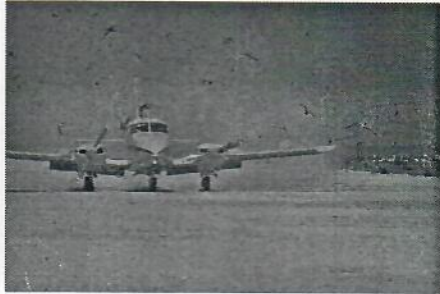
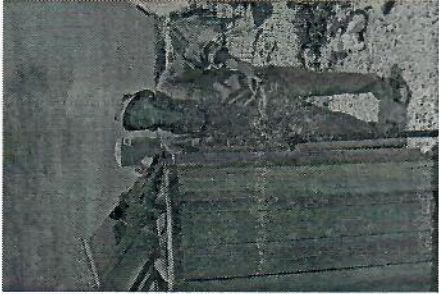
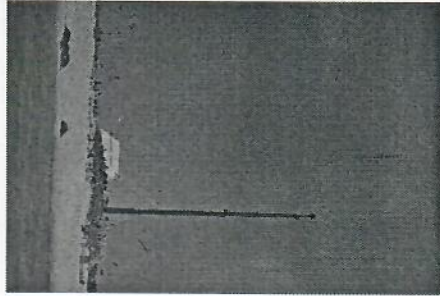
6/4 23 5

6/5 16 6

Aloha,

Joe

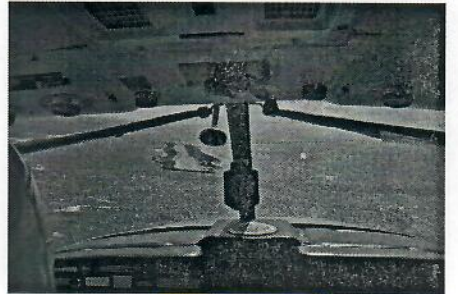
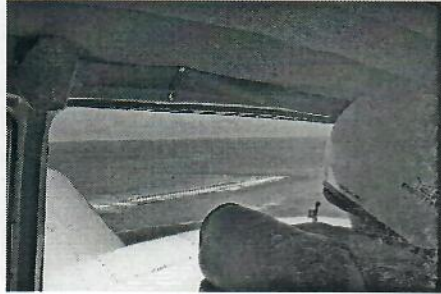
①



Select 2762.jpg



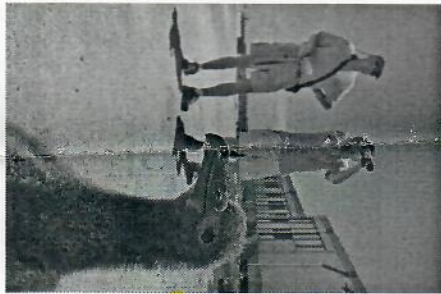
show 2307.jpg



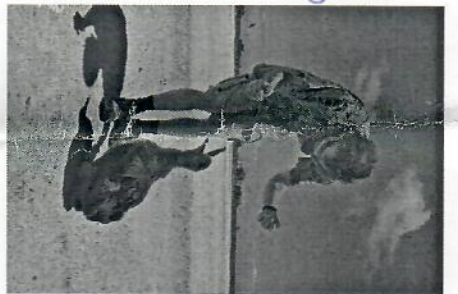
show 2316.jpg



show 2330.jpg



show 2330.jpg  
2373

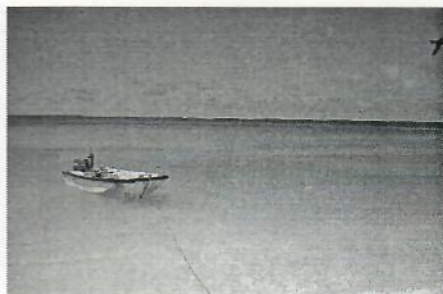
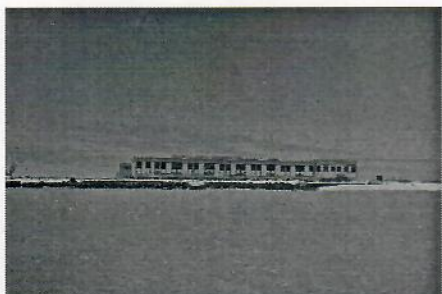
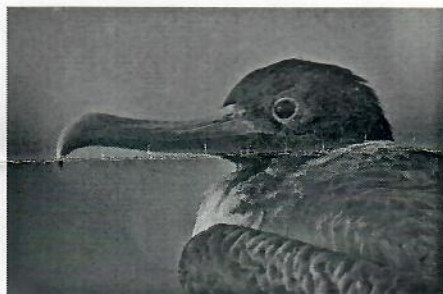




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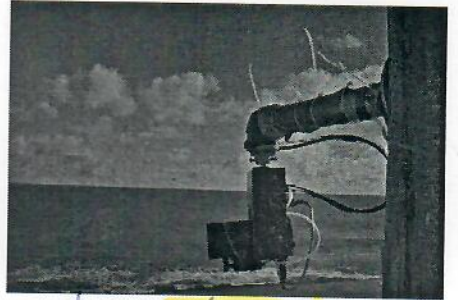


Show 2436.jpg

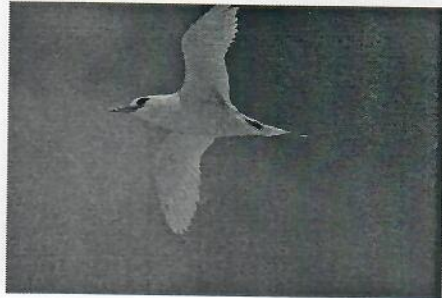
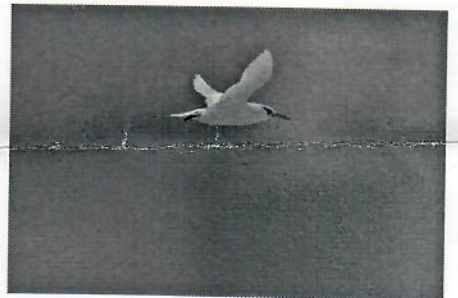
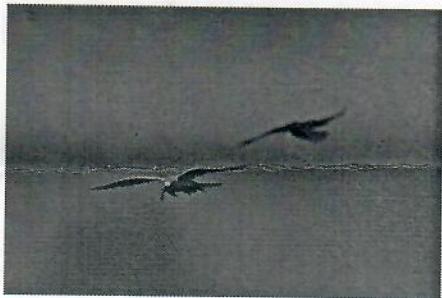




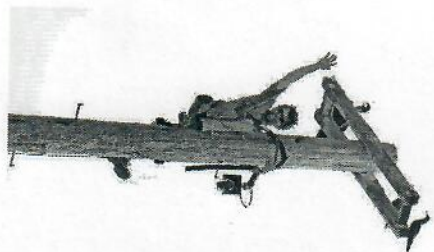
4



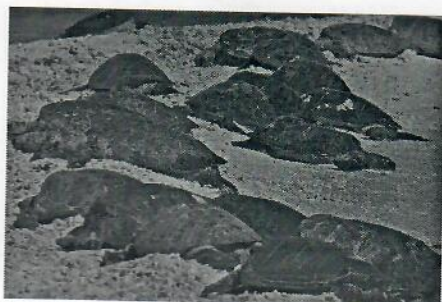
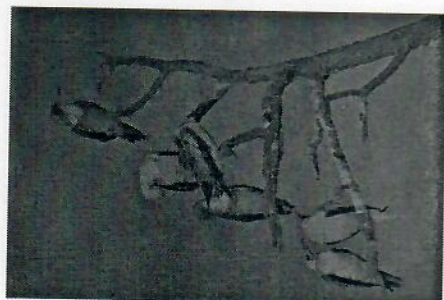
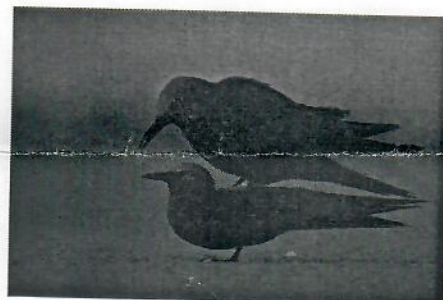
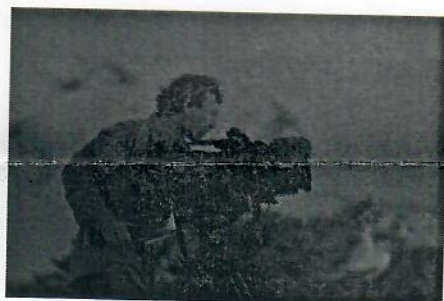
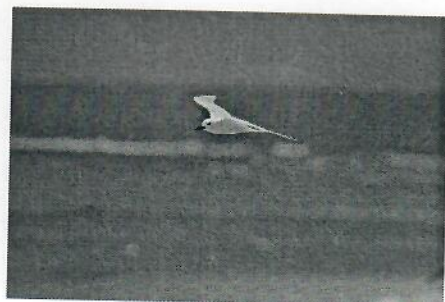
show 3043.jpg



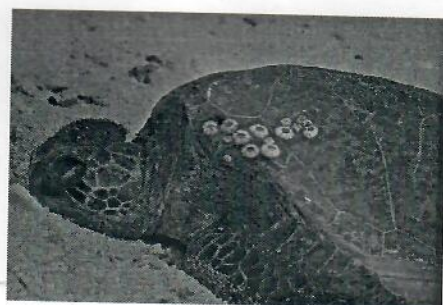
5



show 3265.jpg



showk 3401.jpg



showk 3415.jpg

Date: Tue, 17 Jun 2003 09:28:09 -1000  
From: Shawn Murakawa <smurakaw@honlab.nmfs.hawaii.edu>  
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Three more historicals requested so I can give feedback to FFS

8666 (No original date)  
8665, 8666  
Recovered 7/10/90 at Lisianski  
TS=0  
Recovered 7/20/91 at Lisianski, Sector 27  
CCL=64.3, TS=0

9998 Tagged nesting 6/18/87 at East  
CCL=97.3, TS=0  
9998 RFL

W568/W567 No record in TDPS

Y628 Tagged 3/1/90 at Palaau, Molokai  
SCL=78.9, TS=0  
Y626, Y627, Y628, Y629 RHF  
Recovered 5/30/97 nesting at East  
SCL=86.5, TS=0  
Added tag 148C L34  
Recovered 6/15/97 nesting at East  
SCL=86.5, TS=0

\*\*\*\*\*  
> -W568 W-567 (both in the (strange) S3-4 position, one on left one on  
> right) see by me nesting at Tern 5/27/03.  
>  
> -Y-629 Y-628 nesting green seen by me on Tern 5/28/03.  
>

George:

Greetings from the French Frigate Shoals!  
We just did the switch out today  
and everything is still going great.  
We're ahead of schedule as  
far as data proofing and SOP goes  
and have been doing a lot of end  
of camp preparations since this  
will be the last plane before we  
leave.

In the dry bag you'll find:

- Your hat
- Camera #1 and log
- EG roll of film and log
- embedded tag removed from turtle
- Daily Totals Forms (Teen is the abbrev. version  
since all you really need is #'s)
- Invoice - done from memory so if  
not good enough I signed two  
blank pieces of paper if needs to be redone.  
(No more flights till we leave)

Talk soon!

Alona  
Gir

Date: Tue, 22 Jun 2004 14:22:55 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Cc: Dominique\_horvath@r1.fws.gov  
Subject: Re: Turtles nesting

The nesting activity at Tern is also high - from what I was told by those who have been here during nesting seasons in the past (Steve Barclay).

jen

2004

Date: Tue, 22 Jun 2004 14:23:14 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: East Island Update

Hello George,

Chris here giving you an update. I will be heading back to East tomorrow. To answer your questions, no hatchlings have been seen yet but we will be sure to let you know as soon as we do see them.

The digital camera works great. It is really helpful knowing the pictures came out, and knowing we have the capability of taking many pictures without carrying many cameras around is good as well:

As to erosion on the beach I have no basis for comparison as of last year but the pole the camera is on seems to be in no danger. I have actually noticed the beach in front of the camp building up over the past week or so. I will make sure Joe lets you know how it compares to last year.

I will inform him also that we should keep giving two PIT tags per turtle as well.

You are correct also stating that we will be seeing the numbers of new turtles drop. It has been quite significant over the past week. That said, here

are the recent numbers.

June 16 - 68 total turtles, 13 new, 4 nesters, 6 probably, 19 maybe.

June 17 - 61 total turtles, 5 new, 6 nesters, 9 probably, 10 maybe.

June 18 - 68 total turtles, 13 new, 7 nesters, 8 probably, 19 maybe.

June 19 - 71 total turtles, 8 new, 7 nesters, 8 probably, 5 maybe.

Just as you said a drop in new turtles. On June 17 there were only 5 new turtles. I only had 57 turtles on my sunset walk, with the 16th having 147 and the 17th having 154. Could this be weather related? It was cloudy and very windy all that day and night.

That's all for now. We will be in touch soon. Hopefully Joe will have some more answers to your questions.

Aloha, Chris

Date: Wed, 9 Jun 2004 15:32:59 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: Re: Message for Chris and Joe--Re: Training on East Island

*Joe*

Aloha George,  
Joe here.

I hope you are having a splendid time. Turtle Camp is going extremely well so far. We are using last year's tent which is working tremendous. (The new tent has no base so we will have to look into ordering one for next year). I am right back in the swing of things - only this time I am doing everything a little faster, with little time between walks. A great challenge. It is awesome to see so many turtles up! There have been 224 new turtles in the first seven days. Already more than last year. We are on pace to have a big year. It's inspiring to see the # of nesters continually going up! Chris is doing excellent. He had the turtle work-up down pat well before the end of the three training days.

A few interesting updates.

-L4 has been refitted with a TDR. She is turtle #166. She has been up (6/5) body pitting - but has not been seen nesting yet. A little bad news. She has a number 2 size growth on the ventral side of her right front flipper proximal to her body. (picture taken) It looked bulbous with some a little pink coloring.

-L1 was last seen on 6/3, basking on Gin. She was too close to a seal to have the TDR removed.

-# 189 nested and was missing 75% of her right front flipper. (picture taken)

-# 190 had a blue punch tag between her 3rd and 4th proximal scale on the left front flipper. No numbers could be read (worn off). Her old LHF pit tag is

424F160D25 (picture taken)

-No special turtles: yet.

Numbers

6/4 Total 64 New 43 N 7 P 2 M 4

6/5 Total 47 New 26 N 2 P 4 M 6

6/6 Total 46 New 26 N 9 P 3 M 6

6/7 Total 45 New 28 N 5 P 5 M 2

Sorry for the long email. Hope you are having as great a time as we are. It's great to be back.

Aloha,  
Joe and Chris

Subj: **Taggings of juveniles at Tern**  
Date: 10/3/2004 10:36:08 AM Hawaiian Standard Time  
From: gbalazs@honlab.nmfs.hawaii.edu  
To: [Hinwr@aol.com](mailto:Hinwr@aol.com)

Jen and Chris- just to clarify as long as the satellite link isn't working for the camera please feel ever so free to use the internet link (email-web sites) day and night, as much as you would like.

Question about tagging juveniles on Tern. While up there I scanned a small juvenile hauled out at night on Crab Beach. There was one pit tag present in a hind flipper. The number was:






442F0A7E79

We have no record of the number so I'm suspecting it's one done at Tern that maybe a copy didn't get sent back to us. Probably a turtle tagged there within the past year or maybe even more recent. When time allows would you please look in your files and see if you can locate a paper copy with this number. That would be appreciated. There is no hurry about this, none whatsoever. Aloha, George

Sunday, October 03, 2004 America Online: Hinwr

French Frigate Shoals Journal

Species/Subject: Entrapments Year: 03-04 Page 1 of    

DATE / LOCATION	COMMENTS
24 Nov. 2003	green turtle caught behind seawall on N. side of island
24 Nov. 2003	" both pit tagged & released
	tag #5 <b>442D7D0233</b>  <b>442F72734B</b>
	
29 Nov. 2003	green turtle caught in puddles behind N. seawall
	<b>442D054F78</b>
	
8 Dec. 2003	small juvenile green caught behind seawall, N side. Due to foul weather no effort was made to tag OR MEASURE the turtle
9 Jan 2004	NTR
10 Jan 2004	2 green turtles caught behind N. seawall - big N. swell yesterday. Both had small tumors on neck & front flippers.
	<b>442F0A7E79</b>
	
	<b>442C5A7415</b> this turtle was tagged w/ metal flipper tags
	LF = F-958 LH = F-911
	RF = F-910 RH = None - possibly torn out
	
4 Jan 2004	3 juvenile frigates were caught in the grain on the north side of the island.
20 Feb 2004	see RTR account of incident on 2/19/04 used mechanic orange & warm water to treat bird.
21 Feb 2004	blackfoot caught on crab beach between high surf & wall
29 Feb 2004	juvenile frigate found floundering on ground next to sea wall
21 Mar 2004	seal had turtle datalogger turbine hungover neck
25 Mar 2004	black string removed from beak of RTR
9 April 2004	MABO trapped in double sea wall on East end
4 April 2004	BFAL trapped in NE sea wall
22 April 2004	GST with line tangled around front, right flipper. Skin not broken. Line removed w/out making turtle. On east beach
24 Apr 2004	BUPE dangling on a construction project line.
13 May 2004	BFAL caught in E seawall - wings pinned in - released but didn't fly - Aux band yellow P8
19ish MAY 2004	♀ TURTLE. "stuck" IN PIT ON SHELL BEACH - freed
25 MAY 04	♀ TURTLE FELL OFF SE SEAWALL & WAS FOUND ON BAL BELOW WALL DURING ENTRAPMENT WORK. TURTLE ONLY WENT BACK TO SEA



Date: Wed, 9 Jun 2004 15:32:59 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: Re: Message for Chris and Joe--Re: Training on East Island

*Advice*

Aloha George,  
Joe here.

I hope you are having a splendid time. Turtle Camp is going extremely well so far. We are using last year's tent which is working tremendous. (The new tent has no base so we will have to look into ordering one for next year). I am right back in the swing of things - only this time I am doing everything a little faster, with little time between walks. A great challenge. It is awesome to see so many turtles up! There have been 224 new turtles in the first seven days. Already more than last year. We are on pace to have a big year. It's inspiring to see the # of nesters continually going up! Chris is doing excellent. He had the turtle work-up down pat well before the end of the three training days.

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424F160D25 (picture taken)

-No special turtles: yet.

Numbers

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6/5 Total 47 New 26 N 2 P 4 M 6

6/6 Total 46 New 26 N 9 P 3 M 6

6/7 Total 45 New 28 N 5 P 5 M 2

Sorry for the long email. Hope you are having as great a time as we are. It's great to be back.

Aloha,  
Joe and Chris

Date: Sat, 22 May 2004 21:55:57 -1000  
From: French Frigate Shoals <ffs2570@wcclp.com>  
To: George Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: From Aaron

[ The following text is in the "iso-8859-1" character set. ]  
[ Your display is set for the "US-ASCII" character set. ]  
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Aloha George,

I found another unburied datalogger, I will send it on the 28th flight. As far as the turtlecam pictures that were copied to Cd and sent to you, that was all there was, the system was down when we got here and apparently had been that way since Feb. 4th. We can send the last couple weeks worth of photos from the camera on the 28th if you want. Suzanne has posted easy to read instructions for how to fix the easy problems by the system which should help keep things going. I will send dimensions of the computer shelf as well, but I don't really think a new computer is going to be necessary. WITH YOUR PERMISSION, at night when the system is shut down, I will open up the comp case and check inside for deterioration (the concern was mostly because of rust on the outside, behind the power source, and it is making a noise, most likely the fan), I think it is probably OK, maybe need to clean the fan. Now that the system is in F&W's computer dry room the deterioration should be much slower. Of course it wouldn't hurt to have a backup (maybe consider a backup power source and fan instead of the whole PC).

On the 18th there were 237 maskers on East Island. Wow! It is just really difficult to get a picture that would do justice to the large #s because the only good vantage point of the really dense area is packed with more turtles and you can not get a shot of it all without disturbing 20 or so turtles. But we will keep trying to get something impressive for you without causing disturbance. We have a new toy that may help, I'll let you know.

Much Aloha,  
Aaron

Date: Fri, 18 Jun 2004 13:04:15 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: Re: For Chris and Joe

Aloha George,  
Joe here.

FFS Reduce

I agree about releasing turtles with a missing front flipper. We will make extra sure to document this in detail. We already have a few photos of different turtles missing 50% or more of their front flippers.

#### Updates From The Field

- Starting 6/14/04 all new turtles are only getting a LHF pit tag. We have already used > than 310 pit tags and we are not half way through the season yet. There are just under 300 pit tags left. We figure it is better to give all

the turtles at least one hind flipper tag than to risk having some with none at the end of the season. (We will start double tagging again if we see a reduction in the number of new turtles, or find we have a good amount of pit tags

still left near the end of the season.) I'm guessing about 35-50% of the turtles that have come up so far have had no pit tags. Which is a good thing. Looks like all the hard work for protection is paying off in a big way here!

- 10 dataloggers have been retrieved from last year so far.

- 8 new dataloggers have gone in.

- We will run out of horizontal Rite in the Rain Books before the end of the season. We will use the extra Fish and Wildlife Level Lined Rite in the Rain books as there are no more flights coming. They are a little different, but should work fine. We can order some more books for them at the end of the season.

- Still no special turtles ( I will be reviewing the data book to make sure none were missed).

#### Question

- For tumors - We have been marking down the size of the growth and describing it. We take pictures when possible. If it is possibly scar tissue we are writing that in the comments, but still listing the growth in the tumor section on the data sheets. Is this correct?

Does this large number of nesters mean another paper is coming out? Do you think the large numbers are resulting from protection that has lasted long enough for the turtles to reach sexual maturity? (SST? Different Nesting Year cycles matching up?) What a large jump. It must feel good to see the fruits of

your labor in a big way like this!

#### Numbers

6/12/04 -43 total, 24 new, N1, P7, M7

6/13/04 -52 total, 23 new, N6, P2, M7

6/14/04 -70 total, 24 new, N4, P1, M11

6/15/04 -80 total, 19 new (don't have the break down for N,P, and M here - will send)

The numbers of turtles are climbing as the mothers return for a second cycle. It will be fun to see the daily totals climb as we get deeper into the season.

Good to hear you had a great trip. The tiger sharks showed up the morning of

the 13th, and are getting ready to put on a show. Life and work are great here.

Aloha,  
Joe and Chris

FFS Reduce

Date: Tue, 1 Jun 2004 18:43:30 -0400  
From: Peter Bennett <honu@turtles.org>  
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Cc: Ursula Keuper-Bennett <howzit@turtles.org>  
Subject: The Anniversary

*FFS Reduce*

Aloha George,

It was just past six here and we were thinking about you and the FFS. I came upstairs to send our congratulations, and... my computer crashed. Then you called... and silly me, I never mentioned what it was I was writing about.

Whatever your memories of that first season, we hope that they are fond ones. It is a tremendous job that you have done, Hero of the Honu.

--

```
 \ /  / / / / / / / / / /  Peter Bennett, Mississauga, Ontario  
 <:-(-)~ VISIT TURTLE TRAX  http://www.turtles.org  
  \ \ \ \ \ \ \ \ \ \ \ \ \ \  Email: honu@turtles.org
```

PLEASE SUPPORT Marine Turtle Fibropapilloma RESEARCH  
[ Part 2, Image/JPEG 752KB. ]  
[ Unable to print this part. ]

Date: Wed, 2 Jun 2004 00:41:29 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: Re: Turtle box

*FFS Reduce*

Yes, and we will definitely get the pelican box back to you as soon as physically possible. We will all have to be flexible with our personal baggage weights -- this includes me on the flight, so believe me, I understand. We all may have to leave a few things behind, to send later. Maybe not. We will have to see what conditions are like.

We dropped Joe and Chris off at East Island this morning. They are using the old tent because they say the new one does not have a floor and they were worried about ticks getting in. Do you know anything about this tent and if it should have a floor?

Thanks,  
Jen

Date: Wed, 26 May 2004 18:11:40 -1000  
From: French Frigate Shoals <ffs2570@wcclp.com>  
To: George Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: release of entangled turtle

*Reduce FFS*

[ The following text is in the "iso-8859-1" character set. ]  
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[ Some characters may be displayed incorrectly. ]

Oh yeah, I forgot L4 had the TDR already taken out already, I wasn't the one who spotted her.

I also forgot to mention that I was able to disentangle an adult female turtle on Little Gin Spit on May 22. The line was wrapped once around her neck and twice around her RFF, then lead to a good size conglomerate of line/net that trailed behind her. She was in good condition and had a metal tag in her RFF, but things happened fast and I was more focused on getting her released than reading the tag. She was very cooperative during the process and made it easy to help her. I've written up a survival factor for you. I was unable to get photos of her entanglement, but took a photo of the line post release. I also will be sending the line back as an entanglement sample.

Was really happy to have been in the right place at the right time to help her.

Ok, that's all for now. Cheers, suz

Date: Sun, 30 May 2004 22:56:12 -1000  
From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
To: Hinwr@aol.com  
Subject: FOR JOE AND CHRIS THE TURTLE MEN

Aloha Turtle Guys, thanks Very much for your message. I'm out here at HonuLani staying the night, I had a wonderful afternoon watching the turtles in the shallows (where you snorkeled) and talking about turtles with all the beach goers. I call this "working the crowd on behalf of the honu!"

Well, if June 1st is your set-up day for East, that will hold some significance for me. It was, to the day, 31 years ago (32 nesting seasons ago) that I first touched foot on Tern Island! June 1, 1973. It was I believe one or two days later (June 2 or 3) that I first set foot on East Island. I recall it like yesterday-- a 10-12ft tiger greeted the Boston Whaler I was in and proceeded to "bump" the spinning prop right in front of our eyes (my eyes and Dave Ohlsen the FWS man helping me to get set up to camp there alone. I thought My God, what am I getting myself into. Well the answer was (and still is) a life time of work and love for these darned Hawaiian turtles!

Rather strange I think about the low number of baskers on Tern. Is there a sand spit this year at the northeast end of Tern? There should be and there should be dozens of turtles basking on it daily and at night. Or perhaps if the season has started quite early maybe they have all moved over the East-- God's Land for the Honu.

How about evidence of nesting on the south shore of Tern? Lots of tracks and pits? Or few? Given the number of baskers reported for East (record numbers) this is curious. Well, if we knew all the answers we would just write the final report and skip doing the work. But then we'd miss out on all the fun!

Stay in touch as best you can but remember that the work and keeping yourselves in good spirits and not sleep deprived is far more important than taking time to send me email. Very Best, George  
PS Pictures taken at the plane and at Sea Life Park etc for each of you will be sent out on the next flight.

On Mon, 31 May 2004 Hinwr@aol.com wrote:

> Hey George,  
> Chris and I are doing great. We just got the email here set up and will be  
> keeping you up to date on what is going on. Everything is packed and ready  
> to  
> go. We will be checking out the new tent today and preparing to set up on  
> East  
> on the morning of June 1st. Everything was in place for us when we arrived.  
> Chris and Jen have been great.  
>  
> A lot of baskers on East!! Not so many on Tern (10 this morning). We have  
> seen a high number of males. Turtle Cam is up and running well and giving us  
> a  
> great preliminary view of East.  
>  
> The return flight on the 16th of July is kind of tight. Jen was wondering if  
> some of the turtle gear in the black box could be sent back on a later date?  
>  
> Aloha,  
> Joe and Chris  
>

---

Date: Sat, 26 Jun 2004 21:29:17 -0400  
From: Ursula Keuper-Bennett <howzit@turtles.org>  
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>,  
Peter Bennett <honu@turtles.org>  
Subject: Re: Old Friends....

WOW! Thanks So Much for this news! Of course now begins the worry that they make is back. We hardly ever see the Hawes turtle. Turtles are about Time, huh, George?

Mendelbrot --didn't even have tags in 1993 when we met her.  
Tutu 1990  
Hawes first record of from Rob Hawes 1992.

Cripes. That was the Last Century!  
-----

Date: Tue, 22 Jun 2004 14:23:14 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: East Island Update

Hello George,  
Chris here giving you an update. I will be heading back to East tomorrow. To answer your questions, no hatchlings have been seen yet but we will be sure to let you know as soon as we do see them. The digital camera works great. It is really helpful knowing the pictures came out, and knowing we have the capability of taking many pictures without carrying many cameras around is good as well. As to erosion on the beach I have no basis for comparison as of last year but the pole the camera is on seems to be in no danger. I have actually noticed the beach in front of the camp building up over the past week or so. I will make sure Joe lets you know how it compares to last year. I will inform him also that we should keep giving two PIT tags per turtle as well. You are correct also stating that we will be seeing the numbers of new turtles drop. It has been quite significant over the past week. That said, here are the recent numbers.  
June 16 - 68 total turtles, 13 new, 4 nesters, 6 probably, 19 maybe.  
June 17 - 61 total turtles, 5 new, 6 nesters, 9 probably, 10 maybe.  
June 18 - 68 total turtles, 13 new, 7 nesters, 8 probably, 19 maybe.  
June 19 - 71 total turtles, 8 new, 7 nesters, 8 probably, 5 maybe.  
Just as you said a drop in new turtles. On June 17 there were only 5 new turtles. I only had 57 turtles on my sunset walk, with the 16th having 147 and the 17th having 154. Could this be weather related? It was cloudy and very windy all that day and night.  
That's all for now. We will be in touch soon. Hopefully Joe will have some more answers to your questions.  
Aloha, Chris

Date: Fri, 11 Jun 2004 21:25:57 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: (no subject)

*FFS produce*

Hey George,  
Joe here. Just wanted to send you a quick email to let you know we got the 2003 sop and the nest locations map from 1974. Thank you very much.

Chris and I can definitely put together a nest location map for 2004. Do you want it listing the nest in numbered quadrants as you have listed, or just a general indication of where the nest are in relation to geographic features on the island? If you just want a general indication we can go through the field books and map out the nests starting from the first date of turtle camp on June 1st.

I am guessing you want a map to get a general indication of what areas the nest are in. I will let Chris know and we will start cataloging the nests from the first day of camp. We will keep a detailed listing of nest locations going forward and update it as needed for placement on a 2004 map.

We have been keeping a daily total of Baskers on East and it is included on the daily totals sheet.

I also wanted to reassure you that monk seals are not prohibiting our research. (In response to a question you asked in an email sent 6/1/04 - Jen just pointed out the unread email to me today). We have a respect for their space and slumbers, but are not letting it get in the way of our job working up turtles!

Chris is in good spirits on East and he will be emailing you numbers tomorrow. His numbers for the first two days are similar to what I saw on my first four days.

I took a couple of the construction workers out on Tern (with Jen's permission) to view nesting turtles and they loved it.

The data looks good. We are keeping up to date on it. One quick data question for Sean (did I spell that right?). Does she want us to write in on the comments section of the data sheet "no metal tags" (as we have been), or is that simply understood by not listing the metal tags.

Turtle Camp is moving along smoothly! I can't wait to get out to East.

ce: Wed, 9 Jun 2004 15:32:59 EDT  
om: Hinwr@aol.com  
o: gbalazs@honlab.nmfs.hawaii.edu  
subject: Re: Message for Chris and Joe--Re: Training on East Island

Reduce ffs

Aloha George,  
Joe here.

40 years

I hope you are having a splendid time. Turtle Camp is going extremely well so far. We are using last year's tent which is working tremendous. (The new tent has no base so we will have to look into ordering one for next year). I am right back in the swing of things - only this time I am doing everything a little faster, with little time between walks. A great challenge. It is awesome to see so many turtles up! There have been 224 new turtles in the first seven days. Already more than last year. We are on pace to have a big year. It's inspiring to see the # of nesters continually going up! Chris is doing excellent. He had the turtle work-up down pat well before the end of the three training days.

A few interesting updates.

-L4 has been refitted with a TDR. She is turtle #166. She has been up (6/5) body pitting - but has not been seen nesting yet. A little bad news. She has a number 2 size growth on the ventral side of her right front flipper proximal to her body. (picture taken) It looked bulbous with some a little pink coloring.

-L1 was last seen on 6/3, basking on Gin. He was too close to a seal to have the TDR removed.

-# 189 nested and was missing 75% of her right front flipper. (picture taken)

-# 190 had a blue punch tag between her 3rd and 4th proximal scale on the left front flipper. No numbers could be read (worn off). Her old LHF pit tag is

424F160D25 (picture taken)

-No special turtles: yet.

Numbers

↓  
6/4 Total 64 New 43 N 7 P 2 M 4  
6/5 Total 47 New 26 N 2 P 4 M 6  
6/6 Total 46 New 26 N 9 P 3 M 6  
6/7 Total 45 New 28 N 5 P 5 M 2

Sorry for the long email. Hope you are having as great a time as we are. It's great to be back.

Aloha,  
Joe and Chris

Date: Sat, 5 Jun 2004 14:24:07 -1000  
From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
To: Marc Rice- HPA <mrice@hpa.edu>  
Subject: Message for Chris and Joe--Re: Training on East Island (fwd)

FYI!

----- Forwarded message -----

Date: Sat, 5 Jun 2004 14:23:21 -1000  
From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
To: Hinwr@aol.com  
Subject: Message for Chris and Joe--Re: Training on East Island

*FRS  
Reduce*

ABSOLUTELY SUPER Chris and Joe!! All the way around, super! No nothing needed with TDR, it was fired up and running all along. Just put it in the box, Pau (finished in Hawaiian).

Well, the numbers are large. But not near as large as I suspected based on numbers seen basking. Don't know what to make of it, but "time will tell"!

I leave for the airport in 45min. Please continue to email info. I MAY be able to get email down there. So will be eager to get your updates.

Be safe, have fun, and enjoy your very special time up here.  
My Aloha, George

On Sat, 5 Jun 2004 Hinwr@aol.com wrote:

> Aloha George,  
>  
> This is Chris here writing to you to inform on how the first days went.  
> Training went well. Working up the turtles is now second nature to me. We had  
> large numbers the first three nights, as expected. For June 1 we only did a  
> partial night this night because we were tired from being up early to set up  
> camp, but we had 38 new turtles, 38 turtles up, 4 nesting, 1 probably, 0  
> maybe.  
> For June 2 there were 53 turtles up, 40 new, 9 nesting, 4 probably, 8 maybe.  
> For June 3 we had 51 turtles up, 33 new, 2 nesting, 1 probably, 9 maybe. So  
> as  
> you can see we have been very busy. We also had some big news as well. I  
> don't know if you have already heard that we got L4. She was up on our very  
> first walk on the 1st. We equipped her with her new TDR with no problems.  
> She  
> was very cooperative. She actually didn't even move. We took a lot of  
> pictures  
> with the digital camera, which is working out nicely. We also wanted to  
> double check to make sure that there wasn't anything we had to do to the TDR  
> before we put it in the box.  
> Joe will be out at East until the 8th. We will be on four day rotations  
> throughout the season. It works out nicely with their days off here. So you  
> will  
> be getting updates every four days, just so you know. Hope all things are  
> going well in Honolulu.  
> Aloha,  
> Chris



Date: Fri, 11 Jun 2004 21:25:57 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: (no subject)

FFS

Hey George,  
Joe here. Just wanted to send you a quick email to let you know we got the 2003 sop and the nest locations map from 1974. Thank you very much.

Chris and I can definitely put together a nest location map for 2004. Do you want it listing the nest in numbered quadrants as you have listed, or just a general indication of where the nest are in relation to geographic features on the island? If you just want a general indication we can go through the field books and map out the nests starting from the first date of turtle camp on June 1st.

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The data looks good. We are keeping up to date on it. One quick data question for Sean (did I spell that right?). Does she want us to write in on the comments section of the data sheet "no metal tags" (as we have been), or is that simply understood by not listing the metal tags.

Turtle Camp is moving along smoothly! I can't wait to get out to East.

Aloha,  
Joe and Chris

---

Date: Fri, 4 Jun 2004 23:25:44 -1000  
From: French Frigate Shoals <ffs2570@wccplp.com>  
To: George Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: From Aaron

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FFS  
Reduce

Aloha George,

Well, I was going to wait and suprise you with footage from our new toy, but you seem anxious, so I will tell you. Not a huge deal, but we got a fairly nice digital video camera for the shark project, and I figured that would be the best way to actually get a shot of all the turtles on a good day. Got some footage the other day, but will get more when possible.

Saw turtle L1 yesterday at he Gins (I saw him at Gin, then Suzanne saw him on her census at L. Gin). No chance of recovery of the TDR yet though. Did get pictures for you though.

Looks like it really will be the big year for turtles it appeared from baskers, I will let the turtle guys give you the exact #s, but will hint that it is over 100 nesters in the first 3 nights. Excuse my language, but holy shit! I am pretty jealous of the fun they must be having over there.

Last thing, can you send the datalogger #s of the ones I sent back and I think also from whatever F&W sent back. It will save them the time of trying to recover things that arent there. I wrote my two down but things get easily lost in our cramped smaller office.

Aloha, and have fun on your "vacation".  
Aaron

Date: Fri, 25 Jun 2004 13:41:53 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: Re: Another message for Chris and Joe

Hey George,  
Joe here. Just back from an extended stay on East thanks to some hearty winds that kept the boats in on Tern. (In case you are wondering why there is the extra time between emails).

Things are going well. We did start double tagging again a few days ago. The day you sent the email about double tagging we had a dramatic dropoff in new turtles. We are averaging about 10 new turtles a day now. As of last night (7/23) we were at 488 total turtles.

#### Updates from the field

- Chris looked over the data book while I was on East and found three of the "special" turtles ( Mendelbrot is #138, Tutu is #278, and Hawes Turtle is #108). We will make the effort to get some good shots of these.
- Baskers have gone significantly down (to as low as 37 one day, but averaging just over 100 recently). (Males leaving? Cloudy Weather? may be factors)
- A juvenile has been swimming in the shallows just in front of the tent and basking with all of the adults (have a few pictures on the digital).
- Windy and cloudy the last few days (> 20-25 knots)

#### Numbers

- 6/19 70 total, 8 new, 7N, 8P, 5M
- 6/20 70 total, 13 new 3N, 9P, 11M
- 6/21 57 total, 7 new, 13N, 7P, 10M
- 6/22 45 total, 10 new, 5N, 3P, 6M
- 6/23 43 total, 8 new, 8N, 6 P, 4M

#### Your Questions

- No nests yet, but we will keep you informed. Jen said they did have a few nesters in late April, so hopefully we see some hatchlings before we leave.
- The digital camera is awesome. The ability to see the pictures immediately after you take them makes a huge difference. You can get closer shots than with the disposables and zoom in. A great addition this year.
- The tide is moving in closer on the north shore. It is very similar to last year's level. It is no where near the telephone pole - so the camera should be safe. The spit is being cut down quite a bit (as it was last year). If we see any stark changes in the island, any increased erosion, we will let you know.

Things are going very well here and we should be over 500 within the next few days if current trends continue!!

Date: Fri, 18 Jun 2004 13:04:22 EDT  
From: Hinwr@aol.com  
To: Dominique\_horvath@r1.fws.gov  
Cc: gbalazs@honlab.nmfs.hawaii.edu  
Subject: (no subject)

Hey Domo, Or Todd, or Cari,

How's it going? The turtles are doing well here, and coming up in great numbers. 411 so far (and we are not even half way through the season)!

I am writing to see if we could get 15 Horizontal Lined, Spiral Bound, Rite in the Rain Field Books if another flight or ship comes out to Tern in the next month. I understand they may be no more until the 16th of July, but thought I would shoot an email just in case. It is not an emergency (we have a different type of book here we can use in it's place), but it sure would be nice to have them if there is a flight or ship coming out.

Thanks for all the great fresh food and supplies you just sent!

Aloha,  
Joe



Date: Fri, 30 Apr 2004 09:01:06 -1000  
From: French Frigate Shoals <ffs2570@wccclp.com>  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: from aaron

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FFS

Hey George,

- Saw turtle L12 on Little Gin on the 28th. Got a couple digital pics.  
- Found another tidbit datalogger, didn't get an answer from you about sending them back so I'll just give them to F&W to deal with.

Aaron

J. Hauler  
Books

Date: Tue, 15 Jun 2004 12:33:46 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: East Island Update

Poduce

Hi George,

Chris here just updating you as to what was going on out here. We recieved the pictures you sent in the mail of our training and last day before we left, thank you. I believe Joe already informed you that we recieved the other envelope you sent as well, with the old SOP on disk and the map of nests on East

Island from 1974.

Here are our numbers for June 8 - June 11. June 8 had 50 total turtles, 27 new, 4 nesters, 2 probably, and 8 maybe. June 9 had 36 total turtles, 19 new, 6 nesters, 1 probably, and 8 maybe. June 10 had 37 total turtles, 23 new, 6 nesters, 3 probably, and 9 maybe. June 11 had 46 total turtles, 28 new, 6 nesters, 5 probably, and 8 maybe. So as you can see it did slow down a little bit.

We will be switching out again on Wednesday the 16th.

While I was out there I noticed two turtles missing front flippers, one missing a left and the other a right. I remembered you mentioned that there may be

a turtle missing a flipper coming to the island to nest. If my memory is correct when I saw them they both were backfilling.

To my knowledge we have yet to see L4 nest yet, but she had been mototooled and is number 166.

The seal team was doing their survey on East while I was out there they said they counted 271 that day. They told me that is the highest ever counted on East. Is that true? I believe that was on June 9th as well, my slowest night out there. When I did my sunset walk I didn't count as many but I couldn't do a full count do to seals on the South East Point.

Well I hope everything is going well in Hololulu. I will be in touch soon.  
Chris

Date: Fri, 18 Jun 2004 13:04:22 EDT  
From: Hinwr@aol.com  
To: Dominique\_horvath@r1.fws.gov  
Cc: gbalazs@honlab.nmfs.hawaii.edu  
Subject: (no subject)

FFS reduce

Hey Domo, Or Todd, or Cari,

How's it going? The turtles are doing well here, and coming up in great numbers. 411 so far (and we are not even half way through the season)!

I am writing to see if we could get 15 Horizontal Lined, Spiral Bound, Rite in the Rain Field Books if another flight or ship comes out to Tern in the next month. I understand they may be no more until the 16th of July, but thought I would shoot an email just in case. It is not an emergency (we have a different type of book here we can use in it's place), but it sure would be nice to have them if there is a flight or ship coming out.

Thanks for all the great fresh food and supplies you just sent!

Aloha,  
Joe

Date: Fri, 18 Jun 2004 13:04:15 EDT  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: Re: For Chris and Joe

FFS Reduce

Aloha George,  
Joe here.

I agree about releasing turtles with a missing front flipper. We will make extra sure to document this in detail. We already have a few photos of different turtles missing 50% or more of their front flippers.

#### Updates From The Field

- Starting 6/14/04 all new turtles are only getting a LHF pit tag. We have already used > than 310 pit tags and we are not half way through the season yet. There are just under 300 pit tags left. We figure it is better to give all the turtles at least one hind flipper tag than to risk having some with none at the end of the season. (We will start double tagging again if we see a reduction in the number of new turtles, or find we have a good amount of pit tags still left near the end of the season.) I'm guessing about 35-50% of the turtles that have come up so far have had no pit tags. Which is a good thing. Looks like all the hard work for protection is paying off in a big way here!
- 10 dataloggers have been retrieved from last year so far.
- 8 new dataloggers have gone in.
- We will run out of horizontal Rite in the Rain Books before the end of the season. We will use the extra Fish and Wildlife Level Lined Rite in the Rain books as there are no more flights coming. They are a little different, but should work fine. We can order some more books for them at the end of the season.
- Still no special turtles ( I will be reviewing the data book to make sure none were missed).

#### Question

- For tumors - We have been marking down the size of the growth and describing it. We take pictures when possible. If it is possibly scar tissue we are writing that in the comments, but still listing the growth in the tumor section on the data sheets. Is this correct?

Does this large number of nesters mean another paper is coming out? Do you think the large numbers are resulting from protection that has lasted long enough for the turtles to reach sexual maturity? (SST? Different Nesting Year cycles matching up?) What a large jump. It must feel good to see the fruits of your labor in a big way like this!

#### Numbers

6/12/04 -43 total, 24 new, N1, P7, M7  
6/13/04 -52 total, 23 new, N6, P2, M7  
6/14/04 -70 total, 24 new, N4, P1, M11  
6/15/04 -80 total, 19 new (don't have the break down for N,P, and M here - will send)

The numbers of turtles are climbing as the mothers return for a second cycle. It will be fun to see the daily totals climb as we get deeper into the season.

Good to hear you had a great trip. The tiger sharks showed up the morning of

the 13th, and are getting ready to put on a show. Life and work are great here.

Aloha,  
Joe and Chris

Date: Sat, 27 Mar 2004 17:59:35 EST  
From: Hinwr@aol.com  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: French Frigate Shoals Turtle Activity Brief

FFS

#### Tern Island

28 February, 2004: Three turtles seen swimming together on the south side of the barracks. The turtles were not seen on land.

15 March, 2004: 3-4 turtles seen on south beach at sunrise. Turtle seen on crab beach in afternoon. Turtles also seen basking on the east end of south beach.

15-27 March, 2004: Turtles (3-7 at a given time) seen basking on a regular basis on south, east, crab and shell beaches. While snorkeling, turtles, frequently 2-5, seen swimming along the north side of the island. At first, larger

turtles comprised the majority of sightings. Now smaller individuals are arriving.

#### East Island

23 March, 2004: 35 turtles seen basking on East Island during outer island survey. Additional turtles also seen swimming around the island.

