

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-1 COURSE 080° S ~ S. OIKTS
PROJECT Old Pacific AREA E. MARIANA BASIN P.I. LARSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>314 11/10/87</u>	<u>315 11/11/87</u>	
TIME(Z)	<u>11 14:21</u>	<u>05:02:21</u>	
LATITUDE	<u>14 40.000 N</u>	<u>15° 09.25 N</u>	<u>96.71 NM</u>
LONGITUDE	<u>149 26.702 E</u>	<u>151° 02 E</u>	<u>179.207 km</u>
SHOTPOINT	<u>1</u>	<u>3193</u>	
REC NUM	<u>2</u>	<u>3194</u>	
TAPE NUM	<u>120001</u>	<u>120026</u>	
WATER DEPTH	<u>5750 m</u>	<u>5975 m</u>	
DATA LENGTH (SEC) MIN	<u>14</u>	MAX	SAMP RATE (MSEC) <u>4MS</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #			
DISTANCE TO NEAR TRACE (M)	<u>~180M</u>		
DISTANCE TO FAR TRACE (M)	<u>3380M</u>		
SOURCE INFO	<u>1-6gun array 1065, 1-2000 in³ gun</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT Nav, GPS</u>		

COMMENTS:

FILTERS - ALIAZ - 86 Hz
Low Cut - 5 Hz

OK P29

PAGE 2 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM 35-12 LINE # OP-1B COURSE 062°
PROJECT OLD PACIFIC AREA E. MARIANA BASIN P.I. Larson / Shipley

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>315 11/1/87</u>	<u>315 11 NOV 87</u>	
TIME(Z)	<u>05:38:40</u>	<u>17:53:40</u>	
LATITUDE	<u>15 08.55 N</u>	<u>15 30.732 N</u>	<u>58.05 NM</u>
LONGITUDE	<u>151 01.476 E</u>	<u>151 57.063 E</u>	<u>107.562 km</u>
SHOTPOINT	<u>3194, 1-</u>	<u>2169</u>	
REC NUM	<u>1</u>	<u>2175</u>	
TAPE NUM	<u>120027</u>	<u>120043</u>	
WATER DEPTH	<u>5975</u>	<u>3100</u>	
DATA LENGTH (SEC) MIN	<u>141</u>	MAX	SAMP RATE (MSEC) <u>4/15</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180m</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3380</u>		
SOURCE INFO	<u>1 6 gun array 1065 in³ time + 1 2000 in³</u>		
NAVIGATION SYSTEM INFO	<u>Transit SPT NAV, GPS</u>		

COMMENTS:

Filters A Line - 86 Hz
7 min gap (11162 - 1123) - Low - 5 Hz Tapered
62-80° heading toward 1st Seamount group at ~ 1522.51 N includes TURN TO
151° 56.709 E 194° new line
Began new line NAME when all guns stopped for compressor repair

OK

PAGE 3 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-2 COURSE 195° S ~ 5 kts
PROJECT Old Pacific AREA E. MARIANA BASIN P.I. LARSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>315 11 NOV 87</u>	<u>316 12 NOV 87</u>	
TIME(Z)	<u>1807:00</u>	<u>1037:20</u>	
LATITUDE	<u>15 29.68 N</u>	<u>14 08.041 N</u>	<u>83.78 NM</u>
LONGITUDE	<u>151 57.12 E</u>	<u>151 35.977 E</u>	<u>155.246 km</u>
SHOTPOINT	<u>2205</u>	<u>5152</u>	
REC NUM	<u>3</u>	<u>2954</u>	
TAPE NUM	<u>120045</u>	<u>120069</u>	
WATER DEPTH	<u>1700</u>	<u>5950</u>	
DATA LENGTH (SEC) MIN	<u>14</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>1-16</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180M</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>VARYS ~ 3065 m³ down →</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT NAV, GPS</u>		

COMMENTS:

FILTEHS 86 KHz - Azim 2
5 KHz - Low cut

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORELINE INFORMATIONCRUISE FM35-12 LINE # OP-3 COURSE 125°
PROJECT OLD PACIFIC AREA EAST MARIANA BASIN P.I. LARSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>12 NOV 87 316</u>	<u>316 12 NOV 87</u>	
TIME(Z)	<u>1037:40</u>	<u>2244:20</u>	
LATITUDE	<u>14 08.038N</u>	<u>13 32.636 N</u>	<u>61.90 NM</u> <u>114.708 km</u>
LONGITUDE	<u>151 35.995 E</u>	<u>152 28.343 E</u>	
SHOTPOINT	<u>5153</u>	<u>7333</u>	
REC NUM	<u>2955</u>	<u>5130</u>	
TAPE NUM	<u>120069</u>	<u>120085</u>	
WATER DEPTH	<u>5950</u>		
DATA LENGTH (SEC) MIN	<u>14</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>VARIED!</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT NAV, GPS</u>		

COMMENTS:FILTERSGood Snobuoys # 4 & 6 Tapes 74-81

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-3B COURSE 180
PROJECT Old Pacific AREA E. MARIANA BASIN P.I. LARSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>316 12 Nov 87</u>	<u>317 13 Nov 87</u>	
TIME(Z)	<u>2250:30</u>	<u>15 32 02</u>	
LATITUDE	<u>13 32.375 N</u>	<u>12 46.389 N</u>	<u>82.03 NM</u>
LONGITUDE	<u>152 28.755 E</u>	<u>153 38.566 E</u>	<u>151.993 KM</u>
SHOTPOINT	<u>6</u>	<u>1969</u>	
REC NUM	<u>2</u>	<u>1973</u>	
TAPE NUM	<u>120086</u>	<u>120101</u>	
WATER DEPTH	<u>5925</u>	<u>5925</u>	
DATA LENGTH (SEC) MIN	<u>14</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>30</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>TRANSIT SAT NAV</u>		
NAVIGATION SYSTEM INFO	<u>4130 CI 2mays @ 1065 EA 1@2000</u>		

COMMENTS:

Filters - Azias - 86
Low - 5

Changed to 30 sec RN

* Data gap 0405Z - 0425Z JD 317 Compressor repairs

OK PM

PAGE 6 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-3C COURSE
PROJECT Old PACIFIC AREA E MARIANA BASIN P.I. LARSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>317 13 NOV 87</u>	<u>318 14 NOV 87</u>	
TIME(Z)	<u>1532:22</u>	<u>0355:22</u>	
LATITUDE	<u>12 46.374 N</u>	<u>12 11.307</u>	<u>54.91 NM</u>
LONGITUDE	<u>153 38.889 E</u>	<u>154 30.476</u>	<u>101.75 km</u>
SHOTPOINT	<u>1970-3609, 1-393</u>		
REC NUM	<u>1974-3613, 2-398</u>		
TAPE NUM	<u>120101</u>	<u>120116</u>	
WATER DEPTH	<u>5940</u>	<u>5900</u>	
DATA LENGTH (SEC) MIN	<u>14.13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4M</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>(1-16)</u>	PROBLEM TRACES <u> </u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180M</u>		
DISTANCE TO FAR TRACE (M)	<u>~338M</u>		
SOURCE INFO	<u>Various</u>		
NAVIGATION SYSTEM INFO	<u>TRANS SAT / GPS</u>		

COMMENTS:

DATA gap 0039Z thru 0127Z

changed to 20 sec KK

changed to 13 sec RL - 0224

o & Play

PAGE 7 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM 35-12 LINE # OP-4 COURSE 105°

PROJECT OLD PACIFIC AREA E. MARIANA BASIN P.I. LARSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>318 14 NOV 87</u>	<u>318 14 NOV 87</u>	
TIME(Z)	<u>03 55:42Z</u>	<u>05 30:22</u>	
LATITUDE	<u>12 11.307N</u>	<u>12 08.262N</u>	<u>8.24 NM</u>
LONGITUDE	<u>154 30.476</u>	<u>154 38.300E</u>	<u>15.26 KM</u>
SHOTPOINT	<u>394</u>	<u>676</u>	
REC NUM	<u>399</u>	<u>670</u>	
TAPE NUM	<u>120117</u>	<u>120119</u>	
WATER DEPTH	<u>5900</u>	<u>5900</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4MS</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>VARIOUS</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT</u>	<u>GPS</u>	

SHORT LINE

COMMENTS:

END LINE DUE to change in Rep Rate, Δ to 30 sec
mid tape 120119

ok pag

PAGE 8 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-4B COURSE 105°
PROJECT OLD PACIFIC AREA E. MARIANA P.I. LAERSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>318 14 NOV 87</u>	<u>318 14 NOV 87</u>	
TIME(Z)	<u>0530:52Z</u>	<u>1007:22Z</u>	
LATITUDE	<u>12 08.246N</u>	<u>12 01.873N</u>	<u>22.26 NM</u>
LONGITUDE	<u>154 38.339E</u>	<u>155 00.130E</u>	<u>41.25 km</u>
SHOTPOINT	<u>677</u>	<u>1230</u>	
REC NUM	<u>671</u>	<u>1224</u>	
TAPE NUM	<u>120119</u>	<u>120123</u>	
WATER DEPTH	<u>5900</u>	<u>5870</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>30</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-9</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>various</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT NAV, GPS</u>		

COMMENTS:

Begin mid tape 120119
End mid tape 120123 - Δ rep rate back to 20 sec

ok pen

PAGE 9 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-4C COURSE 105°
PROJECT OLD PACIFIC AREA E MARIANA BASIN P.I. LANSSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>318 14 Nov 87</u>	<u>319 15 Nov 87</u>	
TIME(Z)	<u>1007.42</u>	<u>06 07:02</u>	
LATITUDE	<u>12 01.865N</u>	<u>11 36.921N</u>	<u>95.76 NM</u>
LONGITUDE	<u>155 00.157E</u>	<u>156 34.508E</u>	<u>177.43 km</u>
SHOTPOINT	<u>1231</u>	<u>4802</u>	
REC NUM	<u>1225</u>	<u>4793</u>	
TAPE NUM	<u>120123</u>	<u>120152 *</u>	
WATER DEPTH	<u>5870</u>	<u>~2000</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES <u>12 86</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>1-away - 1065 ci, 1 lg gun 200 psi</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT NAV</u>		

COMMENTS:

Begin mid tape 120123

Δ to 20 sec RR

* problems with this tape rewound & restarted
1st 2 seconds overwritten

pkp

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-5 COURSE 168
PROJECT OLD PACIFIC AREA EAST MARIANA P.I. LARSEN/SHIPLEY
RIDGE S. TTA MAITPAI GUYOT

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>319 15NOV</u>	<u>319 15NOV</u>	
TIME(Z)	<u>0608:41</u>	<u>15:58:01 Z</u>	
LATITUDE	<u>11 36.869 N</u>	<u>10° 49.485 N</u>	48.55 NM
LONGITUDE	<u>156 34.64 E</u>	<u>156° 46.434 E</u>	89.956 KM
SHOTPOINT	<u>2</u>	<u>1769</u>	
REC NUM	<u>3</u>	<u>1770</u>	
TAPE NUM	<u>120153</u>	<u>120165</u>	
WATER DEPTH	<u>2140m</u>	<u>4294m</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u> </u> DISTANCE <u> </u>		
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES <u>12 86</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3350</u>		
SOURCE INFO	<u>STRP Array + Port 2000m³ 3065m³ Told</u>		
NAVIGATION SYSTEM INFO	<u>Trajectory Set Now.</u>		
<u>COMMENTS:</u>			

✓ PM

PAGE 11 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE Fm-3512 LINE # OP-6 COURSE 285
PROJECT OLD PACIFIC AREA EAST MARIANA Basin P.I.

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>319 (15 Nov 87)</u>	<u>320 (16 Nov 87)</u>	
TIME(Z)	<u>16:04:43</u>	<u>0515:43</u>	
LATITUDE	<u>10° 49.241 N</u>	<u>11 08.157 N</u>	<u>69.16 NM</u>
LONGITUDE	<u>156° 45.881 E</u>	<u>155 38.185 E</u>	<u>128.15 KM</u>
SHOTPOINT	<u>0003</u>	<u>2350</u>	
REC NUM	<u>0001</u>	<u>2347</u>	
TAPE NUM	<u>120166</u>	<u>120182</u>	
WATER DEPTH	<u>4294</u>	<u>5300</u>	
DATA LENGTH (SEC)	MIN <u>13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u> </u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES <u>04 04</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3350</u>		
SOURCE INFO	<u>Port array + Port 2000 in³</u>	<u>3065 in³</u>	
NAVIGATION SYSTEM INFO	<u>Transit SAT NAV</u>		

COMMENTS:

Coming off of Ridge S. of ITA MATAI N.W. into E. MARIANA BASIN
New board in Gus

OK PCH

PAGE 12 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM 35-12 LINE # OP-6B COURSE 285°
PROJECT OLD PACIFIC AREA East Mariana Basin P.I.

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>320 16 Nov 87</u>	<u>320 16 Nov 87</u>	
TIME(Z)	<u>06 12:22</u>	<u>2258:42</u>	
LATITUDE	<u>11 09.153 N</u>	<u>11 27.704 N</u>	<u>81.67 NM</u>
LONGITUDE	<u>155 33.799 E</u>	<u>154 12.775 E</u>	<u>151.342 km</u>
SHOTPOINT	<u>5</u>	<u>3009</u>	
REC NUM	<u>5</u>	<u>3008</u>	
TAPE NUM	<u>120183</u>	<u>120204</u>	
WATER DEPTH	<u>5780</u>	<u>5800</u>	
DATA LENGTH (SEC) MIN	<u>12</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3850</u>		
SOURCE INFO	<u>Port array + Port 2000 in 3</u>		<u>3065 in 3</u>
NAVIGATION SYSTEM INFO	<u>Transit Set Nov.</u>		

COMMENTS:

last 7 tapes have bad traces from 42 aft.
pulled steamer for repair at end of line.
found hole in boot at 42 repaired.
made a circle to come back on line

OK

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM 35-12 LINE # OP-7 COURSE 304°
PROJECT OLD PACIFIC AREA E. MARIANA BASIN P.I.

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>321 17 NOV 87</u>	<u>321 17 NOV 87</u>	
TIME(Z)	<u>1000:11</u>	<u>1819:38</u>	
LATITUDE	<u>11 24.299 N</u>	<u>11° 49.536 N</u>	<u>43.68 NM</u>
LONGITUDE	<u>154 15.750</u>	<u>153° 39.315 E</u>	<u>80.935 km</u>
SHOTPOINT	<u>0</u>	<u>1474</u>	
REC NUM	<u>1</u>	<u>1475</u>	
TAPE NUM	<u>120205</u>	<u>120216</u>	
WATER DEPTH	<u>5800</u>	<u>5880m</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u> </u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	<u> </u>
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES	PROBLEM TRACES <u> </u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>180</u>		
DISTANCE TO FAR TRACE (M)	<u>3350</u>		
SOURCE INFO	<u>Variable</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT, GPS</u>		
<u>COMMENTS:</u>			

6K

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE Fm3512 LINE # OP-7B COURSE 304°
PROJECT OLD PACIFIC AREA E. MARIANA Basin P.I.

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>321 NOV 17 1987</u>	<u>322 18/NOV/87</u>	
TIME(Z)	<u>19:37:28</u>	<u>04:43:27</u>	
LATITUDE	<u>11° 52.87 N</u>	<u>12° 19.25 N</u>	<u>34.71 NM</u>
LONGITUDE	<u>153° 33.23 E</u>	<u>153° 56.92 E</u>	<u>64.311 KM</u>
SHOTPOINT	<u>3</u>	<u>1641</u>	
REC NUM	<u>4</u>	<u>1642</u>	
TAPE NUM	<u>120217</u>	<u>120228</u>	
WATER DEPTH	<u>5880 m</u>	<u>5920 m</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>180</u>		
DISTANCE TO FAR TRACE (M)	<u>3350</u>		
SOURCE INFO	<u>Varied</u>		
NAVIGATION SYSTEM INFO			
<u>COMMENTS:</u>			

OL
RM

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE Fm 3512 LINE # DP-8 COURSE 75°
PROJECT DLG PACIFIC AREA E-MARIANA BASIN P.I.

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>322 Nov 18 1987</u>	<u>322 18 NOV 87</u>	
TIME(Z)	<u>04:44:47</u>	<u>1541:07</u>	
LATITUDE	<u>12° 19.292 N</u>	<u>12 32.211 N</u>	<u>54.89 NM</u>
LONGITUDE	<u>152° 56.993 E</u>	<u>153 51.564 E</u>	<u>101.717 KM</u>
SHOTPOINT	<u>1642</u>	<u>1952</u>	
REC NUM	<u>0001</u>	<u>1952</u>	
TAPE NUM	<u>120229</u>	<u>120243</u>	
WATER DEPTH	<u>5920 m</u>	<u>5920</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4</u>
SHOOTING BY TIME	<u> </u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES <u>12 19</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3350</u>		
SOURCE INFO	<u>STBD 240, 150, 108, 78 - 576 in³ TOTAL</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT</u>		

COMMENTS:

Ended because of Compressor H₂O Leak
Tape 120243 continued next line

OK Paul

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM3512 LINE # OP-8B COURSE 75°
PROJECT DLO PACIFIC AREA E. MARIANA Basin P.I.

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>323 18 NOV</u>	<u>324 20 NOV</u>	
TIME(Z)	<u>17:19:34</u>	<u>0521:51</u>	
LATITUDE	<u>12°28.225N</u>	<u>13 14.648N</u>	<u>49.20NM</u>
LONGITUDE	<u>153° 51.757E</u>	<u>156° 34.413 E</u>	<u>91.165KM</u>
SHOTPOINT	<u>1953</u>	<u>8206</u>	
REC NUM	<u>1953</u>	<u>8198</u>	
TAPE NUM	<u>120243</u>	<u>120288</u>	
WATER DEPTH		<u>6080m</u>	
DATA LENGTH (SEC)	MIN <u>13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES <u> </u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3350</u>		
SOURCE INFO	<u>Barely Begin 837 in³</u>		
NAVIGATION SYSTEM INFO	<u>SAT NAV TRANSIT</u>		

COMMENTS: Begin Shots heading 60 323° to Resume Line 8
which trends 75°

(1950Z-2021Z) gap shooting
(0121Z-0129Z) gap
(0601Z-0621Z) gap
(2028-2031) gap

OK *Paul*

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

SHORT LINE

CRUISE Fm 3512 LINE # OP-9 COURSE 055
PROJECT OLD PACIFIC AREA E. MARIANA BASIN P.I.

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>324 20NOV87</u>	<u>324 20NOV87</u>	
TIME(Z)	<u>05:22:11</u>	<u>07:12:31</u>	
LATITUDE	<u>13° 14.662W</u>	<u>13 22:02N</u>	<u>10.16NM</u>
LONGITUDE	<u>156° 34.432E</u>	<u>156 41.66E</u>	<u>18.825 KM</u>
SHOTPOINT	<u>8207, 1-</u>	<u>329</u>	
REC NUM	<u>8198-8204, 7-</u>	<u>329</u>	
TAPE NUM	<u>120289</u>	<u>120291</u>	
WATER DEPTH	<u>6080m</u>	<u>6080</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4</u>
SHOOTING BY TIME	<u> </u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES <u> </u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3350</u>		
SOURCE INFO	<u>2819 in³ STD ARRAY 429, 240, 150 + Port 2000 in³</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT SAT, GPS</u>		

COMMENTS:

*Rec # reset at Rec # 7 beginning of 120 289
Beginning of TAPE 120 289*

Stop shooting Compressor Repairs

6/12 PM

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM 35-12 LINE # OP-9B COURSE 055
PROJECT OLD PACIFIC AREA East Mariana Ridge P.I. LARSEN/SHIPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>324 20 Nov 87</u>	<u>325 21 Nov</u>	
TIME(Z)	<u>1044:51</u>	<u>0028:26</u>	
LATITUDE	<u>13 27.01 N</u>	<u>14 12.96 N</u>	<u>65.29 NM</u>
LONGITUDE	<u>156 46.328 E</u>	<u>157 34.25 E</u>	<u>120.987 KM</u>
SHOTPOINT	<u>330, 1 →</u>	<u>2457</u>	<u>rest of shots</u>
REC NUM	<u>1</u>	<u>2458</u>	<u>on tape no guns</u>
TAPE NUM	<u>120292</u>	<u>120309</u>	
WATER DEPTH	<u>6080 m</u>	<u>4800</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4</u>
SHOOTING BY TIME	DISTANCE		
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3350</u>		
SOURCE INFO	<u>2819 CI</u>		
NAVIGATION SYSTEM INFO	<u>TRAVEL SAT NAV</u>		

COMMENTS:

Prior to starting line (after compressor repairs 3 1/2 hrs)
made circle to come back on line

END LINE For compressor & gun repairs
last tape has records with no data 2458-2459

OK *Phy*PAGE 19 OF THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORELINE INFORMATIONCRUISE FM 35-12 LINE # OP-9C COURSE 045°PROJECT OLD PACIFIC AREA Transect TO P.I.
Pigafetta Basin

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>325 21 NOV 87</u>	<u>325 21 NOV 87</u>	
TIME(Z)	<u>05:48:46</u>	<u>13 19:05</u>	
LATITUDE	<u>14°33 657 N</u>	<u>15 00.093 N</u>	<u>34.73 NM</u>
LONGITUDE	<u>157° 51 793 E</u>	<u>158 15.201 E</u>	<u>64.349 km</u>
SHOTPOINT	<u>0</u>	<u>1313</u>	
REC NUM	<u>2</u>	<u>1314</u>	
TAPE NUM	<u>120310</u>	<u>120319</u>	
WATER DEPTH		<u>5790</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>96</u>	AUX TRACES	<u>16</u> PROBLEM TRACES
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>180</u>		
DISTANCE TO FAR TRACE (M)	<u>3350</u>		
SOURCE INFO	<u>1 Truncated Array</u>	<u>81910</u>	<u>STBD.</u>
NAVIGATION SYSTEM INFO	<u>Transit SAT + GPS.</u>		

COMMENTS: Compressor repairs (oil change) complete
Begin Line OP-9C AT START OF 120310

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM 35-12 LINE # OP-9D COURSE 050
PROJECT OLD PACIFIC AREA E. MARINA BASIN P.I. LARSEN/SHIPLEY
TRANSECT TO PIGAFETTA

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>325 21 NOV 87</u>	<u>326 22 NOV</u>	
TIME(Z)	<u>13 38:45</u>	<u>16:50:45</u>	
LATITUDE	<u>15 01.331 N</u>	<u>16° 48.580 N</u>	<u>134,67 NM</u>
LONGITUDE	<u>158 16.353 E</u>	<u>159 41.613 E</u>	<u>249.55 km</u>
SHOTPOINT	<u>1314, 1-</u>	<u>4833</u>	
REC NUM	<u>1</u>	<u>4831</u>	
TAPE NUM	<u>120320</u>	<u>120355</u>	
WATER DEPTH	<u>5750</u>		
DATA LENGTH (SEC) MIN	<u>13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>(1-16)</u>	PROBLEM TRACES <u>12 86 8</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~150</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>VARIED 8190L → 28190L</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT / GPS</u>		

COMMENTS:

RESTART LINE AFTER compressor repairs (20mi gap)

OK Per

PAGE 21 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM 35-12 LINE # OP-10 COURSE 305
PROJECT OLD PACIFIC AREA Pisafetta Basin P.I. Lamar/Chipley

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>326/22 NOV 87</u>	<u>327/23 NOV 87</u>	
TIME(Z)	<u>17:37:25</u>	<u>12:14:05</u>	<u>5:23:20</u>
LATITUDE	<u>16°51.256 N</u>	<u>17°47.987 N</u>	<u>95.64 NM</u>
LONGITUDE	<u>159°40.214 E</u>	<u>158°19.475 E</u>	<u>177.23 KM</u>
SHOTPOINT	<u>2</u>	<u>3350</u>	<u>3349</u>
REC NUM	<u>2</u>	<u>3350</u>	<u>3349</u>
TAPE NUM	<u>120356</u>	<u>120380</u>	<u>25</u>
WATER DEPTH	<u>5680 m</u>	<u>5690 m</u>	
DATA LENGTH (SEC)	MIN <u>13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>96</u>	AUX TRACES <u>16</u>	PROBLEM TRACES <u>8</u> <u>12</u> <u>86</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>2819 m³</u>		
NAVIGATION SYSTEM INFO	<u>Transit / GPS</u>		

COMMENTS:

first four shots blank (gun not firing)
* Last good shot of line is (approximately) record # 3338,
shot # 3338, 12:10:05 Z. Line ended because
all guns were misfiring.

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORELINE INFORMATIONCRUISE FM 35-12 LINE # OP-10B COURSE 322
PROJECT OLD PACIFIC AREA E. MARIANA BASIN P.I. Larson/Shikey

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>327/23 NOV 87</u>	<u>329 25 NOV 87</u>	
TIME(Z)	<u>12:53:05</u>	<u>12 22:24</u>	
LATITUDE	<u>17° 49.641 N</u>	<u>20° 09.354 N</u>	<u>231.92 NM</u>
LONGITUDE	<u>158° 16.677 E</u>	<u>155° 00.714 E</u>	<u>429.747 KM</u>
SHOTPOINT	<u>5</u>	<u>8540</u>	
REC NUM	<u>2</u>	<u>8540</u>	
TAPE NUM	<u>120381</u>	<u>120441</u>	
WATER DEPTH	<u>5690 m</u>	<u>5910</u>	
DATA LENGTH (SEC) MIN	<u>13 sec.</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4 ms.</u>
SHOOTING BY TIME	<u>✓</u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES <u>12 86 8</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>819 - 2819 in³ airgun array</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT / GPS</u>		

COMMENTS:

Restart of line 10 after airgun repairs.

EOL when counters were RESET

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORELINE INFORMATIONCRUISE FM35-12 LINE # OP-10C COURSE 322
PROJECT OLD PACIFIC AREA S. PIGAFETTA BASIN P.I. Larsen/Shuplay

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>329 25NOV87</u>	<u>329 25NOV87</u>	
TIME(Z)	<u>1222:44</u>	<u>2152:04</u>	
LATITUDE	<u>20°09.313 N</u>	<u>20 38°19.5 N</u>	<u>47.51 NM</u>
LONGITUDE	<u>155°00.694 E</u>	<u>154°20.369 E</u>	<u>88.033 KM</u>
SHOTPOINT	<u>1,2-</u>	<u>1708</u>	
REC NUM	<u>8541,2-</u>	<u>1708</u>	
TAPE NUM	<u>120442</u>	<u>120454</u>	
WATER DEPTH	<u>5960</u>	<u>5960</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX <u> </u>	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>✓</u>	DISTANCE <u> </u>	
REP RATE (SEC)	<u>20</u>	(M) <u> </u>	FOLD(NOMINAL) <u> </u>
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES <u>12 8 86 -</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~ 180</u>		
DISTANCE TO FAR TRACE (M)	<u>~ 3380</u>		
SOURCE INFO	<u>TRANSIT / GPS</u>		
NAVIGATION SYSTEM INFO	<u>VARIED</u>	<u>819 → 2819 EI</u>	

COMMENTS:BOL at SHOT/REC # counter reset

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORELINE INFORMATIONCRUISE FM35-12 LINE # OP-11 COURSE 207
PROJECT OLD PACIFIC AREA S. Pigafetta BASIN P.I. Loren/Shupley

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>329/25NOV87</u>	<u>330 26 NOV87</u>	
TIME(Z)	<u>2152:25</u>	<u>09 41:04</u>	
LATITUDE	<u>20 38.21 N</u>	<u>19 49.734 N</u>	<u>61.78 NM</u>
LONGITUDE	<u>154 20.34 E</u>	<u>153 39.44 E</u>	<u>114.484 KM</u>
SHOTPOINT	<u>1709</u>	<u>3835</u>	
REC NUM	<u>1709</u>	<u>3835</u>	
TAPE NUM	<u>120454</u>	<u>120469</u>	
WATER DEPTH	<u>5950</u>	<u>3280</u>	

DATA LENGTH (SEC) MIN 13 MAX SAMP RATE (MSEC) 4msSHOOTING BY TIME X DISTANCE REP RATE (SEC) 20 (M) FOLD(NOMINAL) SEIS TRACES 1-96 AUX TRACES (1-16) PROBLEM TRACES 8 12 86 ---SINGLE CHANNEL MONITOR TRACE # 95DISTANCE TO NEAR TRACE (M) ~180DISTANCE TO FAR TRACE (M) ~3380SOURCE INFO TRANSIT/GPSNAVIGATION SYSTEM INFO VARIED 819 → 2819 ctCOMMENTS:

EOL MID TAPE

01/06

SHAL LINE

PAGE 25 OF

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORE

LINE INFORMATION

CRUISE FM35-12 LINE # OP-12 COURSE 127
PROJECT OLD PACIFIC AREA S. Pigafetta Basin P.I. LARSEN/SIMPLEY

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>330 26 NOV 87</u>	<u>330 26 NOV 87</u>	
TIME(Z)	<u>09 41:24</u>	<u>10 28:44</u>	
LATITUDE	<u>19 49.711N</u>	<u>19 47.422N</u>	<u>2.95NM</u>
LONGITUDE	<u>153 39.424E</u>	<u>153 40.366E</u>	<u>4.531KM</u>
SHOTPOINT	<u>3836</u>	<u>3978</u>	
REC NUM	<u>3836</u>	<u>3978</u>	
TAPE NUM	<u>120469</u>	<u>120470</u>	
WATER DEPTH	<u>3280</u>	<u>2400</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>Y</u>	DISTANCE	
REP RATE (SEC)	<u>20</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>(1-16)</u>	PROBLEM TRACES <u>0 12 86</u> ...
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>varied up to 2819 c#</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT</u>		

COMMENTS:

BEGIN LINE M.I.O TAPE 120469

* EOL compressor crash - (may want to process this data as end of line OP-11)

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORELINE INFORMATIONCRUISE FM35-12 LINE # OP-12A COURSE 116
PROJECT OLD PACIFIC AREA S. Piga Pette Basin P.I. Laeson/Shiplay

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>330 26 Nov 87</u>	<u>332 28 Nov 87</u>	
TIME(Z)	<u>1059:04</u>	<u>1358:43</u>	
LATITUDE	<u>19 46.211 N</u>	<u>17 13.211 N</u>	
LONGITUDE	<u>153 42.052 E</u>	<u>157 13.187 E</u>	<u>251.82 NM</u> <u>466.615 KM</u>
SHOTPOINT	<u>1</u>	<u>9180</u>	
REC NUM	<u>1</u>	<u>9180</u>	
TAPE NUM	<u>120471</u>	<u>120536</u>	
WATER DEPTH	<u>2175</u>	<u>5745</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>20sec</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>1-96</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES <u>8 12 86</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		<u>20</u>
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>2819 CI</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT</u>		

COMMENTS:Resume shooting following compressor repairs

THE UNIVERSITY OF TEXAS AT AUSTIN
INSTITUTE FOR GEOPHYSICS
R. V. FRED H. MOORELINE INFORMATIONCRUISE FM35-12 LINE # OP-12B COURSE 116
PROJECT OLD PACIFIC AREA S. Pigafetta Basin P.I. Larson/Shipley

	<u>START</u>	<u>END</u>	<u>TOTAL</u>
DATE(JD/DATE)	<u>332 28NOV87</u>	<u>332 28NOV87</u>	
TIME(Z)	<u>1406:03</u>	<u>16:41:24</u>	
LATITUDE	<u>17 12.852N</u>	<u>17 05.132 N</u>	<u>13.14NM</u>
LONGITUDE	<u>157 13.640E</u>	<u>157 24.776E</u>	<u>24.346KM</u>
SHOTPOINT	<u>1</u>	<u>467</u>	
REC NUM	<u>1</u>	<u>467</u>	
TAPE NUM	<u>120537</u>	<u>120540</u>	
WATER DEPTH	<u>5745</u>	<u>5768</u>	
DATA LENGTH (SEC) MIN	<u>13</u>	MAX	SAMP RATE (MSEC) <u>4ms</u>
SHOOTING BY TIME	<u>X</u>	DISTANCE	
REP RATE (SEC)	<u>205</u>	(M)	FOLD(NOMINAL)
SEIS TRACES	<u>196</u>	AUX TRACES <u>-(1-16)</u>	PROBLEM TRACES <u>8 12</u>
SINGLE CHANNEL MONITOR TRACE #	<u>95</u>		
DISTANCE TO NEAR TRACE (M)	<u>~180</u>		
DISTANCE TO FAR TRACE (M)	<u>~3380</u>		
SOURCE INFO	<u>281.9 C#</u>		
NAVIGATION SYSTEM INFO	<u>TRANSIT/GPS</u>		

COMMENTS:

EOL COMPLESSON CRASH

OP-1

	Latitude		Longitude	
	Deg	Minutes	Deg	Minutes
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="14"/> <input type="text" value="40.00"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="149"/> <input type="text" value="26.7"/>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="15"/> <input type="text" value="09.25"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="151"/> <input type="text" value="02.00"/>
<div>Distance: 179.207 Km 96.71 Nautical Miles</div> <div>Bearing1: 72.3° Bearing2: 252.7°</div> <div>One Way Time: 598.16 microseconds</div>				

Calc

02-1B

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="15"/>	<input type="text" value="08.55"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="151"/> <input type="text" value="01.48"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="15"/>	<input type="text" value="30.732"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="151"/> <input type="text" value="57.063"/>	
Distance:		107.562 Km		58.05 Nautical Miles		
Bearing1:		67.5°		Bearing2: 247.8°		
One Way Time:		359.09 microseconds				

OP-2

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="15"/>	<input type="text" value="29.68"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="151"/> <input type="text" value="57.12"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="14"/>	<input type="text" value="08.047"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="151"/> <input type="text" value="35.977"/>	
Distance:		155.246 Km		83.78 Nautical Miles		
Bearing1:		14.2°		Bearing2: 194.1°		
One Way Time:		518.19 microseconds				

OP-3

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="14"/>	<input type="text" value="08.038"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="151"/> <input type="text" value="35.995"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="13"/>	<input type="text" value="32.636"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="152"/> <input type="text" value="28.343"/>	
Distance:		114.708 Km		61.90 Nautical Miles		
Bearing1:		304.6°		Bearing2:		124.8°
One Way Time:		382.93 microseconds				

OP-3B

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="13"/>	<input type="text" value="32.375"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="152"/> <input type="text" value="28.755"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="46.389"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="38.566"/>	
Distance:		151.993 Km		82.03 Nautical Miles		
Bearing1:		303.8°		Bearing2:		124.0°
One Way Time:		507.34 microseconds				

DP-3C

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="32.374"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="38.589"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="11.307"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="30.476"/>	
Distance:		101.754 Km		54.91 Nautical Miles			
Bearing1: 292.3°		Bearing2: 112.5°					
One Way Time:		339.72 microseconds					

OP-4

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="11.307"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="30.476"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="08.262"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="38.300"/>	
Distance:		15.262 Km		8.24 Nautical Miles		
Bearing1: 291.6°		Bearing2: 111.6°				
One Way Time:		53.09 microseconds				

OP-4B

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="08.246"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="38.339"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="01.873"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="155"/> <input type="text" value="00.130"/>	
Distance:		41.248 Km		22.26 Nautical Miles			
Bearing1: 286.5°		Bearing2: 106.6°					
One Way Time:		138.25 microseconds					

OP-4C

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="01.865"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="155"/> <input type="text" value="00.157"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="36.921"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="156"/> <input type="text" value="34.508"/>	
Distance:		177.425 Km		95.75 Nautical Miles		
Bearing1:		284.9°		Bearing2:		105.2°
One Way Time:		592.21 microseconds				

OP-5

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="36.869"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="156"/> <input type="text" value="34.64"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="10"/>	<input type="text" value="49.485"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="156"/> <input type="text" value="46.434"/>	
Distance:		89.956 Km		48.55 Nautical Miles		
Bearing1: 346.2°		Bearing2: 166.2°				
One Way Time:		300.38 microseconds				

OP-6

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="10"/>	<input type="text" value="49.241"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="156"/> <input type="text" value="45.881"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="08.157"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="155"/> <input type="text" value="38.185"/>	
Distance:		128.150 Km		69.16 Nautical Miles		
Bearing1: 285.9°		Bearing2: 105.7°				
One Way Time:		427.78 microseconds				

OP-6B

W 123 456 789 1011 121213 Longitude: 115

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="09.153"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="155"/> <input type="text" value="33.799"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="27.704"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="12.775"/>	

Distance: 151.342 Km 81.67 Nautical Miles

Bearing1: 283.2° Bearing2: 102.9°

One Way Time: 505.17 microseconds

OP-7

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="24.299"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="15.75"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="49.536"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="39.315"/>	
Distance:		80.935 Km		43.68 Nautical Miles		
Bearing1: 305.2°		Bearing2: 125.0°				
One Way Time:		270.30 microseconds				

OP-7B

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="11"/>	<input type="text" value="52.87"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/>	<input type="text" value="33.73"/>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="19.25"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/>	<input type="text" value="56.92"/>
Distance:		64.311 Km		34.71 Nautical Miles			
Bearing1:		40.8°		Bearing2:		220.9°	
One Way Time:		214.92 microseconds					

Calc

OP-8

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="19.292"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="152"/> <input type="text" value="56.993"/>	<input type="button" value="Calc"/>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="32.211"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="51.564"/>	
Distance:		101.717 Km		54.89 Nautical Miles		
Bearing1:		76.4°		Bearing2: 256.6°		
One Way Time:		339.60 microseconds				

OP-8B

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="12"/>	<input type="text" value="28.225"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="51.757"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="13"/>	<input type="text" value="14.648"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="34.413"/>	
Distance:		91.165 Km		49.20 Nautical Miles		
Bearing1: 339.9°		Bearing2: 159.8°				
One Way Time:		304.41 microseconds				

DP-9

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="13"/>	<input type="text" value="14.662"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="156"/> <input type="text" value="34.433"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="13"/>	<input type="text" value="22.02"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="156"/> <input type="text" value="41.66"/>	
Distance:		18.825 Km		10.16 Nautical Miles		
Bearing1:		43.9°		Bearing2: 223.9°		
One Way Time:		64.50 microseconds				

OP-9B

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="13"/>	<input type="text" value="27.01"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="156"/> <input type="text" value="46.328"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="14"/>	<input type="text" value="12.969"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="157"/> <input type="text" value="34.25"/>	
Distance:		120.987 Km		65.29 Nautical Miles			
Bearing1:		45.4°		Bearing2:		225.6°	
One Way Time:		403.88 microseconds					

OP-9C

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="14"/>	<input type="text" value="33.657"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="157"/> <input type="text" value="51.793"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="15"/>	<input type="text" value="00.093"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="158"/> <input type="text" value="15.201"/>	
Distance:		64.349 Km		34.73 Nautical Miles			
Bearing1:		40.7°		Bearing2:		220.8°	
One Way Time:		215.05 microseconds					

OP-9D

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="15"/>	<input type="text" value="01.331"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="158"/> <input type="text" value="16.353"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="16"/>	<input type="text" value="48.58"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="159"/> <input type="text" value="41.613"/>	
Distance:		249.549 Km		134.67 Nautical Miles		
Bearing1:		37.4°		Bearing2: 217.8°		
One Way Time:		832.95 microseconds				

OP-10

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="16"/>	<input type="text" value="51.256"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="159"/> <input type="text" value="40.214"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="17"/>	<input type="text" value="47.987"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="158"/> <input type="text" value="19.475"/>	
Distance:		177.230 Km		95.64 Nautical Miles		
Bearing1: 306.4°		Bearing2: 126.0°				
One Way Time:		591.56 microseconds				

OP-10B

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="17"/>	<input type="text" value="49.641"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="158"/> <input type="text" value="16.677"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="20"/>	<input type="text" value="09.354"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="155"/> <input type="text" value="00.714"/>	
Distance:		429.747 Km		231.92 Nautical Miles		
Bearing1:		307.4°		Bearing2:		126.3°
One Way Time:		1,434.43 microseconds				

OP-10C

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="20"/>	<input type="text" value="09.373"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="155"/> <input type="text" value="00.694"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="20"/>	<input type="text" value="38.195"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="20.369"/>	
Distance:		88.033 Km		47.51 Nautical Miles		
Bearing1: 307.3°		Bearing2: 127.0°				
One Way Time:		293.97 microseconds				

OP-11

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="20"/>	<input type="text" value="38.21"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="154"/> <input type="text" value="20.34"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="19"/>	<input type="text" value="49.634"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="39.441"/> <input type="text"/>	
Distance:		114.484 Km		61.78 Nautical Miles			
Bearing1:		38.6°		Bearing2:		218.4°	
One Way Time:		382.18 microseconds					

OP-12

		Latitude		Longitude		
		Deg	Minutes	Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="19"/>	<input type="text" value="49.71"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="39.424"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="19"/>	<input type="text" value="47.422"/>	<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="40.366"/>	
Distance:		4.531 Km		2.45 Nautical Miles		
Bearing1: 338.7°		Bearing2: 158.7°				
One Way Time:		23.26 microseconds				

OP-12A

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="19"/>	<input type="text" value="46.211"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="153"/> <input type="text" value="42.052"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="17"/>	<input type="text" value="13.211"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="157"/> <input type="text" value="13.187"/>	
Distance:		466.615 Km		251.82 Nautical Miles			
Bearing1: 306.6°		Bearing2: 127.8°					
One Way Time:		1,557.49 microseconds					

OP-12B

		Latitude			Longitude		
		Deg	Minutes		Deg	Minutes	
Start	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="17"/>	<input type="text" value="12.852"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="157"/> <input type="text" value="13.640"/>	<div>Calc</div>
End	<input checked="" type="radio"/> N <input type="radio"/> S	<input type="text" value="17"/>	<input type="text" value="05.132"/>		<input checked="" type="radio"/> E <input type="radio"/> W	<input type="text" value="157"/> <input type="text" value="24.776"/>	
Distance:		24.346 Km		13.14 Nautical Miles			
Bearing1: 305.8°		Bearing2: 125.8°					
One Way Time:		82.47 microseconds					